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Criminology and Post-Mortem Studies

Analyzing Criminal Behaviour and Making
Medical Decisions

Edited by Sara Palermo and Raluca Dumache



Criminology and Post-Mortem Studies - Analyzing Criminal Behaviour and Making Medical Decisions

*Edited by Sara Palermo
and Raluca Dumache*

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Preface

The relationship between scientific knowledge, criminal law, and justice is a very complex issue. It is, in fact, a peculiar topos in which the distinction between “concept” and “evidence”—on which the consolidated scholastic differentiation between substantive and procedural criminal law is traditionally based—becomes fluid and blurred. This happens because the need to have recourse to experts with specialized knowledge, far from deriving from purely evidentiary needs, reflects the scientific complexity that characterizes—further upstream—the substantive categories that come into play. There are, therefore, categories that are already characterized by a strong procedural–probative identity.

Criminal sciences attempt to explain criminal phenomena, study the personality of the offenders and their environmental context, classify antisocial behaviors as crimes, and regulate the enforcement of the sentence. Criminal behavior analysis combines the study of psychology, motivations of deviant and violent behaviors, and the basics of the criminal justice system. Over the years, several models and theories have been developed, with the aim of explaining the recondite nature of the crime; from unifactorial to multifactorial, passing through deterministic “cause-effect” theories, up to the present day, where neuroscientific approaches are becoming increasingly popular. In this perspective, knowledge in the domain of forensic psychopathology—in relation to the assessment of imputability and social danger—becomes fundamental and requires consideration of the innovative perspective of clinical neuropsychology.

Since 2009, neuroscientific and behavioral genetics techniques have been used on four occasions in criminal trials in Italy. These are pilot sentences at the European level; in other countries of the old continent, in fact, criminal justice continues to be very cautious regarding the “endoprocedural” use of such scientific evidence. In other European countries, the criminal justice system continues to be very cautious regarding the end-of-court use of such “new” scientific evidence. In this sense, Italy seems to be closer to the United States, a country in which the use of neuroscience in the courtroom is by now quite long-standing. This attitude of openness of the Italian courts allows for a close confrontation with cutting-edge knowledge that, however, precisely because of its recent appearance on the stage of criminal justice, raises many questions about this knowledge’s entry and use in the process. More generally, the debate regarding the potential contribution of the most advanced medical and neuropsychological sciences to the administration of criminal justice represents only the last stage of the complicated relationship between the scientific universe and the criminal–criminological universe. This book provides the reader with a complete overview of the current state of the art in the criminological context (from legal, sociocultural, psychological, and medical points of view), paying particular attention to the most important evidence-based developments in this area.

The first section is a brief miscellany of contributors addressing aspects of vulnerability that in multiple contexts emerge as key factors for analysis and monitoring. From fear to the expression of negative feelings to substance abuse, everything

points to a psychological fragility that needs to be considered when talking about crime, legal decisions, and restraint in prison. In correctional institutions, psychopathological manifestations are particularly frequent. They may be the continuation of disorders present before prison, or they may be exacerbated in prison, or they may be a psychotic response to events, particularly psychotraumatizing events such as imprisonment, remorse for the crime committed, the expectation of conviction, and the sentence itself. Reactions at the psychic level can easily occur in prison, with the usual phenomenological characteristics, which are facilitated in their development by the prison situation and the living conditions that prisoners are forced to endure. The most frequent psychic disorders in prison are therefore basically twofold in nature. On the one hand, it is necessary to manage the depressive-anxious reactions clearly connected with the suffered arrest, and on the other hand, it is necessary to treat more or less serious psychopathological forms, some of which emerged in prison and some of which manifested previously under the care of local services or private professionals. The relationship between prison and addiction is very close. The fact that those who come out of a long period of detention have a higher risk of death than the general population is not new. What is certain now is that ex-prisoners are also more fragile in the face of alcohol and drugs.

The second section is dedicated to youth discomfort and crime, models of interpretation, and contrast and recovery, with contributions from various parts of the world. Juvenile crime is one of the issues of greatest social concern. Juvenile delinquency is a phenomenon that develops on the concept of deviance, that is, on the set of behaviors that depart from social norms, violating them without restraint, and that express the need to transgress to assume an identity within society. The expressions through which juvenile crime manifests itself are innumerable. Among the most frequent are theft, muggings, robberies, extortion, vandalism, violence against people, drug dealing, and drug use. In the worst cases, it can even lead to homicide. Over time, numerous studies have analyzed statistical data and the dynamics of crime to identify the causes that lead young people to commit criminal acts. The number of young prisoners is increasing and the need to increase personal care in prisons is growing.

The third section deals with a special type of crime: fraud. The legal system punishes those behaviors that are aimed at cheating another person, but also those that seek to make a mockery of the complex machinery of justice. This is a fluid crime that is difficult to curb.

In fact, fraud is constantly evolving and follows the technological and communicative developments from which all of the society benefits. It is for this reason that the instruments for combating fraud also need constant innovation. The contributors to this section, therefore, deal with the criminal case by correlating it with other crimes and with interesting models of interpretation and legal contrast.

The fourth section is dedicated to sexual crimes. These are the crimes that most shock public opinion, especially when they are committed against weaker individuals, both physically and mentally, or minors. Sex offenders are not a homogeneous group of individuals. The motivations behind the crime, the *modus operandi*, and the age at which the first sexual assault is committed can be very different from one sex offender to another. In the same way, the victims can be very different, both in terms of age and sex as well as their physical characteristics and the type of relationship they have with the offender. The overall picture that emerges from the quantitative data is bleak. Despite decades of civil battles and deep legislative reforms, the

reality of rape is deeply rooted in the social fabric. For some scholars, rape is a form of social representation. It is extremely ritualized. It varies from country to country, changing over time. The contributions in this book provide important suggestions about this.

The last section is dedicated to autopsy and diagnostic testing, with a focus on the new methods of DNA sampling and evaluation. An autopsy is the examination of the corpse aimed at clarifying doubts about the death of a person or to ascertain relevant issues related to it.

Autopsy means, literally, “to see with one’s own eyes” (from the Greek αὐτός, autòs: “same”; and ὄψις, òpsis: “sight”), but it is much more than a mere objective examination of the patient. It is referred to as a “post-mortem examination”, but perhaps it would be more correct to say that it is a “quoad mortem examination” since it does not take place only, for obvious reasons, after the death, but it is directed precisely to investigate aspects related, precisely, to the death of the subject and, in particular, to investigate its causes, its timing, and the means or diseases that have determined it. There are two main contexts in which autopsy is used. The first is when the examination is carried out to check the diagnosis or to answer clinical–scientific questions (in this case, we speak of “diagnostic finding” or “anatomopathological autopsy”). The second is when the investigation is carried out within a criminal procedure because it is suspected that the death may be the result of a crime (this is the real “judicial autopsy”). The authors of this volume offer us important insights and reflections.

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Section 1

Psychological Vulnerability -
A Variable Present in
Different Contexts

Delimitation of Unbeatable Fear in Facing the State of Necessity

Rodrigo Andrés Guerra Espinosa

Abstract

This chapter focuses on the study of the limits of unbeatable fear in the state of necessity. Unbeatable fear remains one of the most complex exemptions to interpret, and it stands as a relevant issue both around sacrifice of persons and in cases of violence against women in Chile. Hence, our objective is not a mere analysis of unbeatable fear but rather its delimitation with respect to the state of necessity. The problem has its origin in specifying whether some of the requirements of unbeatable fear are part of the state of necessity. Therefore, the treatment of the nature of this kind of fear, as we have stated, is not peaceful in doctrine and creates insecurity in its interpretation. Therefore, the study of unbeatable fear deserves attention since it entails the analysis of fundamental concepts of the criminal law theory.

Keywords: fear, necessity defense, posttraumatic stress disorder, learned helplessness, lesser evil principle

1. Introduction

This chapter focuses on the study of the limits of unbeatable insurmountable fear in the state of necessity [1]. This problem is observed in the case of Karina Sepúlveda, RUC N° 1101060685-5, of June 21, 2013, before the Sixth Oral Criminal Court of Puente Alto. The Puente Alto Court determined that Karina's behavior conformed to a decision of the state of necessity of art. 10, N°11. Although, in the first ruling, the court accepted that a possible mental disturbance of Karina (learned helplessness) [2] explains the content of the subsidiarity clause of the state of necessity; the court dismissed it in its second ruling. Karina deliberately made the decision to kill her abuser in order to face the imminent danger she was in, without suffering a disturbance of learned helplessness due to insurmountable fear, according to the judgment of the Sixth Oral Criminal Court of Puente Alto, RUC No. 1101060685-5, June 21, 2013. Hence, our objective is not a mere analysis of unbeatable fear, but rather its delimitation with respect to the state of necessity.

The treatment of unbeatable fear is necessary, especially if we consider that, except for some specialized comments on the subject [3], our doctrine has not performed an analysis of fear with the same intensity as other criminal exemptions. For the same reason, the state of necessity will be treated from the following conceptualization: "the state of necessity is a conflict of interest of adjustable inevitability where the absence of moderation implies its full preponderance. Therefore, the distinction of the effects depends on a weighting of interests that has the essential core of human dignity as a limitation" [4]. This, to delimit the fear of this last exemption.

The question thus arises as to what the nature fear is and what its requirements are. A question that does not allow a single answer because it will depend on the meaning of such a fear. If we focus our attention on dogmatics, we can observe that there are some positions that only include a justifying effect in art. 10, N° 11, displacing the exculpatory effect from the state of necessity to the insurmountable fear. Well, they hold that art. 10, N° 11 includes two forms of state of necessity: the defensive and aggressive state of necessity [5]. This position bases its arguments in that the fourth circumstance of art. 10, N° 11 only indicates that unenforceability excludes the possibility of requiring other conduct, is predominantly personal, and that neither the subsidiarity nor the weighting of evils have space in the exculpatory state of necessity [6]. Hence, the insurmountable fear is a space that would admit these hypotheses of inexplicability. Others point out that the functional equivalent closest to the exculpatory state of necessity of art. 10, N° 11 is found in the insurmountable fear of art. 10, N° 9 [3], because it is part of the *vis compulsiva*, that is, unrelated to a ground for innocence.

Accordingly, it is considered that, regardless of the field of intersection between insurmountable fear and the state of necessity, the overlap is not complete [5]. Thus, it could be explained why irresistible mental force or unbeatable fear, even if we are not in the presence of an objectively present or imminent danger, could exempt liability outside the limits of the state of necessity [5]. The problem described also has its origin in specifying whether some of the requirements of unbeatable fear are part of the state of necessity. Hence, the treatment of the nature of it, as we have stated, is not peaceful in doctrine and creates insecurity in its interpretation. Therefore, the study of it deserves attention since it entails the analysis of fundamental concepts of the general part and sentences that allow to redefine the limits of this exemption in attention to the extensive field of application of art. 10, N° 11, which specifies the demands of subsidiarity and proportionality [7].

In this line, the position presented by Juan Domingo Acosta in the processing of Law 20.480 is inserted as proof of the importance of differentiating fear from the state of necessity. Acosta exposed a series of arguments that common sense judges as characteristic of the insurmountable fear, to later show the differences with the state of necessity. The first is that work began on some modifications regarding art. 10, N° 9 of the Criminal Code in the Bill contained in bulletin N° 5308-18, of September 5, 2007, which sought to replace the phrase “or driven by an insurmountable fear” with the phrase “under the threat of suffering a serious and imminent evil,” and move the “insurmountable fear” to No. 10 of art. 10. This proposal was intended to incorporate, in No. 9, the requirement that whoever acts, violated by an irresistible force, does so under the threat of suffering a serious and imminent evil.

It was thus decided to incorporate this third requirement (under the threat of suffering a serious and imminent evil) in art. 10, N° 9, to establish what the doctrine understood as the exculpatory state of necessity, as stated in the Report of August 6, 2008, of the Constitution, Legislation and Justice Committee of the Chamber. Despite the incorporation of the third requirement in art. 10, N° 9, the Constitution, Legislation, Justice Committee and Regulations of the Senate decided to eliminate it because it constituted a repetition of what was already contemplated in N° 9 of art. 10, as indicated in its second Report of October 13, 2009. In this second report, Acosta emphasized that, although it is convenient to include a rule of exculpation for a state of necessity, the wording of art. 10, N° 9 did not seem appropriate. And the reason for this is that, after the current wording of art. 10, N° 9, the intention was “to conceive an external factor that acts on the will of the subject, such as force or fear, to the point of influencing the subject in an irresistible or insurmountable way to perform a certain conduct, i.e., to the point that another way of proceeding is not required of the subject.”

This interpretation of Acosta undoubtedly implies points of divergence in the Chilean doctrine that, around the nature of fear, can be systematized in three theses. The first thesis establishes that insurmountable fear is an exculpatory state of necessity because it encompasses hypotheses of unenforceability that cannot be contemplated in a state of necessity containing a subsidiarity clause [8]. The second is that insurmountable fear represents a simile of irresistible force. Irresistible force, in which both the *vis absoluta* and *compulsiva* converge in attention to the formulation of the French, Dutch, and Belgian models [9]. Finally, the third maintains that insurmountable fear explains situations of excess in the state of necessity due to the presence of an emotional disturbance. Therefore, how do we know if insurmountable fear is autonomous or functionally equivalent to the state of necessity? It is therefore an issue still under discussion that makes it necessary to redefine the contours of fear. Therefore, our main objective is to determine if insurmountable fear is an autonomous figure and then analyze its limits and scope against the state of necessity. Our conjecture is that insurmountable fear presents particularities that do not respond to the state of necessity and only denote the existence of a dangerous situation in common [10]. Therefore, in the next section, we will discuss some considerations about insurmountable fear that are necessary for the understanding of its meaning.

We will divide the exhibition into two parts. The first part will focus on the theoretical foundations and the state of the art on which our proposal is based, in order to warn of the problem of differentiation of insurmountable fear before the state of necessity, and the second part will focus on the bibliographic discussion around the problem. Finally, this second part proposes how to solve the problem and what is achieved by finding an answer.

2. Insurmountable fear in Chilean and comparative doctrine

When we talk about insurmountable fear, there is consensus in Chilean doctrine to consider it a ground for exculpation [11]. In general terms, it is understood as the emotional disturbance that is a consequence or effect of a serious present or imminent evil which, without excluding the agent's volition, exempts liability. The concept of volition (*willentlich*) implies for us an act of minimum basic freedom, consisting of acting with a minimum alternative (to act or stop acting, to leave inactivity or remain in it). Hence, it is declared that not all coercion is part of the insurmountable fear, and it is even indicated that certain professionals must tolerate insurmountable fears in risky activities [12]. Thus, it is frequently related to the intimidation or threat that certain situations generate. Situations of fear in which insuperability points to external or internal factors affect the agent's conduct. Well, either by affirming that fear is a disturbance that explains excesses in self-defense, or by rightly affirming that it is an analogous form of necessity, a good part of the Chilean doctrine held that, before the state of necessity of art. 10, N° 11, an exculpatory state of necessity was not necessary because the disposition of insurmountable fear was more than enough for these purposes. Likewise, even in the first years of the Code, some authors interpreted insurmountable fear from the logic of the state of necessity, referring to the vagueness and indeterminacy of the term fear in order to accept the state of necessity cases impossible to contemplate in art. 10, N° 7.

But one must not lose sight of the fact that incorporating the exculpatory state of necessity through insurmountable fear makes it difficult to define the nature of both exemptions. Therefore, before art. 10, N° 11, the advisability of incorporating or modifying some of the existing provisions in the Code is discussed to give rise to a broad state of necessity, which would admit new hypotheses of unenforceability.

Thus, it is essential to study the scope and effects of insurmountable fear, because it is unreasonable that it fulfills the same function of the state of necessity. And the argument is that a functional equivalence of both exemptions produces an affectation of the contradiction principle. Well, although there are common elements between insurmountable fear and the state of necessity, the function of fear is, from the dogmatic point of view, independent of the state of necessity. This is why the delimitation of these exemptions, especially in view of the disadvantages of substantiating the state of necessity in an emotional disturbance that explains the selection of the least harmful means [13].

This is a complex but necessary problem that, in the legal Spanish model, translates into three dogmatic positions. The first argues that fear is a mental disturbance that affects a situation of danger. In this context, if the fear that a person suffers is “of pathological origin caused by the schizophrenia he or she suffers [...] fear, as such, cannot be taken into account. Therefore, if the fear exemption cannot be applied, it will be necessary to resort to transient mental disorder” [14]. The second indicates that insurmountable fear is an exculpatory state of necessity. Those who adopt it, as we have seen in the Chilean model, argue that the exculpatory state of necessity, not covered in the justifying state of necessity of art. 20, N° 5 of the Spanish Criminal Code, is in the insurmountable fear of art. 20, N° 6 [15]. Faced with this issue, a third tendency has led to observe, in the insurmountable fear, a mixed nature in some of the Spanish Supreme Court judgments, which, in some cases, confers particular characteristics of a ground for unenforceability and, in other characteristics, a ground for indictment [16].

In this way, an interpretative line of insurmountable fear about the presence or absence of a disturbance and its particularities in situations of necessity is outlined in the Spanish model. In the German legal model, on the other hand, express mention is made of fear in cases of excessive self-defense (§ 33 German Criminal Code). If the agent exceeds the limits of self-defense because of confusion, dread, or fear, he or she will not be punished. This excess in the legitimate self-defense of fear is classified, according to the dominant doctrine—despite its regulation between the grounds for justification of § 32 (legitimate self-defense) and that of § 34 (state of necessity) German Criminal Code—as a ground for exculpation. Fear that requires exceeding the limits of self-defense through an *asthenic outburst*. Hence, non-asthenic outbursts, typical of anger, rage, indignation, or revenge, are not part of this defense. According to the dominant doctrine, fear also comes into consideration when the limits of self-defense are *consciously* violated [17]. However, the applicability of § 33 is denied when the author has been involved in a violent dispute. However, contrary to this interpretation, it is noted that only § 35 (exculpatory state of necessity) has excluded exculpation in case the agent causes the danger (§ 35.1 2), while that limitation would not exist in § 33 [18].

In summary, insurmountable fear seems to require the presence of an asthenic outburst that explains the excess in cases of self-defense. In this sense, in the state of necessity, it seems to us that the idea “that it is typical of man to have an irresistible tendency to save himself, literally, at any price, in the face of the danger of his own extinction” [19]. However, this does not imply rejecting the idea that, in some cases, there may be a mental disturbance that explains the excess in cases of necessity [20]. From this, one might think that fear would have a psychological substrate that would be incompatible with the requirements of the state of necessity. In this sense, some authors indicate that a purely psychological position of the unenforceability that only contemplates the basis of impunity in the author’s exceptional psychological situation is not held, in a way that makes it impossible to behave according to the rule [20]. The very objectifying wording of precepts such as § 35 German Criminal Code speaks against it. Therefore, several authors observe difficulties in its

application in cases of necessity. And, for the same reason, its notion of culpability transforms, acting differently in the sole criterion of imposing a criminal sanction. In contrast, another area of the doctrine maintains that it is possible to apply § 33 by analogy in the justifying state of necessity (§ 34 German Criminal Code), in the defensive state of necessity (§ 228 of the German Civil Code), or in the case of provisional detention of § 127 (German Code of Criminal Procedure) [21]. However, this requires, in fear, a factual situation similar to that set forth in § 34, § 228, and § 127, and an indetermination—not planned—in the regulation [22].

Although, we cannot ignore that § 33 has a hypothesis that restricts fear solely to situations of excessive self-defense [23], the Chilean legal system does not follow this trend. Well, insurmountable fear is a figure that art. 10, N° 9 does not restrict to excesses in legitimate self-defense. However, this problem of analogical application of fear in the state of necessity is rather dogmatic in the German model because it has not had any repercussions (unlike the Chilean system) on jurisprudence [24].

3. Discussion around the differentiation of fear and the state of necessity

In conformity with the general description of the doctrinal, legal, and jurisprudential treatment of insurmountable fear and the state of necessity already carried out in the first section of this chapter, now we must define the legal nature of insurmountable fear and delimit it from the state of necessity, considering the introduction of art. 10, N° 11 in the Criminal Code.

It is easier to clear up some questions about the nature of insurmountable fear in the doctrine of the irresistible impulse. This doctrine delimits the degree of intensity that insurmountable fear requires [25, 26]. Today, we cannot doubt that insurmountable fear is marked by the consequences of this doctrine in jurisprudence. According to this tendency, the Court of Appeals of Santiago, against Ana Medina Soto, of September 30, 1969, established that “fear is a distressing disturbance of the mind caused by a threatening danger or evil, real or imaginary; and it is insurmountable when it superimposes itself on the will in such a way that drives it to the realization of actions that, without it, would not have been executed, dominating the will without constituting a ground for non-imputability, but one of non-enforceability of other conduct and which, generically, is classified among those of culpability.”

Therefore, many of the problems of this doctrine of impulse pertain to insuperability. That is, around how to determine the degree of disturbance that fear requires. In this field, the “irresistible impulse” makes it possible to define the level of disturbance through a graduation that is collected from the psychology of impulses [27]. The agent can only be governed by regulations in the event that his or her ability to control remains unchanged in the situation he or she faces. From which, methodological consequences derive around the psychology of impulses. On the one hand, that the irresistible impulse be treated from a philosophical model that denies the formulation of the irresistible impulse due to its metaphysical assumptions. This presupposes accepting a classical form of psychoanalysis that is incompatible with phenomenology.

In this line, it is indisputable that criminal law is not psychiatry or philosophy, so the adoption of phenomenology as a tool for graduating the irresistible impulse requires foundation. However, in the history of criminal dogmatics, phenomenology initially appears with the theory of finalist action by Hans Welzel and does so in the hands of phenomenological psychologists [28]. However, there is no pronouncement in the Chilean dogmatic that is decisive in the matter. The specific problems posed by insurmountable fear have been attempted in dogmatics since

the well-known case of Karina Sepúlveda. But as we have already explained in the first part of this chapter, it seems inadmissible that the subsidiarity clause of the state of necessity is at the mercy of an asthenic outburst. If, as conjectured here, it is understood that insurmountable fear is an autonomous exemption from the state of necessity, the irresistible impulse may have a role in it.

This seemed to be the case of the Judgment of the Court of Appeals of San Miguel, Case N° 1966-94, of December 20, 1994. In this case, Raúl Enfraín Ortiz is prosecuted for killing a subject and leaving another seriously injured by hammering his head. A situation occurring while these dangerous subjects slept. The motivation of the agent's action focused on protecting his 11-year-old son from these two armed subjects (seasoned criminals) who, escaping from the police, threatened to kill his son if he tried to report them to the police or flee from the place where they were. The judgment of the Court correctly indicated that, although the medical-legal report "concludes that ... the accused would have presented a state of intense emotional alteration ... of explosive and primitive features," and a decrease in the imputability would correspond "to the defendant, in the terms of art. 11, N° 1; in relation to article 10, N° 1 of the Criminal Code, the latter is not binding on the judge, the only one in charge of making legal assessments regarding the verifications of the auxiliary sciences of Criminal Law."

The court came to the conviction that "given the serious situation of previous intimidation that affected the defendant—and that included his eleven-year-old son—by two armed subjects who were fleeing from police harassment, one of which (*El Toro de Quilamuta*) was known to be a highly dangerous criminal, his violent reaction against them was determined by a very strong emotional impetus that dominated his will [for] the psychological environment of anguish he was in." The situation of real danger of intimidation above produces a disturbance in the agent that enhances his or her action on dangerous subjects. The court decided to exempt the defendant from liability, considering his sociocultural and psychological background. Likewise, it considered that the agent's behavior was within the parameters of unenforceability of art. 10, N° 9. The problem of insurmountable fear—raised by the enunciated situations of danger (cases of Karina Sepúlveda and Raúl Enfraín Ortiz)—becomes a question of whether there are other factors of unenforceability, such as, for example, serious mental disturbances, but of less intensity to those of a ground for innocence, which give rise to the action of the necessity and explain the lack of subsidiarity and proportionality in the state of necessity.

What is unquestionable is that, in those cases, there is culpability in the traditional sense and that, if the agent suffers from a serious disorder (foreign to a transient mental disorder), he or she must respond. However, if our hypothesis of insurmountable fear is accepted, it would seem to be correct to extend it to cases of excess in the state of necessity. It can be argued that insurmountable fear could extend the limits of exclusion of liability in cases of necessity. However, such a conjecture is preferable, for its dogmatic clarity, to a theory that confers insurmountable fear on the role of a ground for exculpation of diffuse and general content.

Another problem in insurmountable fear, whose consideration deserves treatment, is that of the reality and unreality of situations of danger. Attempts have already been made to demonstrate that it is a problem present in Chilean and Spanish dogmatics [9]; however, in the context that interests us now, its application would have repercussions in the treatment of situations of unreal danger in insurmountable fear. This possibility has been proposed in the Spanish dogmatics by Cuerdo Arnau, who also seeks to exclude culpability and that, in the opposite sense to the conjecture set forth herein, is based on these effects in the following argument: if fear can only understand real evils, then we face two problems. The first one is that accepting only real evils in insurmountable fear would excessively

restrict the application of exemption. The second is that insurmountable fear could not be distinguished from the state of necessity [29]. To escape this idea that insurmountable fear is a space where unreal evils coexist, it would be necessary to prove that the function of the irresistible impulse has rigorous application [30].

In this context, it can be seen in the Anglo-Saxon model that the irresistible impulse is historically known and is integrated into doctrine and jurisprudence. The irresistible impulse is an expression that has its origin in the psychology of impulses and aims to determine if the agent presented an emotional state at the time of the execution of the act. Within the criminal field, the following authors have spoken about this requirement, but in a different way: Michael S. Moore and Joel Feinberg. Thus, the differentiating effect of the irresistible impulse is reserved to estimate the degree of disturbance that the agent suffers at the moment of executing the act and whether this degree of disturbance is a characteristic of insurmountable fear.

Michael S. Moore's approach is a clear rejection of the irresistible impulse, as the basis of a diminished capacity [27]. However, in Feinberg, the requirement of the irresistible impulse demands that the agent act in an emotional delirium, according to the *M'Naghten* rule or the irresistible impulse test. Thus, the agent is only excused if he or she assumed that he or she was innocent or acted on the belief of being covered by a permissive rule. Hence, if a man conjectures, in attention to an emotional delirium, that he is the victim of a deadly attack and kills—in the assumption of a legitimate self-defense—he is excused [30]. Nevertheless, opposition is observed in the Chilean doctrine to the *M'Naghten* rule or the irresistible impulse test, in the line of argument of Michael S. Moore [31].

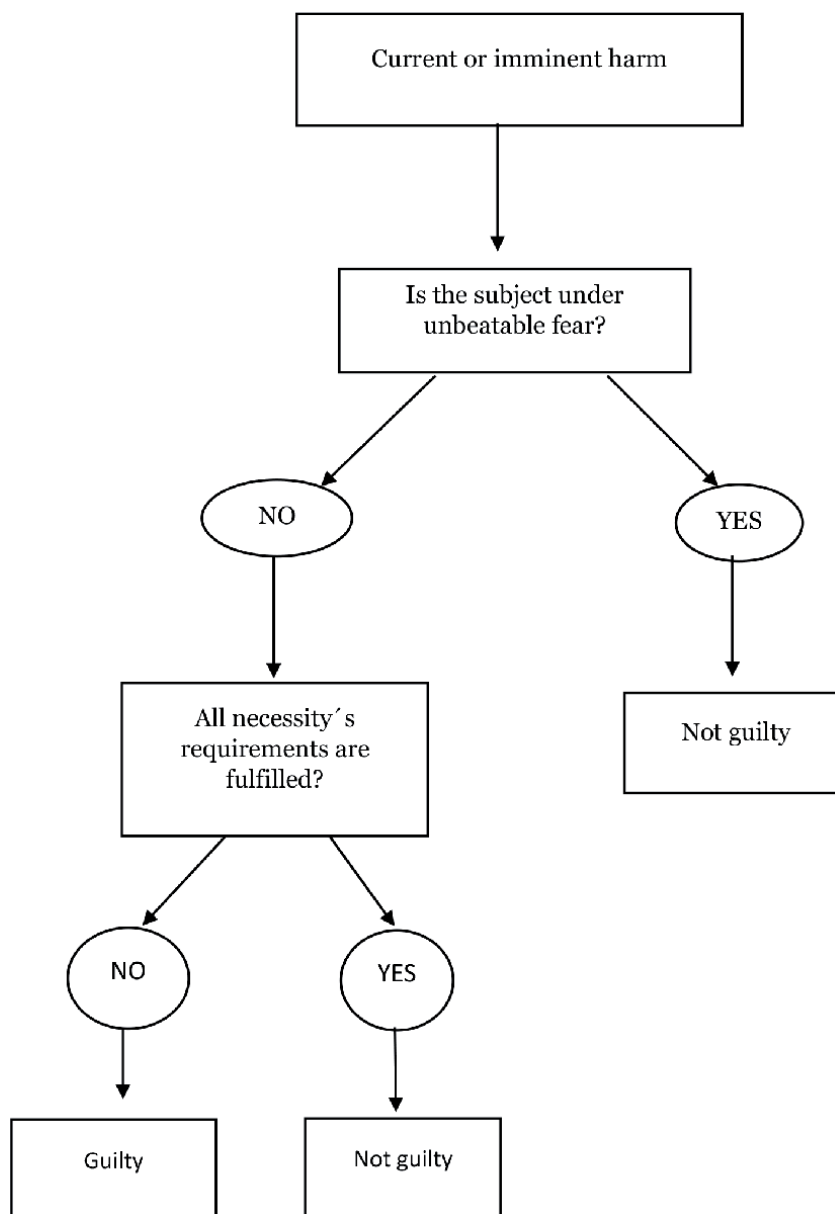
From what has been said, the insurmountable fear cannot be a simple representation of the principle of unenforceability. It is about determining if, through insurmountable fear, it is lawful to deduce the exclusion of criminal liability, although the legislator does not contemplate such a constellation in art. 10, No. 11. According to a teleological criterion, it is not possible to rule out such a possibility. As is known, the “leading case” is the case of Karina Sepúlveda. However, imagine that Karina had suffered a disorder of learned helplessness and had a support network. According to the traditional criterion, this should respond criminally, because learned helplessness is a non-subsumable posttraumatic stress disorder in art. 10, No. 1. An example of this reasoning can be seen in the Supreme Court ruling, in Case No. 2809-2004, of August 18, 2004. In this judgment, the court granted a defendant the attenuation of diminished imputability because, at the time of committing the crime, he presented “a chronic post-traumatic stress disorder [plus] a major depression with some psychotic symptoms, triggered by the death of his brother, the economic situation, the marriage separation, and the serious illness of his father at risk. Depression that would be the factor that prevented an adequate judgment of reality at the time of committing the crime.” The court, before such disorder, established that the agent “was not completely deprived of reason, but [this] is constituent of the attenuating circumstance [of] article 11, N° 1, in relation to article 10, N° 1.”

We believe that the correct thing is to affirm that, although the wrongfulness of the act remains in such a case, because the legal system should abide by the meta-rule that nothing can justify the murder of an innocent, nobody can know with certainty if the killing action of the abuser had been prevented with the complaint of the facts to the authority. If this premise is accepted, from a doctrinal point of view, it would be necessary to maintain that there is room for fear in these types of situations of necessity. The determining factor here, as in the other cases of insurmountable fear, is not the moral judgment of the agent; for insurmountable fear, it seems sufficient that the author, objectively in a position to engage in other, less harmful conduct, strays from the requirements of the state of necessity because of the emotional disturbance he or she suffers.

4. Findings of this project

Fear has a subjective basis related to emotional disturbances that cannot be redirected to the state of necessity. The state of necessity implies a deliberate decision that, in a situation of danger, meets the subsidiarity requirement. The last requirement that is foreign to insurmountable fear. For this reason, (a) insurmountable fear is an autonomous figure of the state of necessity; (b) insurmountable fear only includes real evils; and (c) insurmountable fear only demands the requirement of a situation of current or imminent danger in situations of necessity.

The following decision tree provides a consistent basis for criminal lawyers to define, examine, and identify the alternatives to necessity defense and the unbeatable fear.



5. Appendices and nomenclature

Learned helplessness is a conduct displayed by an animal or person following frequent adverse stimulations that are away from their control. Over the last years, neuroscience has presented an understanding of learned helplessness. In this context, the subject's brain presumes that control is not present, and the existence of helplessness is what is learned. Seligman's learned helplessness theory helped in the development of the battered woman syndrome. Battered woman syndrome was discovered by Leonor Walker.

Dogmatics is a system of principles and rules developed by a group of criminal lawyers or criminal philosophers, such as Michael S. Moore, John Feinberg, Claus Roxin, Günther Jakobs, Urs Kindhäuser, Joachim Hruschka, Jan C. Joerden, and Michael Pawlik.

State of necessity or necessity defense is a criminal term used to describe why some extraordinary actions must be justified under the criminal law or exculpated in contravention of the law. Criminal defendants rely on this legal argument to argue that they should not be responsible for their actions because their conduct was the only way to prevent a greater harm when that conduct is not justified under self-defense.

M'Naghten rule is a test used to establish an excuse of insanity. *M'Naghten* rule must be demonstrated on a criminal trial at the time of the committing of the crime. The party accused must prove that he was under a defect of reason due to a disease of the mind. In this sense, it must be demonstrated that the party accused did not know what he was doing.

Phenomenology is a logical comprehension around the structures of consciousness and the objects that are perceived through it. Phenomenology can be distinguished from the Cartesian system of analysis. Husserl's conception is initially involved with this philosophical perspective and subsequently with psychology.

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An Analysis of Emotional and Psychological Issues among Males at the Correctional Institution in St. Vincent and the Grenadines

Nikolaos Stamatakis and Allan C. Burnett

Abstract

Recent findings suggest that emotional instability and psychological disorder rate in prison is three times higher than in the general population. Prisoners – especially males – are also at increased risk of all-cause victimization including violence and self-harm. This research sought to identify and analyze the emotions that incarcerated males at the Correctional Institutions in St. Vincent and the Grenadines have had and or were encountering, as well as the manner these emotions were being dealt with. It also sets out to ascertain some of the factors that were playing prominent roles in the lives of incarcerated males regarding those emotions. Up to date, there has been no research work done on males and their emotions in St. Vincent and the Grenadines nor any study regarding inmates in the correctional institution. The administration of a short questionnaire formed the quantitative collection instrument, which provided data from 150 inmates. The data analysis was performed via SPSS, and the findings point to a cross-section of relational factors that are relevant to males and their emotions (namely, abuse, crying, bonds, and suicidal thoughts). It was found that males are struggling emotionally with understanding their identity and are inadvertently pressured to adhere to societal directives by restricting their emotional expression.

Keywords: males, prison, emotions, psychological issues, St. Vincent & the Grenadines

1. Introduction

Emotions have attracted a greater level of attention as a critical element of public health in the 21st century. In St. Vincent and the Grenadines, the Caribbean and the wider world by extension, displaying emotions by males carries a stigma [1–3]. Emotions are also regarded as the cornerstones of our social worlds, which affect our interactions with others in varied ways [4]; and as such, this issue has prompted intellectual discussions surrounding the relation between emotions and the male population [5]; a focus that looms high, to the extent that it has become of national interest among health professionals and providers for the last ten years in St. Vincent and the Grenadines (SVG).

In part, this hype can arguably be associated with the SVG Education Revolution of 2003, which – under the motto “no one left behind” – has opened countless opportunities for the general population to move on academically in every level of the educational system [6]. The influx of students to secondary schools on one hand, and the radical increase of the number of adults in quest of tertiary level studies on the other, unearthed troubling psychologically and emotionally generated behavioral problems to which both genders succumbed [7, 8]. It also surfaced the demand for counselors, career guidance officers, and psychologists, who were called to aid the breakdown of the gender barriers in the expression of feelings among the male population that existed in the Vincentian society for many years and put emotional issues on the front burner.

General social observation in SGV has shown that males who have come to grips with their emotions and are willing to live a life that projects a more liberal way of behaving tend to excel academically, while being less likely to become trouble-makers and less prone to having criminal intent. Nowadays, numerous young males have been incarcerated, are abandoning school, have taken to the hills to farm illegal marijuana plants, are seeking comfort in alcoholic beverages, are becoming abusive to their female counterparts, or are admitted to the mental health hospital due to emotional and psychological pressures [9, 10]. This is an escalating occurrence among the male population, while their counterparts (females) are far more willing to show their emotions and are thus, less susceptible to those troubling devices [11–13]. This is particularly true among males incarcerated in SGV Her Majesty’s Prison, who would immediately take on the look of a “seasoned” criminal exhibit little or no remorse in deep contrast to the general empathy.

This backdrop heightens the need for one’s exploration of men’s attitude towards their emotion. There has been a rationale for the choice of these incarcerated males, who “do” masculinity either as a survival technique and an adaptation to imprisonment [14–17] or as an emotional response to interpersonal rejection [18, 19]. As in other countries, already captured male populations are often regarded as one of the most vulnerable groups in the Vincentian population [20–22]. This research springs from the co-opt preamble and delves into the stereotypical and tabooed issue of males and their emotions in the Vincentian setting. The present research endeavors to offer an understanding of the general male ethos where their emotions are concerned. It examines the issue from the perspectives of males who are confined or incarcerated seeking seeks to explore aspects related to the general issue of masculinity and emotions, namely: (a) emotions and abuse, (b) crying in relation to emotions (c) family and friends in relation to emotions and (d) suicidal thoughts and emotions. The main objective of this study is to analyze various factors that are associated with emotional and psychological issues relating to males at the correctional institution in St. Vincent and the Grenadines. More specifically, it sought to analyze the emotions males are encountering and ascertain the factors that lead to the emotions that males struggle with. As a means to achieve this, we firstly aimed at identifying emotional issues inmates are uncomfortable to talk about, and finding out levels of family impact on males’ lives in order to determine the coping strategies that have been used by inmates to deal with their emotional issues.

2. Methodology

This article intends to weave ideas in relation to the emotive reactions of incarcerated males at the Saint Vincent and the Grenadines Correctional Institution. The methodological tools utilized for data collection in this mixed-method study were mainly quantitative (questionnaires) combined with field observations. The

particular method was not chosen randomly. Quantitative methodologies allow researchers to evaluate within a more controlled context [23]. The questionnaire covered demographics such as age, type of crime, recidivism, and religion [perceived as an emotion regulator [24]], as well as elements and associated factors aligned with the stated hypotheses that highlight males' emotions and their behaviors. Finally, along with the collected quantitative data, observation was done based on a two-year pro bono service that the researcher carried out at the facilities and during the sample collection period, and anecdotes were noted. This research sought to generate measurable and testable data based on the aims and objectives, acting as a road map for the study, guiding the researcher to predetermined destinations, and thus gradually adding to the accumulation of human knowledge.

3. Research process flow chart

3.1 Hypotheses

To create a finite structure in line with the aims of the present research mentioned earlier, 4 hypotheses were created and embedded in the questionnaire. The hypotheses were:

1. Male inmates are struggling to deal with their emotions due to past *abuse*.
2. Male inmates who refrain from *crying* feel uncomfortable to talk about their emotional issues.
3. *Family* can positively impact the lives of male inmates.
4. Male inmates have *suicidal thoughts* irrespective of any disparity between positive and negative emotions.

3.2 The institution

Her Majesty's Prisons (Kingstown and Belle Isle) is the lone correctional institution in St. Vincent and the Grenadines built in 1872. Colonial in nature, the main structure is situated in the heart of Kingstown, in close proximity to the back of the building that houses the House of Assembly and the High Court. In the same premises, there is a library/classroom and a Chapel that has been converted into living quarters. The total population of the Kingston prison facility in December 17, 2018 stood at 472, accommodating mainly those who are on remand and few already sentenced.

The Belle Isle Correctional Facility became operational in April 2012, when some 226 prisoners were transferred there from the Kingstown holding. This institution is built to house 288 inmates, but it is still under construction. It is home to less than 50% of the present total inmates and mainly houses those already been sentenced. It is a modern prison with a conference room, classrooms, and recreation room offering a variety of programmes which incorporate major activities such as art, anger restraint training, tailoring, culinary art, music, agriculture, and welding skills training. Most of these programmes are facilitated by community members, persons who are not particularly affiliated to the institution. The institution also boasts of a small soccer team which occasionally engages with community teams.

Inmates in both institutions are classified in three categories: Unit A Under 21 years, Unit B First Offenders and Unit C Repeat Offenders. There is a rigid

timetable and activities are tailored – breakfast is at 6:30 am; devotion at 8:15 am; lunch is at 11:30 am, recreational activities at 1:00 pm, and total lock down at 5:00 pm. As pertaining to the emotional aspects of inmates, they are served in a professional manner by a psychologist, a counselor, and a welfare officer. Accessible to the institution is also the Mental Health Hospital, which provides contracted consultants and a qualified counselor who visit the institutions once a week to meet with a pre-arranged clientele¹.

3.3 Sampling

The inmates at Her Majesty's Correctional Facilities in Kingstown and Belle Isle served as the sample for the study. An attempt was made in having the entire prison population involved in the data collection process skipping any randomization process; nonetheless, internal developments within the institution itself forced a reversal. Based on the feedback received by the prison administrators, there was always the fear that the support would not be there to complete all 428 inmates at the time. Indeed, half-way through, unforeseen factors, continuous postponements, and resource constrains made it impossible for the prison administration to facilitate my request for the entire prison population to be approached. Unfortunately, there were 7 blocks that were not given the opportunity participate in the research. However, the remaining 3 blocks were randomly selected drawn from an alphabetical labelling system. The stratified randomized sampling (proportional or quota sampling) strategy was adopted. This method of sampling divided the population into strata, and then samples from each stratum were randomly selected. The total number of 150 participants constituted our sample that was collected during the period March–July 2019. Assuming that the entire population could not be reached, this method also allowed for a randomized sampling of the respondents containing minimal systematic bias and therefore being relatively representative of the male population in SVG [25].

3.4 Instrument

The questionnaire was structured in two parts – (I) demographic data and (II) conceptual questions. The latter part was designed to focus on the hypotheses each of which consisted of four questions.

- *Socio-demographic*: These questions included continuous variables like age (starting at age 18); length of current sentence (starting at less than 1 year); and recidivism (starting at 1 time, as well as categorical variables such as original household (coded with Nuclear – Single Parent – Extended – Reconstituted – and Sibling); religion (Christian – Muslim – Hindu – Other); and person being closest to (Mother – Father – Sibling – Friend – Nobody). In addition, the variable of type of criminal activity was treated as an open-ended question.
- *Abuse*: Six binary abuse variables were constructed; two for each type of trauma: physical, sexual, and emotional. Dealing with negative emotions was measured by pre-determined categories (namely, “Blame others”, “Blame

¹ The information provided here was personally gathered as the official government portal ([seehttp://security.gov.vc/security/index.php?option=com_content&view=article&id=387&Itemid=8](http://security.gov.vc/security/index.php?option=com_content&view=article&id=387&Itemid=8)) includes only some basic contacts.

yourself/Self-hate”, “Avoiding what is happening by drinking, smoking”, and “Withdrawing from others”). Feeling comfortable to talk to other males in prison about emotional issues was constructed from the following experiences: “Most males here share the same struggles”, “We are all on the same level”, “As males we are not as tough and aggressive as we often show”, “There is a greater sense of bonding”, and “There are less chances of being labelled a homosexual”. Inmates were also asked to name whether mental health, relationships, sexual issues, money matters, and/or depression currently affect them the most.

- **Crying:** Crying data, as a means of emotions’ expression, were collected from two types of questions; one focusing on sharing emotional issues and the other on reasons that prevent you from doing so. The frequency of crying was measured on a 1 to 5 Likert scale (with 1 being Never and 5 Always). The reasons that may discourage male prisoners to share their emotions varied from confidentiality and lack of trust to and feelings of embarrassment and people being too judgemental. The response options for males’ thoughts before talking about their emotions were: “Males are not supposed to talk about their emotions”, “Avoidance of acting like a woman”, “Males more focus on toughness and aggression”, “Self-reliance (a man is independent)”, and “Afraid of being labelled a homosexual”.
- **(Family) bonds:** Two close-ended questions dealt with who do male prisoners trust the most and who (in their family) helped them with the emotional issues, when there were such. For both questions, the possible responses were included their mother, their father, their sibling(s), and other (being their uncle/aunt, girlfriend etc). The difficultness of talking about emotions to someone was measured from a 1–5 Likert scale with 1 being Very difficult and 5 being Very Easy. Dealing with their emotions, prisoners chose among the possible answers of “Pray”, “Seek counseling”, “Exercise/sport”, and “Use substances/alcohol”.
- **Suicidal thoughts:** The suicidal thoughts data were collected from two question types: one with regard to the frequency of such thoughts and the other focusing on the “gap” between positive and negative emotions experienced by the male inmates. The frequency was calculated with a Likert scale, with 1 being Very difficult, 2 being Difficult, 3 being Neither difficult nor easy, 4 being Easy, and 5 being Very easy. The same scale was also used for the variable/question “How often do you visit a medical doctor?”. Both positive and negative emotions were also measured on a similar Likert scale (1 = Never, 2 = Almost never, 3 = Sometimes, 4 = Almost Always, and 5 = Always).

3.5 Data collection

Permission from the prisons’ authorities was necessary. This process took months to complete and initially, it created many doubts that the prison officials would want to grant such access to conduct the research. Having received permission from the Superintendent of Prisons, a pilot study was carried out few months before the actual administration of the questionnaire. This preliminary study served as a means of refining the final instrument to be used for the survey testing its reliability and validity. The piloting stage also helped in identifying some of the problems that loomed on the horizon, namely the lack of cooperation from some prison officials and the full conceptualization of the content of the questionnaires

Cronbach's Alpha (α)	N of Items
.812	41

Table 1.
Reliability statistics.

by some prisoners. Applying the abovementioned sampling techniques, the questionnaires were distributed and collected personally by the researcher on the same day. Amidst many constraints, the collection process initially began to look fruitful. However, there were days visiting the institution realizing that only ten (or no) questionnaires had been completed amidst excuses of being short of staff or that too many other activities are taking place at the same time. Having completed 150 questionnaires after months visiting the institution it was obvious that completing the entire population was an impossible task; and having started collecting the data with that notion in mind, the data collection was ended.

3.6 Data analysis

The statistical software SPSS (v.25) was used for all data analysis. In terms of methodology, I used multiple correspondence and regression analyses in order to describe the pattern of relationship between (categorical and binary) variables. Such analyses were meaningful given that a prior measurement of internal consistency (*see*² **Table 1**) provided an overall high-enough³ reliability coefficient ($\alpha = .812$). Multinomial logistic regressions and tests to assess the associated factors with our dependent variables were also run. These were feasible because, despite the relatively small sample (150), the assumptions about the scale of the variables, their linear – parametric (Pearson's) and non-parametric (Spearman's rho and Kendall's tau-b) – correlations, and homogeneous, normal errors were reasonable. Generally, any related difficulty to discern or recognize possible relevant deviations from assumptions with small samples did not invalidate the test, which remained valid under these assumptions.

4. Results

4.1 Demographics

The sample of the present study consisted of 150 male inmates whose age varied from 18 to over 56 years old. Slightly more than half ($n = 78, 51.9\%$) of the participants were 26–40 years old while only 6% of the sample ($n = 9$) were younger than 20 years old. Nineteen (13%) prisoners were either 21–25 or 41–45 years old and 24 (16%) were over 46 years old (**Figure 1**). Looking at the type of offense that resulted into their incarceration, the most popular crime was burglary/robbery/theft ($n = 36, 24\%$) closely followed by rape ($n = 33, 22\%$) and (attempted) murder / manslaughter ($n = 29, 19.3\%$). A relatively common offense was assault and cause of physical damage committed by 22 males (14.7%). Other types of offense driving unlicensed car, damage of property, and issues related to child maintenance ($n = 17, 11.3\%$) (**Figure 2**).

² Cronbach's alpha (α) is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability. Technically speaking, Cronbach's alpha is not a statistical test – it is a coefficient of reliability (or consistency).

³ A reliability coefficient of .70 or higher is considered “acceptable” in most social science research situations.

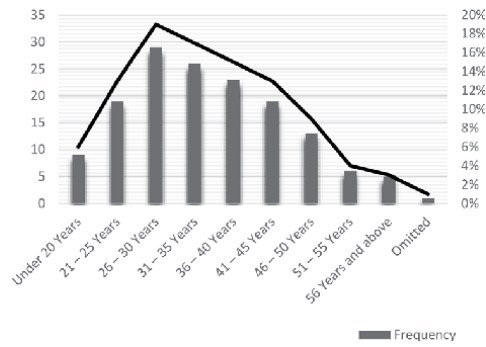


Figure 1.
 Bar count of age.

Regarding their religious affiliation, the vast majority of the sample ($n = 132$, 88%), considered themselves to be Christian, followed by those who had no religion ($n = 11$, 7.3%). Only 3 (2%) males identified themselves as non-Christian, two being Muslim and one in self-search. The length of the sentence they were already given followed the same pattern. 99 inmates (66%) were sentenced with up to 3 years of imprisonment and only 13 (8.7%) were serving sentences longer than 9 years (**Figure 3**). As far as recidivism is concerned, nearly 40% of the males ($n = 57$, 38%) admitted that they were incarcerated for the first time and almost all the remaining ($n = 81$, 54%) had been previously imprisoned 2–5 times (**Figure 4**).

Focusing on the family background of the prisoners, almost 1/3 of them ($n = 51$, 34%) were coming from single-parent families, while most of the remaining respondents had grown up in either extended ($n = 38$, 25.3%) or nuclear ($n = 22.7%$) family environments. The few remaining males were raised either by their sibling(s) ($n = 10$, 6.7%) or by a guardian, girlfriend or foster parent ($n = 6$, 4%). Those results matched the males' responses pertaining to who is being closest to them. Slightly more than half of the participants were feeling their mother as being closest to them ($n = 77$, 51.3%) whereas only 7 inmates (4.7%) had the same feelings for their father. Almost 10% of the sample ($n = 14$) expressed their loneliness replying that there is nobody who is emotionally close to them. Other people identified by the inmates as being the closest to them were their (girl)friends, grandparents, guardians or their therapists (**Figure 5**).

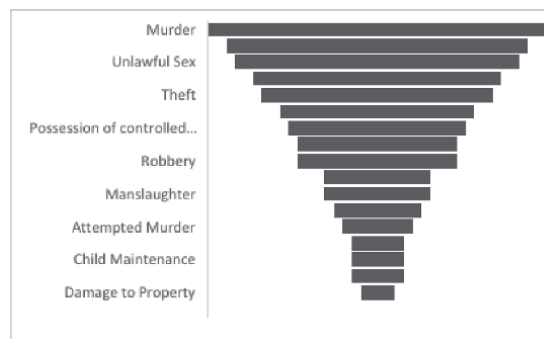


Figure 2.
 Bar count of type of offense.

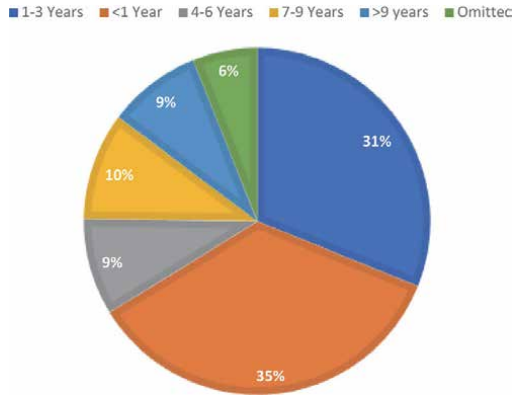


Figure 3.
Pie chart count of length of current sentence.

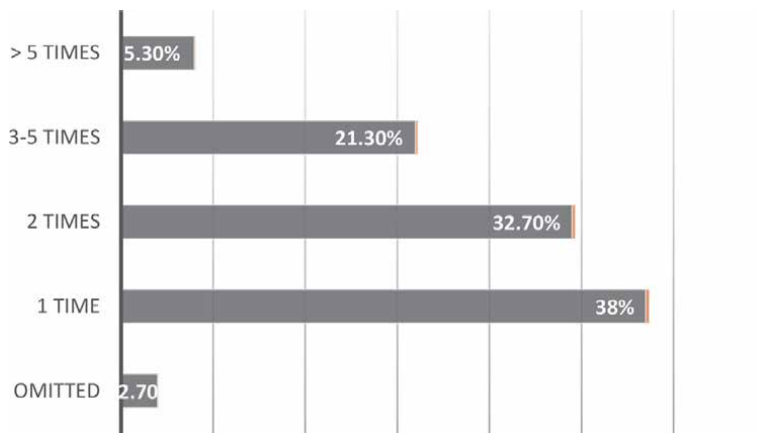


Figure 4.
Bar count of times of being in prison.

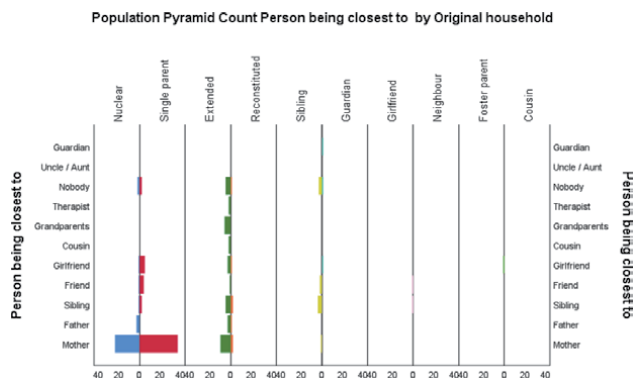


Figure 5.
Population pyramid count person being closest to by original household.

4.2 Conceptual questions

Hypothesis 1 (confirmed): Male inmates are struggling to deal with their emotions due to past *abuse*.

Initially, looking at the abuse patterns among the incarcerated males, almost 79.3%⁴ (n = 119) males admitted of having at least one experience of physical, emotional, and/or sexual abuse in the past. Among those inmates, 15 (10%) also had strong feelings of abandonment and neglect. More specifically, the majority (n = 81, 54%) of males had suffered an emotional abuse in the past, followed by those who were physically (n = 70, 46.7%) or sexually (n = 46, 30.7%) traumatized. Therefore, it was not a coincidence that the participants were predominantly facing sexual or relationship issues (58.7%, n = 88), while 33 of them (22%) were having depression and other mental health problems. Taking into consideration that almost all males (n = 148, 98.7%) were facing negative emotions, in their effort to deal with them, prisoners gave a wide range of responses. The most common way used to deal with their negative emotions was to withdraw from others and seek isolation (n = 101, 67.3%) or try to avoid what is happening by drinking and smoking (n = 82, 54.7%). The second most popular way males used to face their emotional issues was through blaming either themselves (n = 70, 46.7%) or others (n = 38, 25.3%). Only 1 inmate (0.7%) expressed a positive way in dealing with his problems, which was through religion, and more specifically, by talking to Jesus.

Focusing on the openness and willingness of prisoners to express their emotional issues with others, the vast majority of them were feeling comfortable doing so, but only with their fellow inmates. The main reason was that males in prison share the same emotional struggles (n = 71, 47.3%), and because they are not as tough and aggressive as they often show (n = 86, 57.3%). In fact, males thought that prison creates a great sense of bonding (n = 59, 39.3%), being all on the same (prison) level (n = 69, 46%). Almost 1/3 of respondents also highlighted that having less chances of being labeled a homosexual (n = 54, 36%) makes it easier for them to talk about their emotions.

Based on both parametric and non-parametric correlations, the type of abuse that most participants had suffered was found overall to be significantly correlated with the way they were currently dealing with their negative emotions ($p = .000$) and whether or not these males were feeling comfortable to talk about their emotional issues to others ($p = .000$). Looking deeper at those relationships, participants who were struggling to deal with their negative emotions were 9.7 times more likely to blame others ($p = .009$) and 5.8 times to blame themselves ($p = .004$) than the minority of prisoners who were not facing any negative emotions. Marginally significant was also the correlation between abuse and avoidance ($p = .043$), where previously abused inmates were almost 3 times more likely to avoid facing the negative consequences of past experiences than their non-abused counterparts (see **Table 2**).

Hypothesis 2 (partially confirmed): Male inmates who refrain from *crying* feel uncomfortable to talk about their emotional issues.

How often do you cry? 1/3 of the prisoners responded that they (almost) never cry (n = 52, 34.4%), while almost half of the sample were doing so occasionally (n = 69, 46%). Only 3 males (2%) admitted of crying on a regular basis as a way of venting off their negative emotions (before their incarceration). Once again, these figures were not surprising as the largest segment of the respondents believed that males are not supposed to show or talk about their emotions (n = 98, 65.3%), as an avoidance of acting like a woman and being labeled a homosexual (n = 94, 62.7%). On the contrary, males should be self-reliant/independent (n = 74, 49.3%) and focused on toughness and aggression (n = 89, 59.3%).

⁴ Bearing in mind that participants had to opportunity to choose more than 1 reply, the figures presented here represent the Valid Percentages.

Have you ever been abused? ^a		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Yes	Facing negative emotions	-.709	1.635	.188	1	.665	.492	.020	12.128
	Dealing with negative emotions (ref. cat. is "No")								
	Blaming others	2.281	.873	6.825	1	.009	9.790	1.768	54.216
	Blaming yourself	1.768	.622	8.071	1	.004	5.859	1.730	19.839
	Avoiding what is happening	1.097	.542	4.093	1	.043	2.995	1.035	8.667
	Withdrawing from others	.397	.583	.464	1	.496	1.488	.475	4.664
	Talking to Jesus	16.088	2590.495	.000	1	.995	9700534.344	.000	. ^b
	Feeling comfortable talking to other males about emotional issues (ref. cat. is "No")								
	Most males here share the same emotional struggles like you	30.753	3013.793	.000	1	.992	22697154630045.258	.000	. ^b
	You're all at the same level (in prison)	-.519	.591	.771	1	.380	.595	.187	1.895
	Males are not as tough and aggressive as they often show they are	-.147	.541	.074	1	.785	.863	.299	2.492
	There is a greater sense of bonding when you share your emotions	-1.106	.590	3.512	1	.061	.331	.104	1.052
	There are less chances of being labeled a homosexual if you share your emotions	1.202	.629	3.647	1	.056	3.327	.969	11.427
	"Soft spot"	0 ^c	.	.	0

^aThe reference category is: No.

^bFloating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

^cThis parameter is set to zero because it is redundant.

Table 2.
Parameter estimates.

Digging into the reasons why males refrain from sharing their emotions, the main issue that emerged was that of confidentiality and lack of trust ($n = 125$, 83.3%). Other, equally important issues were about persons being too judgemental ($n = 88$, 58.7%), and their subsequent feelings of embarrassment ($n = 81$, 54%). At the same time, the performance of multinomial regressions showed partial correlations between our dependent and independent variables. More specifically, inmates who were radically refraining from crying were more likely to avoid talking about their emotion issues to others believing that males should be more focussed on toughness and aggression than those prisoners who admitted of crying frequently ($p = .027$). In the same vein, both groups of participants who were almost never ($p = .032$) or occasionally ($p = .020$) expressing their emotions through crying were 3 times more likely not to do so for the same reasons of toughness and aggression as expressed by those who were never crying. An additional reason shared by the males who were almost never or almost always crying for not feeling comfortable to talk about their emotions (either to fellow inmates or to individuals outside of prison) was related to inner fears of being labeled as a homosexual ($p = .032$) or even perceived as acting like a woman ($p = .020$) (see **Table 3**).

Hypothesis 3 (not confirmed): *Family* can positively impact the lives of male inmates.

Exploring the impact of family on male prisoners, the participants were initially asked to identify who they trust the most. More than half of the sample responded their mother ($n = 77$, 51.3%). The second most common reply was “nobody” ($n = 23$, 15.3%), while the remaining responds were mainly scattered among their girlfriend ($n = 5$, 3.3%), their friends ($n = 12$, 8%), and eventually their father ($n = 9$, 6%). In continue, males were asked to mention who has helped them to deal with their emotional problems. Their replies followed to same trend. Again, 34% ($n = 51$) acknowledged that their mother had done so, but almost 50% of the sample ($n = 65$) now mentioned that nobody has ever assisted them with their emotional issues.

Before sent to prison or at the beginning of their current sentence, all males operated various ways to deal with their emotions. Few of them ($n = 2$, 1.4%) were signing and reading, while the majority ($n = 81$, 54%) sought help from God through praying, and others from psychologists though counseling ($n = 65$, 43.3%). 66 people (44%) also found exercising or playing a sport helpful in dealing with emotions, while a good number of them ($n = 58$, 38.7%) used to smoke, drink, and use drugs. Overall, males found it (very) difficult to talk about their emotions ($n = 90$, 60%) and just 19 (12.7%) of them thought it was (very) easy.

Looking at the possible impact of other people on the inmates' incapacity or unwillingness to share their emotions, no statistical significant correlation was given; hence, hypothesis 3 was not confirmed. As **Table 4** shows below, neither family (both nuclear and extended) nor other members from prisoners' social environment [eg. (girl)friends, therapist] seemed to influence, positively or negatively, the obstacles that males were facing in talking about their emotions to someone (average $p = .913$). Similarly, it was found that talking about emotions to other people was an insignificantly correlated factor in dealing with emotional issues (average $p = .992$).

Hypothesis 4 (confirmed): Male inmates have suicidal thoughts irrespective of any disparity between positive and negative emotions.

Seeking to measure the frequency of suicidal thoughts among the male inmates, a Likert scale question was added. The responses showed that a relatively high proportion of the sample ($n = 68$, 45.3%) were thinking of committing suicide occasionally (“Sometimes”), and the second highest proportion was these who never had such thoughts ($n = 31$, 20.7%). Almost the same percentage of people responded that they “Almost always” ($n = 21$, 14%) or “Almost never” ($n = 21$, 14%)

How often do you cry?^a		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Never	Thinking about certain things before talking about emotions (Ref. cat is "No")								
	Males are not supposed to show or talk about their emotions	-.023	1.394	.000	1	.987	.977	.064	15.014
	Avoidance of not acting like a woman	-3.863	2.287	2.852	1	.091	.021	.000	1.860
	Males are more focused on toughness and aggression	-3.927	1.770	4.921	1	.027	.020	.001	.633
	Self-reliance (a man is independent)	-.191	1.457	.017	1	.895	.826	.048	14.352
	Afraid of being labeled as a homosexual	2.937	1.750	2.817	1	.093	18.863	.611	582.486
	Prefer being alone	.534	35.730	.000	1	.988	1.705	6.580E-31	44197692023108355000000000000000.000
Almost never	Thinking about certain things before talking about emotions (Ref. cat is "No")								
	Males are not supposed to show or talk about their emotions	2.052	.973	4.447	1	.035	7.780	1.156	52.368
	Avoidance of not acting like a woman	-2.603	1.122	5.381	1	.020	.074	.008	.668
	Males are more focused on toughness and aggression	-2.914	1.361	4.583	1	.032	.054	.004	.782
	Self-reliance (a man is independent)	.078	.949	.007	1	.935	1.081	.168	6.942
	Afraid of being labeled as a homosexual	2.420	1.349	3.218	1	.073	11.251	.799	158.362
	Prefer being alone	3.267	29.681	.012	1	.912	26.244	1.427E-24	48270855191815996000000000000000.000
Sometimes	Thinking about certain things before talking about emotions (Ref. cat is "No")								
	Males are not supposed to show or talk about their emotions	1.004	.930	1.166	1	.280	2.728	.441	16.870
	Avoidance of not acting like a woman	-1.979	1.071	3.416	1	.065	.138	.017	1.127
	Males are more focused on toughness and aggression	-3.100	1.334	5.405	1	.020	.045	.003	.615

How often do you cry? ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Self-reliance (a man is independent)	-.518	.912	.322	1	.570	.596	.100	3.559
Afraid of being labeled as a homosexual	2.118	1.330	2.535	1	.111	8.316	.613	112.800
Prefer being alone	-.802	29.545	.001	1	.978	.448	3.182E-26	6320155164565928000000000.000
Thinking about certain things before talking about emotions (Ref. cat is "No")								
Males are not supposed to show or talk about their emotions	1.977	1.087	3.309	1	.069	7.223	.858	60.817
Avoidance of not acting like a woman	-2.045	1.191	2.951	1	.086	.129	.013	1.334
Males are more focused on toughness and aggression	-2.431	1.430	2.891	1	.089	.088	.005	1.450
Self-reliance (a man is independent)	-.051	1.022	.003	1	.960	.950	.128	7.033
Afraid of being labeled as a homosexual	3.014	1.402	4.624	1	.032	20.367	1.306	317.669
Prefer being alone	2.374	30.906	.006	1	.939	10.735	5.287E-26	21796831101559083000000000000.000

^aThe reference category is: Always.

^bThis parameter is set to zero because it is redundant.

^cFloating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

Table 3.
Parameter estimates.

Talking about emotions is ... ^a		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
Very difficult									
Trusting the most									
Mother		-1.135	10.356	.012	1	.913	.321	4.922E-10	209873396.257
Father		-4.469	10.466	.182	1	.669	.011	1.414E-11	9290209.914
Friend(s)		-3.415	10.396	.108	1	.743	.033	4.653E-11	23214069.590
Girlfriend		3.211	14.702	.048	1	.827	24.809	7.589E-12	81099178338468.190
Wife		-4.942	36.888	.018	1	.893	.007	2.852E-34	1788853593623528000000000000000.000
Cousin		8.241	681.515	.000	1	.990	3794.900	.000	.c
Nobody		-2.112	10.398	.041	1	.839	.121	1.707E-10	85741671.419
Grandmother		-2.561	20.299	.016	1	.900	.077	4.070E-19	14663068979522668.000
Therapist		-3.229	36.897	.008	1	.930	.040	1.553E-33	1009363927852481700000000000000.000
Aunt		4.003	34.116	.014	1	.907	54.769	4.997E-28	6002842730305803000000000000000.000
Guardian		3.198	681.659	.000	1	.996	24.472	.000	.c
Helped you to deal with emotional issues									
Mother		4.557	680.661	.000	1	.995	95.300	.000	.c
Father		1.904	680.678	.000	1	.998	6.712	.000	.c
Sibling		2.219	680.660	.000	1	.997	9.198	.000	.c
Esteemed person		.000	681.576	.000	1	1.000	1.000	.000	.c
Girlfriend		5.513	680.696	.000	1	.994	247.774	.000	.c
Wife		1.726	680.964	.000	1	.998	5.618	.000	.c
Nobody		6.202	680.662	.000	1	.993	493.888	.000	.c
Difficult									
Trusting the most									
Mother		-3.318	10.328	.001	1	.975	.727	1.177E-9	449658085.645
Father		-5.436	10.464	.270	1	.603	.004	5.393E-12	3518236.928

Talking about emotions is ... ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Friend(s)	-1.408	10.345	.019	1	.892	.245	3.829E-10	156250805.677
Girlfriend	-1.939	14.887	.017	1	.896	.144	3.065E-14	674902371395.648
Wife	-3.523	35.657	.010	1	.921	.030	1.315E-32	662401969002024800000000000000.000
Cousin	1.385	657.098	.000	1	.998	3.994	.000	.c
Nobody	-1.391	10.364	.018	1	.893	.249	3.751E-10	165189695.174
Grandmother	1.352	19.093	.005	1	.944	3.867	2.165E-16	69078467018115992.000
Therapist	-3.444	35.663	.009	1	.923	.032	1.405E-32	725894503839627400000000000000.000
Aunt	-1.366	35.655	.001	1	.969	.255	1.142E-31	570455239289069950000000000000.000
Guardian	2.592	657.098	.000	1	.997	13.356	.000	.c
Helped you to deal with emotional issues								
Mother	3.443	656.131	.000	1	.996	31.285	.000	.c
Father	4.196	656.134	.000	1	.995	66.434	.000	.c
Sibling	2.190	656.129	.000	1	.997	8.934	.000	.c
Esteemed person	.000	657.012	.000	1	1.000	1.000	.000	.c
Girlfriend	6.558	656.160	.000	1	.992	704.854	.000	.c
Wife	8.615	656.414	.000	1	.990	5515.374	.000	.c
Nobody	4.829	656.131	.000	1	.994	125.096	.000	.c
Trusting the most								
Mother	2.686	11.165	.058	1	.810	14.674	4.603E-9	4677612117.218
Father	-1.399	11.303	.015	1	.902	.247	5.909E-11	1031766470.631
Friend(s)	.521	11.194	.002	1	.963	1.684	4.985E-10	5687802612.665
Girlfriend	.305	15.712	.000	1	.985	1.356	5.732E-14	32086520315331.360
Wife	4.894	34.371	.020	1	.887	133.447	7.384E-28	241164739841182800000000000000.000
Neither difficult nor easy								

Talking about emotions is ... ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)		
							Lower Bound	Upper Bound	
Cousin	5.741	681.672	.000	1	.993	311.483	.000	.c	
Nobody	.685	11.216	.004	1	.951	1.985	5.631E-10	6993814976.199	
Grandmother	1.098	20.725	.003	1	.958	2.998	6.845E-18	1313386892053417730.000	
Therapist	5.181	34.381	.023	1	.880	177.844	9.654E-28	3276285532909110000000000000000.000	
Aunt	1.729	37.123	.002	1	.963	5.636	1.419E-31	2238998450215787500000000000000.000	
Guardian	11.587	681.528	.000	1	.986	107636.035	.000	.c	
Helped you to deal with emotional issues									
Mother	4.933	680.661	.000	1	.994	138.858	.000	.c	
Father	2.931	680.673	.000	1	.997	18.754	.000	.c	
Sibling	3.332	680.660	.000	1	.996	28.005	.000	.c	
Esteemed person	5.268	681.432	.000	1	.994	194.075	.000	.c	
Girlfriend	9.052	680.690	.000	1	.989	8533.501	.000	.c	
Wife	7.253	680.974	.000	1	.992	1412.559	.000	.c	
Nobody	5.829	680.662	.000	1	.993	339.912	.000	.c	
Trusting the most									
Mother	2.066	11.804	.031	1	.861	7.894	7.073E-10	88101694713.661	
Father	-1.082	11.942	.008	1	.928	.339	2.319E-11	4951929174.890	
Friend(s)	.446	11.800	.001	1	.970	1.561	1.411E-10	17281209496.777	
Girlfriend	4.844	15.803	.094	1	.759	126.971	4.493E-12	3588087231311329.500	
Wife	-.864	41.011	.000	1	.983	.421	5.202E-36	341224029053594920000000000000000.000	
Cousin	-7.420	625.964	.000	1	.991	.001	.000	.c	
Nobody	-.643	11.952	.003	1	.957	.526	3.524E-11	7836850545.453	
Grandmother	1.633	22.685	.005	1	.943	5.122	2.512E-19	10.44020032603553100000.000	

Talking about emotions is ... ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Therapist	1.715	41.041	.002	1	.967	5.556	6.470E-35	477181474016070200000000000000000000.000
Aunt	2.401	41.019	.003	1	.953	11.034	1.341E-34	908158071886049200000000000000000000.000
Guardian	-7.950	625.963	.000	1	.990	.000	.000	. ^c
Helped you to deal with emotional issues								
Mother	-9.734	624.621	.000	1	.988	5.922E-5	.000	. ^c
Father	-8.542	624.624	.000	1	.989	.000	.000	. ^c
Sibling	-13.428	624.624	.000	1	.983	1.473E-6	.000	. ^c
Esteemed person	-12.101	625.847	.000	1	.985	5.554E-6	.000	. ^c
Girlfriend	-8.820	624.658	.000	1	.989	.000	.000	. ^c
Wife	-11.578	625.008	.000	1	.985	9.366E-6	.000	. ^c
Nobody	-9.135	624.621	.000	1	.988	.000	.000	. ^c

^aThe reference category is: Very easy
^bThis parameter is set to zero because it is redundant.
^cFloating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

Table 4.
 Parameter estimates.

Having suicidal thoughts ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Never experiencing ...								
Worry (-)	38.265	42131.091	.000	1	.999	41512528905990320.000	.000	. ^b
Loneliness (-)	-5.139	37807.382	.000	1	1.000	.006	.000	. ^b
Anger (-)	-17.882	79534.322	.000	1	1.000	1.713E-8	.000	. ^b
Depression (-)	-14.205	82741.329	.000	1	1.000	6.777E-7	.000	. ^b
Rejection (-)	24.921	9436.227	.000	1	.998	66533189065.058	.000	. ^b
Frustration (-)	30.958	24413.461	.000	1	.999	27847338461359.742	.000	. ^b
Jealousy (-)	21.971	45327.033	.000	1	1.000	3483997796.992	.000	. ^b
Shame (-)	43.908	15195.137	.000	1	.998	11719077213841310000.000	.000	. ^b
Fear (-)	-3.601	44078.805	.000	1	1.000	.027	.000	. ^b
Sadness (-)	-32.828	20159.582	.000	1	.999	5.531E-15	.000	. ^b
Joy (+)	44.629	36308.886	.000	1	.999	240962445492663170000.000	.000	. ^b
Forgiveness (+)	29.357	45828.959	.000	1	.999	5618462657828.428	.000	. ^b
Love (+)	28.429	68809.244	.000	1	1.000	2221343412505.831	.000	. ^b
Thankfulness (+)	-46.389	33238.126	.000	1	.999	7.139E-21	.000	. ^b
Pride (+)	51.398	24718.421	.000	1	.998	20974296918467923000000.000	.000	. ^b
Gladness (+)	-72.392	50294.937	.000	1	.999	3.635E-32	.000	. ^b
Inspiration (+)	-55.492	85436.525	.000	1	.999	7.948E-25	.000	. ^b
Hope (+)	11.827	63358.506	.000	1	1.000	136961.278	.000	. ^b
Kindness (+)	31.787	.000	.	1	.	63787421138352.160	63787421138352.160	63787421138352.160
Warmth (+)	8.409	.000	.	1	.	4485.333	4485.333	4485.333
Almost never experiencing ...								
Worry (-)	17.337	62730.027	.000	1	1.000	33830667.954	.000	. ^b

Having suicidal thoughts ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Loneliness (-)	-9.711	34034.477	.000	1	1.000	6.059E-5	.000	.b
Anger (-)	-1.924	19347.725	.000	1	1.000	.146	.000	.b
Depression (-)	9.818	23029.240	.000	1	1.000	18363.795	.000	.b
Rejection (-)	8.158	34567.475	.000	1	1.000	3489.671	.000	.b
Frustration (-)	13.964	16139.542	.000	1	.999	116049.712	.000	.b
Jealousy (-)	22.533	32665.601	.000	1	.999	610575901.719	.000	.b
Shame (-)	35.521	46428.161	.000	1	.999	2670030769720042.500	.000	.b
Fear (-)	35.521	46428.161	.000	1	.999	2670030769720042.500	.000	.b
Sadness (-)	17.608	42357.809	.000	1	1.000	44381092.351	.000	.b
Joy (+)	1.402	63332.243	.000	1	1.000	4.064	.000	.b
Forgiveness (+)	-1.440	57396.565	.000	1	1.000	.237	.000	.b
Love (+)	.313	16938.360	.000	1	1.000	1.367	.000	.b
Thankfulness (+)	-3.646	33406.056	.000	1	1.000	.026	.000	.b
Pride (+)	-4.300	32548.244	.000	1	1.000	.014	.000	.b
Gladness (+)	-21.410	32410.214	.000	1	.999	5.030E-10	.000	.b
Inspiration (+)	-15.599	53537.876	.000	1	1.000	1.681E-7	.000	.b
Hope (+)	-4.277	12318.961	.000	1	1.000	.014	.000	.b
Kindness (+)	21.446	22120.485	.000	1	.999	2059283298.525	.000	.b
Warmth (+)	-14.930	8827.409	.000	1	.999	3.280E-7	.000	.b
Sometimes experiencing...								
Worry (-)	25.756	21842.662	.000	1	.999	153345818008.820	.000	.b
Loneliness (-)	-7.627	23144.438	.000	1	1.000	.000	.000	.b
Anger (-)	-7.814	20611.045	.000	1	1.000	.000	.000	.b

Having suicidal thoughts ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Depression (-)	10.880	19572.240	.000	1	1.000	53084.629	.000	. ^b
Rejection (-)	2.386	14377.750	.000	1	1.000	10.866	.000	. ^b
Frustration (-)	23.451	6961.863	.000	1	.997	15305137329.349	.000	. ^b
Jealousy (-)	21.023	35452.621	.000	1	1.000	1350132117.246	.000	. ^b
Shame (-)	46.349	19147.919	.000	1	.998	134687881868218000000.000	.000	. ^b
Fear (-)	.464	17216.104	.000	1	1.000	1.591	.000	. ^b
Sadness (-)	3.031	13855.955	.000	1	1.000	20.726	.000	. ^b
Joy (+)	-.480	19549.724	.000	1	1.000	.619	.000	. ^b
Forgiveness (+)	7.455	24432.265	.000	1	1.000	1729.107	.000	. ^b
Love (+)	1.239	26718.325	.000	1	1.000	3.452	.000	. ^b
Thankfulness (+)	9.055	7536.983	.000	1	.999	8560.522	.000	. ^b
Pride (+)	1.837	10838.583	.000	1	1.000	6.278	.000	. ^b
Gladness (+)	-33.519	28558.496	.000	1	.999	2.772E-15	.000	. ^b
Inspiration (+)	-8.211	43149.464	.000	1	1.000	.000	.000	. ^b
Hope (+)	-5.634	11332.098	.000	1	1.000	.004	.000	. ^b
Kindness (+)	12.634	.000	.	1	.	306728.293	306728.293	306728.293
Warmth (+)	-16.876	.000	.	1	.	4.686E-8	4.686E-8	4.686E-8
Almost always								
Almost always experiencing...								
Worry (-)	20.506	17453.044	.000	1	.999	804770902.727	.000	. ^b
Loneliness (-)	-1.592	17924.925	.000	1	1.000	.203	.000	. ^b
Anger (-)	-2.581	17950.704	.000	1	1.000	.076	.000	. ^b
Depression (-)	13.616	23382.990	.000	1	1.000	819226.292	.000	. ^b
Rejection (-)	3.583	6386.837	.000	1	1.000	35.979	.000	. ^b

Having suicidal thoughts ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Frustration (-)	18.653	144.39.424	.000	1	.999	126090251.289	.000	. ^b
Jealousy (-)	14.808	29716.579	.000	1	1.000	2699157.783	.000	. ^b
Shame (-)	45.466	21327.045	.000	1	.998	55691661855071380000.000	.000	. ^b
Fear (-)	5.595	14237.673	.000	1	1.000	269.191	.000	. ^b
Sadness (-)	1.510	24004.762	.000	1	1.000	4.529	.000	. ^b
Joy (+)	.109	9914.736	.000	1	1.000	1.115	.000	. ^b
Forgiveness (+)	5.222	12493.560	.000	1	1.000	185.332	.000	. ^b
Love (+)	-3.497	15974.687	.000	1	1.000	.030	.000	. ^b
Thankfulness (+)	7.421	2682.184	.000	1	.998	1671.232	.000	. ^b
Pride (+)	-4.543	7817.173	.000	1	1.000	.011	.000	. ^b
Gladness (+)	-33.649	16456.088	.000	1	.998	2.436E-15	.000	. ^b
Inspiration (+)	-16.021	38348.256	.000	1	1.000	1.102E-7	.000	. ^b
Hope (+)	-7.183	6199.960	.000	1	.999	.001	.000	. ^b
Kindness (+)	19.455	.000	.	1	.	281332174.318	281332174.318	281332174.318
Warmth (+)	-6.874	.000	.	1	.	.001	.001	.001

^aThe reference category is: Always.

^bFloating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

^cThis parameter is set to zero because it is redundant.

Table 5.
Parameter estimates.

have suicidal thoughts and only 4.7% (n = 7) have them on regular basis (“Always”). While in prison, males had the opportunity to visit a medical doctor or a psychologist, when needed. Some of them (n = 57, 38%) were finding the access to their service (very) easy, while for others (n = 55, 36.7%) was (very) difficult.

Moving from the descriptive statistics to multivariate regressions as an attempt to provide answers to our research questions, the data analysis as shown in **Table 5** confirms the initial hypothesis. Male inmates were, indeed, having suicidal thoughts irrespective of the similar frequency of positive or negative emotions they were experiencing. In other words, the frequent thoughts or intentions of male inmates in SVG to commit suicide were not related to the equally frequent positive (eg. joy, hope, kindness) or negative (eg. loneliness, depression, fear) they may have been experiencing.

5. Limitations

No empirical research is free of limitations; henceforth, such limitations should be acknowledged prior to any conceptualization of our hypotheses. Initially, it should be noted that St. Vincent and the Grenadines – as any given society or nation – has social norms and moral values that might be different or conflicting in another social sphere. It may be possible that some commonality still exists among institutionalized males or even among different nations within the Caribbean region. Though, these elements are not sufficient to ignore the issue of representativeness. Keeping in mind the exceptionally high percentage of the particular men who had experienced emotional and psychological distress in their lives linked to prevalent standards of manliness or masculinity taboos, as well as the regional cultural and ethnical diversity, it would have been scientifically imprecise to claim that the results are generalizable and that the present sample represents an area larger than SVG. In addition, given the relatively small – but randomized – size of the sample and population as well as the nature of the questions, conclusions were drawn with extreme caution. Due to conceptual and structural limitations related to constraints on generalizability, this study could not test complex theoretical models from the existing literature; yet, it helped us formulate more specific hypotheses for more definite future investigation.

6. Discussion and conclusions

Research evidence consistently shows high rates of unresolved issues among incarcerated samples. Our study provided evidence that emotional problems among incarcerated men in SVG is associated with a wide range of relational issues such as refrain from crying, suppression of feelings, lack of strong family bonds, and exposure to past abuse. Although, many respondents had the idea of ending their lives, the intensity of such thoughts varied greatly. There was no clear demarcation between those who embrace positive emotions and those who experience a weaker pull in that direction and vice-versa. Inmates having strong positive emotions also displayed a propensity for negative emotions falling the “sometimes” vacuum. Based on the inmates’ responses, it was feasible to make a definitive statement that inmates find it hard to deal with their negative emotions due to past abuse. There is ample indication to show that sharing or dealing with negative emotions is very difficult for all inmates, either they had suffered an abuse or not. Due to intervening factors, with culture being the main one, crying accounted for one of the reasons

why inmates may feel uncomfortable to talk about issues of emotional nature. By observation, those persons who were able to pick the issues that bothered them the most and talk about them were also not afraid of crying.

Historically, research attention has focused on the emotional and psychological needs or problems of incarcerated women (e.g. [26–30]), not those of men. This study findings call for further action; action to screen for and treat emotion-related traumas among incarcerated men. Treatment for emotional problems and their consequences inside correctional settings is pivotal; especially for incarcerated men – a largely neglected but serially traumatized population [31, 32]. In St. Vincent and the Grenadines, a programme whose focus is to address the issue of recidivism, mental health and to overcome behavioral issues, helping inmates to regulate their emotions, develop social skills, and address thinking that can lead to violence and criminality, such as aggressive or antisocial behavior has just gotten under way. The more obvious understanding to stereotypical behaviors is that the society has predetermined the course of males' emotional reactions. A conceptual “mold” has been created, which has gathered widespread acceptability. As Way [33] argues, the solution lies with exposing the inaccuracies of our gender stereotypes in which human needs and capabilities are given a sex and sexuality. The issue of males being able to reveal their emotions will remain a stigmatized issue unless academics and practitioners are willing to make the issue an urgent one.

In the meantime, helping men to work their way out of the dilemma of having to succumb to “suck it up”, “man it up”, “stop acting like a baby”, “men don't cry” and other derogative emotive *clichés* that men have grown to hear and feel and have unwillingly accepted as their mantra, should be society's target. A viable solution might be recommending a shift in the outdated perception of “Man is Invincible” to “Man is Human Being” adapting the view that behavior that is shadowed by an unhealed wound as not being a gender specific issue, but more a human being issue. Man does not need more shame or stigmas attached to him, for that will certainly work to his disadvantage.

Family environment could play a viable role in desisting such shaming and stigmatization processes. Respondents put high premium on family and family values, as their deep sense of neglect and the limited interaction with their family members acted as a springboard to their delinquency. They were able to talk about how their families' aloofness and lack of caring created an emotional void inside them. A noticeable absence of family members' contribution to relationship building is that of the fathers'. Fathers played little or no role in the lives of the respondents. Generally, fathers have played a limited role in the lives of most Caribbean males, due to the high single parent household that are featured [34]. The extent to which this affect males when dealing with situations that warrant much display of strong emotions is relatively unknown.

7. Future directions

We should also have a deeper look into the extent, complexity, and motives of those 120 male inmates who admitted of having some form of suicidal ideation in the past. Given the raising numbers of incarcerated men in SVG and the strength of these associations, targeted intervention is critical. To put this issue in context, the changing of our the local society's beliefs about males social and emotional capacities would never happen overnight, but invariably rely on the combined skills of educators and parents to help cultivate the inert capacities males possess [35]. This study also unearthed stimulating information for more in-depth research. It allowed for the collection of information regarding imprisoned males and their emotions

revealing the various components of those motions and their possible inter-relationships. In the meanwhile, it is anticipated that the present study would contribute in fostering a research culture in prisons and at the same time stimulate individuals to address the pressing issues of health and wellness among the male population in St. Vincent and the Grenadines.

Ethical Compliance

Conflicts of interest

The authors declare that they have no conflict of interest.

Informed consent

Informed consent was obtained from all individual adult participants included in the study.

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Compliance with ethical standards

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Definitions

Abuse	cruel and violent treatment of a person
Psychological issues	psychological dysfunction in an individual that is associated with distress or impairment and a reaction that is not culturally expected.
Emotions	strong feelings deriving from one's circumstances, mood, or relationships with others.

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Illegal Addictive Substances among Prison Inmates in the Czech Republic

Petra Vrtalová, Martin Hrinko and David Palička

Abstract

The paper describes illegal substance abuse by inmates in prisons in the Czech Republic and gives the readers information about the results of initial research on this hardly avoidable issue. The paper brings interesting findings in this field and describes new ways of prevention and treatment, which is dealt with by prison directorates not only in the Czech Republic.

Keywords: prisons, detoxification units, illegal substance, drug policy, therapeutic communities

1. Introduction

Initial research work focusing on the issue of illegal addictive substance abuse in Czech prisons started to emerge in the first half of 1990s. Interesting were the results of one of the first researches done in 1992 where the authors found out that the age structure of addicted prison inmates and the other inmates did not differ. The authors estimate that the total number of illegal drug users is around 4% but some internal sources say 6% because only the users who met the addiction criteria based on international classification were included in the basic file, i.e. those who showed the signs of addiction only in terms of medicine, which is only one of many possible aspects of illegal drug use [1]. As far as the spectrum of substances used is concerned, stimulants, benzodiazepines, cannabinoids and opioids dominate distinctly. Then barbiturates, amphetamines, cocaine and THC. If we tried to divide a group of prison inmates into groups based on drugs used, the order would be as follows:

- a. Juveniles – marihuana, methamphetamine, hashish, Rohypnol, inhalants, psilocybin mushrooms, LSD, heroin.
- b. Women - methamphetamine, marihuana, Rohypnol.
- c. Men - marihuana, methamphetamine, heroin, MDMA (ecstasy).
- d. Recidivists - marihuana, methamphetamine, heroin, hashish, MDMA, LSD, cocaine, ephedrine, psilocybin mushrooms, Rohypnol.

Drug use in prison takes all forms including smoking, snuffing, swallowing, sniffing or intravenous application. There is a lower probability of intravenous

application among juvenile criminals than among adults, and in prison population there is a higher probability of intravenous application among women than among men [2]. Several studies in prisons revealed that about one third of imprisoned adult men applied drugs intravenously. A question arises in this respect about the access to sterile kits for intravenous application of drugs, hygienic standards and possibility of spreading infectious diseases. Pharmaceutical drug addiction represents a specific category of addiction. These include pharmaceuticals with analgesic, hypnotic and anxiolytic effects typical of the population of addicts who are dependent on these medications in the long term. Long-term use may result in psychological or somatic dependence. Medications used most frequently include analgesics, nonsteroidal anti-inflammatory drugs and hypnotics (e.g. Rohypnol) [3].

2. Users of illegal substances in prisons

There are many individuals in prisons who used illegal addictive substances – before they were imprisoned [4]. Up to 75% of them admitted to committing crime in order to get drugs or money to buy them. Statistical Yearbook 2010 of the Czech Republic Prison Service states that the total number of drug addicts registered by the medical service was 10,763. If this number means the lifelong prevalence of drug use, we could say that it is almost 50% in prison population. However, we cannot say that almost every other prison inmate is a drug addict. In 2010, there was a representative study conducted in prison population with the involvement of the Prison Service of the Czech Republic and National Monitoring Center for Drugs and Drug Addiction. Data was collected in all prisons from a sample of inmates, which amounted to 2,000 people. Based on the results of existing studies, experience from abroad and qualified estimates, we can suppose that the drug use in prison population is significantly higher than in general population. Many times the prison inmates learn to use drugs when they are imprisoned. Prison staff tries to prevent the inmates from using drugs, but despite that the drug abuse in prison is still increasing. Before 1989, various pharmaceutical drugs were also abused in Czech prisons. Some penologists, doctors, psychologists but also prison psychiatrists use the term pharmacophobia, which means literally “using and fighting against” pharmaceutical drugs. For example, medications like Dinyl, Algina, Solutan, Spasmoveralgin or Sedolor or Phenobarbital were popular in prison history especially in 1970s. Then in 1990s, so-called benzodiazepines got ahead; namely Rohypnol, Diazepam, Alnagon, Nitrazepam or Oxazepam and many other medications were popular. If a prison doctor gives the prison inmates too many medications simultaneously - this phenomenon is called polypharmacy – it can easily lead to pharmaceutical drug abuse. However, drug addicts in prison currently try to get hard drugs into prison or possibly even make them there. Less appropriate terms are sometimes used for drug addiction like narcomania or toxicomania; a more modern term is use, which means drug use in acceptable quantity, and abuse or misuse or overuse of drugs associated with addiction. Drug addicts in prison are medically registered and the prison staff should safeguard their abstinence regimen. Medications that are given to prison inmates must be prescribed only by doctors, and only supervising officers or healthcare staff may dispense them. The basic condition for effective treatment of prison inmates is a quality preparation of this activity. First, it is necessary to map the inmate’s initial condition at the beginning of imprisonment. This is done with the team cooperation of a doctor or other specialists, a psychologist, special education teacher, social worker or a priest [5].

3. Drug policy of the Czech Republic prison service

Drug policy of CR PS is governed by a regulation. This regulation stipulates the application of drug policy of CR PS, sets rules, organization, record-keeping, methods and forms of treatment of inmates who have a history of substance abuse, including narcotics and psychotropic substances or their precursors, and people who have no drug history but they can be considered endangered by them [6].

The PS drug policy is implemented by the following specialized wards established in detention facilities and prisons:

- a. Drug prevention center,
- b. Drug-free zone with standard regimen,
- c. Drug-free zone with therapeutic regimen,
- d. Specialized ward for compulsory treatment whose function is governed by the internal regulation.
- e. Specialized ward for care of inmates with personality disorders or behavioral disorders caused by substance abuse, whose function is governed by the internal regulation [7].

4. Care for drug Addicts in prisons

There are drug-prevention centers in prisons, standard and therapeutic drug-free zones are available, and drug users get treatment including detox and substitution therapy. This function is provided by the CR Prison Service.

5. Drug services in prisons

Services of prevention, therapy and aftercare for drug users started to develop in the Czech Republic in 1990. At the end of 1990s, there was a relatively comprehensive system of preventive programs. Communication with prison managements started to develop and first projects started to emerge, focusing exclusively on working with clients in prisons. There are 36 prisons in the Czech Republic, including detention facilities. Nine of these places offer methadone therapy to prison inmates. A few years ago, 15 non-profit organizations provided their services in 30 prisons and detention facilities. Their work consisted in health-oriented interventions, including addiction counseling and drug addiction therapy, and also in the preparation of prison inmates for their release, and in arranging for aftercare upon release. General Directorate of the CR Prison Service has an “action plan in drug policy” in place, which in one of its parts focuses particularly also on the area of harm reduction. There are drug-prevention centers in prisons, drug-free zones are available and drug users get therapy including detox and substitution therapy. They are provided by the Prison Service (hereinafter PS) and many of the services are also provided by non-profit organizations. Measures taken by PS are divided into 3 areas. In the area of drug supply reduction, beside drug addiction monitoring, creation of drug-free zones and preventive medical examinations, stress is put mainly on the analysis of medical records, performance of initial medical examinations in order to find clues of drug application and on making the indication and

administration of addictive medications more restrictive. As far as primary prevention is concerned, there are antidrug programs, initial training courses for new prison staff and regular in-service training for healthcare staff. As far as secondary and tertiary prevention is concerned, the prison service staff takes upgrade training courses and drug prevention centers are established. The important fact is that prison inmates have the same right to healthcare access as the rest of the population, including assistance and therapy provided to drug users. From the medical, therapeutic and educational point of view, there are 4 groups of prison inmates based on treatment in prisons:

- a. Inmates with no prior drug experience who do not want to get the experience even in prison. Within the treatment and harm reduction program, these inmates should be strictly placed in drug-free zones with a zone model designed to protect the group of inmates not using drugs from the drug users.
- b. Inmates with no prior drug experience but who are likely to resort to drug as one of the possible consequences of imprisonment. For them the drug is a means of stress release and dealing with life in a crowded and often violent environment. This group, within the treatment and harm reduction program, is treated in the same way as the first group but the drug prevention education is more intensive.
- c. Inmates who used drugs before imprisonment but who are trying to quit. Medical and therapeutic system of treatment is applied to these inmates.
- d. Inmates who used drugs before imprisonment and who do not want to quit even in prison. This could be resolved by separating these inmates from the others and try to prevent their smuggling and corruption attempts by all available legal means.

Other groups may include drug dealers, who do not use drugs, and people who were ordered compulsory treatment. Of course the drug availability in prisons is not comparable with the availability out of prisons. Different types of treatment do not exclude each other but can complement each other and meet different needs of clients. In order to provide differentiated approach to serving a sentence, the prison team implements several types of antidrug measures and programs. These include the following:

- Detoxification performed in prison hospitals;
- Establishment of so-called drug-free zones and specialized wards where tutors, a special education teacher, psychologist, social worker, therapist and a doctor work;
- Programs for the implementation of compulsory drug addiction and alcoholism treatment;
- Drug prevention centers;
- Substitution therapy;
- Harm reduction programs;
- Participation of therapists from the staff of non-profit organizations.

Upon request of the prison service, the services in prison are currently focused on abstinence. For the time being, the harm reduction approach is applied mainly in the form of information. Drug services in prisons are provided by non-profit organizations. This practice is based on legislative capabilities of interest groups to operate in prison [8].

6. Screening

The accused and the convicted are tested for the presence of addictive substances in the body. One of the reasons is to check compliance with the drug prohibition. This information may indicate therapy or other antidrug intervention and last but not least it indicates whether the rules of therapy are followed. Two basic types of tests are performed, one for reference using a set to detect addictive substances or their metabolites in urine, and a confirmation analysis performed by an accredited toxicology laboratory mostly using a chromatographic method. Possibility of detecting some of the addictive substances in urine:

- Amphetamines: 2–5 days (depending on urine pH)
- Heroin, morphine: 2–5 days
- Cannabis: 2–5 days (occasional user), 10–30 days (chronic user)
- Cocaine: 2–3 days
- LSD: up to 5 days
- Methadone: 14 days

Initial medical examinations of inmates at the start of detention and inmates at the start of imprisonment that exceeds 4 months include the test. This is used to monitor a probable proportion of drug users in prison population. This testing is also used to verify the anamnestic information given by the inmates at the initial medical examination and becomes part of the person's medical records. Another category of testing includes randomly systematic testing and so-called targeted testing [9].

7. Detoxification units

Detoxification units are designated for handling withdrawal symptoms and intoxication with addictive substances that do not require intensive care in another facility, e.g. in an intensive care unit. Detoxification units are most often separate units within hospitals or parts of facilities for medium-term or long-term treatment. Clients in substitution programs are detoxified most often as outpatients. The target group includes namely clients who need to reduce their drug tolerance because of their health or social situation but they are not motivated to abstain or to start other therapy, then clients who are dangerous to themselves or to their surroundings because of intoxication or withdrawal symptoms, or possibly clients for whom it is necessary to distinguish between intoxication and mental illness. The detoxification units should provide pharmacologic treatment of states of acute intoxication, withdrawal syndrome and somatic complications. Detoxification includes overall assessment of client's condition, and laboratory testing, pharmacotherapy,

psychotherapy, social work and structured program are used. Withdrawal symptoms when opiates and opioids are withdrawn often look dramatic. As the opioid withdrawal symptoms make the patient crave the drug, the patient often overacts the signs and symptoms in order to get higher doses of medications. Clinical symptoms are often compared to those of flu as far as appearance and severity are concerned. Opiates and opioids with longer biological half-life cause longer and milder withdrawal state, while opioids with shorter half-life cause short withdrawal state but with more severe symptoms. The withdrawal state upon withdrawal of heroin and morphine usually starts 6–8 hours after the last dose, it peaks on the second and third day and lasts approximately 7–10 days. The withdrawal state upon methadone withdrawal starts 1–3 days after the last dose and lasts one to three weeks. The most standard detoxification methods:

1. Detoxification by methadone;
2. Detoxification by clonidine;
3. Detoxification by buprenorphine; Symptomatic detoxification - combination of Diazepam, beta blocker, spasmolytic (e.g. Algifen);
4. Detoxification without medication, a so-called “dry method” - based on an assumption that the memory of unpleasant withdrawal without medication will prevent relapse [10].

8. Drug counseling center of the Czech Republic prison service

A drug counseling center, which is established in all prisons, is an advisory body of the prison director. The counseling center collects statistical data from the antidrug area, deals with the issues in the area of drug abuse prevention, including treatment of users and non-users in terms of general principles of safety and treatment of people placed in detention facilities and prisons. The drug counseling center is established by a respective prison director.

The staff of the drug counseling center usually consists of specialized prison employees such as:

- a. Psychologist,
- b. Special education teacher,
- c. Social worker,
- d. Tutor - therapist,
- e. Head physician of the healthcare center or other healthcare worker delegated by the head physician [11].

9. Drug-free zones

Drug-free zones are established based on Act. No. 169/1999 Sb., Prison Act, and based on the internal regulation that stipulates the rules for the establishment and functioning of drug-free zones. The goal is to prevent the contact of prison inmates

with addictive substances and their users. These zones are separated from the other accommodation areas and the above-standard amenities make it possible to apply a drug-free regimen and serve differentiated sentences. Only the inmates with no drug history who do not want to be exposed to the other users' pressure are placed there. They voluntarily undergo reference testing, which detects the drug presence. The drug-free zone is established in order to minimize possible contacts of inmates with drugs, to apply drug-free regimen and to enable serving differentiated sentences for imprisoned drug users for the sake of reducing health and social risks of their addiction. The drug-free zone in prison is established and disestablished by the managing director of penology. The drug-free zone is a separated complex, which includes accommodation facilities, culture room, room for self-service activities and possibly other facilities such as work rooms, multi-purpose rooms, workstations, dining room, walking premises. The inmate is placed in a drug-free zone upon inmate's written request if the established criteria are met and if there is vacancy in the drug-free zone. The request includes inmate's statement in which the inmate undertakes to voluntarily follow the rules and principles of behavior stipulated in the drug-free zone regulations. The inmate is removed from the drug-free zone if he/she provably abused a drug or refused to have his/her abstinence checked or refused to have a body fluid sample taken. The inmate is usually removed also for the following reasons:

- a. Got a disciplinary punishment,
- b. Refused to participate in compulsory activities or repeatedly failed to perform under the treatment program,
- c. Other serious reasons are found,
- d. Asked for removal from the drug-free zone.

In the drug-free zone project, in the individual training plan and in the employment contract the prison director, upon motion of the detention and imprisonment department manager, sets the competence and scope of obligations for each specialized employee who treats inmates in the drug-free zone. The goal of placing inmates in the drug-free zone is to create conditions for them to abstain in prison. A standard drug-free zone is usually established in the accommodation area separated from the other inmates. The methods and forms of treatment consist in taking standard approach in safety, psychology and pedagogy, which affects the inmate's view of the drug, motivates him/her to abstain, and to have a healthy lifestyle while being in prison as well as afterward. The following inmates are placed in a standard drug-free zone:

- a. Those who did not use drugs but can be considered endangered by them,
- b. Those who used drugs and now are motivated to voluntarily abstain,
- c. Those who used drugs prior to going to detention facility or prison and who successfully completed a therapeutic and educational program in a specialized prison ward for inmates with personality disorders or behavioral disorders caused by addictive substance abuse and who currently abstain [12].

10. Therapeutic drug-free zone

A therapeutic drug-free zone is established for the purpose of targeted therapeutic and other specialized influence on inmates to achieve abstinence or

possibly motivate them to undergo treatment or at least to reduce the harm arising from drug use [13]. The therapeutic drug-free zone is established in the accommodation area separated from the other inmates. The following inmates are placed in the therapeutic drug-free zone:

- a. Those who used drugs in the past and are motivated to cooperate in a therapeutic program with the goal to minimize relapse and harm arising from drug use,
- b. Those who used drugs prior to going to detention facility or prison, who completed treatment or therapeutic and educational program in a specialized prison ward for inmates with personality disorders or behavioral disorders caused by psychotropic substance abuse and who are interested in additional specialized treatment.

11. Treatment of drug addicts in prison

A specialized ward for compulsory drug addiction treatment, alcoholism treatment and gambling treatment in a prison for women in Opava was established in 1999 and was designated for women with minimum security, medium security and high security, while a specialized department for men was established later, in 2004, and only for sentenced men with medium security. Placement in this department is voluntary or treatment is ordered by court pursuant to Section 351 of the Criminal Procedure Act with the cooperation of the Directorate-General of the Czech Republic Prison Service. An inmate who was placed in the specialized department and to whom the court ordered a compulsory treatment, is obligated to undergo this compulsory treatment. The length of stay in the specialized department for compulsory treatment is based on the therapeutic program; it depends on inmate's personality and performance in the individual treatment program. The program is usually planned for a minimum of seven months but the stabilization stage may be extended as needed, depending on capacity, to last up to one year. One-year stay is usually recommended on average, which means placement of an inmate in the specialized department for drug addicts a year before parole or a year before the release from prison. The inmate may be placed in the specialized department no sooner than one month upon completion of methadone substitution therapy, which also takes place in Opava prison [14]. So the inmate's ongoing methadone substitution therapy is one contraindication for placement in this department and the other contraindication is epilepsy. An inmate who was ordered a compulsory treatment by court may be placed in the specialized department for compulsory treatment while serving a sentence, but also an inmate who was not ordered a compulsory treatment by court but the inmate has a provable history of addictive substance abuse, including alcohol and gambling and wants to undergo this therapeutic program in the specialized department upon request. A large number of special therapeutic practices are used. Psychotherapy, practicing, training and education with the use of a regimen component are applied when working with inmates. All of these methods are based namely on a positive expectation on client's part, health and illness interpretation, realizing the negative impact arising from patterns of pathological behavior [15]. Also, the methods are based on a therapeutic relationship that includes interest, trust and acceptance, but it also strives for support in finding motivation to abstain and creating inmates' own views of the drug addiction harmfulness. Inmates interested in longer therapy get it in individual form because the number of such inmates is not high enough to always run the therapeutic groups [16].

12. Therapeutic communities in prisons

Different authors agree that the environment and culture in prison are favorable for TC to be used because they bring to the prison environment a completely different paradigm than the host institution has. The fact is that the imprisonment itself is contrary to the basic principles of TC, mainly the principle of voluntariness and responsibility. The TC model, in contrast with the imprisonment, provides a complex of behavioral, cognitive, emotional and relational stimuli that lead to a change of self-concept and support maturation and socialization. Thus the initial conditions for TC are worse in prisons than anywhere else. In spite of these problems, it is possible to establish a community in prison with a high degree of joint control and ongoing process of social learning. In the last years, 10 treatment centers were established in Czech prisons for the treatment of inmates' drug addiction by abstinence. It is based on the standards for residential treatment in TC, including the phase format and therapeutic, educational, working and leisure-time components of a daily regimen. Efficient TC factors should be used in treatment programs as much as possible. Principles of this concept are currently applied in at least 4 out of 10 existing treatment centers, which, however cannot be confirmed from direct sources of the Czech Republic Prison Service because the term "therapeutic community" is not used there [17].

13. Substitution therapy

The principle of the substitution (replacement) therapy is to replace illegally gained addictive substances with a substance (medication) that has a longer effect, similar properties and effects, with known concentration like the drug used, without toxic ingredients and it is applied orally. This type of substance is called agonist. This treatment was originally about administering the substance that was used, e.g. heroin. The preparations are currently prescribed by a doctor; methadone – a synthetic opiate in the form of tincture, and buprenorphine in the form of tablets are used most frequently as opiate agonists [18]. Substitution therapy of opioid addiction was introduced in the Czech Republic Prison Service in 2006 when a pilot project in two prisons started, one in the Detention Facility Prague Pankrác and the other in Přeborn Prison. After successful completion of this pilot project, the substitution therapy was gradually extended to eight other prisons where substitution therapy centers were established. The whole project of substitution therapy introduction was designed from the very beginning to enable implementation under common conditions of our prisons, i.e. under the conditions of standard sentence or detention. So no special wards were established where all patients undergoing substitution therapy would be jointly placed. Substitution therapy in the Czech Republic Prison Service is usually implemented in the form of outpatient treatment. The criterion for including an inmate in substitution therapy is addiction to substances from the opioid group where the therapy by abstinence is impossible or where it was repeatedly unsuccessful. Another criterion is that only a prison inmate who is or was undergoing substitution therapy in a healthcare facility out of prison may be included in the substitution therapy. So the substitution therapy is not initiated in prison. Methadone is usually the medication used for substitution therapy. Substitution therapy is provided in a total of ten prisons where substitution therapy centers are established. The prevalence of infectious diseases and namely viral hepatitis B and C is higher in prison population than in normal population. Injection drug users are certainly a high-risk group as far as spreading of infectious diseases is concerned. The biggest non-governmental service provider

for problematic drug users and drug addicts in the Czech Republic is SANANIM, which runs not only CADAS but also for example two therapeutic communities, a low-threshold center, daycare center, aftercare center or a program of prison services and others. The effectiveness or success of therapy does not depend only on a given substitution substance but also on the related context and accompanying components of the therapy. Psychosocial interventions can contribute significantly to the success of the substitution therapy [19].

14. Harm reduction (risk minimization)

The term harm reduction was originally used only in connection with measures and programs focused on mitigating the adverse health effects of narcotics and psychotropic substances. However, this term is currently used in connection with the strategies that contribute to the mitigation of potential health and social risks and harm caused by using all types of drugs, including interventions in drug supply and demand. The target group is represented by problem or injection drug users who are the biggest threat to public health. The basic characteristic of the harm reduction model is pragmatism. Instead of trying for absolute elimination of drugs and their use, it tries to work with them in a way to minimize the negative consequences of such behavior. This approach originated as a response to emerging HIV/AIDS, which started to spread among injection drug users. That is why under these programs the drug users get the used needles and syringes changed for clean ones, they are informed about the principles of less risky drug use, safe sex, etc. Introduction of harm reduction into the prison environment is a controversial topic. Nevertheless, as proven by the foreign research results, harm reduction in the prison environment may significantly contribute to limiting the spread of contagious diseases like HIV/AIDS or hepatitis C (hereinafter VHC). Viral hepatitis C infection is widespread among injection drug users. One of the main effects of the “war against drugs” is a high number of imprisoned drug users. At the same time, injecting drugs remains a widespread phenomenon in prisons. Introduction of the needle change program turned out to be an effective measure for harm reduction - minimized needle sharing and subsequently the transmission of HIV and VHC among the injection users and their sexual partners. A number of countries introduced these programs into selected prisons [20].

15. Release from prison and conclusion

The client usually encounters increased stress and challenging period on 2nd or 3rd day upon release from prison. The foreign experience and also the Czech experience show that the highest-risk period for criminal recidivism and drug relapse is the first 48 hours. These people were used to dealing with all the euphoria, stress and problems by taking drugs and it is therefore necessary to help them stabilize. It turns out that the plans created in the prison environment have to be adjusted most of the time depending on specific conditions of the client upon release from prison that were not known at the planning stage. Also, clients’ resolutions, motivation and ideas often change and it is necessary to work with it flexibly. It is therefore important to take advantage of the trust that formed between the clients and the project staff and help the clients manage the highest-risk period of 48 hours after the release mentioned above and then at least another 1–2 months with the goal of providing effective direct medical and post-penal care. Moreover, these clients are double stigmatized. Both by their drug history and by their criminal past, which

makes their social inclusion upon release from prison more difficult and deepens their social exclusion. It is necessary to realize that hardly any group of people is forced to communicate with so many institutions like drug users in conflict with the law – police, courts, prison service, medical and contact facilities, probation officers, etc., whereas each of the institutions has different demands and view of the particular person. Antidrug policy of the Prison Service and overall practice of the antidrug services for imprisoned drug users have to be perceived as part of a wider framework of professional treatment of prison inmates. The fact that a sentenced person is addicted to substances or is a drug user may be perceived in penal practice from a few aspects. Drug use and related behavior is a serious health risk, i.e. it is a behavior that potentially compromises the health of the person but also the person's surroundings. Drug use also represents a serious safety risk as it can be expected that the person addicted to substances out of prison will try to get the drug also in prison and use it there. One of the main goals of prison systems in developed countries is to reduce the criminogenic risk of imprisoned people, specifically to reduce the probability that the particular individual, when released from prison, will commit the same or even more serious crimes than before the imprisonment. The Czech Republic Prison Service thus contributes significantly to the society protection by monitoring the situation with imprisoned drug users and mainly by offering professional intervention in the area of drug prevention to people at risk, i.e. it provides so-called antidrug services to them [21].

16. Results of studies in the Czech republic

According to the research, it was found that addictive substances were used by more than half of the respondents during VTOS. These were mostly meth, THC, alcohol and benzodiazepines. 18% of respondents mentioned the method of injecting addictive substances in prison and 9% of respondents stated the sharing of application aids. According to the majority of respondents, sexual intercourse takes place in prison and the possibility of protection against sexually transmitted diseases is low. Of the 81% of respondents who were tested for infectious diseases during VTOS, 48% of respondents suffered from an infectious disease, most often hepatitis C. The possibilities of preventing infectious diseases in the prison environment appear to be insufficient. There is interest in substitution treatment, but it is little offered [22].

17. Conceptual and strategic basis of access to imprisoned drug users in the world and in the Czech Republic

During the Special Session of the UN General Assembly (UNGASS) in 2016 was approved the document “Our common commitment to tackling and tackling the world drug problem effectively mu “(Our joint commitment to effectively addressing and countering the world drug problem). United Nations Standard Minimum Rules for the Treatment of Prisoners Minimum Rules for the Treatment of Prisoners), the so-called Mandel Rules¹³, that health care services should be organized in close relation to public health care and in a way that ensures the continuity of treatment and care, including drug treatment The World Health Organization (WHO) adopted a Position Paper on Prisons in 2004, drugs and harm reduction (Status Paper on Prisons, Drugs and Harm Reduction). This document follows on from the Joint Statement of the WHO and the Pompidou Group of the Council Prisons, Drugs and Society of 2001. Document identified as one of the main principles of providing services to imprisoned users drug comparability of health services

in prison and at large - the so-called principle of equivalence. A separate section of the WHO Prisons and Health document is devoted to drug use and treatment of prison addiction. The basic rule in this area is to respect the goal of drug services in prisons, which is a precondition for prisoners to leave prison healthier than they were when they started serving their sentences [23]. Prisoners should be psychosocially stabilized at the end of their sentences and their treatment should continue after release. The issue of the treatment of drug users in prison is also addressed in its documents by the United Nations Office on Drugs and Crime (UNODC). In his publication *Drug Dependence Treatment: Interventions for Drug Users in Prison* summarizes the findings and examples of good practice in this area [24].

18. New development of the National Drug Strategy in Europe

4 EU Member States (Czech Republic, Estonia, Hungary, Finland), Turkey and Norway adopted new drug action plans in the second half of 2007. The documents cover a period of 3–4 years and, with the exception of the Turkish action plan, were preceded by other plans or programs. In 2007, Spain adopted a complementary national action program against cocaine (2007–2010). In 2008, 3 more Member States adopted new policy documents. The first Italian Drugs Action Plan has a time frame of one year, followed by a four-year Action Plan (2009–2012), which will be synchronized with the new EU Drugs Action Plan. Malta's first national drug document does not set a timeframe of almost 50 measures. The new 10-year UK drugs strategy (2008–2011) is complemented by a three-year action plan (2008–2011) setting out key actions [25].

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Section 2

Juvenile Delinquency - From
Crime to Detention

Long Term Effects of Juvenile Correctional Confinement

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Abstract

Justice-involved adolescents face significant roadblocks in the transition to adulthood when they navigate this period while simultaneously re-entering the community after a period of confinement. This study investigates how confinement disrupts psychosocial development across the transition to adulthood using data from the National Longitudinal Study of Adolescent Health to compare psychological well-being and psychosocial development for youth confined before age 18, those arrested before age 18 but not confined, and those with no criminal justice involvement in adolescence. Findings show significantly lower levels of psychological well-being for confined youth compared to all other youth. Females who were confined during adolescence were especially low levels of psychological well-being in young adulthood. Subsequently, confined youth have lower levels of educational and employment attainment in young adulthood. Results suggest the need for juvenile facilities to incorporate programming that builds psychosocial skills and well-being.

Keywords: transition to adulthood, adolescence, correctional confinement, juvenile delinquency, psychosocial development

1. Introduction

Being released from a correctional facility and transitioning to the community is difficult regardless of age. Justice-involved adults face numerous challenges upon release from prison including lack of access to employment and housing, barriers to civic reintegration, lack of social and family support, and the stigma of a felony conviction, all of which are risk factors for future criminal justice involvement [1–6]. Juveniles in confinement not only face the above reentry challenges but they also reenter the community with delayed or foregone development of key skills related to the successful transition to adulthood (e.g., finding and securing afterschool and summer jobs, establishing romantic relationships, selecting and registering for high school and post-secondary coursework, etc.) due to the restrictive environment in juvenile correction facilities [7, 8].

Time spent in correctional facilities affects youths' developmental trajectories, specifically their psychosocial development [9, 10]. The concept of psychosocial development encompasses three aspects of psychosocial maturity generally referred to as temperance (control impulses), responsibility (resist peer influences and take responsibility for own behavior, and perspective (consider the implications of one's actions on others and other points of view). In particular, placement in a secure setting is associated with short-term declines in adolescents' temperance, ability to function autonomously (responsibility), and may further dampen youths' hopes

for the future (perspective) [9]. Although prior work suggests confinement impacts psychosocial development and increases subsequent recidivism, it raises the question of how delayed development of psychosocial maturity caused by adolescent correctional confinement subsequently affects youths' ability to capitalize on opportunities for success in adulthood that are ultimately connected with successful desistance from crime. Concisely, this study is guided by the question: how does adolescent correctional confinement disrupt the development of psychosocial maturity and what are the long-term effects of this disruption on attainment in young adulthood?

2. Psychosocial development in context

Psychosocial development stems from Greenberger and Sorenson's concept of psychosocial maturity (PSM) to address how the educational environment impacts personal and social growth beyond the traditional markers of achievement of cognitive skills measured by standardized test scores [11]. Most broadly, psychosocial maturity is defined as the capacity for an individual to integrate the skills necessary for both socialization and individual development to meet the demands society requires of a mature adult. Embedded in this concept are three universal aspects of individual development central to the overall development of psychosocial maturity; a mature individual will: 1) display an ability to operate autonomously (e.g., sense of control, initiative, internalized values); 2) display attributes that represent one's ability to interact with others (e.g. empathy, rational dependent, management of role conflict); and 3) encourage society to function smoothly (e.g. willingness to work for social goals, tolerance of individual and cultural differences). Further, and of great importance to this chapter, [12] argues that PSM does not simply occur due to biological maturation, but rather the development of PSM is more contingent upon the opportunities for development. Specifically, reciprocal interactions between individuals within social environments create the "opportunity structures" necessary for PSM development [7].

Scholars have explored how Greenberger's original concept of PSM could be applied to decision-making in other arenas, particularly one's "maturity of judgment" [13]. In [14], Steinberg and colleagues argue that three specific dispositions associated with PSM (responsibility, temperance, and perspective), along with cognitive competence, impact an adolescent's ability to make mature decisions. As individuals mature along these three dimensions, they are less likely to engage in antisocial or criminal behavior [15, 16]. The current study uses the following three dispositions to operationalize the broad construct of psychosocial development (see [13–15] for validation of these dispositions).

Responsibility. Responsibility relies on two characteristics: autonomy and identity. Common attributes associated with responsibility include one's ability to make decisions in the absence of others (i.e. knowing when to accept advice from others and resisting peer influence). Responsibility also captures dispositions that are related to one's identity including clarity of one's self, confidence, awareness of personal strengths and weaknesses, and consideration of life goals [14].

Temperance. Temperance, or emotional functioning, relates to adolescents' ability to moderate their emotions for cognitive processes. Specifically, [14] define temperance as an adolescent's ability to control impulses and use self-restraint when faced with risk-taking opportunities. The concept takes into account adolescent mood as an important factor impacting youths' judgment, particularly for mature decision-making.

Perspective. Perspective refers to a collection of dispositions that "permit the adolescent to frame a decision within a 'bigger picture'" ([14]; p. 262) (**Figure 1**).

Psychosocial Development: maturity in judgment and decision-making
Responsibility: self-esteem and connectedness to others
Temperance: emotional functioning, ability to control impulses, and use of self-restraint in making judgments and decisions
Perspective: mature in judgment and ability to see the “bigger picture”

Figure 1.

Key concepts in psychosocial development. Adapted from [14].

Dispositions related to perspective support mature judgment, including one’s ability to understand both short-term and long-term consequences, to understand how decisions impact society, and to appreciate diverse perspectives.

Taken together, the above three dispositions contribute to the development of psychosocial development. Research shows that individuals with lower responsibility, temperance, and perspective are more at risk for antisocial behavior and continued developmental delays of psychosocial maturity relate to chronic offending into young adulthood [15–17]. Because [12] suggests that psychosocial development is contingent upon the opportunity structures for reciprocal relationships, we turn to context of this development, in particular how the correctional context may affect psychosocial development.

2.1 Attainment of psychosocial maturity

Cauffman’s and Steinberg’s findings suggest that the development of psychosocial maturity relates to antisocial decision-making, but their findings beg the question of “how do adolescents develop psychosocial maturity”? Maturation alone (or aging), does not guarantee that an individual will develop adequate levels of psychosocial maturity during adolescence and into early adulthood, but rather [18] argue that achieving psychosocial “capacities” is influenced by one’s context, and ability to practice developmental tasks at both the individual and social level (p. 75). As stated above, the psychosocial development, measured by responsibility, temperance, and perspective, is achieved through opportunity structures and reciprocal interactions during adolescence. For the general population of adolescents, daily tasks and interactions within social environments (e.g. family, school, and with peers) allow adolescents to develop psychosocial maturity and achieve the necessary skills to successfully transition to young adulthood [9, 17, 19]. The “typical” opportunity structures that create “well-rounded” young adults consist of school and work activities, extracurricular activities and social relationships. Specifically, research shows that work (both paid and unpaid) during adolescence can inhibit antisocial behavior while also increasing independence (responsibility) and increasing future employment prospects (perspective) [20–23]. Further, extracurricular activities during adolescence are associated with higher grades in high school and higher rates of college enrollment and graduation (perspective), while the peer context of activities shapes adolescents’ identities (responsibility) [24]. The formation of social relationships during adolescence, from friendships to romantic relationships, provides a supportive environment for adolescents who are experimenting with new (adult) roles and identities [25].

However, correctional disruptions such as out-of-home placement during adolescence create challenges to a youth’s psychological development and maturation by “knifing off” opportunities for development. Because juvenile correctional facilities operate under strict surveillance with limited or no individual autonomy or agency, few pro-social peers, and are gender-segregated, the social context for

development changes; confined youth are not able to practice skills associated with developing perspective (e.g., consideration for others and future orientation), responsibility (autonomous decision-making and resistance to peer influence) and temperance (e.g., self-control and suppression of anger) that in turn promote the successful transition to adulthood [18].

Juvenile correctional facilities are highly structured and often emphasize strict control (evidenced by locked day and sleeping areas, razor wire fencing, and limited access to family and friends) more than rehabilitation [26]. As such, the context of confinement differs significantly from the “typical” juvenile social context that includes the freedom to choose one’s own friendships and extracurricular activities, the support of family and friends, and the experience and skills gained in educational and vocational pursuits. Of particular relevance to this study, correctional confinement during adolescence takes away the reciprocal interactions and opportunities psychosocial development that may in turn delay or foreclose attainment of successful markers of transition for adulthood.

2.2 The context of correctional confinement

To understand the context of adolescent confinement, we offer descriptive analyses of the 2003 Survey of Youth in Residential Placement (SYRP). The SYRP contains information on both physical facilities and demographic, background, and criminal justice involvement from a representative sample of 7073 youth in confinement across the United States [27]. The survey also includes additional information on individual offense histories, service needs and use during confinement, perceptions

	Weighted Sample %
Physical Conditions of Confinement	
Facility has locked sleeping rooms	80.50%
Facility has locked day room doors	78.70%
Facility has locked buildings	86.60%
Facility has external fence/wall with razor wire	58.80%
Restrictive Control within Facility	
Youth reports confinement or locked up alone	33.60%
Locked in room	34.40%
Locked in room more than 1 day but less than 1 month	53.70%
Victimizations in Facility	
Youth experienced some form of victimization in facility	45%
Youth experienced property victimization	44%
Youth was physically or verbally assaulted in facility	31.10%
Youth received injury as result of physical victimization	9.60%
Staff use excessive force	8.80%
Youth states fear makes it difficult to sleep	15.10%
Interpersonal Relationships	
Belief that staff generally care about them	31.90%
Less than once a week	22.90%

Table 1.
Context of confinement for youth in detention and training schools.

about safety and security, and future expectations. **Table 1** provides a descriptive snapshot of the context of confinement for youth in detention or training schools.¹

Corrections administrators report that a majority of the detention and training school facilities employ the use of locks to restrict movement within the facility, including locked sleeping rooms (80.5%), locked day room doors (78.7%), locked buildings (86.6%), and an external wall with razor wire (58.5%). Responses from youth show that approximately one-third of confined youth report being disciplined by placement in solitary confinement (i.e., locked up alone), 34.4% report being confined to their room, and 53.7% report the longest time being locked into their room exceeded one day but was less than one month.

Compared to the general public, youth confined in detention or training schools have higher rates of victimization. Even with restrictions on movement within a juvenile facility, youth state that they fear for their safety and that victimizations are prevalent within the facility. As seen in **Tables 1**, 45% of confined youth report some form of victimization while confined; 43.8% state they were a victim of stolen property; 31.1% of youth were physically or verbally assaulted in the facility, and 9.6% of those incidents resulted in injury. In addition to physical, verbal, and property victimizations, 40.1% of youth state they believe staff uses force when it is not necessary. Thus, it is not surprising that youth report fear, with 15.1% stating fear makes it difficult to sleep. Coupled with the lack of sense of care from staff (only 31.9% of youth report that staff generally care) and limited contact with family (22.9% report having contact with family less than once a week), the conditions of confinement are less likely to provide the opportunity structures and reciprocal relationships to psychosocial development among confined adolescence. We hypothesize that this in turn, will limit justice-involved youths' successful transitions to adulthood.

2.3 The transition to adulthood

Research on the transition to adulthood is a significant subfield in the larger life course paradigm. Elder's work is seminal to understanding the life course framework and established the four major principles that are the hallmark of the life course paradigm: 1) individual lives are situated in and shaped by historical time and events, 2) the developmental significance of transitions and events in a person's life is contingent on the social timing in which they occur, 3) individual lives are linked or interdependent with the lives of others, and 4) individual decision-making and human agency shape one's opportunities and constraints in later social circumstances ([28–30]; see [31, 32] for slight variations). Embedded within this life course framework is the study of the transition to adulthood.

While focusing on childhood–adulthood links in behavior is thus broadly important for life course researchers [33–35], understanding the transition to adulthood offers insight into the way institutional structures, particularly the criminal justice institution, shape individual lives (see too [36]). In general, the transition from adolescence to adulthood is marked by leaving school, starting a full-time, year-round job, leaving the parental home, entering marriage (or establishing cohabitating

¹ The subsample is restricted to detention or training school facilities to best capture the most likely types of facilities represented in our Add Health sample. SYRP data suggests that in 2003, 83.2% of youth placed in any type of confinement reside in detention, training schools, or long-term secure. Thus, restricting our analysis of SYRP data to this subsample most likely captures the type of placement the confined youth in our Add Health subsample, who report an average placement of six months, would have been confined to.

unions)², and becoming a parent³ [42]. It is principally relevant to study criminal and delinquent behavior in the transition to adulthood as criminal justice disruptions, particularly juvenile incarceration, may necessarily change youths' pathways into adulthood [43–45] and ability to make successful transition.

Life course researchers note that the life course in general and the transition to adulthood in particular is marked by ever greater variability. First, [46] shows that the transition to adulthood “takes longer” to complete. Many adolescents in the past few decades meet the transition to adulthood with financial and educational credentials unknown to previous generations, affording them more opportunity to explore roles and identities well into their twenties [47].⁴ Second, the transition to adulthood has become increasingly complex and variable. Normative timetables [50] surrounding the timing of events in the life course have changed, reflected in disorder, variability and reversibility of the transition to adulthood ([41, 42, 51, 52]; see too [46]). Thus, if the transition to adulthood is difficult in general, there is even greater concern for groups who enter into adulthood with additional vulnerabilities such as youth raised in criminogenic families and contexts, youth in poverty, and youth in the juvenile justice system, all of which factor in to the long term cumulative disadvantage faced by justice-involved youth [1, 41, 53].

2.4 Psychosocial development and adolescent confinement

Recent work by [9] finds that time spent in juvenile correctional facilities affects developmental trajectories, specifically psychosocial maturity development. In particular, placement in a secure setting is associated with short-term declines in the youth's ability to curb impulsive and aggressive behavior and the ability for the youth to function autonomously, while longer periods of confinement in residential treatment settings also negatively impact youths' development of psychosocial maturity. We build on recent work [9, 10] that examined the effect of incarceration on psychosocial development. Using the Pathways to Desistance data, [9] to examined how both facility quality and age moderate the impact of incarceration on psychosocial development (see too [44]). While this data undoubtedly contains a wealth of information about antisocial youth over a seven year time period, their findings use data that censored before many youth have completed the transition to adulthood (21–25 years old). Further, as [9] noted, although they found both short and long-term impacts from confinement on developmental trajectories of psychosocial maturity, their research findings are limited to only antisocial youth, suggesting that non-delinquent youth could observe similar trajectory changes over time. Therefore, we cannot deduce how their findings compare to non-delinquent youth and how their findings translate to obtaining traditional markers of success in adulthood.

We recognize for some youth, incarceration during adolescence may offer prosocial opportunities not available in their communities, as well as removal from delinquent peers and other negative influences. However, incarceration may also impede or foreclose psychosocial maturity development [10], early work

² A discussion on the nature of differences between cohabitation and marriage in the family formation process is beyond the scope of this paper. See [37] for early estimates and [38, 39] and [40] for a review of some of this literature.

³ In work in [41] presents data from the 2002 General Social Survey that suggests these markers may no longer be adequate. Of note, 97% of respondents noted financial independence as at least somewhat important to be considered an adult while 55% believe getting married is at least somewhat important and only 52% think having a child is at least somewhat important in marking adulthood.

⁴ Both [48, 49] carry this idea one step further by asking if adolescents today are perhaps too ambitious, with aspirations that are misaligned with subsequent achievement.

experiences [21], healthy romantic relationship development [54], and school success [43], while creating structural and institutional barriers associated with a criminal record [55]. Further, as desistance literature shows, marriage, family, and employment promote desistance from crime over time. Thus, understanding how confinement delays psychosocial development that in turn supports the transition to adulthood is an important step in fully understanding the relationship between juvenile incarceration and psychosocial development in the transition to adulthood and subsequent success in early adulthood.

2.5 Current study

The purpose of the current study is twofold: 1) to understand how confinement interrupts the psychosocial development, and 2) to examine whether and how this development predicts attainment of traditional adult markers of success such as education, employment, positive interpersonal relationships [7, 42, 56, 57]. Guided by prior research, we hypothesize that adolescents who are confined before age eighteen will experience delays in psychosocial development and subsequently have diminished educational and work attainment in young adulthood. Findings from the current study advance knowledge in two important ways.

First, by utilizing the National Longitudinal Study of Adolescent Health (Add Health) to assess how confinement influences psychosocial development, we can construct three groups: non-delinquent youth, youth who were arrested but not confined before age 18 (delinquent non-confined), and delinquent youth serving at least six months in placement (delinquent confined) to age eighteen to compare development and changes in psychosocial development over time.

2. The study examines how changes in psychosocial development pre- and post-confinement (roughly ages 15 and 21) impact attainment or nonattainment of traditional markers of a successful transition to adulthood measured by educational attainment, employment, and union formation (e.g. marriage or cohabitation) in the late 20s.

3. Data, measures, and method

The National Longitudinal Study of Adolescent Health (Add Health) provides a longitudinal, nationally representative sample of adolescents in grades 7–12 during the 1994–1995 school year. From school rosters, 20,745 students completed in-home Wave 1 interviews, which were augmented with audio computer assisted self-interviews. Follow up interviews were conducted in 1996 (Wave 2, N = 14,738) and 2001–2002 (Wave 3, N = 15,197). The most recent wave of data (Wave 4, collected in 2008) includes 15,701 respondents ranging in age from 25 to 32.

Add Health data provide many advantages for the goals of the current research. First, Add Health offers data points throughout adolescence and the transition to adulthood, across 15 years from the mid-teens to the early 30s. Specifically, Wave 1 captures adolescents before the onset of serious delinquency and by Wave 4, most have desisted from crime [58]. Second, Add Health is drawn from a nationally representative sample from school rosters and thus includes adolescents missed by many in-school samples (that might exclude adolescents in alternative school settings, drop-outs, and truants). Third, the variety of social, psychological, developmental, educational, employment, and behavioral variables make Add Health ideal for examining the transition to adulthood in the current study.

The current research uses retrospective reports from Wave 4 to measure adolescent confinement. Respondents report on any arrests and periods of detention, jail, or prison before or after age 18. The analytic sample consists of 162 respondents

who report any correctional confinement before age eighteen, 396 respondents who report an arrest before age 18 but who did not experience juvenile correctional confinement, and 11,606 non-delinquent youth yielding a total sample size of 12,164. Adolescents placed in correctional facilities report an average of just under one year in detention (10 months). Full descriptive information is found in **Table 2**.

	Weighted Mean or %	Standard Error or Sample N
Juvenile Confinement		
No Serious Delinquency Confinement	94.48%	11,606
Juvenile Arrest, no Confinement	1.71%	162
	3.81%	396
Psychosocial Development (Wave 3)		
Responsibility	3.96	(0.01)
Temperance	3.55	(0.01)
Perspective - Future Orientation	3.93	(0.05)
Perspective - Live to 35	4.65	(0.01)
Perspective - Social-Temporal	2.35	(0.01)
Psychosocial Development (Wave 1)		
Temperance - Self-Control	2.63	(0.01)
Temperance - Impulsivity	2.23	(0.01)
Responsibility	4.11	(0.01)
Perspective - Future Orientation	4.42	(0.01)
Perspective - Social-Temporal	1.99	(0.01)
Young Adult Outcomes		
Full-time Work	55.30%	6727
Career-type Work	70.64%	5652
No High School	9.61%	1169
College Completion	33.48%	4073
Ever Married	49.79%	6057
Ever Cohabited	48.35%	5881
Race		
White	55.84%	6792
Black	20.75%	2524
Hispanic	15.71%	1911
Other Race	7.70%	937
Demographics		
Female	50.57%	6629
Age (Wave 1)	15.44	(0.12)
Age (Wave 4)	28.31	(0.12)
Adolescent Delinquency	2.33	(0.07)
Family Status		
Two-Parent Intact	57.08%	6881
Step Family	15.34%	1864
Single-Parent Family	22.25%	2796

	Weighted Mean or %	Standard Error or Sample N
Other Family Structure	5.34%	623
Parent Education		
High School (or less)	36.44%	4198
Some College	29.68%	3597
College Completion	33.88%	4375
Residential Location		
Urban	32.65%	4338
Suburban	38.12%	4488
Rural	29.23%	3338
Total Sample Size	12,164	

Table 2.
 Descriptive information for all variables.

3.1 Measures

To assess psychosocial development prior to confinement and post-confinement, we use questions from Add Health Wave I (pre-confinement) and Wave III (post-confinement) to develop measures for the dispositions of responsibility, temperance, and responsibility.

Responsibility. We operationalized the disposition of responsibility in both Wave 1 and Wave 3 through the creation of global responsibility scale at each wave. The responsibility scale focuses on questions that ask respondents to rank their agreement with statements about their personal qualities, general self-esteem, and connectedness to others. The Wave 1 measure follows the work of [10, 59] and uses six questions asking if adolescents agree or disagree with the following: 1) they have a lot of good qualities, 2) they have a lot to be proud of, 3) they like themselves just the way they are, 4) they feel they are doing everything just about right, 5) they feel socially accepted, and 6) they feel loved and wanted. Scores on individual items range from 1 (strongly disagree) to 5 (strongly agree). Together, an averaged scale of these items ranges from 1 to 5, with a weighted mean of 4.11 and a Cronbach's alpha value of 0.85.

To measure change in responsibility post-confinement, we also create a responsibility scale at Wave 3. Five questions are used to measure responsibility in young adulthood, including having good qualities and feeling you are doing everything just about right. The final (item average) scale ranges 1–5 with a weighted mean of 3.96 an alpha of 0.75.

Temperance. Temperance refers to one's emotional functioning, ability to control impulses and use self-restraint in making judgments and decisions. We operationalize temperance in Wave 1 using two scales. One scale assesses the impulsivity dimension of temperance, while the other scale assesses the self-control dimension of temperance. The impulsivity dimension focuses on questions that ask respondents how much they agree or disagree with several items asking about problem-solving behaviors and work ethic (e.g. thinking of as many different ways to approach the problem as possible, getting what you want because you worked hard for it). This scale has an average of 2.23 and an alpha of 0.71. The second temperance scale assesses self-control. These items include responses about trouble getting along with others, paying attention and getting work done (on a scale of 1 to 4). This scale has Cronbach's alpha of 0.68 and an average of 2.63.

Again, to measure change in psychosocial development post-confinement, we create a six-item temperance scale at Wave 3 that asks respondents about things

such as following their instincts, getting so excited they lose control, and going out of their way to avoid problems. The Wave 3 scale has a Cronbach's alpha 0.74 and a mean of 3.55 (on a scale of 1 to 5).

Perspective. To assess perspective (mature judgment and ability to see the "bigger picture") at Wave 1, we create two subscales; the first captures the social-temporal dimension of perspective, and the second captures future orientation. The social-temporal scale follows the measurement in [59] and includes questions that ask respondents how true each of the following has been for them in the past week: 1) enjoyed life, 2) felt just as good as other people, and 3) felt hopefully about the future. The scale ranges from 0 to 3, with an average of 1.99 and an alpha value of 0.63. The second scale for perspective, future orientation, incorporates respondents' answers to questions about how likely they think three events are: 1) living to age 35, 2) being killed by age 21, and 3) getting HIV/AIDS (the latter two reverse coded). The scale has an alpha of 0.57 and a mean of 4.42.

Similar replication of the above perspective subscales occurs at Wave 3, using an average of two items (enjoying life and feeling just as good as other people) in order to capture the social-temporal dimension of perspective. Here, scores range from 0 to 3 with a mean of 1.99. Two additional single items capture future orientation: living to age 35 and whether or not respondents live their lives without consideration for the future. Each item ranges from 1 to 5, with higher scores indicating greater levels of future orientation.

Outcome measures. Outcome measures are derived from Wave 4. Transition to adulthood is measured along three dimensions: education, employment, and relationship formation. Education is measured via highest degree attainment, including a dichotomous measure to assess lack of high school completion (25% of respondents) and attainment of a four-year college degree (roughly one-third of respondents). Employment is measured via full time employment status (30+ hrs per week) based on the combination of all jobs. Over half of respondents work full-time. Of those who are employed, a follow-up measure asks if respondents' jobs are part of their long-term career goals, either as a career itself or as preparation for career work. Seventy percent of workers are in career-type work by the late 20s. Finally, union formation is measured by marriage and cohabitation. Here, the outcome measure captures ever reporting a residential union. Roughly half of respondents are married and half report ever cohabiting. The measures of marriage and cohabitation are not mutually exclusive; while roughly half report either measures, together, 84% have either married or cohabited by their late twenties and early thirties (results not shown).

Control measures. The following demographic variables are controlled for in all models: age, race/ethnicity (black, Hispanic, other, compared to white), family structure (step family, single-parent, or other, compared to the omitted category two-parent intact family), highest educational attainment by either parent, gender (captured at the Wave 4 survey), and residential location in adolescence (suburban, urban, or rural). **Table 2** shows descriptive information for all measures. Roughly one-third of the sample is non-white, with an average age of about 15 and a half at Wave 1 and just over 28 at Wave 4. Just over half of all adolescents lived with both parents at Wave 1, with over one-third of adolescents having at least one parent that completed college. Respondents are fairly evenly split between rural, urban, and suburban residence.

General delinquency is controlled for in Wave 1 using a summative measure of eleven adolescent behaviors (graffiti and property damage, theft, and fighting), each of which is scored as a 4-level ordinal measure (0–3); the general delinquency scale thus ranges from 0 to 33. This summative measure accounts for any remaining differences in delinquency not captured by the key measure of confinement in adolescence. The average delinquency level for all youth is 2.33, while those in the two delinquent groups report significantly higher (and statistically similar) levels of

delinquency at Wave 1–6.92 for those who will be confined and 6.04 for those who will be arrested but not confined ($t = 1.23$, ns).

3.2 Method

Analyses begin with significance tests to assess group-level differences in means for each measure of psychosocial development at Wave 1 and Wave 3. Next, the effects of confinement on psychosocial development in young adulthood are measured using standard regression models. Here, a lagged dependent variable is included to account for any differences in the baseline (Wave 1) measure of psychosocial development. The lagged variable model takes the following form:

$Y_t = \beta_1 + \beta_2 X_t + \beta_3 Y_{t-1} + \varepsilon_t$, a standard regression equation with the inclusion of the $\beta_3 Y_{t-1}$ term representing the baseline measure of the dependent variables (in this case, the Wave 1 measure of psychosocial development). The model isolates the effect of confinement on development by minimizing any stable within-person or unmeasured elements psychosocial development.

Finally, to assess juvenile confinement effects and psychosocial development affect attainment in early adulthood, we use logistic regression models for each outcome measures first assess the effect of confinement on our attainment measures (net of controls) and second include Wave 3 psychosocial development (the more proximal measure) to determine whether and how psychosocial development diminishes any direct effect of juvenile confinement on young adult attainment.

4. Results

4.1 Differences in psychosocial development by criminal justice involvement

Results in **Figure 2** show differences in levels of psychosocial development across groups in adolescence (Wave 1). Subscripts indicate significant differences between groups at $p < .05$ level. Non-delinquent adolescents report significantly higher levels of temperance self-control than delinquent youth (non-confined or confined) (2.65 vs. 2.25 and 2.12, respectively) and future-orientation perspective (4.43 vs. 4.27 and 4.26, respectively). Non-delinquent youth have significantly higher baseline levels of responsibility and social-temporal perspective than delinquent confined youth (4.11 vs. 3.99 and 1.99 vs. 1.86, respectively). Delinquent non-confined and delinquent confined groups are statistically similar on all measures of psychosocial development except responsibility. Thus, prior to subsequent detention, delinquent youth are fairly similar in their levels of psychosocial development.

Figure 3 shows differences in psychosocial development as youth enter early adulthood (Wave 3). Here all delinquent youth (non-confined and confined) report lower levels of perspective – believing they will live to age 35 than non-delinquent youth (4.56 and 4.32 vs. 4.66, respectively). Youth who were incarcerated during adolescence report significantly lower levels than either non-delinquent or delinquent non-confined youth, or both on all dimensions except social-temporal perspective. Confined youth report significantly lower levels of responsibility (3.38 vs. 3.96 for both other groups), temperance (3.18 vs. 3.57 for non-delinquent youth), and perspective – future orientation (3.40 vs. 3.94 for non-delinquent youth). It appears juvenile correctional confinement depresses delinquent youths' levels of responsibility and outlook for their future.

We assess the robustness of these descriptive results in a multivariate model regressing psychosocial development in young adulthood on our sociodemographic

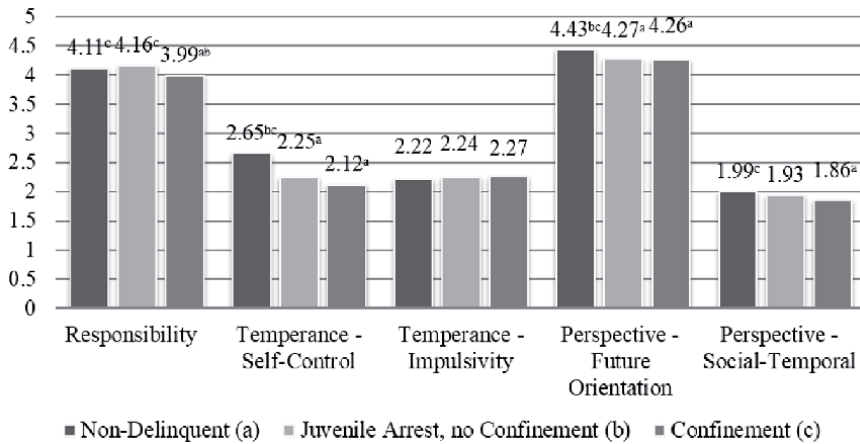


Figure 2.
Wave 1 psychosocial maturity.

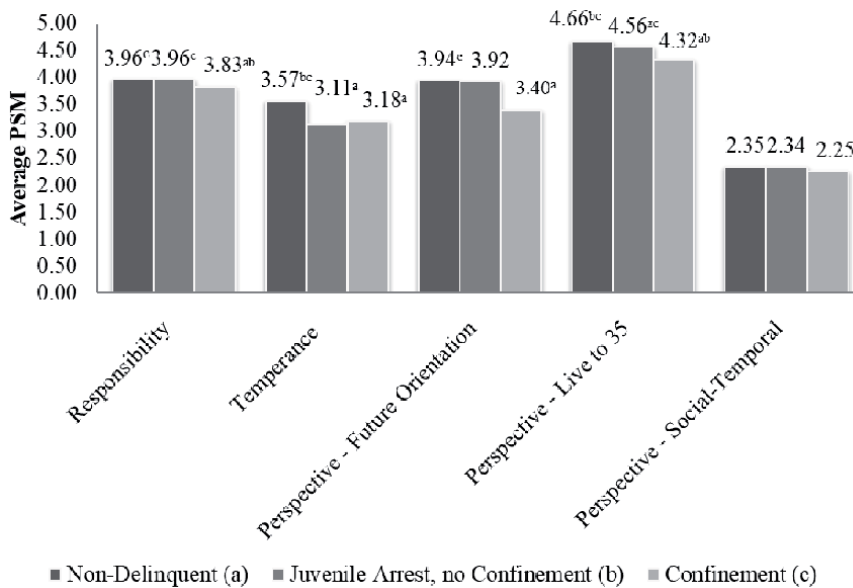


Figure 3.
Wave 3 psychosocial development. Superscripts indicate significant differences between reference groups, $p < .05$.

controls, controlling for our lagged dependent variable (the baseline measures of psychosocial development). Results (not shown) indicate that youth who are incarcerated exhibit decreased responsibility and future-orientation relative to non-delinquent youth, and confined youth report significantly lower hopes of living to age 35 than both non-delinquent you and non-confined delinquent youth, controlling for any baseline differences in psychosocial development.

4.2 Confinement and adult transitions

Figure 4 presents odds ratios for two full regression models for each of six adult transitions by criminal justice involvement. Net of demographic controls for age, gender, race, parental education, family structure, and residential location,

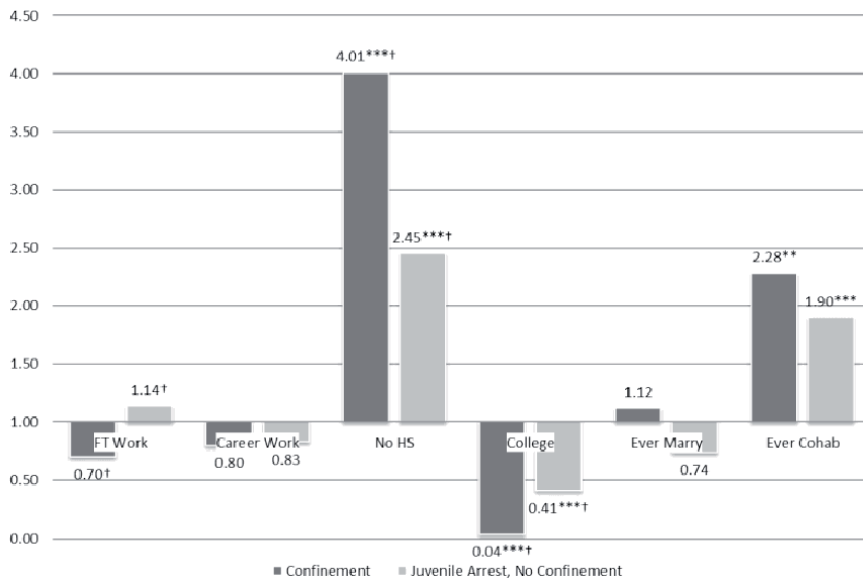


Figure 4. Odds ratios of effects of juvenile arrest and detention on young adult outcomes. Significant differences between reference group and non-delinquent group. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

and psychosocial development, adolescent criminal justice involvement (arrest or confinement) reduces the odds of attainment in young adulthood. Young adults who were confined as youth report significantly lower odds of full-time employment in their late 20s than youth who were arrested before age 18 but did not serve time in a juvenile correctional facility. Among those who work, delinquency is associated with reduced (though not significantly) odds of being in career-type work. Criminal justice involvement in adolescence increases the risk of high school non-completion and reduces the odds of college completion; for those who were confined as adolescents, odds of on-time college completion (by the late 20s) are reduced almost to zero (OR = 0.04). Finally, juvenile delinquency (arrest but not confinement) reduces the odds of marriage by the late 20s and any criminal justice involvement (arrest or confinement) increase the odds of cohabitation relative non-delinquent youth. We discuss the implications of these findings below.

5. Discussion, implications, and future direction

This research explored the effects of the impact of juvenile confinement on the development of psychosocial maturity and the transition to adulthood. Qualitative research suggests that individuals reentering society from a period of confinement struggle in many facets of their life related to relationships, friendships, education, employment and chemical and mental health issues [60–62]. However, it is wrong to assume that juveniles recidivate simply as a product of what [60] terms “poor choices.” Fader’s work uncovered the complexity between incarceration and psychosocial maturity that ultimately made it difficult for young offenders to meet the demands and expectations of adulthood upon release. Our quantitative findings suggest that not only confinement, but also formal criminal justice involvement (arrest) negatively impact outcomes for youth compared to youth who never experience confinement.

Importantly, prior to confinement, youth with similar levels of delinquency had roughly equal levels of psychosocial development. However, post-criminal justice

involvement (confinement or arrest), delinquent youth lag behind their non-delinquent peers on the psychosocial development measures of temperance (impulsivity and control) and perspective (believing they will live to 35). But, confined youth have significantly lower development of responsibility and perspective compared to delinquent youth who are not confined. Therefore, as youth exit correctional facilities and struggle to transition to the community, they are lagging further behind other youth in their self-clarity, self-esteem, decision-making, and future orientation. This results in reduced likelihood of working full-time and dismal college completion rates by their late 20s. Despite hopes that a period of confinement can be the turning point leading youth out of future offending behavior, the barriers produced by the context of confinement have real consequences for psychosocial development and attainment in adulthood. Comparing these findings with the adult desistance literature, confined youth struggle to achieve success in the exact areas shown to promote desistance from crime in adulthood—employment and education (see [1, 63]).

The most robust finding in our analysis relates to educational outcomes for individuals in their late twenties and early thirties. Confined youth are four times more likely to not complete high school even when we control for psychosocial development. Thus, the combination of confinement with the decreased development of perspective leads to significantly lower levels of educational attainment. The decrease in the likelihood of high school completion also leads to a shocking reduction (96% reduction) in the likelihood of college completion for confined youth, net of all controls including parents' educational attainment and psychosocial development. This finding is particularly interesting considering that 92.8% of confined youth in the SYRP data report that they attend school in the facility [26]. Thus, it appears the increased risk of not completing high school and the decreased odds of college completion are not from lack of educational access in juvenile correctional facilities but rather it appears the conditions of confinement, along with the decreased development of perspective and future orientation during this time, have long-term impacts post-confinement. Overall, as shown in **Figure 5**, the effects of criminal justice interventions in adolescence have far-reaching effects across multiple domains in the transition to adulthood. These are magnified when youth are placed in out-of-home settings.

This study is not without limitations. First, Add Health does not include information on the type or security of placement for confined youth; however it is likely that confined youth in the Add Health data were in detention or training facilities because on average, 65.1% of youth confined during 1997 (two years post Wave 1 collection and around the time many Add Health respondents would have been confined) resided in one of these two types of facilities [58]. We have attempted to mitigate some of this limitation by using the SYRP to provide a picture of adolescent confinement in general terms. Second, Add Health survey items and questions change slightly across waves and thus the measures of psychosocial development in Waves 1 and 3 are not consistent, though we have attempted to replicate measures across waves. Third, because the Add Health data does not allow researchers to directly match each offense reported to a specific outcome, the study does not include measures of offense severity for youth arrested and confined. However, prior research by [64, 65] suggests that this might not matter.

Findings in this chapter point to a few interventions for practitioners and juvenile correction administrators. First, formal criminal justice interventions, particularly confinement of youth, should be used as a last resort. It is important to point out here that our study uncovered that not only confined youth, but also arrestees (our delinquent non-confined sample) have poorer outcomes in the transition to adulthood. This suggests that it is not just delinquency (as we controlled for general

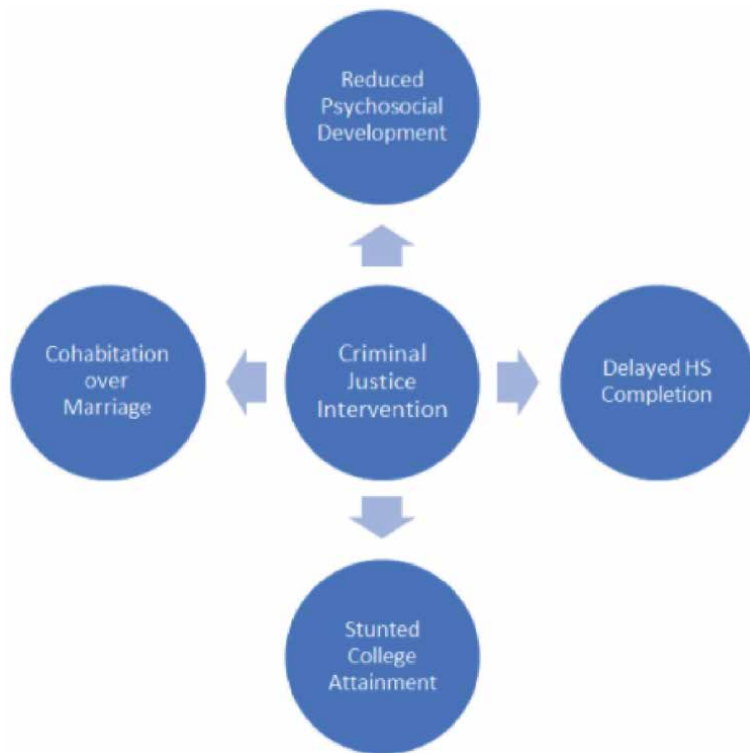


Figure 5.
The far-reaching effects of criminal justice interventions in adolescence.

self-reported delinquency) but rather formal juvenile justice intervention that leads to negative outcomes, an outcome surprising given this is the very system intervening on the “best interests of the child” ([66]; p. 971). Therefore, even short-term stays in confinement can affect psychosocial development and success in adulthood. Although the United States national Juvenile Detention Alternatives Initiative (JDAI) has decreased the use of detention and increased the used of community-based alternatives, there continues to be just over 107,000 youth admitted to detention annually in the United States [67]. We must continue to divert youth not only from confinement but from any formal justice involvement.

Second, our findings suggest that practitioners and juvenile correction administrators change the conditions of confinement to promote greater psychosocial development, particularly related to the development of perspective. Research shows that delinquent youths’ fears about their future exceed their hopes and long-term expectations for success [37]. Thus, even though a correctional facility may offer programs related to “events” that promote positive change, the context and ability for young adults to exercise developmental skills necessary to mature and subsequently translate these skills into successful outcomes in young adulthood is imperative for capitalizing on positive turning points [7, 18]. At the facility level, this could mean implementing a step-down process in the level of control over juveniles, particularly through transitional housing for confined youth. In the transitional housing structure, youth could investigate educational or vocational career paths in the community, while also allowing room for youth to fail and use this failure as an opportunity for development rather than a technical violation that sends them deeper into the justice system. For the “typical” adolescent, the transition to adulthood is marked with trial and error (e.g., loss of a job, romantic

breakups, oversleeping for school) yet youth in highly regulated confinement environments experience few opportunities for developmental failure. This begs the question: how can one expect that confined youth understand failure as a developmental process rather than a projection of future outcomes? Programming in juvenile correctional facilities should allow room for autonomy and failure and subsequent teach youth to build on failure as a natural part of development.

We are not suggesting there is not a place for juvenile correctional facilities in society, but if and when the juvenile court deems confinement is required, it is necessary to revise the physical and programmatic structure of juvenile correctional facilities. For example, the Missouri Model replaces secure confinement facilities with smaller facilities with a group-home-like structure. This emphasizes the ability to integrate community-based interventions, closer proximity to family, independent decision-making, and wrap-around services for youth. Although preliminary findings examining the Missouri Model's outcomes do not explicitly test the development of psychosocial maturity over time, the reduced recidivism and increased attainment of education and employment for youth in Missouri suggests that the restructured conditions of confinement may allow more room for development, and in turn have positive outcomes as youth transition to the community and adulthood [68].

Future work in this area should explicitly consider the developmental process for confined youth. First, research should explore of the effects of psychosocial development and criminal justice involvement on attainment in young adulthood across demographic groups. While we have controlled for many demographic factors, this research does not break down outcomes by race, gender, or socioeconomic status; as with other developmental processes, the mechanisms at work here may very well differ across demographic lines. Second, qualitative research should seek to understand how the correctional context leads to lower levels of responsibility and perspective for confined youth. Third, given the important role of future orientation in attainment in adulthood, future research might explore the relationship between expectations for the future and actual outcomes in a longitudinal context. Finally, understanding the relationship between confinement, psychosocial development, and desistance from crime is an important next step for research in this area.

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Juvenile Delinquency between Probation and Criminal Careers

Giacomo Di Gennaro

Abstract

The focus of the criminological research is on probation and diversion measures applied in metropolitan judicial districts where juvenile deviance and criminal careers are frequent. Presidential Decree 448/1988 measures application in Naples judicial district reflects the “juvenile probation” in juvenile legislation, the problems of the local and urban organized crime context and the lack of penal welfare. The sources of analysis are an experimental sample of minors holders of the probation measure from Juvenile Court’s files, three other control sample holding diversion or conviction, the examination of the recidivism rate and criminal relapse. Both database of the General Criminal Records and the Department of Prison Administration were consulted to monitor further sub-objectives and measures the recidivism rates. The results of the research highlight the risk assessment linked to the path of deviance according to the performance of the child recovery activities implemented by the host and penal communities. Evaluations acquires even more importance if observed after the entry into force of the Law of 28 April 2014 no. 67 introducing in the criminal code and criminal procedure, both the suspension of the trial and the provisions on non-punishment for particular tenuity of the fact (Legislative Decree 16 March 2015 n. 28).

Keywords: juvenile delinquency, probation, gangs and careers

1. Introduction

Juvenile deviance and especially serious deviance is a fracture that is generated not only between the child and the victim, but also between the former and the social community. This happens both if the child is a victim and if he holds the role of offender. In both cases, the society’s negligence towards them is called into question.

In Italy, juvenile deviance is treated with a series of measures provided for by the juvenile criminal legislation and by a regulatory framework dating back to 1988 that have as a central objective to avoid that the punitive instrument has first of all a homogeneous character and at the same time produces a criminal sanctioning practice that is characterized as a punitive response that causes further harm to the child.

The judicial authority has as its primary objective the re-education and re-socialization of the child in the assumption, not always valid, that the present immaturity can be corrected, i.e. guided towards a development respectful of the limits imposed by civil cohabitation.

More than thirty years have passed since the introduction in Italy of Presidential Decree 448/1988 "Approval of the provisions on the criminal trial of juvenile defendants" which reformed the juvenile trial whose matrix is based on supranational acts¹, basically aimed at making positive pedagogical intervention also with corrective purposes, a function to which gives way to a "cognitive jurisdictional model" [1]. As Pazè says: "the State trials a young person to define his responsibility for a crime and, also, to encourage him to change his conduct and to orient his life differently [2].

This objective must be associated with the attempt to settle the conflict that has arisen with the victim, through a process that goes from mediation, to the repair of the damage caused, after internal recognition of the negative value of the offense caused. In the phase, where possible, the minor's family unit comes into play, according to the known method of the *Family group conference*, in which the extended family (including persons deemed significant indicated by the minor) can elaborate the project of the rehabilitation measure and share it with the minor [3].

This contribution will discuss the possible effectiveness of some aspects of the legislation that provides for the juvenile trial in light of the transformations that have affected the phenomenon of juvenile deviance in recent years, taking its cue from a recent sociological research conducted in the jurisdictional district of the city of Naples, the whose characteristic is precisely that of making visible some of the changes that have taken place both in the juvenile universe and in the different local contexts that make the processes of social integration and positive reorientation of deviant behaviors more difficult.

The focus of the research is the institute of suspension of the juvenile process with testing. Among all the measures provided by the criminal justice system for juveniles is the one that - inspired by the U.S. model of juvenile probation where the measure is intended as an instrument of de-prisonment - has a hybrid character. That is, incomplete compared to the US model and equally unequal to the Anglo-Saxon model of diversion.

However, it's a measure abundantly applied by Italian judges, as an instrument that synthesizes the rationale behind the two models, but has its own elaborate identity that characterizes the novelty compared to the afflictive and retributive concept of the penalty present in the Italian criminal justice system of the fifties and sixties of the twentieth century.

The institute enhances the role of the juvenile services of the administration of justice and the unavoidable role of the social welfare services of local authorities. With probation, admissible for all crimes, education enters the process: the subject of the trial is not longer the crime-fact, but the person, we are witnessing the "possibility that in the face of the need for social recovery of the minor, the very realization of the punitive claim may retreat" [4].

The articulation of the contribution is developed by dedicating the following part, in summary form, to sociological and criminological theories that interpret the dynamics of deviance in its various manifestations, identifying the risk factors of "becoming deviant". In the third part we present the regulatory and application system of the Presidential Decree 488/88 with particular to the institution of suspension with probation, regulated by article 28-29 of the decree and taken from art. 27 of Legislative Decree 272/89.

¹ The reference is to the Minimum Rules for the Administration of Juvenile Justice U.N., New York, novembre 28, 1985, also known as the "Beijing Rules", UN Convention on the Rights of the Child of 11/20/89, European Convention on exercise of children's in Strasburg on 25/1/96.

The examination will highlight some limitations and strengths of the measure and will discuss – with reference to empirical evidence – its effectiveness with respect to the objectives and purposes of the regulatory framework. The fourth part will account for the results achieved by the research showing the results of the trial and the methodological system designed to analyze the rates of juvenile relapse and criminal relapse among minors who have been holders of different measures.

Since the recovery of the deviant child passes through the mobilization of personal and environmental resources, an objective of the research has been addressed to the study of the response of the sphere of the legal-criminal and social sub system that are most directly involved in the application of the measures and in the recovery policies, that is the communities belonging to the justice sphere, the circuit of the various professional operators, social services, the communities which they belong to.

The conclusions will highlight the need to reform the regulatory system in some parts and accompany this need with the greater and more intense dissemination of policies to prevent child deviance. They appear to be weaker in some cities due to the retreat of local and community welfare, particularly in those where many juveniles commit crimes of association.

2. What sociological and criminological literature offer to explain juvenile deviance

On many occasions criminologists and sociologists of deviance have resorted to economic deprivation and the incidence of unemployment to explain its origin [5–10]. The influence of unemployment on criminal involvement is also considered among the theorists of social control [11] and in those approaches that support the delinquent solution as a response to the scarce legitimate opportunities offered to the individual [12–15]. All radical sociology, constructivist theories and criminology based on the theoretical perspective of the Chicago School have always maintained that the levels of deviance are a function of the degree of social control: the more rigidly and formally social control is exercised, the greater will be the forms and expressions of deviance. For [16] it is the different institutions of social control that produce the outsiders (criminals, mentally ill, ethnic, religious, racial minorities) who end up acting as scapegoats or designating the boundaries of the “respectable society”. For Foucault criminological knowledge is intrinsically related to the power on which the existence and structuring of practices that regulate crime, control criminals, sediment and consolidate the relationships of force that are at the origin of the practices [17]. In short, the deviance and criminal behavior observed from the point of view of social control, end up highlighting and legitimizing the role of formal agencies of social control (from the family to educational and religious agencies, from the law to judicial institutions and the police). And also moral responsibility and duty of citizens are interfaces of control.

Thinking of social control in all its forms as a strategy and a resource used exclusively for the purposes of domination and the exercise of power, does not help to distinguish that positive function that social control mechanisms can play in guaranteeing precisely some of the fundamental goods of social life worthy of attention and from which additional ones derive: security and freedom. Moreover, the indistinct and monolithic use of the metaphor of social control also promotes the idea that those subject to control are in reality such passive subjects that they are incapable of reacting, or adapting or overturning the “controllers”, their purposes and the processes of social legitimation on which they are based, regardless of the

possibility that many of the control mechanisms may produce effects other than intentional ones.

A “realistic sense of reality” has led many supporters of the new versions of the theory of social control to distinguish minor forms of delinquency from more established expressions and to explain that the willingness to enter the area of deviance or inclination to crime is not only comfortable for certain social groups or classes. The criminalization of the subordinate strata, in fact, does not make the image of crime objective if one considers that set of crimes related to financial, banking, corruption and the various economic illegalities that Sutherland first widely and well-founded referred to when he spoke of the crimes of the powerful and white-collar [18]. To point out the lower social classes as antisocial or even “dangerous” [19] for the mere fact that unemployment reigns among them risks altering reality, also because it is always difficult to demonstrate a linear causal order (i.e. that economic weakness explains the weakening of social ties and to follow many delinquent behaviors). The model of Ageton et al. [20], for example, goes in this direction: the production of crime is a function of the process of socialization that can feed or contain the structural tension that in turn makes the bonds of social control weak. It’s true that one enters the area of deviance and/or delinquency, but it is equally true that one leaves and abandons deviant and criminal behavior thanks to constraints or reasons that primarily engage the person (work, cultural growth, education, marriage, family life).

A different interpretative formulation of the positive connection between the hypothesis of unemployment and crime is typical of [21] who believe - in the light of modern economic theories that refer to neoclassical assumptions - that involvement in illicit activities represents a solution to low returns on legitimate activities and a lower allocation of individual time in legal opportunities [22–24]. A society that is hypertrophically bent on “having” rather than “being” [25] inevitably pushes one to search for possessions rather than resources that characterize existence as an activity oriented to cultivate authenticity, creativity, sociality, knowledge, beauty, inner well-being.

To indicate, therefore, the marginal causality of local economies, the lack of market economy and the conditions of social disintegration, as often happens, as factors that upstream determine the various forms of deviance even serious and even claim that the territorial areas (such as the South of Italy) since they have these characteristics are playfully empirical evidence that underpin these assumptions, is a gamble. And just [21] claim that explanations of this kind, are “unidirectional” in structure, that is, they ignore the return effect that a factor has on the causal process, so much so that using a model of mutual causation explain both the instantaneous and delayed effects that crime has on unemployment, although the results of the model suggest that “*unemployment and crime are reciprocally related and that neither can be seen entirely as a cause or an effect of the other*” [Ivi: 403].

The issue is therefore more complex. The results of research in recent years show that a strong association between poor economic conditions and delinquent behavior is primarily related to homicide and serious violent crime [26–31], while property crime in Italy too [32] is linked to the proliferation of opportunities favored by urban life. This observation leads many authors to believe that the spread of wealth is not at all an antidote to the expansion of organized crime [33] and it is for this reason that in the periods of greatest economic development in Italy there has been an increase in thefts and robberies ([32], p. 41–45; [34], p. 51–65).

This interpretation is associated with the position of those authors who emphasize the intentional and freely chosen character of criminal actions, because more immediate advantages and benefits derive from them [35]. The so-called

voluntarist approach developed since the 1970s highlights exactly the relevance of the combination of actors' rationality and opportunities given. The variety of deviant and criminal behaviors, starting from the analysis of Becker [36–39] and Ehrlich [40], is explained according to the theory of choices and the resulting usefulness by parameterizing the costs.

That is, all deviant and criminal phenomena can be explained having as a fundamental unit of analysis the intentional action of rational and self-interested individuals. Since individuals “*maximize well-being as they conceive it, whether they are selfish, altruistic, loyal, spiteful or masochistic*” [39], whoever performs a criminal act or action is not irrational because he does not grasp the risk of suffering punishment, but these are part of the “calculation” that he makes by pondering: *a) the probability of being discovered or arrested; b) the severity of the punishment envisaged; c) the benefits that he can derive from the act and any alternative gains that can be made using his time and resources if he were to devote himself to other activities, whether legal or illegal.* The punishment is considered a relevant operational deterrent mechanism if the crime is to be prevented and prevented from being pursued by others.

All predatory crimes, economic fraud and illegal trafficking by criminal organizations, whether mafia or mafia, cannot be traced back to this scheme, i.e., to actions that permanently violate the law, the perpetrators of which instrumentally use illegal opportunities and means to achieve objectives and resources capable of increasing subjective benefits. The acquisition of skills, abilities, specializations in the exploitation of the various illegal opportunities is functional to the achievement of objectives, resources and conditions that seem unattainable if one were to engage on legitimate paths.

2.1 Deviant subculture and “broken home”

Wells and Rankin [41] believe that family disintegration, in a context of deviant subculture, pushes towards repeated transgression. Just as the symbolic-cultural dimension and related social practices are thematised both through the concept of subculture and through the theme of social capital. Gatti et al. [42] have shown that a deficit of social capital in a community or neighborhood is a factor that stimulates car theft more than the precarious economic condition². Some studies on collective effectiveness, then, recognize that social cohesion has the effect of containing disorder and crime because it leverages the components of citizen participation in local social organizations and the willingness to intervene in critical situations, as well as the virtuosity connected to the widespread informal local ties [43–47]. Finally, a further explanatory model of deviant action insists on the attitude that adolescents take towards institutional authority (and in particular school authority). Consequently, “the distribution of deviant acts would not have directly to do with social reality, but with the processes through which the individual forms the perception of that reality” ([48], p. 294).

Relative to family disintegration, this aspect is crossed with the formation and assimilation of the deviant subculture by Albert Cohen already in the mid 1950's. Studying youth gangs he argued that in some circumstances the subculture developed by baby gangs has a higher reference value than the family subculture,

² Social capital is a concept used and applied by both sociologists and economists and often correlated to study its negative effects on the economy and the social fabric with a micro or macro-social meaning. In this case, the authors applying it to the study of crimes take it as civiness [Putnam, 1993], or “generalized cultural dimension of interpersonal trust, tendency to collaborate, interest in the community” [42], p. 61.

especially if it has a deficit in social control [12, 14]. Cohen's thesis integrates the interpretation that Frederic M. Trasher had already produced in 1927 in *The Gang* [49] as a result of an initial ethnographic study (Chicago's Gangland) on urban gangs in the city of Chicago, followed by a later account of life in a slum on gangs in the Italian community of Boston - which became a classic of sociology - by William F. Whyte published in 1943 under the title *Street Corner Society*³. The thesis of the two authors converge on aspects whose value is still current: youth gangs revolve around a leader and are the expression of the formation of coherently structured subcultures that give rise to practices, interactions in micro contexts of daily life where participants communicate to each other the deception of the opulent society, the emptiness of a social order that the despotism of power structures even in organizing the physical space of life in the city ousted from the advantages of urban life, stigmatizing and relegating as criminal behavior, those who are not aligned on those values that guarantee the integrity of the social system. The resulting structural tension feeds that "conflictual subculture" [52] which, in strengthening internal gang cohesion, explains the behavior of each member and their propensity to use violence. It explains, according to the role assumed, the functioning of the gang but highlights the more general consequences that social disintegration produces on the social tissues. The discomfort of young people is channeled into the constitution of gangs because among the different alternatives they are the most effective identity response to the solution of the tension between aspirations and opportunities. The gangs offer the opportunity to young people of subordinate classes to solve their status problems (respect, reciprocity, consideration, acceptance, immediate satisfaction of desires). Cohen's conceptual framework calls for an answer to the question: what matters most to explain the deviant behavior of the individual, his biology, personality or environment in which he was born or lives?

Cohen does not move by attributing to the breaking of family ties the weight that, instead, the spouses Eleanor and Sheldon Glueck had assigned to them and that could justify the inability of a family, although of lower social class, to adequately transmit tools and values capable of binding the young person towards a life respectful of the rules of cohabitation. For the Glueck couple, in fact, although moving in a multifactorial perspective (i.e. attributing relevance to the individual, relational and social levels), it is the "broken home" that has a strong predictive character, on a scale of probability, in influencing the origin of deviant behavior [53].

The family disruptive aspect has been taken up several times also in recent years, although combined with the influence of deviant subcultures [54], or not so much to correlate an inevitable and predictive accreditation of deviance, but to emphasize the origin of a socialization at "deviance risk" [55, 56], the onset of antisocial or aggressive behavior, the increased likelihood of involvement in deviant businesses given the low family control, the peripherality of the father figure [15], the assumption of transgressive attitudes and behaviors in pre-adolescence and adolescence ([57]; Carbone [58]), the orientation not to respect the authority and institutional order. Recent important international empirical evidence based on the method of self-confession (*self-report*) are trying to determine the "weight" and the real incidence that family determinants have or continue to have in accounting for entry,

³ Whyte [50], *Street corner society: The social structure of an Italian slum*, Chicago, IL: The University of Chicago Press. The book has been re-published in four editions (1943, 1955, 1981, 1993) and over 200,000 copies have been sold. For an interpretation of the research facility as a typical example of social anthropology research, see: [51].

stay or possibly exit from deviance and delinquency⁴. The results of research of this type confirm, first of all, that the number of officially registered crimes is lower than what is actually consumed daily. It is also confirmed, moreover, the criminal effect of the group and its attractiveness in giving rise to deviant behavior such as the use of alcohol and drugs. As well as belonging to deviant groups and youth gangs is also an important risk factor for victimization (except for bullying).

The great changes that have affected the internal relational structure of the family and its social forms (mono-parent families, reconstituted, broken up by marital breakdowns, highly unstable, cohabitations, etc.) today place the observers of deviant phenomena in front of realities of stable aggregate life once absent. This requires, therefore, longitudinal and comparative analysis between the different family forms, the disintegrated ones and the so-called “regular” families that must be developed by deepening in an articulated way only this factor, exactly as already happened with the criminal career approach [69, 70] that gave birth to the current *Developmental Life-course Criminology* (D.L.C.).

In Italy there are still no researches of this kind. We have *hic et nunc* researches that record the present and retrospective state and describe juvenile deviance through the identification of particular characteristics related to the family environment, its dynamics, or, as in the case of ISRD2 and ISRD3 empirical observations to “verify if the presence of both parents within the family unit is a preventive factor on the deviant activity of young people, compared to alternative family structures” [71]. This does not mean that the new forms of aggregation of life as a couple with children who assume the character of “family” are in themselves pathological or dysfunctional, but the new structures that the family is assuming both with respect to the mononuclear family (based on both biological parents) and single-parent-family (caused by widowhood, separation and divorce, abandonment, etc..) undoubtedly generate new experiments in daily life and scenarios of internal integration whose balances and effects on young people are of undoubted importance.

The most recent international results of ISRD3 for the Italian side allow us to make some considerations on the relationship between family and youth deviant behavior in the wake of broken home that, in the criminological literature for years, is an area whose multiple contributions are also attentive to the need to develop prevention programs and strategies focused on parenting and family formation [72–84]. The transformation of the family structure and the bonds within it implies

⁴ The International Comparative Self-Report Delinquency Study (ISRD) is a comparative study that has been conducted for over twenty years on students of lower and upper secondary schools (ISRD1 in 1992–1993, ISRD2 in 2005–2007, ISRD3 in 2012–2014) with the aim of evaluating the spread and characteristics of deviant and delinquent behaviors, risk factors and victimization processes. It's based on questionnaires that are administered with the self-confession technique and the large sample is representative of a universe of school youth extracted from different types of schools belonging to many European countries in the increased years, including Italy, New Zealand and the United States. In the International sample ISRD2 and ISRD3 there is also a sub-sample of adolescents and young Neapolitans. For a view of the result and the methodological frame work, they can be see: [59–63]. The results of the ISRD2 for the Italian area, which was attended by fifteen cities, are in [64]. The review “Rassegna Italiana di Criminologia” has dedicated several contributions to the investigations, especially starting with ISRD2 when Italy also began to participate. For International results see, Marshall I.H. and Enzmann D., *Methodology and design of the ISRD-2 study. The Many Faces of Youth Crime: Contrasting Theoretical Perspectives on Juvenile Delinquency across Countries and Cultures*, New York, Springer 2012; Enzmann D. et al., *Social responses to offending. The Many Faces of Youth Crime: Contrasting Theoretical Perspectives on Juvenile Delinquency across Countries and Cultures*, New York, Springer 2012; *Aa.Vv. Juvenile Delinquency in Europe and Beyond: Results of the Second International Self-Report Delinquency Study*, New York, Springer 2012: 227–244. Finally, for the most recent data, see, Aa, 2015; [64–68].

changes in the family structure and also affects the quality of inter-family relationships whose impact is not secondary for the understanding of the factors that generate antisocial and deviant behavior. Italy, for example, has seen the effects of one of the disintegration factors of family cohesion - the separation of spouses and divorce - only since the nineties of the last century, while in most Western countries already in the seventies and eighties there were higher rates⁵.

The Italian data of the ISRD3 essentially realize that “the proportionally more frequent deviant behaviours are recorded among children without parents, with percentage values double or even triple those of other young people” [85]. Children who grow up in single parent families show deviant behavior with lower frequencies than those who do not have parents, but higher than young people living in families with both parents present. The variation, however, is not only with respect to the intensity but also affects the quality of the violation: young people who grow up in single parent families express, compared to those who do not share with any parent the daily set, a deviance characterized by discontinuous and slight violations, so much so that any form of theft or more serious crime is completely absent.

The subgroup of children who grow up without parental ties, regulatory orientations, stable educational standards and forms of informal social control typical of the private sphere are strongly exposed to transgressive, antisocial or deviant behavior. Despite the crisis and family deconstruction, only the quality of the emotional ties and the greater balance guaranteed to the development of the young person's personality, if offered by the “regular” family structure (i.e. the one that originates from a biological sharing and a project of “longue durée”) provide greater protection from the assumption of deviant behavior. The family climate that the two-parents groups put in place, despite all the critical issues that affect the same and in many ways even the level of conflict that sometimes reigns there, reduces the compromise educational and guidance. The latter have a greater degree of expressiveness in the case of mono-parent families and a higher and more decisive probability of being translated into juvenile malaise in the case of complete absence of the parents. The results of international research echo the final results that the Glueck couple reached in the 50s and 60s of the last century and the confirmations that most of the literature has already recorded on the subject [86–89].

We know, however, still little on the influence that the conjugal conflict produces on the juvenile components both if it deals with two-parents groups that ex-couples exited from separations and divorces. Or more still the family nuclei “recomposed”. ISRD3 offers some analytical elements, but the causal links are still too blurred to be certain correlations. Moreover, family forms have become so diversified that the same gender relationships, the new parental figures replacing parents, the multiplication of paternal and maternal figures, the transformation of the quality of bonds in family relationships, the side effects of high daily youth exposure to social networks, are still elements of knowledge too general to be reliable but certainly very important dimensions to understand how to prevent and contain youth discomfort and deviance.

⁵ From 1995 to 2015 in Italy the average number of separations and divorces for thousand marriages went from 158.3 to 339.8 and from 79.7 to 297.3 respectively. See, Istat, *Matrimoni, separazioni e divorzi. Years 2015*, Roma 2016: 8. In recent decades, the number of marriages for thousand inhabitants in the EU-28 has decreased from 7.9 in 1970 to 4.8 in 2008 (last data available in Eurostat) and that of divorces from 1.0 in 1970 for thousand inhabitants to 2.0 in 2010, or double. The variation within the countries ranges from 3.6 in Latvia in 2012 to 2.8 in Denmark, 2.4 in Estonia, 2.2 in Germany, 2.0 in Austria, 1.7 Poland, 0.9 Italy.

2.2 The different boundaries of social behavior

Research and the existence of predictors of deviant behavior does not allow the use of single-causal models, let alone explain deviant actions by nomothetic asserts. Recent empirical investigations invite researchers to distinguish between criminal act and criminal behavior, and not to confuse the results resulting from the interaction between factors with those resulting from the isolated assumption of individual variables [90]. Just as formulating a definition of deviance based solely on the violation of the norm is improper, both because norms vary in time and space, and because it is the reaction expressed by the community that accounts for the relevance assigned to the norm. Moreover, those who control, define or legitimize the normative system may also have the power - through appropriate mechanisms - to attribute meaning to acts that are intrinsically no longer transgressive. Giving meaning to behaviors is a dynamic act and much depends on the cultural and social stability of a community. Connote a behavior is the outcome of the interaction between the cultural, social, economic and institutional component whose influences vary in a diachronic and synchronic sense. The areas within which social behaviors can be identified are various, labile and mobile as shown in **Figure 1**: in addition to social conformity there is the space of social diversity that Sumner identified with the concept of "folkways" to indicate those cultural rules (established values) that designate what is appropriate from what is not appropriate in certain situations⁶.

The more a society is characterized by pluralism of values and ethics, multiculturalism and multi-ethnicity, the more accepted are behaviors that elsewhere - in more closed societies - would be identified as different. Ideology and religion often contribute to making behavioral boundaries rigid and to activating processes of religious, cultural and gender discrimination processes. Forms of social discrimination can give rise to social reactions that turn into occasional deviance or become stable. The space of social deviance is contiguous, but different from the previous one and bases its definition on the fact that there is a violation of the rules, norms, shared obligations that formally nourish the expectations underlying the different roles occupied by individuals and the different behaviors recognized as legitimate.

The development and evolution of deviant behavior can be such that the acts carried out no longer violate socially agreed upon rules and regulations but the laws. When the violation concerns the law, the codified criminal law, it means that we are no longer in the boundaries of deviance but in those of delinquency, especially if the transgression is repeated. In this case, since the law is more universal in character, i.e. valid for all citizens and social categories, the concept of delinquency relates to that set of actions and behaviors in which the plaintiff makes the violation of a criminal law visible, commits a crime. We are in the sphere of secondary deviance of which Lemert speaks [92]. He considers delinquency a social construction of social reaction and it does not represent a more serious behavior than social deviance because, even in this area, fall the so-called "crimes without victims" [93], i.e. those crimes such as drugs, prostitution, gambling, homosexuality, abortion and other practices that are an example of laws that prohibit such acts and not as a substantiality of criminal law. Meanwhile, they are crimes because a community or state reorganizes its social life through social control.

Formal control is exercised by distinguishing between irregularity, illegality and crime. Violation can affect the administrative, civil, labour, fiscal, economic, criminal and penal areas and this is an example of constant decriminalization or selective

⁶ Sumner [91]. These are dominant cultural models, simboli repertoires that decline rules of conduct in different spheres of human behavior and that the more stable, prescriptive and shy of change, the more easily the members of a community or society perceive other behavioral executions as different.

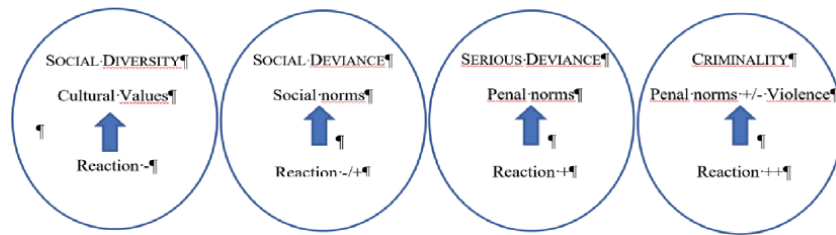


Figure 1.
Ideal boundaries among areas.

criminalization of conduct functional to make the area of delinquency mobile: some crimes (muggings, thefts, robberies, sexual assaults, murders, kidnapping, etc.) are perceived and defined as serious and receive strong disapproval because they are socially defined, stigmatized on the basis of a “natural objectivity” that associates a strong responsibility of the author regardless of the criminogenic effects of etiquette. Other crimes (fraud, corruption, tax evasion, violation of labour laws, social security, tax, insider trading, illegal construction, pollution, etc.) are “downgraded” to forms of illegality not suffering the labelling of crimes and are perceived as expressions of the insufficient exercise of coercive power by the State (what Myrdal called the “soft State”) [94] or because widely spread suffer numerous exceptions often being defined and represented as mere irregularities. The area of deviance and delinquency in some cases overlap and suffer a similar social reaction, in others they are distinguished and the same author suffers a different labelling by virtue of occasion, social status, gender, age, ethnicity, social context, actual assumption of the role and deviant lifestyle. It can be argued that everything that is delinquent is deviant, but not everything that is deviant is delinquent. In delinquent acts there is a content that refers to individual choice; remaining in the condition of “deviant individual” signals that the process of psycho-social evolution of actions, reactions and counter-reactions has been overcome subjectively by choosing a criminal career. Sykes and Matza [95] believe that the deviant decides to “position himself” in the chessboard of life in a momentary condition adverse to the social order, mitigating the effects of social control through cognitive strategies called “neutralization techniques” implemented by anyone who assumes transgressive, deviant or criminal behavior and useful to solve problems of cognitive dissonance with the dominant value system, thus allowing to overcome the sense of shame or guilt.

The different approaches highlight single aspects, but in reality the formal modeling of the micro–macro interrelation is still far away. Criminology and sociology of deviance research still have to strive to determine “how and where existing theories combine” [96], p. 246 and rather than using the same variables over and over again it is necessary to integrate the different theories into a coherent whole.

3. Between probation and diversion: the suspension of the trial with the probation of the minor defendant

For years, child crime in European countries has faced the dual challenge of bringing juvenile justice to justice: or to respond with more severe sanctions to the increasing quantity and quality of manifestations of serious deviance, or to respond to the safety demands of the population that is experiencing this escalation by implementing effective prevention strategies. The design in the various states varies between a protectionist and compassionate vision of the *Welfare Model*, to a more

secure and legalistic inspired by the *Justice Model*⁷. The juvenile deviance that is manifested today in Italy is no longer - in many respects - the one that preceded the debate on minors and followed the approval of the d.p.r. 448/1988. Young adolescents and minors approaching the age of majority, although they live in a “liquid” society [98] and for this reason are more fragile, have a greater reflectivity and have tools to acquire information quickly.

The migratory processes still in the eighties were very contained and the phenomenon of non-accompanied minors was scarce. Today we are faced with the second generations and the transition from temporary immigration to permanent settlements and in many cases definitive, with the transformation of work immigration into population immigration. Juvenile deviance was not yet in many southern cities an expression of child involvement in organized adult crime groups; in the North there were no bands of Latinos MS13, “Latin Kings” or crimes of foreign immigrant minors, or the jihadist radicalization on the web and the family disintegration, although already launched on a critical ridge following the constant increase of the constant increase in separations and divorces, it had not yet been affected by the effects of globalization and individualization. Indeed, the new climate of consumerism in those years was facilitated by the growth of female presence in the labour market; although the family still relied on the poorly breadwinner arrangement. The digital generation did not exist and the phenomenon of hypertrophic digital visibility was far away and with it the range of computer crimes related to pornography, cyberbullying, challenges (e.g. Blue Whale, Binge Drinking etc.) or the sexual exploitation of children online.

Often sanctions and recovery conflict because the penalty always has a quid of coercion, while the subject facing a recovery project is called voluntarily to join. The *probation system* modeled in Italy with the Presidential Decree 448/1988 and specifically the institute of testing (m.a.p.) was designed to make dialectically and concretely more balanced the tension between punishment and recovery. It represents a toolbox for those who work with those who enter the juvenile criminal circuit because, by introducing strategies to combat crime designed ad hoc, offers attempts to reconcile the defense of the community and the protection of the educational needs of the juvenile offender.

The suspension of the trial with the evidence of the accused is a peaceful expression of it (art. 28–29 d.p.r. 448/88, art. 27 d.Leg. 272/89). While drawing inspiration from the American model of *juvenile probation*, where the measure is intended as an instrument of de-imprisonment⁸, departs from these because the Italian judge

⁷ According to the welfare model, any problem of deviant behavior is traced back to mechanisms of marginalization and to the inadequacy of the society held responsible for criminal conduct. The recovery of the offender responds to a priority need with respect to the punitive claim of the state. The justice model, on the other hand, starting from a vision of the individual responsible for their actions, enhances the principle of the proportionality of the penalty to the crime, considering the punitive intervention centered solely on the crime and not on the personality. Thus, [97].

⁸ The criminal policy model of *probation* has been developing in the United States since the mid-nineteenth century. In the American system, however, the evidence removes the inmate from the sentence. The judge decides on the basis of the opinion of the *probation officer*, expressed through a *Pre Disposition Report* (PDR), in which he provides elements concerning the personality of the offender, the type of crime, the circumstances in which it took place, thus facilitating the judging body in establishing whether or not to test and in establishing the conditions thereof; the probation officer also follow the minor for the entire duration of the test, verifying that he meets the conditions imposed, and preparing a Case Closing Report (CCR) in which he describes the progress of the test. In the event a positive assessment, the sentence will be declared extinct, in the opposite case the minor will be brought before the judge who will impose a new sanction, more severe than the previous one. On juvenile probation in Europe, see [99].

can choose to use the m.a.p. before reaching the issuance of a judgment. So, it's customary to speak of trial probation ([100], p. 290). The proof that ends with a positive outcome (art. 29 d.p.r. 448/88) allows to put an end to the judicial case through the extinction of the crime leaving the child free from any stigma at least criminal, being that the same is not mentioned even in the Criminal Record configuring itself, in this sense, as a hypothesis of deviation from the normal course of the process, an example of *diversion* [101] therefore, that de-criminalizes the author of the crime de-formalizing the judicial system⁹. The existence in the Italian legal system of the mandatory prosecution prevents the implementation of deviation procedures with respect to the promotion of criminal prosecution if the Public Prosecutor has become aware of a *notitia criminis*, limiting recourse to them only in the trial or execution phase. This is why m.a.p. is presented as a measure halfway between probation and diversion. A *hybrid* [102]. Since 1992, the measure has been adopted intensively, following a rising path (see **Figure 2**) whose national increase in 2018 reached even 363.6%.

Although other institutions are provided by the legislator governing the juvenile criminal trial ("irrelevance of the fact", Art. 27 of Presidential Decree 448/88) and "judicial forgiveness" (Art. 169 of the Criminal Code), this frequent use according to some can be interpreted as a result of its effectiveness demonstrated over the years thanks to the improvement of the related educational paths [103], for others - and it is our opinion - its use has turned into abuse [104] as functional to exercise social control and to mask the compassionate attitude of most of the juvenile judiciary resulting from the application of less burdensome measures [105].

Erected as a symbol of the re-educational innovation promoted with the reform of the late eighties against the previous correctional approach, the m.a.p. condenses a sentence perspective centered on the special-preventive deterrence represented by the trial path of the juvenile where the delinquent act must be understood as a manifestation of a temporary discomfort related to being an adolescent. This pedagogical-reductive conception of m.a.p. prevails over the retributive-punitive idea that privileges punishment for the crime committed.

The trial probation must be considered, therefore, a form of post-stroke investment, since all parties invest a share of themselves, or of their time, or of their work, or of their expectations, in order to reach the realization of the trial path. If a trial does not produce real repentance in the subject or is exploited, or used as a ploy to circumvent their responsibilities, this results in loss for all those directly or indirectly involved. If, on the other hand, it generates a healthy change by offering the evidence a life alternative far from deviance, then the benefits produced will reverberate not only on the defendant but also on society in general, encouraging the construction of horizontal relationships of collaboration and reciprocity

⁹ The problem of systemic deformalization reaches its maximum expression precisely with the measurement of the suspension of youth procedural hearing for probation (art. 28 dpr. 448). It consists in the power, recognized to the judge, to alter crime-assessment-sanction paradigm, overcoming the casual logic of consequentiality between fact and reaction, in order to prefer a functional type model to the objective to be achieved. In such a context, the actors of the procedure will play a priority role and, essentially, they will be entirely recognized a function previously attributed to the law. The Enlightenment concept of law had identified the form of law as the only possible means of protection against the excesses of authority; the subjecting of the individual to the rules, the impossibility of reviewing them, the attribution to the judge of a purely applicative task correspond to a dogmatic conception of law, consisting in the automatic translation from form to reality. In a complex reality, such as today, the guarantee is no longer found only in the forms of the law, but is carried out by the evaluative and decision-making capacity of those who intervene in the proceedings. Hence the tendency, at least, to favor the collegial form of the judging body.

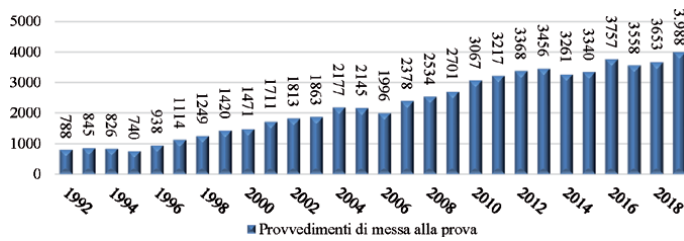


Figure 2.

Evidence issued in the Italian courts. Years 1992–2019. Source: Our processing on data Department of Juvenile and Community Justice.

between citizens and institutions involved (courts, social services, police, third sector, civil society).

These premises have stimulated new questions of knowledge and inspired the Italian legislator to rule on non-custodial measures and reform of the sanction system by extending the testing to adult defendants and introducing into our legal system the new *c.d. adult probation*¹⁰, entrusting the accused to the social service to carry out a programme involving activities of social importance.

That said, there are limits in the regulatory framework of 448/88. First of all, the interest of the minor is the one evaluated by the judge, not the one evaluated independently by the defendant even if, pending the trial, he became of age. This paternalistic approach of the juvenile trial contrasts with the rights of the victim, who according to the EU Directive 2012/29 is entitled to it even if he or she is a minor.

A contrast that prevents the development of the responsibility of the juvenile defendant, even of the one who has come of age and that restorative justice aims to pursue together with the satisfaction of the rights of the victim violated by the crime. In addition, there is a discrepancy in the criteria of application - resulting from a high discretion of the judge - both with regard to the type of crime and the manner in which the measure is issued.

Again: the set of rules does not take into account the involvement of minors in criminal organizations, preventing more particular re-educational treatment and perhaps far from the local context of origin. In the third order there is a concept of the crime as a violation of legal assets and not also of the subjective rights of the victim of the crime itself (as Directive 2012/29 of the European Parliament and of the Council indicates). Therefore, the victim is considered by the legislator of 1988 as excluded from the juvenile criminal trial (art. 10 d.P.R. 488 of 1988) and even if after the entry into force of the normative decree the practice of criminal mediation has spread, without however making any legislative changes, it appears to be a politically correct operation, but which does not produce any result.

A further aspect concerns the cultural and normative alignment of the *m.a.p.* to the 1989 UN Convention “on the Rights of the Child”. Moreover, even in the current juvenile criminal trial, in spite of the Council of Europe’s ECR¹¹ and the EU Directive 2012/29 binding on all EU States, the victim is completely absent or little considered, so that the direct damage caused to him/her and the conviction to remedy it is not yet instilled in the child’s educational strategy. Another important limit: when the social services take charge, it is not sufficient to evaluate only the outcome on the basis of the positive judgment of the evidence granted (often very

¹⁰ For a detailed analysis of the law 28 April 2014, n. 67, “*Delega al governo in materia di pene detentive non carcerarie e disposizioni in materia di sospensione del procedimento con messa alla prova*”, see [106].

¹¹ European Council, Rec 20 of 2003.

formal) without taking care of the permanent risks of relapse. In addition, not setting a limit to the granting of m.a.p. is not a good thing, rather it is a viaticum to its instrumental use by the minor or his lawyers.

Finally, what is the sense of a concession of m.a.p. to minors almost of age who have already experienced it other times and show an evolution of deviant behavior towards higher degrees of gravity?

4. Empirical evidence and research findings

The research was carried out between 2012 and 2017 in the judicial district of the Juvenile Court of Naples¹² and has developed as an assessment of the application of Presidential Decree 448 and in particular as an examination of the performance of juvenile probation in a context where serious deviance, juvenile crime is essentially indigenous. 287 files of juvenile offenders receiving m.a.p. (out of 882) were analyzed between 2000 and 2007 by the Juvenile Social Service Office (USSM). This set constituted the experimental sample of which it was also possible to draw a profile of the child tested. The sample was compared with three different control samples among those against whom a sentence of “irrelevance of the fact” art. 27 d.P.R. 448 (N_{c1} 199 subjects out of 523), those who have benefited from the “judicial forgiveness” art. 169 cp. (N_{c2} 286 out of 2518) and those sentenced to imprisonment (N_{c3} 238 out of 914).

The general objective of the work was to evaluate the performance of juvenile probation in the indicated district going beyond the sole verification of positive or negative outcomes with which the trial may end and including a longitudinal analysis that takes into account the biography of the subject post-trial. A monitoring of the operational practices of psycho-social recovery interventions over a limited, albeit broad, period.

To achieve this goal it was necessary to articulate further operational sub-objectives, such as:

- a. to estimate, with respect to the sample of m.a.p. subjects, the recidivism rate derived from the interrogation of the databases of the Criminal Records, as well as to estimate the so-called criminal relapse rate, derived, instead, from the interrogation of the databases of the Department of Penitentiary Administration;
- b. compare these rates with those determined with those who have benefited from other measures or other definitions provided within the juvenile criminal justice system such as: judgment not to proceed for irrelevance and judgment of judicial forgiveness;
- c. identify the recidivism rate among those who have received a prison sentence.

To trace the *profile of the minor in m.a.p.* was built and validated according to the pre-testing procedure, a detection board that allowed the implementation of a data matrix. Four macro-areas were explored: in the registration books, judicial, socio-economic, as well as related to the educational content of the project (**Figure 3**).

The sample observed (N_{s1} 287) is strongly marked with respect to gender, 92.3% male and nationality, 95.1% Italian, in line with the general trends of both juvenile

¹² The territories that fall within the jurisdiction of the Juvenile Court of Naples, besides the administrative centre, are provinces of Avellino, Benevento and Caserta.

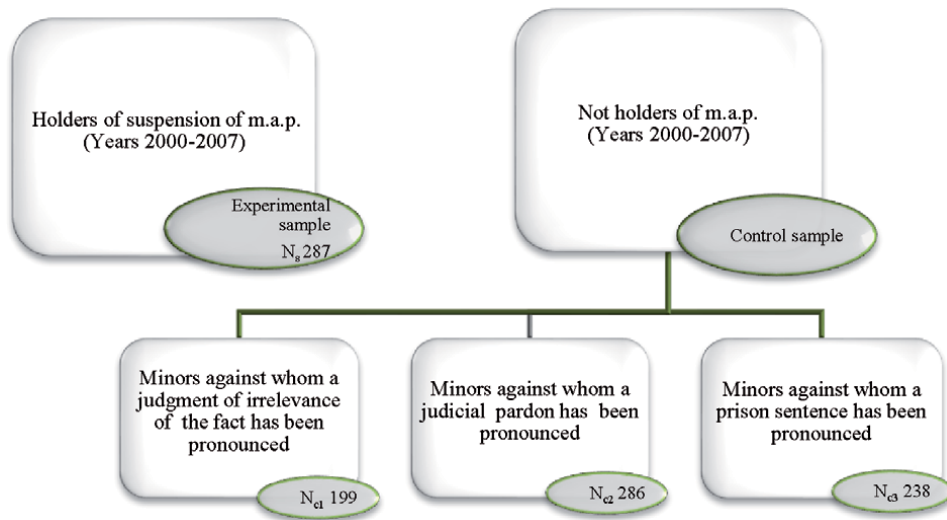


Figure 3.
 By comparing the experimental and control samples.

crime recorded in the country, where the constant prevalence of complaints against male minors is observed, both with the more limited readiness of judges to apply the probation measure to foreign defendants because of the difficulties of implementation that are often encountered¹³. In fact, it is in the regions of the Centre-North of the country that the involvement of foreign minors is greater: the complaints reach almost 39%, compared to 8% in the southern regions¹⁴.

Expecting that the trial path was positive for almost 86% of the minors in m.a.p., for the remaining 14% the negativity is motivated by “non-adherence to the program” (56,1%), commission of a new crime (34,1%), other reasons (9,8%). The nuclear family structure is based on the bad breadwinner function of the father who in 45.2% sees him perform a private job and in 33.5% public, while in 65.2% of cases the mother does not work¹⁵. The cultural capital of parents is very low (54%), compared to 39.3% with medium and 6.7% medium-high education¹⁶. The proband, instead, for the 78% is in possession of a medium license, followed by a 15% holder of elementary license and a 6.6% of higher license. The school commitment affects 41.8% of minors in m.a.p., compared to 37.9% who works of which 39.8% occasionally and 34.7% permanently but not regularized.

Examination of the files of the experimental sample shows that only almost 23% of legal practitioners were aware of the existence of previous pending loads. The

¹³ See, [107–110].

¹⁴ Di Pascale M., *Distribuzione e modificazione della delinquenza minorile*, op. cit., pp. 204 e ss.; nonché Di Pascale M., *La criminalità minorile nelle città metropolitane italiane*, in G. Di Gennaro e R. Marselli (a cura di), *Criminalità e sicurezza a Napoli. Secondo Rapporto*, Napoli, FedOAPress, 2017: 56 ss. Inoltre, vedi Raspelli S., *Baby gang di minori stranieri immigrati in Italia: uno studio esplorativo*, Milano, Fondazione ISMU, paper novembre 2016.

¹⁵ The family work employment index was not significantly correlated (r Pearson = $-.38$) with the position of the minors charged with further crimes in addition to the one for which the trial is being carried out. Only 37.5% of the sample (out of 68.8% of the total) comes from a family whose employment rate is low.

¹⁶ The cultural capital of the parents appeared to be a strong predictor of the outcome of the test course. 70% of minors who received a negative outcome have parents with low education.

age of the proband should not be understood, then, as criminal onset, indeed these subjects could already be considered recidivists, in a literal and not legal sense.

Although the art. 28 of the d.PR. speaks of juvenile, 25,2% of the subjects - that is the over-eighteen-years-olds - has been recipient of the m.a.p. in a time that varies from one to over four years after the commission of the crime. If we add to these the share of eighteen-year-olds, the percentage rises to 56 points: more than half of the sample has concretely carried out the trial period as an adult!

It seems legitimate to ask: what is the value and what could be the effectiveness of a rehabilitation practice if the crime was committed years ago? It is clear that this conflicts with the primary objective of juvenile justice to ensure a rapid release of the child from the criminal circuit.

With regard to the judicial position of the juvenile ex ante the m.a.p. in 46.3% of cases awaits the trial and the application of the evidence on the loose. In fact, one of the fundamental criteria governing the provision or not of precautionary measures in the juvenile criminal trial is the non-interruption of educational processes already in place (Art. 19 of Presidential Decree 448). Therefore, where there are no particular precautionary requirements (art. 275 c.p.p.), it is good for the subject to continue with the normal course of life, also to avoid being burdened by unnecessary stigmatizing labels.

Compared to the application of the typical precautionary measures prescribed for the juvenile ritual, instead, from the data the following distribution emerges: prescriptions 7,7%; permanence in house 20,4%; placement in community 18,6%; precautionary custody 6,7%.

A further element can be deduced from the observations obtained from the cross-table between the place of residence of the subject and the place where the crime was committed: in 71.7% of the cases, the place where the crime was committed and the place of residence of the offender coincide, indicating a low level of criminal territorial mobility¹⁷. The maturation and practice of a deviant subculture overlap with the same urban space. Here again an inevitable question: does it make sense to return the child to the family, to relationships, to that environment that directed him to the deviant experience knowing that these are high risk factors?

In fact, the information on the percentage of correctness in crimes tells us that in 79.9% of cases the subject has acted in complicity with other people of which 40.6% with adults, 53.8% with minors and 5.6% is mixed complicity¹⁸. In addition, when the subject acts as a member of a dyad or a group his action becomes more ruthless and violent. It is the strength that comes from the pack that

¹⁷ Territorial criminal commuting and territorial criminal mobility are very low in the life cycle of the juvenile age and this for two reasons: a) the tendency to carry out acts in company (or with another minor or with older young more adult) whose complicity is limited to those contiguous relationships, interactions and aggregation models that mature within shared residential spaces; b) the need to operate in places not very far away where the conditions fulfill the fundamental "hunting" requirements: knowledge of the territory; escape route; count on ad hoc protections that can be activated; infungibility of the victims.

¹⁸ The only national study produced by the Department for Juvenile Justice records that in 38% of cases the crime is committed individually while "the cases of co-incidence represented 62% of the total, with a prevalence of crimes committed with other minors"; see, Dipartimento per la Giustizia Minorile-Centro Europeo di Studi di Nisida, *La recidiva nei percorsi penali dei minori autori di reato*, Gangemi, Roma 2013: 48. Studies carried out in the district of Bari and Foggia (Puglia) also show that the majority (63.3%) of the crime is committed in conjunction with other children and this data is transversal to the three groups considered by the research: those who have benefited from the put to the test (68.5%); the group of repeat offenders (65%) and the group of non-repeat offenders who did not benefit from probation (58.3%); see, [111].

legitimizes and exalts the accomplishment of actions that perhaps alone would condemn or hesitate to carry out.

We speak of crimes such as sexual violence, committed in conspiracy for 86.7% of cases; or robberies, 92.6%¹⁹. The seriousness of the crime does not affect the application of m.a.p. which, moreover, as said, can be given several times²⁰. Certainly, the discretion of the judge in not a few cases can become an arbitrary use of judging power, since the judge is called to decide whether or not to suspend the trial simply on the basis of a predictive effort and the same opinions of the operators (social workers, psychologists, educators) are not binding for the purposes of the decision, so much so that there are no residual decisions of a routine nature.

Considering that the most serious indictment has been reported, 52% of the crimes ascribed are against property, 24% against the person and the remainder for so-called other crimes. Specifically, among the first, robbery dominates with 64.4%, followed by theft (23.5%) and with lower percentages extortion, damage, handling of stolen goods²¹. Among the crimes against the person, personal injury (31.9%), crimes of sexual violence (21.7%), manslaughter 14.5% and with lower values those of brawl, will-full murder and attempted murder. The other crimes are drug trafficking (63%), crimes against the public administration (17.1%) and, more residual, weapons possession, conspiracy and traffic violations.

Finally, the problem of recidivism and criminal relapse²². In the two initial tables below we have summarized the results found between the different samples. In the third reported the data of other researches that allow the comparison.

The criminal relapse rates detected for the experimental sample of N1 287 subjects receiving the m.a.p. are 18.5%. This value is interposed between 15.1% produced by the sample of subjects who were granted a judgment of irrelevance of the

¹⁹ The neapolitan metropolitan area in the period between 2004 and 2017 recorded the highest number of robberies followed by Milan and Rome, but with an almost total indigenous component; see, Di Pascale [112]. A positive correlation (r Pearson = .82) emerged in our sample between the low or average capital endowment of the parents and the propensity to carry out robberies by minors, which affects 82.7%; while minors whose parents have a medium-high cultural capital are in 24% of cases involved in drug dealing (r = .57).

²⁰ The average duration of a trial run recorded in the sample is 12 months (38.1%); for crime against the person and for the category of other crimes, the duration of the trial is respectively 44.1% and 43.3%, below the average. The duration of the trial for crimes against property for 46.9% coincides with one year. Personal injuries can be occasional, robberies plus an orientation to serious deviancethis would explain why crimes committed against the person aren't subject to a longer probationary period than those against property.

²¹ The comparison with the same criminological researches indicated and the National study referred to report much lower percentages and the same entry into the Italian juvenile criminal circuit is mainly determined by the carrying out of thefts (27%) and robberies (8%).

²² To study the recidivism rate, a comparable criterion was used between the samples and the indicator was evaluated after 5–6 years from the date of the first crime. Therefore, recidivism must be understood not only according to the technical-legal meaning referred to in art. 99 of the Criminal Code, as in the sense of “relapse into a new crime”. The Central Criminal Records database and that of the Department of Penitentiary Administration (DAP) were interrogated with different name lists – provided by the Juvenile Court and the Center for Juvenile Justice in Naples – corresponding to the samples adopted in the survey. The outcomes produced by the first source made it possible to derive the recidivism rate, as the sentences of conviction, or acquittal, became irrevocable. The feedback received from the DAP allowed the calculation of the criminal relapse rate, obtained from the calculation of the entries in a prison attributable to a single person for the commission of a new crime. In this last regard, there is an obligation to clarify that, given the particularity of this source, it is not certain that the subjects not present in the DAP databases have not committed any further crime.

fact (N_{c2} 199) and 24.1% of those against whom a judgment of judicial forgiveness was pronounced (N_{c2} 286). To these is added the data that belongs to the sample of N_{c3} 238 subjects who between 2000 and 2007 entered a prison for minors as a result of a prison sentence (**Tables 1** and **2**).

Reference samples	Sample units	Subjects who have committed a crime as adults and have an entry into IPA	Percentage of criminal relapse
M.a.p.	287	53	18,5%
Irrlevance of the fact	199	30	15,1%
Judicial Pardon	286	69	24,1%
Prison	238	150	63%

Source: our processing on data Department of Prison Administration.

Table 1.
Percentage of criminal relapse differentiated by sample.

Reference samples	Sample units	Subjects who have committed at last one crime as adults and has received a sentence from the Court	Percentage of relapse
M.a.p.	287	71	24,7%
Irrlevance of the fact	199	47	23,6%
Judicial Pardon	286	92	32,2%
Prison	238	134	56,3%

Source: our processing on data by Central Criminal Records.

Table 2.
Percentage of relapse differentiated by sample.

If in the first three samples the data produced already open to wide considerations, since we speak on average of a relapse in crime attributable to one in five subjects who had originally been granted a measure designed specifically for minors (testing, irrelevance of the fact and judicial forgiveness, measures that in practice interrupt the crime-penalty contract), the data obtained from the sample of former juvenile offenders open to a nefarious scenario, even if expected. Out of 100 former juvenile offenders, about 63 adult offenders have committed at least one new offense for which they entered a Prison for Adults (**Table 3**).

Reference territory	% estimated relaps	Book
Italia	23%	[113]
Bari	18%	[111, 114]
Caltanissetta, Catania, Catanzaro, Messina, Palermo, Potenza e Reggio Calabria	17%	[115]
Napoli	24,7%	[116]

Table 3.
Relapses estimated in different researches that report data on juvenile recidivism.

5. Conclusion

For the recovery of the deviant juvenile it is relevant that the policies of the juvenile criminal justice system intersect with those of the institutions and the private social sector that at different levels care about their recovery and protection. The mobilization of personal and social resources is important.

The deepening of the response of the spheres of the legal-criminal and social subsystem directly involved in the application of measures and recovery policies has provided indications on the limits outside the regulatory framework.

The service for the conciliation and penal mediation represents a fundamental junction of the d.P.R. 448 and a substantial reference of the restorative justice both on the victim's and the community's side, because it tries to heal the evil caused by the offender, and on the offender's side, because it rebuilds his identity and reconnects with the victim and the community.

Well, for the years observed as the temporal axis of the research, it has been noted that it has been arranged in an increasingly ascending form, however, only in 19.3% of cases it was possible to concretely start the meetings. A percentage, this one, that can be said without doubt to be even more unsuccessful if we think that just in 2000 between the City of Naples and the Centre for Juvenile Justice of Naples a first protocol of understanding was stipulated to respond to the need to identify a neutral place in which the intervention aimed at conciliation between the parties was distinct from the one in the judiciary.

The examination, then, on the methods of reception in the communities of the territory of the subjects in m.a.p. (conducted on a total of 19 residential facilities of the Campania Region) has allowed us - through in-depth interviews with managers and operators on the basis of a prepared track - to detect and understand the experiences gained by those who deal with children in m.a.p. daily.

The analysis of the material has shed light on some problems and critical issues related to the community intervention with this specific category of users, among them: the effective individualization of educational projects; the inadequacy that characterizes the tools for evaluating the quality of community intervention used by institutional services; the low participation of social workers in the programming activity; the insufficient investment in training and professional updating of operators and managers of the structures; the failure to take off the restorative pedagogy in individualized educational projects.

If they remain unchanged, it is difficult for the strategies and good practices, which we have intercepted, to have positive interactive and sequential effects both for the prevention and for the fight against serious deviations.


The path to be pursued and the one on which to propose and invent operational models and practices is the one indicated by the Council of Europe in Rec 2003 where (art. 8) indicates the new ways of treating serious juvenile deviance and what the role of juvenile justice must be: *“to develop a wider range of measures and sanctions applicable in the community, which are innovative and more effective. These measures should directly target criminal conduct and take into account the needs of the offender. They should also involve the offender's parents or guardian (unless this is considered contrary to the aim to be pursued) and, where appropriate and whenever possible, allow mediation, reparation of the harm caused and compensation to the victim”*.

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Section 3

Fraud - The Crime in the
Making

New Fraud Star Theory and Behavioral Sciences

Vicente Monteverde

Abstract

The purpose of this document is to establish the fraud star theory and the formulation of its microeconomic model, based on the behavioral sciences. The methodology is a practical exploration, first in the convergence of the fraud economy and the behavioral sciences, and based on these tools, the new theory of the Fraud Star is formulated, formulating its microeconomic model. This chapter is a new model of the fraud star theory and its microeconomic modeling. There are no limitations on the model. The practical implications are applying the new fraud star theory and calculating your income, in different scenarios. The social implications are knowing the income for the crime of fraud, according to the level of regulations, control, and effective punishment. The present work is original; there is no new theory of the fraud star, nor its microeconomic model, in the academic field, only in this work.

Keywords: behavioral economics, fraud, corruption, economic analysis

1. Introduction

Fraudulent conduct is impulsive or rational?

The swindler is impulsive or rational; following a behavioral economics guide, we can make a difference, or there will be a model of fraudulent behavior.

The Behavioral Theory develops elements that will be divided into beliefs, preferences, and information processing. You'll also find terms you may be familiar with, such as loss aversion, short-termism, status quo bias, or social norms. However, you will also learn other new terms.

Richard Thaler explained that the man economic behaviour, demonstrated his reasonableness, this point is conditioned by his convictions, emotions and social environment, in addition to other facts, and is never logical reasoning.

In behavioral economics, the terms "standard" or "traditional" economic model or "*homo economicus*" are freely used when referring to views on human behavior. They do not give relevance to "behavioral" issues.

The standard economic norm assumes that people decided to improve their well-being more adequately, (without caring about others) using emotional intelligence and processing all available information and remembering decision processes appropriately.

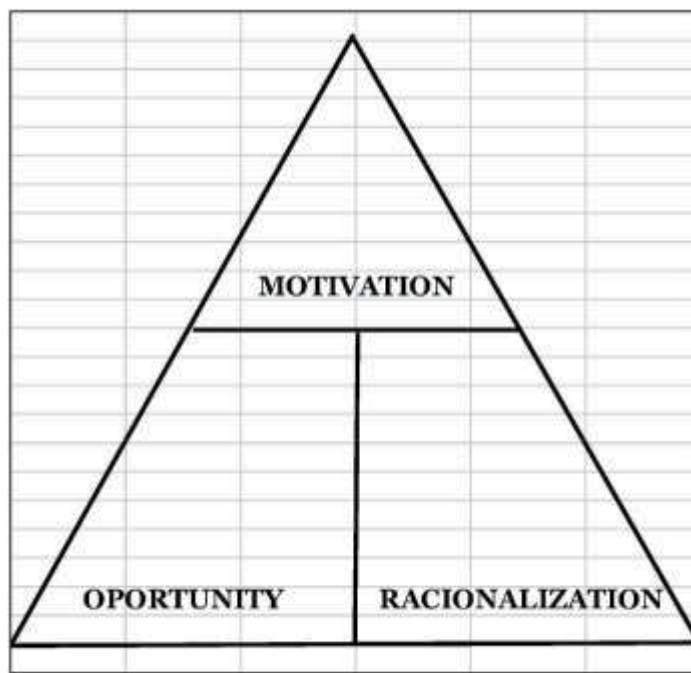
Choices are continuous over time and the most appropriate rules, regardless of context, convictions, and emotions, can represent different options.

However, the development of the economy in the new years has carried out an internal investigation that claimed that behavioral economics assumptions functioned normally in a linear decision process.

Appreciation of psychological and sociological facts in the game of rules is not a new economic cliché. I suggest hint loss could be of greater value than profit, even if the two decision paths have the same path.

Nevertheless, within the 1970s and 1980s, when economic behavior began to generate significant theoretical and proven processes, consistent and behavioral economics could be accepted worldwide.

The Fraud Triangle theory developed by criminologists Donald Cressey¹ and Edwin Sutherland² [1] explains the reasons why a person may commit fraud and determines three factors that are present at the time: pressure, opportunity, and justification or rationalization, creating the fraud triangle with its three elements (**Figure 1**).



Source: Donald Cressey and Edwin Sutherland

Figure 1.

The fraud triangle theory. Source: Donald Cressey and Edwin Sutherland.

¹ Donald Ray Cressey (April 27, 1919 through July 21, 1987) was an American sociologist and criminologist who made groundbreaking contributions to the study of organized crime, prisons, criminology, the sociology of criminal law, white collar crime.

² Edwin H. Sutherland (1883–1950) was an American sociologist. He is considered one of the most influential criminologists of the 20th century. He belonged to the school of symbolic interactionism and is known for the definition of differential association, a general theory of crime and delinquency that explains how the marginalized have come to learn the motivations and know-how to commit criminal activities. Sutherland received his doctorate in Sociology from the University of Chicago in 1913. He chaired the American Sociological Association in 1939.

The Diamond Theory of Fraud later came to be considered a more comprehensive theory in relation to the theory proposed by Cressey [2]. For Wolfe and Hermanson [3],³ the probability of occurrence of fraud may be due to the presence of four factors.

As everything evolves, so does fraud, and today it is a star with seven elements which is why the Star Fraud Theory is formulated, based on the theory of behavior and the formulation of the corresponding microeconomic theory of Fraud [4–12].

2. Definition of fraud and development of fraud theories and fraudulent conduct

2.1 Fraud

“A false statement knowing the truth or concealment of a material fact to induce another to act to his detriment” [13]⁴.

2.1.1 Types of fraud

Fraud can compromise a company, either internally by company employees, managers, officers, or owners or externally by customers, suppliers, and other parties. Certainly is possible to commit fraud people and companies.

2.1.1.1 Internal fraud

Internal fraud, called labor fraud, is defined as follows: “The use of personal work for a particular enrichment through the misuse or misapplication of the company’s means or assets.” In summary, this form of fraud succeeds when a server, director, or manager betrays the company. Scam artists are taking technological tools and a new approach to cover fraud diagrams. The forms used in these frauds are popularly divided into classes, to test and prove over time.

2.1.1.2 Outside fraud

External fraud against a company is extensive in its forms, immodest sellers, corrupt customers and fake checks, stolen goods, and manoeuvres to extract money from the company through tricks or scams. Other examples include kidnapping, theft of confidential information, tax fraud, insurance scam, health scam, and loan scam.

³ David T. Wolfe-Dana R. Hermanson-“The Fraud Diamond: Considering the Four Elements of Fraud”-CPA Journal-12-2004.

⁴ ACFE-Association of Certified Fraud Examiners: <https://www.acfe.com/who-we-are.aspx>

2.1.1.3 *Fraud against persons*

Numerous fraudsters have also devised plans to defraud people. Identity theft,⁵ Ponzi schemes,⁶ phishing schemes,⁷ and advance payment scams are just a few of the criminal forms being taken to steal money from innocent victims.

2.1.1.4 *Fraud triangle*

The Fraud Triangle theory developed by criminologists Donald Cressey⁸ and Edwin Sutherland⁹ explains the reasons why a person may commit fraud and determines three factors that are present at the time: pressure, opportunity, and justification or rationalization.

Motivation – Opportunity – Rationalization

$$P (\text{fraud}) = f (O, I, R) \quad (1)$$

in which the term P (fraud) represents the probability of occurrence of fraud, being a function (f) of the terms O, which represents the opportunity, I, which refers to individual intentions, and R, which represents the rationalization or attitude personal. In this context, it is highlighted that the Association of Certified Fraud Examiners¹⁰ (ACFE) defends that the Fraud Triangle Theory can be used effectively, in many cases, to understand why individuals commit fraudulent acts.

2.1.1.5 *The fraud diamond*¹¹

The Diamond Theory of Fraud later came to be considered a more comprehensive theory in relation to the theory proposed by Cressey [2]. For Wolfe and Hermanson [3], the probability of occurrence of fraud can be due to the presence of

⁵ Identity theft or identity theft is the appropriation of a person's identity: impersonating that person, assuming their identity before other people in public or in private, generally to access certain resources or to obtain credit and other benefits on behalf of that person.

⁶ The Ponzi Scheme is a fraudulent investment transaction that involves paying current investors the interest earned on new investor money (and not on generating genuine profits). It is a pyramid system, in which the only way to distribute benefits requires participants to recommend and attract (refer) more clients in order for new participants to produce benefits to primary participants.

⁷ Phishing is the most popular technique, where the attacker impersonates a real entity, generally a bank, in order to obtain the user's data in resources contracted with that company such as a bank account, password, etc.

⁸ Donald Ray Cressey (April 27, 1919 through July 21, 1987) was an American sociologist and criminologist who made ground breaking contributions to the study of organized crime, prisons, criminology, the sociology of criminal law, white collar crime

⁹ Edwin H. Sutherland (1883–1950) was an American sociologist. He is considered one of the most influential criminologists of the 20th century. He belonged to the school of symbolic interactionism, and is known for the definition of differential association, a general theory of crime and delinquency that explains how the marginalized have come to learn the motivations and know-how to commit criminal activities. Sutherland received his doctorate in Sociology from the University of Chicago in 1913. He chaired the American Sociological Association in 1939.

¹⁰ <https://www.acfe.com/>

¹¹ 12–2004-“The Fraud Diamond: Considering the Four-Elements of Fraud”-David T. Wolfe-Dana R. Hermanson: <https://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=2546&context=facpubs>

four factors; the diamond theory of fraud can be represented by the following equation:

$$P(\text{fraud}) = f(O, I, R, C) \quad (2)$$

in which the term P (fraud) represents the probability of fraud occurring, being a function (f) of the terms O, which represents the opportunity, I, which refers to individual intentions and R, which represents the rationalization or attitude personal and C, which represents ability (**Figure 2**).

Greed.

Pride.

Arrogance.

The thought of the right to deserve everything.

First, it covets, because the executive can use his position and authority to get what he wants (money, status, title, and services); second, pride and arrogance; the executive who feels superior to others, and does not allow anyone to question or disqualify him. Finally, the executive who thinks that he has the right to everything and he deserves the best, and that is why he does everything possible to obtain it.

The International Framework for Professional Practice (IPPF) of the Institute of Internal Auditors (IIA)¹² defines fraud as follows [14–30]:

“Any illegal act characterized by deception, concealment or breach of trust. These acts do not require the application of a threat of violence or physical force. Fraud is perpetrated by individuals and organizations to obtain money, goods, or

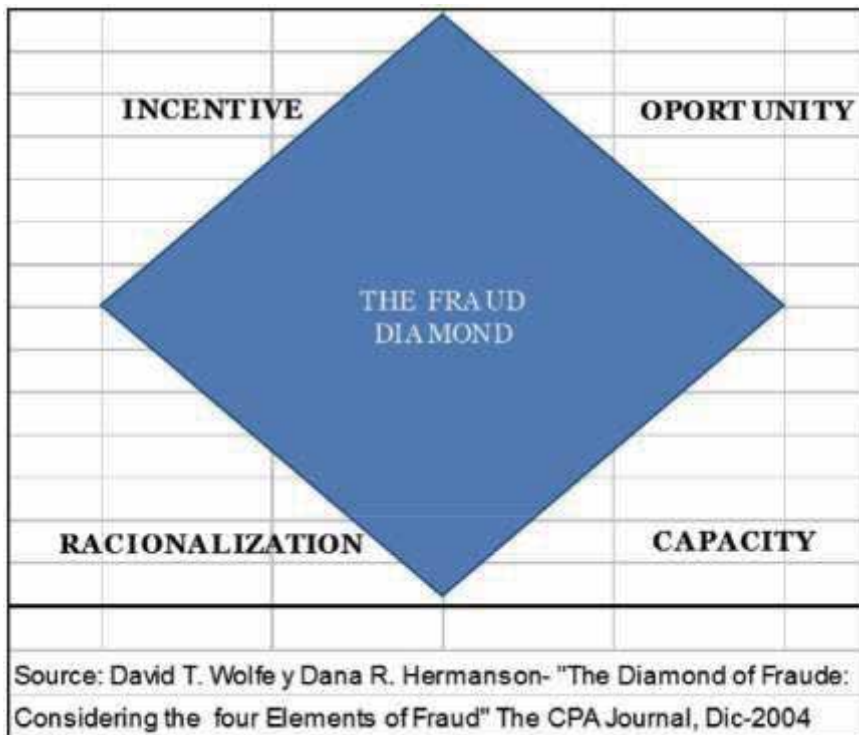


Figure 2.
The fraud diamond theory.

¹² <https://iaia.org.ar/nosotros/the-institute-of-internal-auditors/>

services, to avoid payments or losses of services, or to secure personal or business advantages”.

Fraud is perpetrated by a person, group of people, or organization for their own benefit and/or that of the criminal organization.

The most common types of fraud are:

1. Embezzlement of assets
2. Skimming occurs when an organization's cash is stolen and its non-registration in its books and records.
3. Reimbursement of fictitious or inflated business expenses.
4. The fraud of the payment function false compensation claims.
5. Fraud in the financial statements involves the inclusion of false information.
6. Disbursement fraud for payment to service providers not rendered, fictitious, or overbilled amounts.
7. The presentation of falsified and adulterated information with the objective of obtaining some profit.
8. Bribery in all its forms, of acceptance of goods, personal favors to relatives or third parties.
9. Bribery through the acceptance of gifts, personal privileges, family, or third parties.
10. A conflict of interest, involving operations of the organization, as a supplier, customer, obtaining monetary, commercial, or reputational advantages, own, family and third parties.

Fraud is a type of corruption, with an income, it has behavioral characteristics, which is why we go through behavioral economics and convergence with a fraud economy model, to develop the model [31–35].

3. Elements of the behavioral economy

The fundamental elements of behavioral economics and their concepts are described below:

3.1 Decisions

The inclination of the current, that is, the tendency to a certain behavior, where our choices are biased by these elements.

3.1.1 Elements of decisions

- A. Rejection of loss
- B. Short-term

C. Temporary instability

D. The slant of status quo

E. The social rules

F. Correspondence

3.1.1.1 Rejection of loss

It refers to the idea that a loss generates more discontent than happiness, which would generate a gain of the same magnitude.

3.1.1.2 Short-term

The tendency to choose a smaller profit that is close in time versus a larger profit that is distant in time. It is related to a preference for immediate gratification.

3.1.1.3 Temporary instability

The tendency to be impatient when choosing, between receiving benefits today or in the future, and choosing between benefits in two different periods in the future. Also known as “present bias”.

3.1.1.4 The slant of status quo

Our tendency is to maintain the normal state of affairs. This normal condition, or status quo, is taken as a degree of allusion.

This means that the value of an asset depends on the degree of beliefs that the person has.

3.1.1.5 Social rules

Social rules are unwritten; they govern behavior within a society. A distinction is made between “descriptive rules”; these rules explain standardized behavior, sometimes not followed by individuals, and “prescriptive rules”, which are acceptable or desired behavior.

3.1.1.6 Correspondence

It is a social rule that implicates interchanges between people, answering to the acting of another acting equivalent. It can be assertive or adverse.

3.2 Convictions

Elements of convictions

A. Readiness

B. Trust in plus

C. Surplus hopefulness

D. Method to increase the knowledge of representativeness

E. Set of rules, principles, and knowledge about the two processes

3.2.1 Readiness

People make their judgments about the probability of a future event occurring, based on the ease with which an instance that represents it occurs.

3.2.2 Trust in plus

It is the tendency to overestimate or exaggerate our own ability to satisfactorily complete a given task.

3.2.3 Surplus hopefulness

The bias of excess optimism makes us underestimate the probability of negative events and overestimate the probability of positive events.

3.2.4 Method to increase the knowledge of representativeness

This method explains the fact that the similarity between objects and facts often shapes economic decisions and the evaluation of uncertain events. The fundamental question is the speed of decision-making in this method; the faster the decision, this method will outline the similarity in the decision, being a mental appearance and a response of the brain.

3.2.5 Set of rules, principles, and knowledge about the two processes

There are two types of processes in behavioral economics:

“Automatic”—is defined as system 1, thinking is automatic.

“Reflexive”—is defined as system 1, thinking is reflexive.

System 1: its operation occurs automatically, without attempt and without control.

System 2: its operation occurs, more slowly and controlled, and is utilized in mental works.

4. Theoretical framework of the economy of fraud with respect to the behavioral economy

In the case of the fraud economy, the concepts that have convergent characteristics with the behavioral economy will be analyzed.

- Preferences. In fraudulent conduct, there is bias in the present, since the income obtained is the objective of the person who commits the act.
- Convictions. Issues of belief have to do with the value structure of society, norms, the level of control and the effective punishment of the crime of Fraud. “Individuals with some degree of power are more likely to act fraudulently”
- Information processing. The mental shortcut in the decision of a Fraud is given by the level of income and the level of impunity of the fraudster, his moral

bias, the value structure of society, norms, and the level of control and the effective punishment of fraudulent conduct.

- In fraudulent behavior, there are no losses, except the probability of punishment; the loss is taken as income, for not committing the crime. In a fraudulent behavior, the ability to commit it is analyzed, and the objective is immediate income.
- Short-term. In fraudulent behavior, short-termism is essential, high income level and short-term.
- Temporary instability. The crime of fraud has the objective of receiving benefits today, not in the future, except waiting for administrative collection times for public works, or public tenders, or private acts.
- Social Rules. Here social norms influence fraudulent behavior related to the stock of the person's moral rules, their moral bias, the value structure of society, norms, the level of control, and the effective punishment of the crime of fraud.
- Correspondence. On the subject of reciprocity, the scammer gets benefits; it can be an income or benefits of privileges and obligations to do or not to do.
- The slant of status quo. Fraud does not follow the bias of the status quo except the regulations or level of control; when they have a low level, the free path to commit the crime is perceived.
- Trust in plus. In the scammer's behavior, the aptitude to commit the scam is overestimated, and the objective is immediate income.
- Hopefulness surplus. A regulatory system is combined with an effective control and punishment system, of the same scope, resulting in a surplus hopefulness.
- Method to increase the knowledge of representativeness. Here the income is doubtful and uncertain, but the greater the profit from fraud, the greater the willingness to commit it, and the level of control, punishment, and reward is important at this point.
- Framing effect (frame or framing). The presentation of the information does not matter, since the objective is fraudulent income.
- Hassle factors. There are three factors that make the corruption decision uncomfortable: level of regulations, level of control, and level of effective punishment.
- The dual process theory. In the crime of fraud, there is a third system that combines the one; it works automatically and quickly and slow and controlled, given the level of rules, level of control, and level of effective punishment, given as system 3.
System 3: works reflexively but quickly in its response and depends on the income obtained and the levels of rules, control, and punishment of fraud.

- Saliency. In a fraudulent behavior, the most important thing is the level of income that I am going to obtain in the fraud and the ease of obtaining it.
- Automatic thinking and reflexive thinking system. Fraudulent conduct would be a system 3, with controls on punishment, prevention, and regulation.
- Cognitive load. In the behavior of a swindler, there is a psychological overload as a difficult barrier to committing the crime.

5. Theory of the fraud star

“The dirty economy, drug trafficking, fraud, and corruption are contemporary plagues sheltered by that anti-value, the one that maintains that we are happier if we get rich, whatever it may be.”¹³

The time produces a process of change in the world, people and processes is changing, crimes too, corruption mutates, fraud mutates, then taking into account the previous theories, be the triangle of fraud by Donald Cressey and Edwin Sutherland, and the Fraud Diamond (**Figure 3**).

The Fraud Star Theory is based on seven elements:

1. Incentive
2. Opportunity
3. Rationalization
4. Capacity
5. External scope
6. Internal scope
7. Social/organizational culture

5.1 Incentive

The individual is willing, overconfident, and over-optimistic to commit fraud.

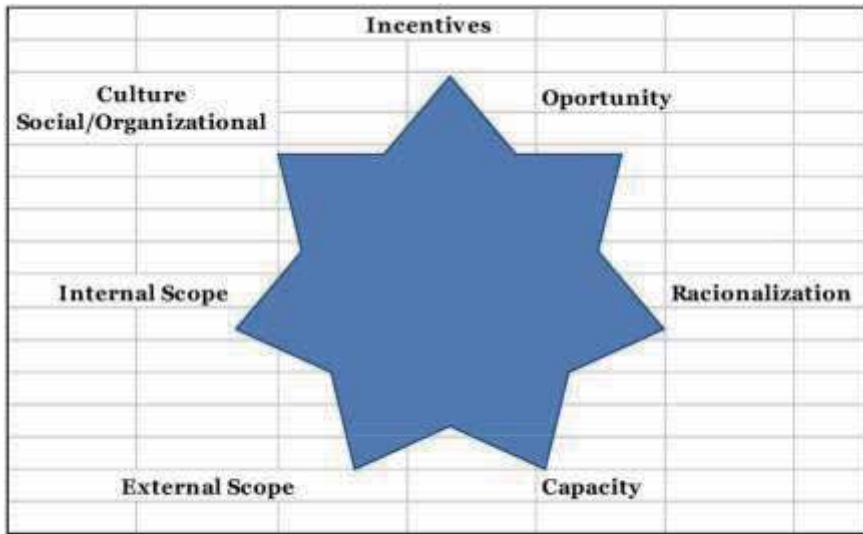
5.2 Opportunity

The individual has an opportunity, with a status quo bias, to commit fraud.

5.3 Rationalization

The individual has a heuristic of representativeness, with an aversion to losses, rationalizing the situation to commit fraud.

¹³ Jose Mujica- President of the Oriental Republic of Uruguay-2010-2015.



Source: Self-made

Figure 3.
New fraud star theory. Source: self-made.

5.4 Capacity

The individual has the potential and the possibility of committing the crime, with overconfidence to commit the fraud.

5.5 External scope

The individual finds at the level of social norms, the level of social control and the level of effective punishment, where punishment is not perceived, to commit fraud.

5.6 Social/organizational culture

The individual perceives an internal/external cultural/organizational system where the level of norms, the level of control, and the level of effective punishment, in the different organizations of society, public, and/or private, are not efficient in committing the crime of corruption, and as a consequence, social mechanisms of systemic corruption are perceived, leaving a free path to commit fraud.

6. Microeconomic model of fraud and corruption

The microeconomic model of the fraud economy has four elements:

- I. Fraud disposable income.
- II. Determinants of fraud demand.
- III. Determinants of the offer of fraud.
- IV. Fraud income model.

6.1 Fraud disposable income

In fraudulent conduct, there is no combination of two goods; there is only one good, but if there is a straight, straight line of regulations, control and punishment (Figure 4).

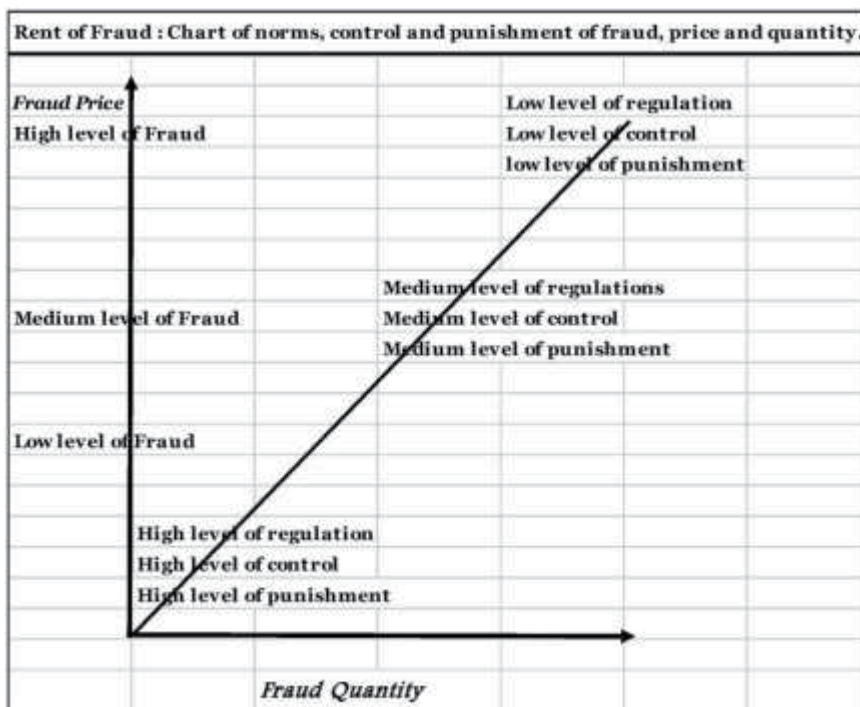
Fraud is a superior good with increasing demand: but in a straight line it is constant, according to the level of income.

The level of income, the line away from the origin and a superior good, fraud.

The demand for fraud is constant and grows with higher income (Figure 5).

6.2 Determinants of fraud demand

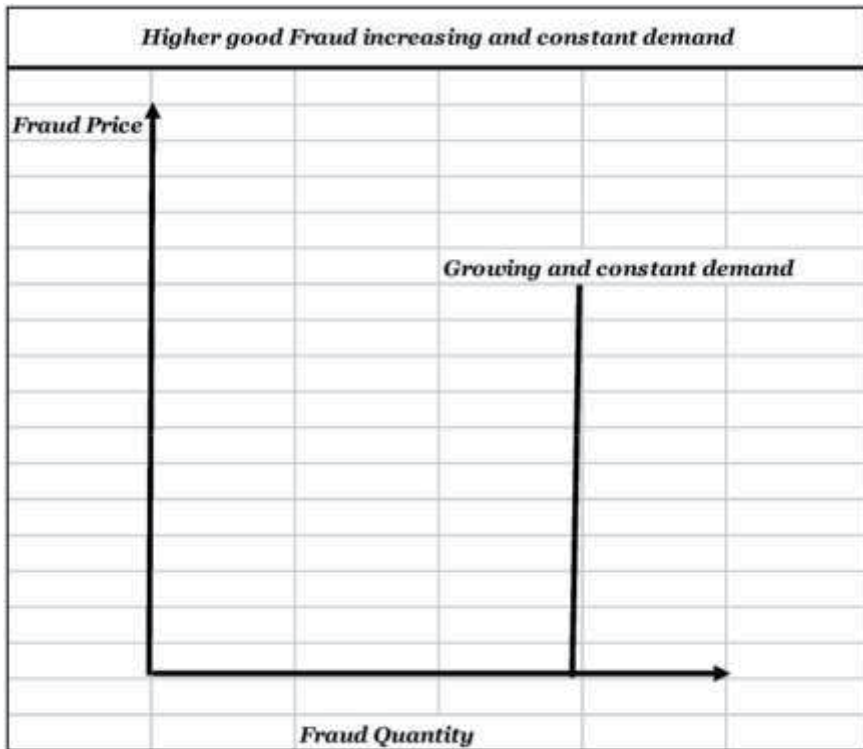
- Income level for fraud: income increases, the demand for fraud increases.
- Expectations: if expectations increase, fraud increases.
- Probability of committing fraud: if there is a greater probability, fraud increases.
- Anti-scam rules level: if there is a high level of regulation, the number of acts decreases, especially in preventive rules.
- Level of anti-scam control: if there is a high level of administration of crime prevention rules, the number of scams decreases, especially in the application of preventive rules.



Source: Self-made

Figure 4.

Rent of fraud: chart of norms, control and punishment of fraud, price, and quantity. Source: self-made.



Source: Self-made

Figure 5.
Higher fraud, growing well, and constant demand. Source: self-made.

- Level of penalty against the scam and its efficiency. If the level of criminalization, judicial processes, sentences, arrests, and efficient execution of punishments increases, the level of scam decrease.
- Stimuli to commit acts of scams: if the level of stimuli increases, the scam increases, for example: systemic corruption, economic recession, and high unemployment.

6.3 Determinants of the fraud offer

The offer of fraud is given, for an income, advantage of doing or not doing, and the concealment of information that the offeror obtains.

- Needs for concessions, favorable conditions, or demands that should not be made: resistance to legal and regulatory mechanisms, favorable condition, and requirement to do or not to do
- Income rank: increases the scammer's profits, therefore increases the scam offering.
- Expectations: if the chances of committing fraudulent scams increase, crime increases.

- Possibility of committing crime:
- Level of anti-scam rules: if there is a high level of rules, the number of scams decreases, especially in preventive regulation.
- Level of anti-scam control: if there is a high level of control, the number of scams decreases, especially in taking preventive control measures.
- Level of penalty against the scam and its efficiency. If the level of criminalization, judicial processes, sentences, arrests, and efficient execution of punishments increases, the level of scam decreases
- Stimuli to commit acts of scams: if the level of stimuli increases, the scam increases, for example: systemic corruption, economic recession, and high unemployment.

6.4 Fraud income model

How fraud income is explained

$$\text{Fraud Income} = \text{Income} * \left(\% \text{Level of standards} + \% \text{Level of control} + \% \text{Level of punishment} = \sum / 3 \right)$$

- Standard level: What is the effective level of anti-fraud standardization?
- Control level: What is the effective level of fraud control?
- Level of effective punishment: What is the level of effective punishment of fraud?

According to the level of these three elements determines the fraud income; in its probability, if its level is low, we will have a higher fraud income.

For example, low level of standards, control, and punishment, 20%, high probability of fraud income:

$$\text{Fraud Income} = 100 \times (0.20 + 0.20 + 0.20 = 0.60/3).$$

$$\text{Fraud Income} = 100 * (1-0.20) = .$$

$$\text{Fraud Income} = 100 * 0.80 = 80.$$

$$\text{Fraud Income} = \$ 80.$$

Rent seeking, for example, fraud acts in both the public and private sectors, but if the government has a low level of regulations, control, and effective punishment of fraud, the scammer will look for that path to crime.

7. Conclusions

The behavioral economy model is a formal model, with basic concepts. The fraud economy generates some coincidences in its framework, but its system is not dual; it has a third system.

E- Set of rules, principles, and knowledge about the two processes.

There are two types of processes in behavioral economics:

“Automatical”—is defined as system 1, thinking is automatical.

“Reflexive”—is defined as system 1, thinking is reflexive.

System 1: its operation occurs automatically, without attempt and without control.

System 2: its operation occurs, more slowly and controlled, is utilized in mental works.

The microeconomic model of the fraud economy has four elements:

- I. Fraud disposable income.
- II. Determinants of fraud demand.
- III. Determinants of the offer of fraud.
- IV. Fraud income model.

They do not function as a supply and demand of a common good but a superior good; the conclusions of the income model have three elements:

- Level of anti-fraud rules.
- Fraud control level.
- Level of effective penalty of fraud.

Based on these three elements, the income from fraud is determined, not in a traditional microeconomic model.

The fraud market should not be analyzed as a traditional supply and demand model, since this market has particular characteristics and individual behavior, and therefore, the elements of behavioral economics, for the application of fraud, are an open discussion.

Additional Classifications

JEL classification: A13 D11 P16

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Fraud in Letters of Credit under English Law: Issues and Cases (the Three Dimensions)

Zaid Aladwan

Abstract

According to many cases, it has been demonstrated that sellers with bad intentions have manipulated letters of credit system in many ways, including fraud. Thus, many legal jurisdictions have recognized the fraud exception rule. In order to apply such exception, some conditions must be met. Among these conditions, the bank's knowledge and a requirement of a clear evidence. Notably, the bank's knowledge is crucial, meaning that the establishment of the sole exception will depend upon the status of the bank's knowledge. Meaning that if the bank is aware of existing fraud, it is under a duty to refuse presentation. Otherwise, it should not. In turn, the establishment of clear evidence by the English courts is somewhat hard to achieve, consequently, such condition criticized often. Further, if the beneficiary himself commits the fraud, or has knowledge of the fraud, then the fraud exception rule will apply.¹ This raises the question of whether the fraud exception should also bite where the fraud is committed by a third party but without the beneficiary's knowledge. From these facts, this chapter will try to analysis the status of the bank's knowledge and the hardship related to the clear evidence requirement in conjunction with the third-party fraud.

Keywords: letters of credit, fraud, legal basis, English law

1. Introduction

Fraud is one of the most common threats to international business transactions (see **Figures 1** and **2**), especially when a mechanism such as documentary credit is utilized.² It is believed that letters of credit (see **Figure 3**) transactions are the "ideal vehicle for money laundering."³ In one comment from the ICC commission "fraud is one of the oldest and best-known phenomena in the business world. As long as there have been commercial systems in place, there have been those who have tried to manipulate these systems."⁴ Admittedly, fraud in documentary credits is a worldwide problem of ever-increasing proportions, which is committed not only against importers and banks but also against exporters [9]. It costs insurance

¹ See in general [1]; where the beneficiary was party to an agreement with the carrier and its brokers to antedated the bill of lading. See also [2–5].

² [6]; ([7], 140).

³ [8], 120.

⁴ [7], 140.

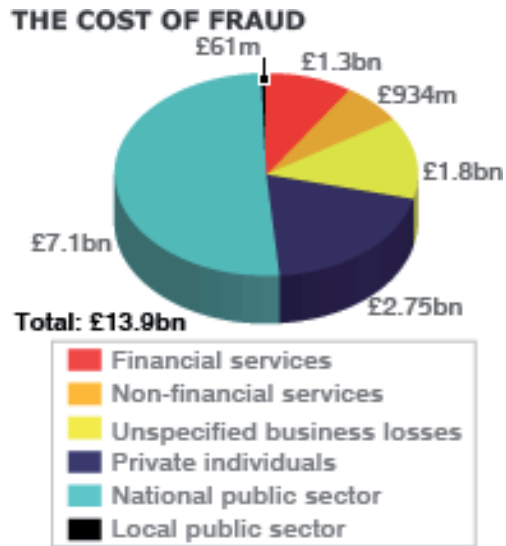


Figure 1.
The cost of fraud lost in some sectors.

Recent Cases of Trade Finance Fraud

YEAR	COMPANY	AMOUNT	BANKS INCLUDING
2020	Hontop Energy	\$473 million	CIMB
2020	Agritrade	\$670 million	ING
2020	Hin Leong Trading	\$3,5 billion	HSBC +22 banks
2020	Zenrock Commodities	\$166 million	HSBC
2019	Coastal Oil	\$354 million	OCBC, DBS, UOB
2019	Inter-Pacific Petroleum	\$168.5 million	SocGen

Figure 2.
Recent cases of trade finance fraud; name of banks and companies including the amount of finance lost.

companies millions of dollars each year.⁵ Therefore, due to the conceded that it is as a serious threat to the commercial utility of the letter of credit.

Unfortunately, the UCP 600 do not address this issue [11, 12]. The International Chamber of Commerce justified this omission by arguing that “it should be left to national jurisdictions to fill the gap” [13–15]. As such, most national jurisdictions recognize the “fraud exception rule” as a caveat to the autonomy principle [14, 16]. Although this exception is internationally accepted, there has been diversity among lawmakers and courts in relation to its interpretation.⁶ This has led to unconvincing judgments and a variety of outcomes.⁷

⁵ [10], 183

⁶ [17]; see also [18].

⁷ [17]; see also [18].

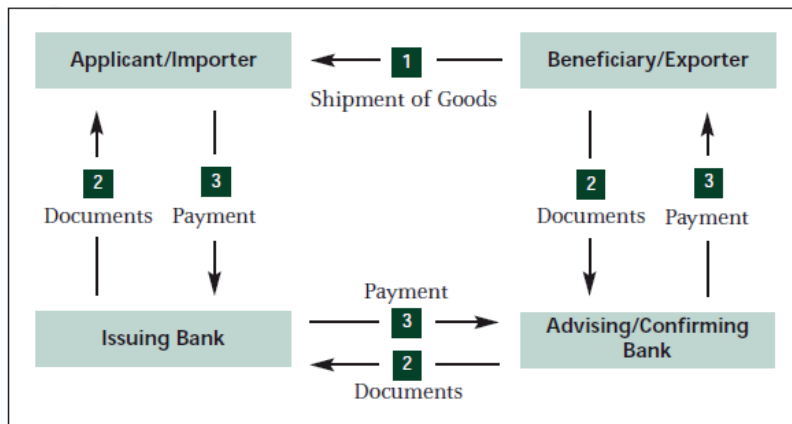


Figure 3.
 Description of letters of credit mechanism.

The *Sztejn* case was the starting point of the fraud rule exception, where there was both fraud in the presented documents and fraud in the underlying contract.⁸ The facts of this case can be briefly summarized as follows; “an allegation from the plaintiff that the beneficiary shipped cow hair and other rubbish instead of bristles as contracted. In this regard, the court commented that in such circumstances the autonomy principle should not protect the not honest seller because the fraud was called to the bank’s attention before the drafts and documents were presented for payment” [20].

Although the court in this milestone case did not explicitly state on which basis the fraud had been found, it is implicit that the fraud here can be characterized as both fraud in the documents and fraud in the underlying transaction.⁹ That is to say the presented documents did not represent the actual goods shipped.

In contrast, in the English (the *American Accord*), the court held that the fraud rule exception can only be established if the fraud appears in the presented documents [5]. The facts of this benchmark case can be briefly summarized as follows: “an English company entered into a contract to sell glass fiber making equipment to a Peruvian company and payment was to be made by an irrevocable letter of credit. It was agreed that the shipment was to be on or before 15 December 1976, however, shipment actually took place on 16 December. Mistakenly and without the knowledge of the sellers, the loading broker’s employees, who are not acting for the seller, fraudulently entered 15 December as the date of shipment on the bill of lading. Upon presentation, the bank refused such tender and held that the presentation was fraudulent because the goods were loaded on 16 December and not on 15 December as agreed.”¹⁰

It is clear from these milestone cases that there is a dispute as to whether the fraud rule exception can be established either if the fraud accords in the presented documents or in the underlying transaction.

As it stands in the law, a bank’s obligation is to honor the credit against confirming documents, where article 15(a) of the UCP 600 states that “When an issuing bank determines that a presentation is complying, it must honor.” However, there are times when the bank might be obliged to dishonor the credit based on its

⁸ See [19].

⁹ See [19].

¹⁰ See [19].

own decision¹¹ e.g. in case of fraud. Meaning that if the bank is aware of existing fraud, it is under a duty to refuse presentation. Conversely, in connection with the implementation of the fraud exception rule in English law, the claimant must gain an injunction, which will force the bank to postpone payment under the credit until the end of the hearings.¹² In order to gain such an injunction, the claimant must provide clear evidence of fraud.¹³

It is established in the law that if the beneficiary himself commits the fraud, or has knowledge of the fraud, then the fraud exception rule will apply.¹⁴ This raises the question of whether the fraud exception should also bite where the fraud is committed by a third party but without the beneficiary's knowledge. The judgment of the *American Accord* case has opened the door for such issue and has been a battleground for many studies. Accordingly, this chapter will answer this question; "will the fraud exception rule apply if the fraud was committed through a third party without the beneficiary's knowledge?"

Based on these points, this chapter will focus on a bank's knowledge, clear evidence and third-party fraud.

2. Bank's knowledge

Although the bank's obligation is to honor the credit against presenting confirming documents, yet, it is believed that the bank must dishonor the credit if it learns of fraud prior to honoring the credit.¹⁵ In this regard, the fraud exception rule cannot be established if the bank is not aware of the fraud.¹⁶ That is to say, the lack of knowledge of the fraud conduct will not prevent the bank from honoring the credit.

In one case [33] the court was against the issuing of an injunction to stop the payment because the bank was not aware of the fraud.¹⁷ The fact that there is suspicion of fraud, which the bank is aware of it, will put the bank in a rejection position. Thus, to fall within the ambit of the bank's knowledge, the fraud must come to light before releasing the payment, meaning that the knowledge condition will be fulfilled if the bank is aware of the fraud prior to payment.¹⁸ However, if the bank becomes aware of the fraud and honors the credit, they will be liable in front of the applicant.¹⁹ This penalty is because the bank can be seen as a participant in the fraudulent act [34]. Therefore, if the bank ignored such conduct and the payment was honored wrongfully, the bank must not recover that payment from the beneficiary.²⁰ In this occasion, the bank must not disregard such knowledge.

However, if the bank was not aware of the fraud while examining the presented documents, but the fraud came to light after payment, and decided to honor the credit, in this occasion the applicant will be under a duty to reimburse the bank [19]. In *Banco Santander SA v Bayfern Ltd* [37] case, the court stated that "If the

¹¹ [21]; see also [22]; see also [23].

¹² [24], see also [25], see also [26].

¹³ See [27] see also [28], see also [29].

¹⁴ See in general [1] where the beneficiary was party to an agreement with the carrier and its brokers to antedated the bill of lading. See also [2-5].

¹⁵ [30]; see also [22]; see also [21]; see also [11], 176; see also [31]; see also [32]; see also [18].

¹⁶ [30]; see also [22]; see also [21]; see also [11], 176; see also [31]; see also [32]; see also [18].

¹⁷ [33], 1153.

¹⁸ See [19].

¹⁹ See [19].

²⁰ [35], see also [36]

bank was not aware of the fraud and agreed to honor the credit, the applicant is still bound to reimburse the bank when the fraud comes to light.”²¹

In one case [40], the documents were fraudulent; in particular, the signature was forged. However, the bank honored the credit as it was unaware of the fraud, and the court ruled in favor of the bank.²² Nevertheless, in my opinion, if the bank had rejected the presented documents on the ground of discrepancies and the fraud was discovered later, in this respect bank is already in a safe position.

In any case, the question is “*whether the bank can rely on this defense if it becomes aware of the fraud prior to examining the documents.*”²³ Although there are no cases in regard to the bank’s position if the fraud become to light prior to examination but, in my judgment, the bank must examine the presented documents and decide whether it should honor the credit or not unless fraud comes to light during the examination. This suggestion is based on the good faith duty upon the bank. In *Nareerux Import Co. Ltd v Canadian Imperial Bank of Commerce* [41] case, the court held that the bank is under a duty of good faith to the beneficiary.²⁴ A duty of a good faith is recognized in the American courts where such duty is stipulated in Section 5-109 (a) (2) of the U.C.C which states “the issuer, *acting in good faith*, may honor or dishonor the presentation in any other case.”

Despite the fact that this occasion is not clear in the law but, in my judgment, from both the autonomy principle and a good faith principle, the bank is under a duty to honor the credit, regardless of knowing of the fraud prior to examination, only if the presented documents are in compliance.²⁵ Bearing in mind that banks deal with documents and not facts as stipulated in Article 5 of the UCP 600. The said article states that; “Banks deal with documents and not with goods, services or performance to which the documents may relate.” Unless the presentation itself indicates a possibility of fraud, the bank must honor the credit if the documents are compliant.²⁶

What can be drawn from the proceeding discussion is that “a bank’s knowledge of the fraud must emerge from the bank itself and not from any other party.”²⁷ If another party e.g. *the applicant*, becomes aware of fraud and through providing a clear evidence of the fraud,²⁸ they must ask for an injunction from the court to stop the payment.

Most importantly, the “bank’s knowledge” must emerge from the presented documents and not from any external source.²⁹ That is to say, the knowledge must be particularly from the apparent data. This is justified because a bank deals only with documents (article 5) and, more importantly, by virtue of the autonomy principle (article 4). Moreover, besides the bank’s knowledge, it should be noticed that the awareness of the fraud must be while the examination process and prior to the payment decision.

The rationalization for this condition is twofold. Firstly, this payment method aims to secure the bank and not the parties,³⁰ hence, any dispute regarding the underlying transaction will not effect in the bank’s involvement in litigation.

²¹ [37]; see also [38], see also [39]; see also [24].

²² [40], 1238.

²³ See [19].

²⁴ For general discussion see [42]; see also [43]; see also [44].

²⁵ See [19].

²⁶ See [19].

²⁷ See [19].

²⁸ See [19], which will be explained in Section 2.

²⁹ See [19].

³⁰ See [19].

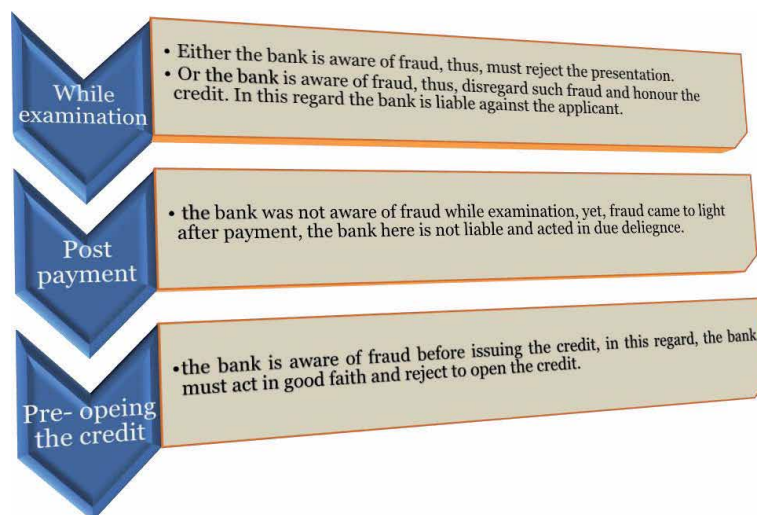


Figure 4.
Bank's status in regard to fraud during examination process.

Secondly, where the seller in such transaction is untraceable, the only available remedy for the bank will be the buyer. Therefore, the insisting on the bank's knowledge condition can be seen as a "withdraw" option from fraud litigation.³¹

While this approach, from my own perspective, no doubt will ensure the ultimate aim of letters of credit in international transactions and will secure the bank, nonetheless, it will harm the applicant. As stated above, it is not an easy task to gain an injunction under English courts in a case where the applicant becomes aware of the fraud. In addition, it is unclear how the court will prove that the bank is aware if there is fraud in the presented documents.³² Most importantly, another obstacle arises in regard to the implementation of the strict standard required, by asking "*whether the same strict standard will be required by both the applicant and the party who notified the fraud.*" The answer is not clear here (Figure 4).

3. Clear evidence

A mere allegation of fraud will not be sufficient for courts in England to dishonor the credit.³³ That is to say, once the fraud is established by strong evidence, an injunction from the court will be forthcoming.³⁴ In one case [27], although the shipment was with a wrong quantity of ordered records delivered, yet the court did not consider such conduct as a fraud and refused to apply the exception.³⁵ Despite the claimant providing the court with an inspection certificate, the court stated that there was no strong evidence of fraud in this occasion.³⁶ That is to say, the presented evidence was not considered sufficient enough to convince the court, who refused

³¹ See [19].

³² See [19].

³³ [19].

³⁴ [45], see also [24]; see also [18].

³⁵ [27], 446; only 275 of the 8625 records ordered were delivered.

³⁶ [27], 446, 447.

to issue the injunction.³⁷ However, in my judgment, the dispute in the said case falls within breach of contract scope and not fraud, where the dispute matter concerned the quantity. Therefore, in my judgment, the court's judgment of not issuing an injunction was correct.

Similarly, in another case, although the presented documents were forged, the court instead refused to issue an injunction [46]. The court justified its judgment by stating that the claimant failed to provide clear evidence.³⁸ Nonetheless, few English cases issued injunctions³⁹ including *Themehelp Ltd v West* [48] and *Kvaerner John Brown Ltd v Midland Bank plc* [49].

Initially, in the *Themehelp* case, the clear evidence presented was the fact that the beneficiary, deliberately and recklessly, failed to inform the applicant of the falling-off of future demand from the defendant [50]. The applicant argued that the beneficiary were aware of by the date of the contract.⁴⁰ In this regard, the court held that "The failure to provide the contracted goods in the future was strong established evidence that the beneficiary was aware that it would cause dishonest demand for payment under the credit."⁴¹ "On appeal, the court held that '*the December correspondence showed that the sellers knew that the loss was possible and that this loss could have a very damaging effect on the appellant defendants future prospects*'. The court continued '*there was evidence that these forecasts had been sent to the appellant defendants and no explanation where received*' [51]. Therefore, this evidence was quite sufficient to entitle the court to issue the injunction.⁴²

In contrast, the subject matter of the contract in *Kvaerner John Brown Ltd (KJB) v Midland Bank plc* [49] case was a standby letter of credit. KJB; the plaintiff, failed to fulfil his obligation and, as a result, *Polyprima* issued a notice, wrongfully, demanding the payment under the credit due to such failure [52]. In this respect, the court held that:

*"In the wholly exceptional case where a demand under a performance bond or standby credit purports to certify that a written notice has been given as required by the underlying agreement when it plainly has not been given, the court will, in the exercise of its discretion, grant an injunction to restrain the beneficiary from maintaining the demand accompanied by what is in fact a false certificate. To grant an injunction in such a case is not inconsistent with the general principles set out above. It is, in my view, clearly arguable in the present case that the only realistic inference is that the demand was made fraudulently and it is, in my view, further arguable that it is, in the circumstances, dishonest to maintain the demand."*⁴³ That is to say, issuing the required notice was fraudulent as it was issued wrongly and contrary to a nominated clause in their agreement.⁴⁴ Therefore, the court was correct in issuing the injunction.

So far, under the English law the majority of the cases refused to issue an injunction to stop the payment because of the absence of clear evidence provided by the applicant.⁴⁵ It is believed that English courts require a high standard of proof of fraud; therefore, this excessive requirement will justify the court rejection for issuing the injunction.⁴⁶ That is to say, this condition under the English courts

³⁷ [27], 447, 448.

³⁸ [46] at 177.

³⁹ [24], see also [47].

⁴⁰ [50], 99.

⁴¹ See [19].

⁴² See [19].

⁴³ [52], 450.

⁴⁴ See [19].

⁴⁵ See [19].

⁴⁶ [53]; see also [24], see also [54].

with respect to proof of fraud makes it impossible for the courts to apply the fraud exception rule and a hard ship for the alleged party [55]. Therefore, due to the “high standard of proof” required, it is difficult to bring an action against the banks in England.⁴⁷ However, in my judgment, requiring a high standard is justified. This rigid approach by English courts is important to affirm on the autonomy principle in letters of credit. Further, to ensure that “the claim is not frivolous or vexatious.”⁴⁸ Moreover, issuing an injunction will affect on the banking system integrity [57].

However, it should be noted that none of the English courts specified what type of evidence was required or what would be considered as a convincing evidence for the courts to apply the fraud exception rule.⁴⁹ It is argued that “the standard of proof in England depends on the stage of the proceedings.” In this regard, the proof standard was settled merely on the basis of intentional, rather than material fraud.⁵⁰ However, in proceedings, a mere allegation is not sufficient to estop a bank from honoring a credit [58]. Instead, it is necessary to establish clearly that the bad intention beneficiary is not honest and that the bank is aware of fraud [59]. In this regard, “the evidence must be clear, both as to the fact of fraud and as to the bank’s knowledge.”⁵¹ In contrast, the standard of fraud embraced by the United States courts is more logical. The American courts focuses on the demand for payment, meaning that if such demand has absolutely no basis in fact or the conduct of the beneficiary has vitiated the entire transaction, in this regard, an injunction will be granted.⁵²

Although the justification for a high standard of evidence for fraud required by the courts is, sometimes, to affirm on the autonomy principle and secure the parties [18], yet this is not always the case. In my judgment, granting an injunction in order to postpone the demand for payment under an alternative method of payment; for instance; performance bond, demand guarantee, or standby letter of credit, apparently, is not a difficult task in England compared to such a demand under a “commercial” letter of credit. Generally speaking, the right of payment under these three instruments; e.g. performance bond, demand guarantee or standby letter of credit is based on the applicant failing to fulfil the required obligations under them.⁵³ In contrast, under a commercial letter of credit the right of payment is legitimate once the beneficiary has fulfilled their obligation [68]. Therefore, in my judgment, proving that the demand for payment by the beneficiary in a fraudulent way under commercial letters of credit is not an easy task.

This difficulty emerged due to a two involved context in such contract, namely; goods and documents. Apart from the fact that presenting documents is a compulsory requirement in the other three instruments mentioned above. Consequently, in my judgment, sometimes requiring clear evidence might not be possible with regard to a commercial letter of credit, especially when the fraud rule in England is restricted only to fraud in documents.⁵⁴ Therefore, it is difficult to see how the applicant can prove that the beneficiary is not honest. Bearing in mind that the applicant will be under a duty to prove the fraud conduct within a short period of five banking days and depending on the face of the documents alone. Therefore, in my judgment, it is not clear that the requirement for clear evidence will be fulfilled through providing, for example, a formal document indicating that there is no ves-

⁴⁷ See [19].

⁴⁸ [56], see also [25].

⁴⁹ See [19].

⁵⁰ See [18].

⁵¹ see [60], see also [61]; see also [62].

⁵² [63], see also [64].

⁵³ See in general [2, 50, 52]; see also [65, 66], see also [67].

⁵⁴ See [69]; see also [70].

sel existing with the name (ZZZ). It is doubtful that such a document would prove that the beneficiary has no right for payment under the credit. Assume that the applicant provides an evidence that the documents are forged due to the fact that a beneficiary is no longer trading for (Y) reason; for instance, a *liquidation*, thus, will not be able to provide the required goods, the question arises here as to whether this evidence could be used to postpone payment. In my judgment, “the court should ask for ‘sufficient’ or ‘convenient’ evidence instead of ‘clear’ evidence in order to issue the injunction. This convenient evidence is subject to the case’s facts.”⁵⁵

Bearing in mind that banks are not experts in such transactions nor required to go beyond the documents, and by referring to the first condition; the bank’s knowledge, it does not make any sense that the court is more convinced with the banker’s evidence and consider it as sufficient to prove that they are aware of the fraud while, in contrast, the applicant’s evidence is not.⁵⁶ The applicant is the main party in such transactions and they have more expertise in the status of the transaction than the banks. Therefore, the applicant’s knowledge should be vital in this occasion.

In my opinion, the party who claimed the existence of the fraud must provide the court with a monetary fee that will be held by the court until the end of the trail⁵⁷ besides with this monetary fee, the alleged party must provide a “sufficient” or “convenient” evidence.⁵⁸ From a purely civil law point of view, “[T]hese fees can be imposed as compensation if the allegation is found to be invalid, which will guarantee the other parties’ interest. If the allegation was legitimate, the fees are released back to the owner. Otherwise, it will be given to the beneficiary – the defendant – as compensation for postponing their right of payment due to the false allegations.”⁵⁹

In conclusion, English courts focus more on evidence of the fraud rather than making unnecessary distinctions pertinent to the fraud exception. As seen from the proceeding discussion, injunctions are not easily granted in England where the requirement for a clear evidence and proof of the bank’s knowledge will be obstacles. Therefore, the absence of clear evidence will not trigger the fraud exception rule. In short, banks in England are more protected due to the fact that courts want to uphold the integrity of the banking system and maintain the autonomy principle.

4. Fraud committed without the beneficiary’s knowledge: will the fraud exception rule apply?

Generally speaking, banks are not required to check whether the beneficiary has fulfilled its obligations in the underlying contract of sale. This is established in Article (4) of the UCP 600, which stipulates that letters of credit are isolated from the main transaction. This is known as the “Autonomy Principle.” As will be seen from the discussion of the case law in this area, the principle of autonomy has been used by dishonest sellers as a vehicle for fraud (**Figure 5**).

In *the American Accord* case, the court held that the fraud exception can only be established if the fraud appears in the documents [71]. The facts of this case is where an English company entered into a contract to sell glass fiber making

⁵⁵ See [19].

⁵⁶ See [18].

⁵⁷ See [19].

⁵⁸ See [19].

⁵⁹ See [19]. This suggestion will secure rights for both parties; this suggestion is emerged from Jordanian legislations practice, which is applied in most civil law litigations in Jordan.

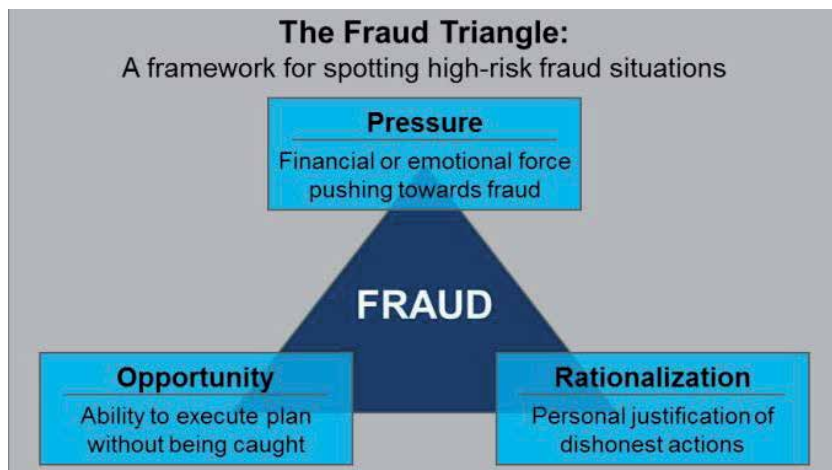


Figure 5.

Fraud triangle explaining the “dishonest person thinking” which led to emerge of fraud acts in finance sector.

equipment and payment was to be made by an irrevocable letter of credit. Shipment was agreed to be on or before 15 December 1976. However, shipment actually took place on 16 December. Without the knowledge of the sellers, the loading broker’s employee fraudulently entered 15 December as the date of shipment. In this regard, the bank refused such tender and held that the presentation was fraudulent because the goods were loaded on 16 December, not on 15 December as agreed.

Lord Diplock held that if the fraud was conducted with the beneficiary’s knowledge, the fraud rule will be applied [72]. His Lordship stated: “*there is one established exception [to the principle of autonomy]: that is, where the seller, for the purpose of drawing on the credit, fraudulently presents to the confirming bank documents that contain, expressly or by implication, material representations of fact that to his knowledge are untrue.*”⁶⁰ From this passage it is clear that to establish the fraud exception in England, the beneficiary must commit the fraud or have awareness of it. This raises the question of whether the fraud exception should also be invoked when it is conducted by a third party but without the beneficiary’s knowledge. It is clear that this is a grey area, subject to inconsistent interpretations across different jurisdictions. Therefore, this section will deal with the issue of the implementation of the fraud exception rule from different legal systems’ views; namely the United Kingdom and the United States, by answering “will the fraud exception rule apply if the fraud was committed by a third party without the knowledge of the beneficiary?”

4.1 The position in the UK

The facts of the milestone case, the *American Accord*, are an appropriate example to highlight the position in England. In the said case, as a result for the bank’s decision of rejecting the presentation, the plaintiffs, brought an action against the defendant bank for the wrongful dishonor. The court refused the bank’s decision and stated that: “[H]ere I have held that there was no fraud on the part of the plaintiffs, nor can I, as a matter of fact, find that they knew the date on the bills of lading to be false when they presented the documents. Accordingly, I take the view... that the plaintiffs are... entitled to succeed”⁶¹.

⁶⁰ [72], 183.

⁶¹ [72], 278.

Surprisingly, the judgment was reversed by the Court of Appeal, which held that the fact that the fraud had been committed by a third party could not prevent the bank from raising the defense of fraud against the beneficiary.⁶² The Court held that “it is the character of the document that decides whether it is a conforming document and not its origin, then it must follow that if the bank knows that a bill of lading has been fraudulently completed by a third party, it must treat that as a nonconforming document in the same way as if it knew that the seller was party to the fraud”.⁶³ However, the House of Lords unanimously reversed the decision of the Court of Appeal and reinstated the trial judge’s decision.⁶⁴ The House of Lords held that the beneficiary should obtain the payment unless it was a party to the fraud.⁶⁵

Notably, it can be seen that each of the courts that dealt with the *American Accord* case approached the issue of third-party fraud from different points of view. From the trial judge’s perspective, the fraud was neither conducted by the seller nor with his knowledge. In turn, the Court of Appeal pointed out that the case fell within the scope of the fraud exception because the document was forged, although without the beneficiary’s knowledge. However, from Lord Diplock’s perspective, besides the documents themselves, what is important in such transactions is the knowledge of the beneficiary. His Lordship believed that the bank is under a duty to honor the credit if there is no knowledge on the part of the beneficiary in regard to fraud conducted by a third party [73]. This duty is based on the fact that ignoring the beneficiary’s knowledge as a requirement for establishing the fraud exception rule might undermine the reliable system of letters of credit [73].

A few years earlier, Brown LJ answered the question regarding fraud by a third party in *Edward Owen* [74], finding that the implementation of the fraud exception under the English courts could be applied if the beneficiary presented forged or fraudulent documents and knew that the presented documents were not true.⁶⁶ Therefore, the general rule is that if the seller fraudulently presents documents that contain, expressly or by implication, material misrepresentations of fact that to his knowledge are untrue to the confirming bank, the fraud exception will be applied. Consequently, to qualify the fraud rule, such conduct needs to be committed by the beneficiary⁶⁷ or with their intention and knowledge. Therefore, if the beneficiary is not aware, similar to the *American Accord* case, the rule will not be applied.

On the grounds discussed above, it follows that if the fraud was committed through a third party without the beneficiary’s knowledge, the fraud exception will not be applied. Therefore, the bank should honor the credit. The justification for such a ruling is because the beneficiary, on this occasion, is also the victim of the fraud; hence, it would not be appropriate to deny them the right of payment [75, 76].

Generally speaking, English courts focus more on the intention of the seller when looking at cases of fraud. As noticed above, the three courts did not accept the idea that the exception should be applied if the fraud was conducted by a third party without the knowledge of the seller. What is important is the knowledge of the seller. Consequently, the fraud rule will only be applied if the fraud act was conducted by the beneficiary or when the beneficiary has knowledge of a fraud committed by a third party. That is to say, the focus on the intention of the fraudster is the standard for the rule to be applied in England. This approach was justified as

⁶² [72], 239.

⁶³ [72], 248.

⁶⁴ [72], 183.

⁶⁵ [72], 183-184.

⁶⁶ [74], 984.

⁶⁷ See in general [1] where the beneficiary was party to an agreement with the carrier and its brokers to antedated the bill of lading.

English courts retain the requirement of a beneficiary's knowledge to maintain the efficacy of the letter of credit as a system of payment [77].

4.2 The position in the USA

In turn, in the US, although there are codified letters of credit rules in legislation and a specific provision for the fraud exception rule, Section 5-114 of the previous version of the UCC 1978 does not identify its position regarding the third-party fraud issue. This matter was left to the courts to deal with. In the previous version, the UCC 1978 was concerned only with the nature of the documents, not the identity of the fraudulent party [78] meaning that the fraud exception rule was applied regardless of the identity of the perpetrator and the knowledge of the beneficiary.

After amending the UCC in 1995, the new standard is not concerned with the intentions of the seller but rather examines "the severity of the effect of the fraud on the transaction" [79]. This means that the US legislation focuses more on the effect of the fraud, neither on the intention of the beneficiary nor on the identity of the fraudster.⁶⁸ This, implicitly, means that the fraud exception rule will apply if the fraud was committed by a third party, even without the seller's knowledge. From the US courts' perspective, the effect of such a matter on international trading is detrimental, regardless of who perpetrates the fraud or the knowledge of the beneficiary. Therefore, the effect of fraud on the right of payment should have no correlation to the identity of the perpetrator or to the beneficiary's knowledge. Briefly, for US courts, fraud is fraud despite who commits it and whether the beneficiary has knowledge because bank and buyer will still be at risk as a result of such action. Moreover, what matters are the existence and the effect of the fraud, not the source or the knowledge and intentions of the parties.

4.3 Concluding remarks

In my judgment, although fraud will still harm the utility of a letter of credit transaction, shifting the court focus from the illegal act to the identity of the fraudster or the beneficiary's knowledge will be ineffective. There is no merit in focusing on the identity of the fraudster or on the beneficiary's knowledge at this point. As it stands, a documentary credit is an independent contract between bank and beneficiary; consequently, fraud conducted by a third party without the beneficiary's knowledge, in my judgment, is not a relevant consideration when establishing the fraud rule. What is important here is the conduct of fraud and not the identity of the fraudster nor the knowledge of the beneficiary for these reasons.

Initially, the utmost principle in letters of credit is its autonomy and independence from any dispute in regard to the underlying transaction. That is to say, instead of examining the documents and their compliance, banks will be required to examine the intentions behind the documents. Or in other words, whether the beneficiary is aware of such fraud or not. This is not acceptable and contradicts with Article 5 of the UCP, which will bind banks to go beyond the documents. If the documents complied "on their face" but the applicant alleged that there is fraud, why should the bank stop the payment on this ground. Why should the bank postpone the payment until investigate whether if the beneficiary is aware of the fraud or not? According to Article 34 of the UCP rules "*A bank assumes no liability or responsibility ... for the **good faith or acts or omissions, solvency, performance or standing of the consignor, the carrier, the forwarder, the consignee or the insurer of the goods or any other person.***" This dispute of awareness between the applicant and

⁶⁸ [80]; [8], 124; [81].

the beneficiary, in my judgment, should be out the scope of the bank's authority and the autonomy principle. The most important condition when applying the fraud rule is to establish that fraud exists in the documents regardless the identity.

Further, the fraud rule will be applied if the fraud accords in the documents only.⁶⁹ Moreover, it is the beneficiary's duty to present complying documents; therefore, the beneficiary is under a duty to check their compliance. In my judgment, I cannot see any merit in considering the beneficiary's knowledge a material condition when applying the fraud rule. Arguably, claiming that the beneficiary is not aware of the fraud in the required documents is, in my point of view, a "release" key from such allegation. Such claim might create more hardship for the applicant through trying to prove first that fraud exist and later, that the beneficiary is aware of it. No doubt such point of view will not be welcomed from the innocent beneficiary, who might be a victim, yet it is the beneficiary's duty to check their compliance. Therefore, the only exception for this independent right is when the fraud is conducted in the documents regardless of the identity of the fraudster or the beneficiary's knowledge.

5. Conclusion

There is no doubt that the autonomy principle is the cornerstone of the letters of credit mechanism. This principle aims to provide banks with immunity and affirm the unique character of letters of credit. Nonetheless, it could be considered as a double-edged sword, meaning, such a principle might be seen as a device for the fraudster to manipulate the system.

This chapter concludes that to trigger the fraud exception rule in England, two conditions must be met. That is to say, if a clear evidence is provided besides with the bank's knowledge, the fraud exception rule, will be applied; a part from the fact that it must appear in the presented documents. In this regard, the bank should be aware of the fraud before the payment in order to fulfil the bank's knowledge condition; as explained in most of the English cases. However, if the bank is not aware of the fraud and the presented documents are in compliance, the bank will be under a duty of honor the credit. Meaning that the paying bank is protected if the documents against which it made payment are tainted with fraud, even if it is not aware of the fraud. Most importantly, the UCP rules always assured that it is not a bank's responsibility to investigate allegations of fraud. Nonetheless, this chapter showed that there are some reservations regarding the bank's knowledge and the clear evidence conditions. In short, such an approach does not lead to justice and fairness for the applicant.

With regard to third party fraud, England, restricted application of the rule to cases of fraud either initiated by the seller, or where the beneficiary has knowledge of the third party's fraud. This approach is important to secure each party's interests. From the applicant's perspective, if the beneficiary committed the fraud, the beneficiary will lose their right of payment. In contrast, from the beneficiary's perspective, it is not logical to include third parties' actions in the fraud exception rule where the beneficiary is a victim, especially when the act of fraud is committed without the knowledge of the beneficiary. From the banks' standpoint, they will suffer hardship when it comes to dealing with third party fraud as they are unable to determine if the fraud was committed by the beneficiary or someone else. In addition, if that is the case, the bank is unable to determine whether the beneficiary is aware of that bad conduct or not. Again, banks are not required to go beyond the

⁶⁹ [72], [74], 172.

documents in this mechanism. It is true that the applicant will not be pleased with this approach, yet this is how the autonomy principle works.

Glossary of commonly used terms

Fraud: The term “Fraud” evolved from the Latin word “fraus,” which refers to “deception, false or wrongful acts which deceive people.” This term, in essence, commonly includes activities such as theft, corruption, conspiracy, money laundering and others. It also includes all acts or omissions, which involve a breach of a legal or equitable duty or by taking advantage of another.

Fraud in letters of credit: A prohibitive activity in which either importer or exporter violate their obligations under a sale of goods contract, in order to obtain a financial benefit by manipulating the loopholes of the letters of credit mechanism, thereby resulting in financial loss to either exporter or importer.

Letter of credit: A commitment given by the bank to pay the seller (beneficiary) upon the timely presentation by the latter of documents conforming to the terms and conditions of the credit.

Applicant: The buyer of the goods or services supplied by the seller, who requests the bank to open a letter of credit per as his instructions.

Issuing bank: The bank that issues a letter of credit at the request of an applicant or its own behalf, sometimes it is known as the “issuer.”

Confirming bank: The bank that is under a duty of examining the presented documents, and decide to honor the credit, if the documents are complaint.

Advising bank: The bank that is usually provide an advice of the letter of credit that is sent by the issuing bank.

Beneficiary: A party under letter of credit, whose the credit is opened for his favor. This party receives the stipulated amount under the credit.


Injunction: A judicial order restraining a person from beginning or continuing an action threatening or invading the legal right of another, or compelling a person to carry out a certain act.

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Section 4

An In-Depth Study on Sexual
Crimes

Identifying Criminal Career Patterns of Sex Offenders

Dalibor Dolezal and Ena Jovanovic

Abstract

Intense social and political changes in the past decades led to changes in crime rates and the way the public perceives crime. Although there is a concern about crime in general, there seem to be some types of offences that cause more distress to the general public than others, for example, sexual offences. They seem to receive significant amounts of public condemnation and represent the focus of many punitive policies. In order to understand criminality as an individual and a social problem, researchers began to study crime through the concept of criminal career. One of the ways of getting insight into this type of offenders is by exploring their criminal career referring to a longitudinal series of offences committed by a person which has a noticeable series of offences. The study of the criminal career of sexual offenders has the potential to bring new information to experts and legislators, contribute to a greater understanding of the continuity of transgression from adolescence to adulthood and ensure better knowledge of the occurrence of sexual misconduct, how it begins, how it develops over time and how it ends.

Keywords: criminal careers, offending, offending patterns, sex offenders, rape, child sexual abuse

1. Introduction

In a never-ending pursuit to understand individual criminality and how various social factors encourage or inhibit criminal activity, criminologists developed the concept of criminal careers [1, 2]. This concept emerged from the work of Alfred Blumstein [3], who aimed to quantify offending and improve the way criminology and other behavioural and social sciences make prediction and test empirical data. Using data from previous research, Blumstein et al. developed a concept of “criminal career” in order to develop a framework through which effective crime control policies could be developed [4]. Their understanding of the concept developed from indicating individual offending frequency (λ) calculated by determining the average number of crimes committed per year by active offenders (true frequency) measuring the individual arrest frequency (the average number of arrests per year of active offenders; measured frequency – the μ). They determined that λ and μ were linked by q , a probability of arrest following a crime ($\mu = \lambda * q$) ($\mu = \lambda * q$) [4].

At the same time, in the 1980s, the US showed an intense social and political focus on high crime rates and crime control. Due to the rise in violent crime, the US Government started a task force on violent crime which proposed increasing the federal role in the prosecution of violent crime, and other far-reaching changes in federal law including abolishing parole, expanding prisons, and restrictions

on sentencing discretion [5]. To oppose these retributive measures, the National Research Council of the National Academy of Sciences organised a Panel in 1986, chaired by Alfred Blumstein, that focused on sharing knowledge and finding alternatives to this “tough on crime” policy [6].

The main focus of the Panel was to develop research on criminal careers, defined as “longitudinal sequence of offences committed by an individual” [3] and to distinguish “criminal careers” from a ‘career criminal’, i.e. “an extreme group of offenders who commit serious crimes at high rates over an extended period”. A criminal career is often considered a total number of crimes with regard to the duration of offending while career criminals term refers to persistent offenders. In other words, anyone can have a criminal career while only those with the highest frequency of offending can be described as career criminals [7]. The Panel was particularly interested in whether information about an individual’s criminal career (e.g. instant offence type, a record of prior offences, including any juvenile record, drug use) could help in determining criminal sanctions. Researchers on the Panel discussed the methodological, operational, and ethical challenges involved in using predictions about criminal careers in criminal justice decision making [5].

Central to the criminal career paradigm is that it recognises that individuals begin their criminal activity at some age, constitute a number of criminal offences, commit different types of criminal offences, and then desist or terminate offending. As a result, the approach to studying criminality through the concept of criminal careers emphasises the need to obtain data on why and when perpetrators start committing crimes, why they continue to offend, what is their frequency of offending, do they escalate and specialise in offending, and why and when they cease to offend [7].

Criminal career research has a somewhat complex organisation. It can be presented in several organising concepts that could be compared to a puzzle or branches on a tree [8]. At the beginning of the criminal career research, most researchers agreed that every criminal career has a beginning (“onset” or “initiation”), duration and end (“dropout”, “desistance” or “termination”) [9]. Additionally, criminal career concept is researched through four key dimensions - participation in offending, the individual offending frequency, the seriousness of the offences, and career length. These dimensions let to a set of related constructs and questions for researchers to explore [10]. The division into these features helps to understand, describe, and contextualise the offender’s criminal activity at a certain point in time [2].

Despite limitations and challenges, criminal career research shifted the focus from general to selective incapacitation strategies, trying to achieve the maximum possible crime reduction for the lowest possible cost [6]. Since its introduction to the criminological theoretical world, a significant amount of empirical, theoretical and policy-oriented research has been published [6] introducing new ways of looking at the crime phenomena such as age-crime curves [8], offending patterns, researching within-individual differences and differences between individuals [2, 6, 8]. Most importantly, investment in longitudinal research since the 1980s has contributed to creation of Developmental and Life-Course Criminology (DLC) in the 1990s [4]. Essentially, DLC is concerned with the development of offending, risk and protective factors and the effects of life events on the development of an individual by documenting and explaining within individual changes in offending throughout life [4, 8]. Although DLC theories resulted from research on criminal careers, criminal career was never established as a theory, rather as one of the paradigms of DLC.

Most of the criminal career research is focused on in-depth research of the criminological problems closely connected to onset, duration, and desistance from offending. In other words, criminal career research gravitated towards answering

some important questions about general offending. However, little scholarly attention was given to sexual offences. Therefore, the field of sexual violence represent an important gateway to new insights and has much to offer to area of criminal career and life-course perspective.

2. Aetiology of sex offending

In the past, sex offender literature has largely focused on biological and psychological roots of offending making individual pathologies and early trauma the most common explanations for sexual offending. Traditional theoretical views on sexual offending describe sexual offending through trait-like features such as cognitive distortions, low victim empathy, deviant sexual preferences, poor attachment style, sexual regulation. We will here briefly present some of the most used theoretical explanations regarding sex offending.

One of the major concept used in explanations of sexual offending is paraphilias who are defined as sexual disorders characterised by intense, sexually arousing fantasies involving either nonhuman objects, suffering or humiliation of oneself or one's partner, children or other nonconsenting persons [11]. Most common paraphilias are paedophilia, voyeurism, transvestic disorder and exhibitionism [12]. However, it was found that unlike problems such as depression or anxiety, most cases of sexual offending (rape, child molestation, etc.) are not associated with any particular cluster of covarying signs and symptoms [13]. Moreover, even though some individuals who commit sexual offences against children are diagnosed with paedophilia, a mental disorder characterised by deviant sexual interests in children and some may have a paraphilia of some type, typically, this is not the case for all child sex offenders. [13]. Attachment theory, however, points out that sexual deviance is a consequence of the loss or emotional distress and intimacy deficits [14].

The psychodynamic theory explains sexual deviance as an expression of the unresolved problems experienced during the stages of development, and sexual deviancy occurs when the *id* is overactive [14]. The function of *id* is to operate unconsciously and to impel the organism to engage with need satisfying activities which are experienced as pleasure. However, this explanation fails to **address the cultural context of human development** [15]. Similarly, biological theories focus on abnormalities in the structure of the brain, level of hormones, genetics, and deficits in the intellectual functioning of sex offenders. Many studies have shown abnormalities in the brain of some perpetrators, but there is insufficient evidence to support more generalisation of the results [16].

Sex offending can also be studied through feminist theories focusing on the structure of the relationship between the sexes and the disparity of power between a man and a woman [16]. In general, feminist theories on child sexual abuse are divided into radical feminist perspective and post-modern perspective. Radical perspective centres on the patriarchal nature of (Western) society. Patriarchy has been defined by radical feminists as the world view that seeks to create and maintain male control over females. This perspective emphasises that sexual abuse is a representation of the patriarchy and the power that men have over women and that all men are socialised to hold attitude and exhibit behaviours that are associated with sexual offending. However, this perspective was criticised because of the lack of empirical scope [17]. The post-modern perspective rejected the radical perspective and established that men who sexually abuse are neither outside the society nor reducible to it and that they may know exactly what they are doing, but some offenders may not. This perspective was as well criticised because it is vague on what their theoretical position on sexual violence is [17].

Evolutionary theories, however, explain the diversity of human behaviours, including the aggression of sexual offenders as a way of adapting to changes in the environment. The evolutionary settings explain sexual aggression on sexual selection and reproductive strategies, whereby as one of the sexual strategies they cite the compulsion of sexual coercive is also present in the animal world as one of the reproductive strategies. The criminal offence of rape within these theories is a result of the inability of men to win a partner by more appropriate methods [16].

More influential theories in social sciences described sexual offending through cognition and behaviour. Behavioural theories suggest that deviant sexual behaviour is the result of learned behaviour. They assume that sexual excitement plays a crucial role in sexual offences. Sexual satisfaction and lack of negative consequences of sexually deviant behaviour increase the likelihood that such behaviour will continue. If the negative effects are strong enough, the behaviour will decrease [16]. However, many male sex offenders lack deviant sexual arousal patterns [18] and other traits such as the lack of empathy for the victim or remorse which in some individuals may also play a role in the development of deviant sexual behaviour patterns [16].

Cognitive theories suggest that cognitive distortions are the main cause of deviant sexual behaviour and that “concealed” opinion leads to “distorted” behaviour [16]. Cognitive distortions are often referred to as offence-supportive attitudes, or cognitive processing during an offence sequence, as well as post-hoc neutralisations or excuses for offending [19]. The cognitive-behavioural theory addresses how offenders’ thoughts affect their behaviour: focus on how sexual offenders diminish their feelings of guilt and shame by rationalising them through excuses and justification [14]. Although many offender rehabilitation programmes focus on eliminating cognitive distortions, the relationship between cognitive distortions and future crime is not clear and it seems cognitive distortions may not be what causes fallacious thinking at all because, outside the criminal context, “making excuses” for one’s behaviour is widely viewed as a normal thing [19].

Social learning theories explain how children who are victims of sexual abuse become perpetrators of sexual offences as adults. Also, this theory states that sexually explicit materials can contribute to committing sexual offences. Furthermore, victim’s age at the beginning of abuse, the relationship between the perpetrator and the victim, the type of sexual act, the amount of coercing used, and the duration and number of victimising events all have a crucial role in the connection of acts of sexual offences and subsequent acts of sexual delinquents [16]. This theory is most often criticised because there is little evidence to suggest that children who are victimised will become abusers themselves [20]. Furthermore, direct link between the use of pornography and sexual violence was never confirmed; however, some studies suggest there might be some connection between pornography and attitudes that support sexual aggression [16].

One of the limitations of these trait-like approaches is that it comes at a cost of a broader view of sexual offending. Moreover, individual pathologies-based explanations are not well suited for a developmental and longitudinal perspective of causes for this kind of behaviour. They have also contributed to sex offender researchers emphasising the differences, rather than searching for the similarities between sexual and nonsexual offending [6]. Criminal career approach provides a more developmental point of view explaining how sexual offending starts, develops, and stops as well as whether such distinctions are theoretically, clinically, and/or policy relevant [2]. In other words, maturation and dynamic theories assume that the same mechanisms underlie the behaviour of all offenders while life-course criminology emphasises the need to use a more broader view on the causes of sex offending as well as to find similarities between the perpetrators of these crimes rather than differences.

The most important theoretical question that needs to be answered when studying sex offenders through criminal careers is whether sex offenders should be regarded as similar or different from non-sexual offenders in terms of the aetiology of their offending behaviour. Consequently, there are two possible ways to consider sexual offending- that it is different from non-sexual offending and that it is an integral part of the general offending repertoire.

If studied separately, one possibility is to distinguish adolescence-limited from persistent sex offenders. This way of studying offenders gained its popularity in the 1990s with Moffitt's Dual Taxonomy theory [7]. This theory states that adolescence-limited antisocial behaviour individuals have brief criminal careers, lack consistency in their antisocial behaviour across situations and may also have irregular, crime-free periods. Adolescence-limited delinquents are likely to engage in antisocial behaviour in situations where they estimate they could gain profit, but they also abandon antisocial behaviour when prosocial behaviour is more rewarding.

Adolescence-limited offenders usually start offending by the ways of three distinctive conditions: motivation, social mimicry and reinforcement. Social mimicry is a term taken from the ethology and is loosely connected to the social mirroring theory. Adolescents often mimic the behaviour of their life-course-persistent peers in order to gain the same benefits (i.e., status in the peer groups; friends, etc.). In other words, adolescence-limited offenders commit criminal offences if they can gain from them, and if such behaviour is reinforced by their peers. With a change in their circumstances, for example, starting college or starting a job, they will usually stop offending [7].

Individuals that fall under the category of life-course-persistent antisocial behaviour exhibit antisocial behaviour at an early age. For example, biting and hitting at age 4, shoplifting and truancy at age 10, selling drugs and stealing cars at age 16, robbery and rape at age 22, and fraud and child abuse at age 30; the underlying disposition remains the same, but its expression changes form as new social opportunities arise at different points in development. The Dual taxonomy theory, however, does not suggest that all specific behaviours in childhood will be predictive of criminal behaviour in adulthood, but that it might be associated with behaviours that are conceptually consistent with the earlier behaviour [7].

Beyond young adulthood, the antisocial disposition of life-course-persistent may be expressed in a form that is not yet well-measured (e.g. neglect and abuse of family members). According to this theory, it is necessary to investigate the roots of antisocial behaviour in the early life of life-course-persistent offenders. Moreover, some of the causes for life-course-persistent offending are neuropsychological (disruption in the ontogenesis of the fetal brain, minor physical anomalies, maternal drug abuse, poor prenatal nutrition, exposure to toxic agents, brain injury because of complication during delivery), variability in infant temperament, developmental milestones and cognitive abilities, exposure to criminogenic environment or inconsistent discipline. Thus, over the years, an antisocial personality is slowly constructed. Likewise, deficits in language and reasoning are incrementally elaborated into academic failure and insufficient job skills. Over time, all the problems accumulate, and an individual has fewer options for change. This theory of life-course-persistent antisocial behaviour emphasises the constant process of reciprocal interaction between personality traits and environmental reactions to them [7].

However, if sex offending is studied combined, the question is to what extent sexual offending (or which type of sexual offending) is characteristic of a particular overall offending trajectory. Furthermore, it might be necessary to study sexual offenders by dividing them into different offence types as they may be stemming from different causal processes and thus it would be best to consider their different developmental pathways [6].

Current research suggests that there are some significant differences between sex offenders and non-sexual offenders. For example, the prevalence of general delinquency peaks in adolescence while sex offenders have two peaks in offending, one in adolescence and one in the mid to late 30s [6, 21, 22]. Also, sex offenders show continuity in general offending and antisocial behaviour, but low continuity in sexual offending [22]. This finding resonates with the finding that delinquency is usually just a part of a larger behavioural repertoire consisting of potentially harmful behaviours such as substance misuse [21]. Similarly, non-sexual offences usually precede sexual offences and specialisation in sex offending does not increase in adulthood [6, 22]. Therefore, criminal career offers an interesting way of studying offending patterns by looking into the four key dimensions (participation, frequency, seriousness, and length [3, 4, 9, 10, 23] and related constructs such as escalation, specialisation, co-offending, intermittency, and others [2, 9, 24, 25].

3. Criminal career of sex offenders

3.1 Participation and frequency

The dimension of participation refers to the proportion of a population who are active offenders at any given time, while frequency refers to the average annual rate at which this subgroup of active offenders commits crimes. In other words, participation refers to the prevalence of offending, while frequency refers to the incidence of crime [26]. Both dimensions are particularly difficult to research and estimate because of the underreporting of sexual offences and the so called “dark figures” of crime. Nevertheless, frequency has been of particular interest to the policymakers as it implicated that it is possible to identify high-frequency offenders and incapacitate them to maximise the incapacitation effect. However, it appears that the frequency of offending is very complex and that its value might fluctuate throughout a criminal career [27]. Another difficulty with the dimension of frequency is that it is challenging to estimate. For instance, one sex offender can offend against one victim over a, for example, 5-year period, multiple times, but official reports will note his offences as one offence.

The Cambridge study [28] found that the prevalence and frequency of sex offending in community samples is low and that there is little evidence of recidivism or continuity. With respect to the prevalence and frequency of sex offending, conviction data indicated that whereas 41% of the males in the sample had been convicted by age 50, only 2.5% of the males had a conviction for a sex offence.

However, self-report and victimisation studies show a much higher number of individuals participating in sexual offending. For instance, The Bureau of Justice Statistics’ (BJS) in the US conducts a National Crime Victimization Survey (NCVS) [29] every year using a nationally representative sample of 240,000 interviews on criminal victimisation. Results for 2018 showed that the rate of rape or sexual assault victimisation increased 1.6 to 2.7 victimizations per 1000 individuals aged 12 or older in comparison to previous years. Even more concerning data emerged from two meta-analyses [30, 31] of 282 studies around the world on child sexual abuse. The analyses used self-report data and found that the prevalence of child sexual abuse ranges from 12.7–19.7% for girls and 7.6–7.9% for boys. Both analyses showed that the highest prevalence of sexual abuse of children is in Africa and the lowest prevalence rate in Europe.

It is important to point out that sexual offences are often generalised as heterosexual offence [32] and therefore, there is very little known about male victims [33].

Recent figures indicate that around 12,000 males are victims of sexual assault or rape in the UK every year [34] and that nearly 1 in 4 men in the U.S. experienced some form of contact sexual violence in their lifetime. Among male victims of complete or attempted rape, about 71% experienced such victimisation before the age of 25 [35].

The frequency of offending varies significantly depending on the used method and between types of sex offenders. Sex offenders against women have, on average, 1.8 victims, whereas extra-familial child abusers have 3.4 victims on average [36]. Another study [37] suggests that sexual offenders with adult women victims had, on average, 2 official victims, but self-reported close to 12 victims. Similarly, sex offenders who offended against children had, on average, officially offended against 2 victims, but self-reported 7 victims.

Finally, investigations into the frequency of prolific, persistent sex offenders using several sources of information (i.e., self-reports, police investigations, victim statements) came up with three key conclusions on sex offending [38]. Firstly, about 11% of the sample committed over 300 sex crime events as opposed to about 40% who committed only one sex crime event. Secondly, some offenders take advantage of low-risk short-term opportunities with different victims, while others exploit a single offending opportunity by repeatedly offending against the same victim over a certain period of time. Thirdly, the findings revealed that the most prolific sex offenders were older, had a more conventional background characterised by a stable relationship with an adult partner, a job at the time of the offence (s), no drug issues, and no prior record for a sex crime.

3.2 Seriousness

The third dimension of the criminal career, seriousness, is in some ways, fundamental for criminal career research. Seriousness refers to the level of seriousness of the offences being committed by a given individual [3] and takes the modern approach to crime by focusing on determining a level of risk. Risk relates to the probability of criminal behaviour and is usually measured as low, moderate, or high [39, 40]. Offender risk is usually determined based on the possibility of reoffending or recidivism. It is important to define two categories here: chronic and recidivists [41]. The chronic type offenders are more at risk of persistent life-span criminal careers, which are costlier to society; over time they may have more victims (and financial loss for the victims) in addition to the costs associated with their arrest and incarceration. Recidivists are less persistent, as they have a lower incidence of reoffending. However, the categories do not differentiate on the severity of offences, only on offending timespan.

Offenders that maintain lengthier periods of offending tend to be generalists in their criminal behaviour [42, 43], their offences may be less severe than those that commit more severe types such as rape, sexual homicide, or child abuse. While there may be differences between types of reoffences (i.e. fraud and sex offences), society is risk-averse to more salient offences such as rape and child molestation [44, 45]. However, meta-analyses reports show that public fear of sexual offenders is often misplaced, and that offender's recidivism rates for sexual offences vary between 11,5% and 13,7% while general recidivism rate varies between 33,2% and 36,2% [46, 47].

Some authors argue that these four key dimensions of criminal career, and especially seriousness, made it possible for a variety of important theoretical opportunities to emerge along with research on criminal careers [48]. This segment of criminal careers has several parameters that are observed through the dimension of seriousness: the severity of the criminal offence, escalation, specialisation, and crime-type switching [49].

3.2.1 The severity and escalation

The severity of the offence refers to the tendency towards committing severe criminal offences during a criminal career while escalation refers to the tendency towards making initial minor offences towards the increasingly more severe offences [27]. Escalation reflects the concern that as the career develops, the offender engages in more serious offences. There are different causes for escalation, for example, experience, increasing boldness or a stressful experience [6, 27].

Escalation research emerged interesting findings such as that most sex offenders who perform masturbation in front of their victim do not switch to a different sexual act (for example intercourse) when they abuse their second victim [50]. This finding points out that sex offenders tend to specialise in a particular sexual act and that they are not likely to escalate their sexual offending from non-contact to contact offending, for instance.

Another interesting finding [51] suggested that victim resistance plays a significant role in whether or not offenders will de-escalate in the amount of physical force used between victims. If the first victim resisted the offender, he was more likely to de-escalate in the level of physical force used. However, if the second victim resisted, the offender was less likely to de-escalate, indicating that he is adopting more force to secure subsequent victims if there is resistance. Furthermore, sex offenders who consume drugs in the hours before the first crime are more likely to de-escalate in the level of physical force used than be stable.

Crucial to determining behaviour consistency is the way an offender sources his victims. The “hunting” process is an essential stage of the sexual assault and offenders who find their victims through their relationships, or their occupation will often repeat their behaviour in their future crime. In contrast, offenders who find their victims more spontaneously are less likely to repeat this “hunting” method [52].

3.2.2 Specialisation and crime-type switching

Specialisation is an aspect of criminal careers and is defined as likely repetitions of the same type of criminal offence [23] while versatility reflects a tendency to commit a broad array of offences without concentrating on a specific behaviour. Researchers use a “crime-switch” matrix, a matrix of crime types reflecting the probability that an offender who has previously committed one crime type will next commit a different type [27]. Research showed that there is a relationship between higher frequency of offending and versatility, but also that offenders who start offending at an early age tend to be involved in a diverse array of offences [6]. Most criminal careers are diverse, but there is some evidence of specialisation [21].

Sex offenders in specific show little empirical evidence of specialisation, but they are characterised by persistent criminal activity and tend to show criminal diversity in non-sexual crime types [53]. It was also found [54–56] that there are substantial differences between sex offenders regarding victim type. Sexual offenders against adults have more versatile criminal records [54–56], are more violent and have a higher frequency in offending [56] than abusers of children. The other group tends to be more specialised, have a higher frequency of sexual crimes, but also tend to be criminally versatile [45–56]. Extrafamilial child molesters are consistently found to specialise more in sexual offences [54, 55]. Overall, neither child abusers nor sex offenders against adult women have a specific type of victim and that the majority of both types typically commit more non-sexual offences than sexual [56].

3.3 Career length

The last dimension of criminal career research is the length; that is the time that an individual is actively offending. Research on the dimension of length attracted the attention of the scholarly community from the very beginning of criminal career research. It incorporates three head characteristics of criminal careers: beginning (“onset” or “initiation”), duration and end (“desistance” or “termination”) [2, 10].

The relationship between age and crime is of an asymmetrical bell shape (most commonly known as the “age-crime curve”), showing that the prevalence of offending tends to increase from late childhood, peaks in the teenage years (around ages 15–19), and then declines from the early 20s, often with a long tail [22]. Most offenders desist during late adolescence and early adulthood, irrespective of the age of onset [22], but an early age of onset appears to be connected to a relatively long criminal career [6, 50]. Research on recidivism shows that sexual offending decreases with age, as well as general offending, and the recidivism of sexual offenders that offend against adult decreases from early adulthood [57, 58]. However, unlike the general offender, sexual offenders usually start committing offences either in adolescence or in mid to late 30 [2, 59].

Some of the possible explanations of why sex offenders appear to be older when they start offending include that there is a high rate of unreported sex offences because the victims are less likely to report sexual offences than non-sexual offences and because there is a disbalance between official statistics and self-report. A gap between the age of onset in the official statistics and self-report is seven years [2]. Moreover, nearly 20% of sexual offenders are at the end of their criminal career, or their career has already desisted when they are convicted of their first sexual offence [2].

Alternatively, some authors [60] suggest that the discrepancy that goes against the logic of the life-course explanation of desistance could be explained by increased average ages of marriage and parenthood. In specific, the peak in sexual offending seems to occur at a time when adolescents already transitioned into adulthood which could mean that sex offenders do not transition into adulthood at the same pace as non-sexual offenders, or that these transitions do not affect recidivism in the same way as they do non-sexual offenders. Besides the transition into adulthood, several other reasons could influence individuals to start with sexual offending. For example, loneliness is commonly reported among sex offenders, that the transitions that influence common crime do not affect sexual offending (or affect it to a lesser extent), a cost-benefit analysis that makes sex offenders less likely to accept the cost of being labelled as a sex offender, conflicting interpersonal relationships, and maturation factors [60].

The above-described factors could affect the length of a criminal career, but the most significant variable affecting the length of a criminal career is the age of the first conviction. The likelihood of termination of offending is noticeably different as the age of the first conviction rises, and more severe offenders cease to offend after the first conviction only in fewer cases [61].

4. Conclusion

The dynamic concept of criminal careers empowered researchers to develop a whole new way of looking at crime. Traditional criminological theories offered a rather static explanation of one’s criminal conduct, while criminal career concept offered a view on criminal conduct that can be used to explain crime on an individual

and group level. Furthermore, based on that, a new set of criminological theories emerged based on that concept, a Developmental and Life-Course Criminology, which emphasise a more dynamic approach to the aetiology and phenomenology of criminal conduct.

The main advantage of the criminal career concept regarding criminal conduct is that it offers a different perspective on criminality which can be used as a “bridge” between theoretical criminology and policy-relevant research. As we have shown on the example of perpetrators of sexual offences, there are differences in the development and peculiarities of the criminal career of these perpetrators. What the theories based on the concept of criminal career can offer are different explanations of the aetiology and phenomenology of these perpetrators about the particularities of their individual criminal careers. In this way, perpetrators can be viewed in terms of similarities and differences in the dimensions of a criminal career which can have multiple benefits. Specifically, although it is the same group of criminal offences, it is possible to have different theoretical explanations for the emergence and development of particular subgroups of perpetrators of certain criminal offences. In this way, specific prevention policies can be created that can be more effective because they identify not only the factors that influence the occurrence and development of certain types of crimes, but also the dynamics of the relationship between risk and protective factors that contribute to it. In this way, interventions at any level in terms of prevention and rehabilitation of offenders can be more successful.

Another great advantage of the concept of criminal career is that it allows the creation of new explanations of the origin and development of certain crimes, which contributes to the development and emergence of new criminological theories and concepts that, taking into account traditional explanations of crime and achievements of criminological research, could contribute to a new theory by erasing the understanding of committing crimes within the concepts of “traditional” and “newer” theories, but finding new ones that can merge all previous concepts into one that best suits the specifics of a particular crime or perpetrator.

It appears that only fractions of the concept and DLC theories are seldomly studied, causing the lack of comprehensive theory and resulting in some aspects of criminal careers not being researched enough while other areas are receiving more focus. This is true if we look at the types of crimes that are the focus of research under the concept of criminal career. The commission of sexual offences is now relatively unexplored and research to date has covered a small number of countries, mostly in the developed countries of the west. Therefore, the findings mentioned in the chapter need to be considered from the context of these countries. We hope that there is going to be more international collaboration and more scholarly focus on this topic in the years to come.

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A Routine Activity Analysis of Selected Rape Cases during COVID-19 Lockdown in Nigeria

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Abstract

Using five popular rape victimisation cases which occurred during COVID-19 lockdown in Nigeria, this paper shows how the mastery of routines of rape victims by sexual predators enhanced the success of rape victimisation. Elements of routine activity theory such as motivated offender, attractive targets and absence of capable guardianship is used to analyse each case to signpost and underscore the importance and centrality of active capable guardianship to dislodge and neutralise rape offenders' routine mastery around attractive targets. The paper recommends mounting capable guardianship to checking growing menace of rape in Nigeria. Attractive target should eliminate risky routines and poisonous relationship which could enhance their chances of sexual violation.

Keywords: rape, sexual violence, sexual abuse, COVID-19, crime

1. Introduction

Rape, an unlawful carnal knowledge of man or woman is assuming a threatening dimension in Nigeria. While Nigeria has no reliable statistics which could show the extent and prevalence of the crime, media reportage and statement from law enforcement agency such as the police provides insight into the magnitude of the problem. Between January and May, 2020, Nigeria's Inspector General of Police stated that the force arrested 799 suspects associated with 717 rape cases. Out of this figure, six hundred and thirty-one of these cases have been charged to court while 55 cases were still being investigated (*The Guardian*, 16 June, 2020). While rape is not a strange criminal act globally, it assumed a threatening dimension owing to the COVID-19 pandemic where both attractive targets (victims) and motivated rapists or sexual predators are trapped under COVID-19 restrictions. While there is no disaggregated data of rape victims, news reportage of rape unpacks the complex reality of this phenomenon. While rape is becoming an epidemic [1], it is generally underreported [2], with the media spotlighting its occurrence [3, 4]. How then can we check growing phenomenon of rape? Against the run of existing works, I examine the importance of active guardianship in checking activities of rapists.

As a global concern, problems associated with rape have to do with how to prevent its occurrence or reduce it to its barest minimum and the challenge of low convictions of rapists [5]. These two problems of rape are exacerbated by the prevailing rape myths supporting attitudes. Kimberly and Fitzgerald [6] define

rape supporting attitudes as beliefs and notions which tend to deny and justify male sexual aggression against women. Of course, this conception favours women and does not capture the interests of males who are also victims of rape from women. Even in Nigeria, the percentage of male victims captured by the media is small [4].

In relation to convictions, behaviours of the Criminal justice actors (police, lawyers and jurors) influence the outcomes of a rape case. Whitey [5] argues that if rape myths are reduced or neutralised, there is the possibility of getting more rape convictions. What this implies is that when CJS actors are influenced by rape myths, their judgement and reactions to rape reduces conviction rates and vice versa. This is true as Whitey [5] notes that such myths legitimises offending behaviour and inhibits women from relating experiences as rape. While not all rape cases get reported to the police, the few ones reported may also suffer attrition [7]. This attrition may be caused by the decision of the handling officer who is to determine how far the case can go, the possibility of securing a conviction, or insufficient evidence. Worse still, the police may decide what should be recorded into the crime record or simply treat what is reported as mere information or intelligence. While rape attrition has been a major cause of concern in the past three decades [8], Stanko and Williams [9] unpacks how context of reported rape could impact on its outcomes. They show how social believability vulnerabilities (mental ill-health, under 18 years, under the influence of drugs/alcohol at the time of rape, were former partners of assailants or mental issues) could affect the outcomes of the rape. In particular, victims with mental health issues may suffer their allegations not being framed as rape and their cases are not likely to result into conviction.

In South Africa, Rumney and van der Bijl [10] found that rape supporting culture exists and this is shared by CJS professionals. Where such rape supporting culture exists, victims of rape do not generally come out to report their victimisation. Indeed, Jewkes and Abrahams [11] describe South Africa has a climate tolerant of violence and rape. Rape is also a social problem in South Africa where significant law reforms have been made to arrest the menace. The reforms were thought as a way of protecting victims of rape. Indeed, South African Courts joins the condemnation of the legal system which fails to protect rape victims. Burt [12] did not absolve the complicity of parents, families and society in exerting pressure on males to discourage rape. Accordingly, Jewkes [11] notes that males are permitted to do anything they can get away with while coercion is only queried if it affects victims of higher social status in the society. Wood et al. [13] also found that women are blamed for their victimisation. They are accused women straying beyond expected boundaries of female behaviour such as being intoxicated. This social attitude and beliefs also influence CJS response to rape and the eventual outcomes. Temkin and Krahé [14], p. 209 argue that social definition of rape narrows the understanding of rape by law enforcement agents. To them: “rape stereotypes affect the judgments made by individuals dealing with rape cases, for example as police officers, judges or members of a jury, and thereby shape the understanding of rape as it is represented and dealt with in the criminal justice system”. Consequent upon these attitudes, the CJS utilises stereotypical notions to ascertain if a woman has been raped or not. Certainly, these erroneous assumptions surrounding rape affect the way victims or rape are treated along the Criminal justice system corridor. Shelley et al. [15] contend that the highly gendered nature of law enforcement organisations may have influence the situation where jaundiced notions about males and females influence the norms and practices in the agency. It remains inconclusive in literature whether women officers are more likely to believe the stories of rape victims or whether they will be more hostile to them [16, 17].

2. Rape and routine activity theory

Since its birthing by Cohen and Felson [18], routine activity theory (RAT) has been variously deployed to explain how time and space are important factors in criminal victimisation. Their basic idea was that the convergence in time and space of a motivated offender, suitable or attractive target in the absence of capable guardianship would result in criminal victimisation. According to Cohen and Felson [18], p. 589 “the lack of any one of these elements is sufficient to prevent the successful completion of a direct contact predatory crime”. In other words, no criminal victimisation will take place if there is a motivated offender and there is no attractive target and vice versa. We are also unlikely to have a criminal victimisation take place where there is capable guardianship and attractive target because the presence of capable guardianship will neutralise any victimisation instinct. This is rightly captured by Pratt and Turanovic [19], p. 2, when they averred that “one gets victimised if the three key elements converge, if any of the three are missing victimisation does not happen and the probability has little or nothing to do with it”. In deploying this theory to understand how selected cases of rape occurred in Nigeria, I argue that rapists are masters of the routines of their victims, sufficiently knowledgeable of when their attractive targets will be unprotected and more vulnerable for their sexual predation. It follows therefore that rapists’ understanding of the routines of their victims and when they will be more vulnerable to attack makes sexual violence of rape to be successful.

3. Methods

This paper adopts exploratory design and utilised secondary sources of data collection. Purposively, rape cases reported by the media during the COVID-19 lockdown in Nigeria formed the cases adopted for this study. During this lockdown, schools, offices and markets were shut down. While street crimes reduced, domestic violence and rape surged. Five cases of rape were selected for their uniqueness and the concern they generated both online and offline. They occurred between April 27 and June 6, 2020. They unveil different dimensions of victimisation and offenders’ use of space or mastery of routines of the victims and/or their guardians. We relied on the reported account of Nigerian national newspapers which covered the rape stories. In particular, *The Punch*, *The Nation* and *The Vanguard* newspapers provided account of relatives, parents and guardian of the victims on how the rape occurred. In analysing the data, I utilise the basic elements of routine activity theory: Motivated offender, attractive target and absence of capable guardianship.

4. The sexual predator as routine master

Under this section, attempt is made to analyse the data concerning each of the five cases and situated within the analytical framework of the routine activities theory. While studies have been looking for the personality of the rapists, looking for how rape occurs is capable of unveiling how to keep attractive female/male targets safe from motivated sexual predators. Felson and Cohen had maintained that crime could still occur even without the traditional notion of criminogenic factor like economic deprivation. Indeed as noted by Felson and Boba [20], crime and victimisation feature in everyday life of leaving home and going to work. Just like properties can be victim of motivated offender attacks, rape victims also become objects of sexual predators. It means that the dispersal of capable guardian from suitable target could provide a loophole for the motivated offender lurking around

to strike. This is why Cohen and Felson [18], p. 591 posits that “daily work activities separate many people from those they trust and the property they value”.

Everyday activity that takes one away from the protective custody of guardians to the waiting or monitoring hands of motivated offenders could include being alone at home, visiting ‘evil’ peers and selling on the streets around motivated offenders. Case 1 is the case of Jennifer which happened on April 27 when she was joined a male friend who had called him to meet him at a place where she would later be gang raped by those whom her sister said ‘she trusted’. She would later drink alcohol, lost self-guardianship to resist sexual assault and was gang raped. It follows therefore that the ‘gang’ had planned to remove their victims from the location where she could be saved from being raped to a location where all three elements of rape victimisation was sure. While we could analyse how ‘trust’ could make one vulnerable to being raped, not leaving and staying back when the other girls were leaving was itself a risky choice. Pratt and Turanovic [19] posits that people tend to self-select into the risky behavioural routines such as behaving in such a way that makes them vulnerable to attacks. This includes falling for the trick to drink alcohol, a tool to make her lose consciousness and self-guardianship. It shows how being at home or outside can both expose one to victimisation in the absence of capable guardianship. What this implies is that anyplace can be site for victimisation provided the elements of attractive targets, motivated offender and the absence of capable guardian converge to make rape victimisation a success.

Case 1: JusticeforJennifer in Kaduna [21]

A case of gang rape was reported in Kaduna state. The sister of the victim narrated what happened to the Punch reporter. “On April 27, 2020, one of the victim’s male friends called her to come and meet him somewhere. When she got there, she met two other girls and six boys. One of the boys had previously asked her for an intimate relationship and when it was time for the other two girls to leave, the victim also stood up to go, but one of the boys asked her not to leave yet that they wanted to talk to her on behalf of the young man asking her out. She trusted them and stayed back; they offered her alcohol, which she declined, but they coerced her into taking it after which she lost consciousness. Five of the boys raped her, while the sixth kept threatening his friends to stop or he would report them, but he never did. After they had raped her, the boys dropped her around 7 pm by the bridge close to the house and called her friends to come and get her, alleging that she had been sleeping since morning. As soon as she got home, she was taken to hospital, because she was unconscious and all necessary tests were conducted and the matter was reported at the Barnawa Police Station that same night. The case was transferred to the State Criminal Investigation and Intelligence Department and since then, the police have not arrested the three other boys or invite their parents to the station. The police are making no effort at all to arrest the suspects or question their parents. The police have been frustrating the case to the extent that the mother of the victim is already contemplating dropping the case. The parents of the two boys in custody are offering N15,000 each as damages for what their sons have done to the victim and the police have decided to release them on bail

5. Raped and murdered inside church: Uwaila’s case study

Period of uncertainty or crisis could also provide opportunity for rape victimisation. Just like the case of Jennifer, Uwaila (see Case 2 narration) innocently moved away from home where she could have benefitted from the protective custody of relations who were at home during COVID-19 lockdown. However, her routine of going to the church to read had been mastered by her rapists. This is also made possible because the church did not have night guard to guide the church facility and to the victim, the church was a sanctuary where criminals ought not venture into but she was wrong. The rapists were sufficiently motivated by a woman who paid them money to get the blood of a lady for alleged ritual. From the narrations of the offenders after they were arrested, they positioned themselves to ensure that their operation was successful.

They entered the church, initiated a conversation with their target, attacked her, raped her, cleaned her blood and escaped before they were later arrested. Certainly, the mastery of routine of the victim and the absence of capable guardianship within the precinct of the church made the motivated rapists successful with their victimisation.

Case 2: Uwaila Vera Omozuwa.

Late Uwaila Vera Omozuwa was a 22-year old microbiology student of University of Benin in Edo state. Following the lockdown of higher institutions due to coronavirus 2019 (COVID-19), Uwa had to go back home to her family to continue to hold up while the COVID-19 pandemic is expected to reduce before returning to school. She was studious and a choir of the Church where she was raped and murdered. Due to the lockdown which brought many people home, Uwa had complained about the disturbance of family members to her reading because of their noise and sought to continue using the Church to read. This became a normal way to her. On May 27, she was met inside the church in the pool of her blood. She was raped, beaten and hit with fire extinguisher on her head. She would later die in the hospital. The church security officer had gone to collect the key to the church from its keeper when he was told someone was in the church already. The security officer was to alert them of the incident in the church. The police paraded her killers on August 26, 2020. They confessed to raping and killing Uwa since they understood her movement. They were paid one million naira to kill her by suspected woman ritualist to use white handkerchief to clean her blood. The Police stated that post-mortem showed she was raped. (Vanguard newspaper June 12, 2020: How 22-year old UNIBEN student was raped inside church, murdered. <https://www.vanguardngr.com/2020/06/how-22-year-old-uniben-student-was-raped-in-church-murdered/>)

6. Home alone: the rape and murder of Barakat Bello

Site of victimisation can be home or outside the home on the street. Pratt and Turanovic [19] posited that it is theoretical to assume that home is a safe location for victimisation. They argue that victimisation such as child abuse, domestic violence, intimate partner violence all occur within the home.

Case 3: Barakat Bello [22]

On June 1, 2020, 18-year old student of Federal College of Animal and Production Technology in Ibadan was raped and murdered for suspected ritual purpose. Her father narrated "I was not at home when the incident happened. The victim's younger sister was not at home too; she went for Quaranic lessons, but when she returned home, she saw Barakat at the back of the house with deep cuts all over her body. She had been raped and killed. Somebody called me on phone that I should come home but he refused to tell me what happened. When I got home, I saw that my daughter had been raped and hacked to death." The victims' mother too was not at home while the incident happened. She was the only one at home in an isolated and bushy environment where the incident occurred

In the case of Barakat, the victim was home alone with no one around her. They also live in isolated place where help was far. The house was surrounded by bush. Understanding this terrain, the motivated offender would later attack her, raped her and killed her.

7. Odd hours: underage defilement

Case 4 presents another dimension to dangerous spaces where motivated offenders lurks and awaits attractive targets before they strike. For sexual predators, timing of attack is vital. What set the capable guardianship apart from the attractive target is the time the guardian is away from the attractive target. Therefore, leaving home to eke out a living on the streets becomes a risky routine which increases the susceptibility of the hawker to be attacked.

Case 4: 17-year old girl gang rape in Ekiti State [23]

A 17-year old sachet and soft drinks hawker was attacked by three hoodlums around 7 pm and raped her. She was threatened with broken bottles and was with them for 45 minutes.

Timing of economic activity contributed to the victimisation. Selling at odd hour in the neighbourhood of anti-social elements presents opportunities for defilement since guardianship and visibility to poor.

8. 'We are being monitored': defilement of 12-year old

The fifth case for our analysis is that which also happened during the lockdown of Lagos state which is the epicentre of Coronavirus 2019 (COVID-19) infections in Nigeria. Children and their parents were restricted to their residence except for those on essential services duty. Schools had started series of online classes to keep their pupils busy learning. The father was at home as a capable guardian, at least with potential to protect her daughter against attacks. However, that the rapists could attack their victim while the father (guardian) rushed to buy fuel for his daughter to continue online learning unpacks and lay credence to the important of routine activity in understanding sexual predation.

Case 5: 12 year old defiled in Lagos [24]

A 12-year old girl was defiled while playing alone in her compound. Her parents were not around when the masked men came in to defile her. Her mother narrated that 'I went to the office and was called (on the phone) and told that my daughter was raped in our house. I learnt she was having her online class when suddenly, there was a power outage. My husband rushed out to get fuel at a filling station so that she could participate in the class seamlessly. Blessing (not her real name) told us that while she was in the compound, four masked men jumped into the house through the fence. They took her inside and took turns to have sex with her, leaving her with multiple injuries. Immediately I received the call, I became so mad. I headed for the hospital where my daughter was rushed to. When I got there, I was told she suffered 'vaginal trauma'. The underneath of her clitoris was bruised and she had a deep tear that made her bleed severely, She could have passed out if not that her dad got back home early. She lost a lot of blood. The bleeding stopped after the tear was stitched; although, she is still experiencing very severe pain. I do not think we are secure anymore because it seems like we are being monitored. They perpetuated their evil within the few minutes it took my husband to buy fuel. They could not enter through the gate because of an ongoing construction at a building opposite ours. The site was crowded and that made them avoid entering through the front door. They scaled the fence. Some policemen followed us to the house and saw how the attackers scattered our things around

The rapists scaled the fence, avoided where crowd was and violated the underage before the father returned. This rape defilement follows this order: motivated offender, absence of capable guardian, attractive target attack and defilement and disappearance after the defilement. This finding aligns with the Cohen and Felson [18] who explained how dispersion for legitimate activities away from home could lead to the victimisation of valued object or material.

9. Discussion of findings and conclusion

Maume [25] posited that inequality may contribute to rape indirectly through lifestyle. This partly explains the rape of the 12-year old where the father had to

rush to buy fuel for generating power. It is assumed that if generating set were to be available without having to wait for a time to buy fuel, victimisation would not have been possible. This undoubtedly contributed to the victimisation since the guardian had to move away from the attractive target of the rapists, his daughter.

In terms of target suitability, Franklin and Menakar [26], p. 2 posited that individual variation in routine activities may enhance or diminish the chances that someone will be viewed as vulnerable and be selected as target. This is useful in explaining Jennifer's exposure to sexual predatory gang who pulled her away from safe zone to their territory. Scholars [27] underscore how women's selective routine may heighten their victimisation by sexual predators. They list 1) increasing sexual vulnerability through target attractiveness and exposure to would-be perpetrators and 2) decreasing the capacity to avoid unwanted sexual contact by limiting self-guardianship. It follows therefore that self-guardianship is important regulate movement in and to dangerous places. Target suitability, according to Shwartz and Pitts [28] includes availability, vulnerability, intoxication, and friendship or relationship with men who use alcohol to extort sex. Jennifer's intoxication reduced self-guardianship and paved way for rape. Studies have shown how being present at alcohol events impairs self-guardianship and increases target attractiveness and sexual assault [27]. According to Felson [18], men would deploy physical force only when other methods fail. This may explain why they lured her to their comfortable space.


Understanding how rape victimisation occurs may be helpful in checking its future occurrence by simply increasing guardianship and neutralising distractions which may displace the guardian from protecting the vulnerable attractive targets. The five cases we examined showed how the mastery of routines by the rapists contributed to successful victimisation of their targets. Home is also not safe where predators are lurking around. Spontaneous behaviour like buying fuel could remove guardianship from a treasured human being who becomes victimised in the absence of the guardianship. It is important that attention is paid to issue of guardianship, self or social guardianship which would be active and capable of dislodging sexual predators from actualising rape victimisation. Mounting capable guardianship may be one of the possible ways of reducing rape victimisation at individual, family, communal and societal levels.

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Section 5

Forensic Medicine and
Post-Mortem Studies

Genetic DNA Identification from Bone Remains in Kinship Analysis Using Automate Extraction System

Raluca Dumache, Talida Cut, Camelia Muresan, Veronica Ciocan, Emanuela Stan, Dorin Novacescu and Alexandra Enache

Abstract

The first ever human identification through DNA analysis was done in the year 1987. Since then, this test has been used, not only in the ruling of civil and juridical cases, but also for human identification of missing persons and mass disaster victims. In this chapter we will present the usefulness of genetic DNA testing of skeletonized remains for human identification, by using automate DNA extraction from three different human bone types: tooth, femur and petrous pyramid. For each case, we obtained saliva samples on buccal swabs from relatives. After the bones were washed and cleaned, Bead Balls Mill Mix 20 (Tehtnica Domel, Slovenia), was used to obtain the bone powder. The DNA extraction from bone samples was performed on the automate Maxwell RSC 48 Instrument (Promega, USA), using the Maxwell FSC DNA IQ Casework Kit (Promega, USA). Power Quant System (Promega, USA) was used for DNA quantification of the samples. The DNA samples were amplified on a Pro Flex PCR System (Thermo Fischer, USA), using the Global Filer PCR Amplification Kit (Applied Biosystems, USA). PCR products were run on a 3500 Genetic Analyzer (Thermo Fischer, USA). Data analysis was performed by Gene Mapper 1.4. Considering that these cases involved DNA extraction from teeth, bones and old human remains, automate system was felt to be the best option to reduce handling errors and increase the possibilities of obtaining good quality DNA.

Keywords: deoxyribonucleic acid (DNA), human identification, postmortem, bone remains, International Society of Forensic Genetics (ISFG)

1. Introduction

During the last three decades, the field of forensic genetics that applies genetic science for human identification has experienced new changes and advances in molecular sciences, owing to recent discoveries in the field of molecular biology. With respect to human DNA identification, establishing kinship between individuals is based on Mendel's laws, which stipulate that individual inherit genetic traits

from their biological parents in equal contribution. Thus, an individual's genetic DNA profile contains all the ancestor's DNA and is unique, excepting the case of monozygotic twins. Genetic identification using autosomal short tandem repeat (STR) markers is based on this principle. Genetic human identification can also be done on DNA haploid markers, which are the markers found on X-chromosomes and Y-chromosomes. These markers are inherent in maternal or paternal lines and are used in cases where one of the biological parents is dead [1].

In forensic genetics, short tandem repeats (STR) are the genetic markers used for human identification in cases of kinship determination, paternity or maternity rulings, crimes, sexual assaults, and burglaries. DNA samples obtained from different items can be tested to prove the presence or absence of a person in a crime scene, thus serving an important purpose in the criminal justice system [2]. Obtaining DNA profiles from bone remains and teeth is an important procedure that helps in human identification in cases of mass disasters or unidentified human remains. Human remains are the only biological samples that remain after destructive events, after exposure to harmful environmental conditions or in cases where a long time has passed since the death of the person [3]. DNA molecules degrade gradually in hard tissues, such as bones and teeth, which makes them available for DNA extraction for longer periods of time [4]. Many external factors such as humidity, temperature, pH, geochemical properties of the soil, presence or absence of micro-organisms, storage time and conditions, and various other factors can affect the preservation of DNA molecules in skeletal remains [5, 6].

It is known that after death of the organism, DNA damage and bone fragmentation can occur, thus it is especially important to understand the composition of bone and teeth and their decomposing process. The root of the tooth is covered with cementum, a biochemical structure containing hydroxyapatite, collagen, and other non-collagenous proteins. On the other side, dental pulp represents an important source for DNA extraction. According to international recommend It is known that after death of the organism, DNA damage and bone fragmentation can occur, thus it is especially important to understand the composition of bone and teeth and their decomposing process. The root of the tooth is covered with cementum, a biochemical structure containing hydroxyapatite, collagen, and other non-collagenous proteins [7]. On the other side, dental pulp represents an important source for DNA extraction. According to international recommendations the most suitable teeth are molars, premolars, and canines.

Regarding the bones, compact bone tissue makes the outer part of the ends of long bones (epiphysis) and flat bones and the middle part of the long bones (diaphysis). The spongy part of the bones is found inside the flat bones and at the ends of the long bones. Because over time the porosity of the bones will increase, bacteria and fungi who are present on soils, and cyanobacteria present in water will penetrate more easily inside the bone tissue [8].

Based on the current recommendations for sampling forensic bone remains, long leg bones (femur and tibia) and teeth are the most suitable for DNA extraction, while spongy and flat bones such as skull, ribs and vertebrae are less suitable.

In such cases, the possibility of isolating DNA from hard tissue serves to benefit forensic science [9]. After bone cleaning and DNA isolation from biological samples, laboratory protocols require the following steps to be taken to perform human identification on DNA samples: DNA quantification, amplification of DNA products using polymerase chain reaction (PCR) and visualization of the PCR products using capillary electrophoresis.

In this chapter, we will show the advantages of DNA human identification from bone remains, the concentration of which will differ depending on the type of the

bone being tested. We will present three cases of human DNA identification, performed on three different types of human bones.

2. Materials and methods

Between 1st of January 2019 and 1st of January 2021, the police brought six different cases of human bones remains to the Institute of Forensic Medicine in Timisoara, Romania, for the purpose of DNA identification.

Case 1. The corpse of a male was found in an advanced putrefaction stage. A bone fragment was obtained from the left femur during the autopsy procedure at the Institute of Forensic Medicine in Timisoara, Romania, for further genetic identification. In this case, police provided the saliva reference sample of the suspected presumptive son of the deceased victim, to confirm the identity of the victim, based on the DNA profile (**Figure 1**).

Case 2. A woman had been reported missing a few months ago. Police got an information that a shopping cart had been spotted in the woods, with clothes and human remains. Police obtained the hair and skull of the victim from the crime



Figure 1.
Left femur bone fragment after cleaning.

scene and sent them to our laboratory for DNA identification. They also found one of the daughters of the probable victim and sent her saliva reference samples to facilitate victim identification. In this case, we used a fragment of the petrous pyramid from the victim's skull to perform DNA identification (**Figure 2**).

Case 3. A man committed suicide by self-immolation. As the body was in a highly destructed state, the police decided to confirm the identity of the victim through DNA identification, by comparing his DNA with that of his presumptive daughter. To this case, we obtained a canine tooth from the deceased, during the autopsy procedure (**Figure 3**).

2.1 Bone pre-processing

The collected bone remains were washed using a rough part of a sterilized and UV irradiated dish sponge, and then washed three times in sterile bi-distilled water (Merck Millipore, USA), using a mild detergent (few ml of detergent, measuring up to 5% of the water). The washed bone fragments were left overnight to dry. After this, the bone powder was obtained by grinded the bones in small pieces at 30 Hz for 1–2 minutes, using the Bead Beater Mill Mix 20 (Tehtnica Domel, Slovenia).



Figure 2.
Skull recovered from the crime scene.



Figure 3.
Canine tooth after cleaning.

After pre-processing, the Bone DNA Extraction Kit, Custom (Promega, USA) was used to perform the demineralization buffer, by following the FSC DNA IQ Maxwell protocol. 100 mg of pulverized bone powder was weighed on an electronic balance and transferred into 1.5 mL Eppendorf tubes (Eppendorf, Germany). The kit was used for the demineralization of the tooth and the rest of the bone remains, by preparing two cocktails lysis, A and B (**Figure 4**).

First, we prepared the bone lysis cocktail A in the following manner: 400 μL of demineralization buffer, 40 μL of proteinase K and 10 μL of 1-thioglycerol were mixed by vortex for 10 seconds. After this, 400 μL of bone lysis cocktail A was transferred into a new, sterile 1.5 mL Eppendorf tube (Eppendorf, Germany). As per protocol, the tube was left to incubate in the Eppendorf thermomixer C (Eppendorf, Germany) for 2.5 hours, with intermittent shaking at 1000 rpm. Following this, the sample was centrifugated at 13.300 rpm for 5 minutes, after which the supernatant was transferred into another clean, sterile 1.5 mL Eppendorf tube.

Next, we prepared bone lysis cocktail B in the following manner: In a clean, sterile 1.5 mL Eppendorf tube, 990 μL lysis buffer was added to 10 μL 1-thioglycerol. From the bone lysis cocktail B, 800 μL was transferred into another clean, sterile 1.5 mL Eppendorf tube and vortexed for 10 seconds to ensure proper mixing.

The entire volume of the previously obtained eluate was added to well 1 of the Maxwell 48 RSC Instrument (Promega, USA). In wells 8, the plungers and 50 μL of the elution buffer were added in 0.5 mL elution tubes supplied by the producer. The



Figure 4.
Pulverized bone powder.

FSC DNA IQ Casework protocol was executed from the instrument, to obtain the DNA from the bone fragments and the tooth. After the run was complete, the obtained DNA samples were stored at $T = 4^{\circ}\text{C}$, till the time of analysis. The extraction of reference DNA samples from relatives of the deceased was performed on the automate Maxwell® 48 RSC instrument (Promega, USA), using the Maxwell® FSC DNA IQ™ Casework (Promega, USA).

After DNA extraction, biological samples were kept at -86°C for 24–72 hours till the genetic analysis.

2.2 Quantification of the extracted DNA samples

The Power Quant™ System Kit (Promega, USA) was used for the quantification of the DNA samples. In this case, following the manufacturer’s recommendations, for each sample, a mix solution with a final volume of $18\ \mu\text{L}$, consisting of $10\ \mu\text{L}$ of Power Quant 2 x Master Mix, $7\ \mu\text{L}$ of Amplification grade water and $1\ \mu\text{L}$ of Power Quant 20 x Primer Mix was prepared. The quantification was performed on a 7500 real time PCR system (Thermo Fischer Scientific, USA), using the HID Real-Time PCR Analysis Software v 2.0.6. The DNA concentrations in the saliva, bone fragments and tooth are presented in **Tables 1–3**.

Case 1	
Person’s Identity	DNA concentrations (ng / μL) in saliva and femur bone fragment
Unknown victim	1.183
Presumptive son	34.05

Table 1.
DNA concentrations from saliva and femur bone fragment.

Case 2	
Person's Identity	DNA concentrations (ng/ μ L) in saliva and petrous pyramid
Unknown victim	1.635
Presumptive daughter	10.41

Table 2.
DNA concentrations from saliva and petrous pyramid.

Case 3	
Person's Identity	DNA concentrations (ng/ μ L) saliva and canine tooth
Unknown victim	6.18
Presumptive son	21.35

Table 3.
DNA concentrations from saliva and canine tooth.

2.3 Amplification of the DNA samples

The DNA samples were amplified for the STR markers using the Global Filer™ PCR Amplification Kit (Thermo Fischer Scientific, USA). The analysis was done as per the recommendations of the manufacturers. In this step, the amplification of the DNA samples was performed on a Pro Flex PCR System (Thermo Fischer Scientific, USA). The PCR reactions of the DNA samples were carried out in a total volume of 25 μ L, which contained: Master Mix: 7.5 μ L, Primer Set: 2.5 μ L, nuclease-free water: 12.5 μ L and template DNA: 2.5 μ L. The Global Filer PCR Amplification Kit (Thermo Fischer Scientific, USA) contains 21 autosomal STR markers, as follows: D1S1656; D2S441; D2S1338; D3S1358; D5S818; D7S820; D8S1179; D10S1248; D12S391; D13S317; D16S539; D18S51; D19S433; D21S11; D22S1045; CSF1PO; FGA; TH01; TPOX; vWA; SE33, plus DYS391 and the gender-specific marker, amelogenin. In all amplification reactions, positive and a negative PCR controls were used.

2.4 Capillary electrophoresis of the amplified DNA samples

During the capillary electrophoresis, the samples were analyzed on a 3500 Genetic Analyzer (Applied Biosystems, USA), as per the manufacturer's recommendations. For the autosomal STR markers, 1 μ L of the amplified PCR product (for each DNA sample) and 1 μ L of the allelic ladder (AL) were used. These were added into a mix containing 9.6 μ L of Hi-Di™ Formamide (Applied Biosystems, USA), 0.4 μ L Gene Scan™ and 600 LIZ™ Size Standard v.2.0 (Applied Biosystems, USA). Gene Mapper ID-X Software version 1.4 (Applied Biosystems, USA) was used to analyze the obtained data.

2.5 Statistical analyses

The genetic profiles obtained from bones and the reference sample obtained from salivas, were compared with an estimation of the familiar relationships. In these cases, the calculation of likelihood ratio (LR) and posterior probability (PP) were performed using the DNA VIEW software and the allele frequencies from the Romanian population [10]. The genetic profiles obtained from the bones were also

compared with the genetic profiles belonging to the persons included in the elimination database to monitor the possible contamination.

3. Results

The bone powder obtained during bone pre-processing was used for DNA extraction. In this case, bone demineralization was performed. The DNA concentrations of the saliva, petrous pyramid and tooth after quantification using the Power Quant® System (Promega, USA) are presented in **Tables 1–3** for STR markers.

Using capillary electrophoresis, we obtained the genotypes on STR markers as follows: in **Case 1** – the paternity relationship between the presumptive son and his deceased father was confirmed (**Table 4**); **Case 2** – the maternity relationship between the presumptive daughter and the victim found in the woods was proven (**Table 5**); **Case 3** – the kinship between the unrecognizable burn victim and his presumptive daughter was established (**Table 6**).

DNA markers	Genetic DNA profile of the presumptive son	Genetic DNA profile obtained from the femur bone
CSF1PO	12;12	12;12
D10S1248	14;15	15;16
D12S391	18;19	18;21
D13S317	9;11	11;14
D16S539	11;12	11;11
D18S51	14;15	12;15
D19S433	14;16	14;14
D1S1656	12;15	12;15
D21S11	28;28	28;28
D22S1045	16;18	16;16
D2S1338	17;25	20;25
D2S441	11;11.3	11;14
D3S1358	14;15	14;17
D5S818	10;12	10;11
D7S820	8;10	7;10
D8S1179	13;14	12;13
FGA	22;24	20;22
SE33	21;30.2	13.2;30.2
TH01	6;8	6;6
TPOX	8;11	11;11
vWA	17;19	14;19
AMELOGENINA	XY	XY
CUMULATIVE PATERNITY PROBABILITY (CPP)		(CPP) = 99.99989%
PATERNITY INDEX (PI)		(PI) = 9.147 x 10 ³

Table 4.
Genetic DNA profiles in Case 1. The paternal alleles are shown colored.

DNA markers	Genetic DNA profile obtained from the petrous pyramid	Genetic DNA profile of the presumptive daughter
CSF1PO	10 ; 12	10 ;11
D10S1248	15 ;16	14 ;16
D12S391	18 ;21	21 ;21
D13S317	8 ; 9	8 ;11
D16S539	12 ;13	12 ;13
D18S51	16 ;16	12 ;16
D19S433	12 ;15	12 ;13
D1S1656	12 ;17	12 ;14
D21S11	28 ;30	28 ;31
D22S1045	14 ;15	14 ;18
D2S1338	16 ;19	16 ;22
D2S441	10 ;10	10 ;11
D3S1358	18 ;18	14 ;18
D5S818	12 ;13	12 ;12
D7S820	10 ;12	10 ;12
D8S1179	13 ;13	13 ;14
FGA	23 ;26	21 ;26
SE33	19;27.2	19;19
TH01	7;9	7;9.3
TPOX	8 ;10	8 ;10
vWA	16 ;17	16 ;19
AMELOGENINA	XX	XX
CUMULATIVE MATERNITY PROBABILITY (CMP)		(CPP) = 99.99956%
MATERNITY INDEX (MI)		(PI) = 7.391 x 10 ³

Table 5.
 Genetic DNA profiles in Case 2. The maternal alleles are shown colored.

DNA markers	Genetic DNA profile of the presumptive son	Genetic DNA profile obtained from the canine tooth
CSF1PO	10 ;10	10 ;10
D10S1248	13 ;14	13 ;13
D12S391	19 ;22	22 ;22
D13S317	8 ;11	8 ;11
D16S539	11 ;14	11 ;12
D18S51	13 ;17	17 ;19
D19S433	14 ;14	14 ;15
D1S1656	15 ;17.3	15 ;16
D21S11	26 ;32.2	26 ;30.2
D22S1045	15 ;15	15 ;16

DNA markers	Genetic DNA profile of the presumptive son	Genetic DNA profile obtained from the canine tooth
D2S1338	23;23	21;23
D2S441	11;13	11;14
D3S1358	15;17	16;17
D5S818	12;12	11;12
D7S820	8;10	10;10
D8S1179	13;14	14;14
FGA	23;23	18;23
SE33	9.2;22.2	22.2;28.2
TH01	6;9.3	6;9.3
TPOX	8;11	11;11
vWA	16;18	16;16
AMELOGENINA	XY	XY
CUMULATIVE PATERNITY PROBABILITY (CPP)		CPP=99.99926%
PATERNITY INDEX (PI)		PI=6.84 X 10 ³

Table 6.
Genetic DNA profiles in Case 3. The paternal alleles are shown colored.

The Gene Mapper ID-X software version 1.4 (Thermo Fischer Scientific, USA) was used to analyze the data.

4. Discussion

Genetic analysis is a fundamental tool that is used for the identification of skeletonized remains. In forensic genetics, the most important steps for genetic identification are DNA extraction from biological samples and their quantification.

In our cases, from the biological samples that were analyzed: the saliva provided by the first-degree relatives of the deceased as reference sample in all cases, and a canine tooth, a femur bone fragment, and a petrous pyramid extracted from the victims, all had good concentrations on autosomal STR markers.

The DNA concentrations of the biological samples are presented in **Tables 1–3**. An important aspect to look out for while performing genetic identification of skeletonized remains relates to the relationship between the types of bones and the DNA concentration obtained during the analysis. Many studies have demonstrated that compact bones yield a greater amount of DNA when compared to spongy bones [11–13]. In **Tables 4–6**, the genetic profiles obtained from bones remains are presented together with the genetic profiles of the first degree relatives, thus being demonstrated the kinship relationship between them. In these studies, it was demonstrated that compact bones from the lower limbs are more effective as DNA concentrations when compared to compact bones from the upper limbs [14].

Many studies classified the types of human bones that are recommended for forensic genetic identification depending on the amount of DNA that can be obtained, such as: tooth, talus, tarsal bones, petrous temporal bone, vertebra, femur and tibial metatarsal [15]. In our cases, our results conformed to the results obtained by other forensic genetics laboratories, in that the DNA concentrations differed

based on the bone type. The tooth was observed to have the greatest DNA concentration when compared to the petrous temporal bone or the femur bone.

During bone demineralization, some laboratories had included liquid nitrogen in their grinding procedure and mill freeze and bone powder incubation was observed for 72 hours [16–18]. Following the advances made in molecular techniques for DNA extraction from skeletonized remains, in 2019, Promega Company introduced a new kit for DNA extraction from highly degraded bones. This kit optimized the process of DNA extraction and PCR amplification, thereby enabling forensic laboratories to obtain good results while causing minimal destruction to bone samples and using a minimal time of only three hours for DNA extraction [19–21].

Also, in some cases where human remains are found and no relatives have been identified for genetic identification, forensic anthropology tries to provide information regarding the gender and height of the deceased and helps in estimating the time since death and the cause of death (if the remains provide relevant evidence). Approximate height can be determined by looking at the measurements of the bones; the best way to find approximate height is to measure the femur bone.

In forensic anthropology, the preferred method for establishing the identity of skeletal remains is dental identification. In some cases, when the teeth or skull may be missing, other alternatives to dental identification may be used.

Advancements in the field of forensic genetics through automate systems have aided in reducing the time that is spent on obtaining genetic profiles. Also, the introduction of next-generation system (NGS) and massive parallel sequencing (MPS) systems has enabled the concomitant analysis of multiple STR, and SNPs of human remains to identify the person [22–26].

To our knowledge, this is the first forensic laboratory in Romania regarding forensic human DNA identification from bones and tooth, where liquid nitrogen was not used with an automate protocol and DNA extraction from skeletonized remains was performed within three hours.

5. Conclusion

The biological material subjected to DNA identification analyzes in forensic medicine is in different taphonomy conditions and the selection of appropriate working samples is crucial.

In genetic human identification, automate system for DNA extraction from different biological samples is better than manual extraction, which is time consuming and presents the risk of errors.

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Postmortem Examination

Carol K. Lee

Abstract

This chapter titled “Postmortem Examination” will highlight the importance of a postmortem examination, provide a basic overview of what a postmortem examination should involve, and guide the reader through the steps required to perform a complete autopsy. Subsections of special procedures as well as additional testing methods are included for those who are interested in extending their examinations to answer selected questions in selected scenarios. This chapter can act as a guideline to those who are unfamiliar with the process of an autopsy, or a review, and reinforcement to those who wish to build on top of their previous experience.

Keywords: autopsy, dissection, techniques, body, postmortem

1. Introduction

The history of postmortem examination, commonly known as an autopsy, dates back to ancient Egyptian days, where there was considerable interest in the relationship of wounds and fractures to anatomy, but little interest in the nontraumatic diseases. It was not until the 20th century when leaders of medicine in North America, including Sir William Osler (1849–1919), emphasized the importance of the autopsy in medical education. The objectives of an autopsy would include the establishment of final diagnoses and of the causes of death, and the unique opportunity for physicians to correlate their clinical observations with pathologic changes of disease. The autopsy establishes a standard for evaluating the accuracy of pre-mortem diagnoses and outcome of therapy. It provides critical data for quality assurance and makes room for quality improvement. It also provides the surviving family the basis for genetic counseling for hereditary diseases, thereby directing preventative care for living family members, which is particularly true in cases of sudden death. Family members can be comforted by obtaining information on the causes of death of their loved ones, obtaining answers to questions surrounding terminal events, and irrational guilt can be alleviated [1–5].

2. Basic postmortem examination

2.1 Identification

The first step to any examination is to determine the identity of the individual. This can be carried out by law enforcement (who are usually the first responders to the death scene), or by the presiding Coroner or Medical Examiner. Thus, by the time the body arrives in the morgue, the identity has been determined.

Establishment of identity can occur through various methods. The degree of certainty is best classified as definitive, presumptive, or speculative. Definitive

identification is legally sufficient, and it is based on the objective comparison of antemortem and postmortem information. This includes visual recognition (most widely used method of identification), fingerprints, dental record comparison, radiographs/unique anthropomorphic features and/or surgical devices (somewhere serial numbers can be obtained), and deoxyribonucleic acid (DNA) analysis. Presumptive identification is when positive identification has more likely than not been established. This includes recognition of clothing, unique tattoos, scars, birthmarks, or items at scene such as various papers, medication bottles, or identification bearing the decedent's name. Speculative identification is an initial guess, which carries the lowest degree of certainty. In many instances, not one but many methods based on the circumstances surrounding the death, investigation of the scene, and examination of the body are used to accumulate sufficient evidence that points to the decedent's identity [6]. Various special techniques such as artist's sketches and reconstruction methods (forensic sculptors, computer programs) can also be employed in selected circumstances [7, 8].

2.2 External examination

External examination begins by obtaining measurements of height and weight without clothing, and any other features that may help with documentation (such as arm span, foot length, center of gravity from umbilicus to heel, etc.). Medical interventions should be documented, such as endotracheal tubes, intravascular catheters, penetrating tubes or wires. The descriptions should preferentially involve assessments of proper positioning of interventions through markings that are visible externally, as well as externally visible injuries associated with the interventions.

The overall appearance and assessment of nutritional status are also documented. Postmortem changes are assessed, which include the degree of rigor mortis, the distribution of livor mortis, and any other postmortem changes that may be present (decompositional changes of various degrees).

The rest of the external examination can be carried out in various orders depending on personal practice, but a logical way would be to start from the top of the head. The quality and distribution of hair over the head are recorded, together with observations of the scalp including skin conditions and/or injuries. The facial features are then documented, including descriptions of the eyes, ears, nose, mouth, and palpation of the bones of the face to identify any fractures underneath. Description of the eyes should include the color of the irides, and examination of the sclera and palpebral conjunctivae for any discoloration (e.g., scleral jaundice) and/or petechial hemorrhages. Evaluation of pupillary sizes after death is not indicative of their ante-mortem appearance due to early changes after death [9].

Examination of the neck should include documentation of any abnormal markings and injuries that may suggest self-harm and/or criminal actions. If injuries are suspected, a layered neck dissection procedure should be performed in a bloodless field (see Section 4 below).

Examination of the extremities aims to look for any deformities that may suggest acute or previous injuries, and scars or markings that may add to the social history (such as scars on the wrist in cases of self-harm, or track marks in cases of intravenous drug use). In certain criminal investigations, fingernails can be clipped and submitted for further testing that may link the victim to the assailant.

Examination of the torso follows, with documentation of overall size and shape that may suggest underlying diseases (such as a barrel chest in chronic obstructive

pulmonary disease) and/or injuries (such as a flail chest in multiple rib fractures). Examination of the torso also includes the back, which is ideally performed with the body positioned prone on the table. Again, documentation of any abnormalities that may suggest disease or injuries is done, and the anus is also examined for any abnormalities.

The body is then positioned supine, lying on a block between the shoulder blades, and the internal examination can begin.

2.3 Internal examination

There are several ways of incising into the skin to expose the underlying structures. The most commonly employed skin incisions include the Y-shaped incision, the modified Y-shaped incision, and the I-shaped incision. The Y-shaped incision goes from the tips of the shoulder on each side obliquely down, joining at the middle of the chest, roughly between the nipples, and the incision is then continued down vertically along the midline of the front of the body, stopping at the pubis. The modified Y-shaped incision is when the top most incisions start from behind each ear down the sides of the neck toward the middle of the chest. The I-shaped incision is a single straight vertical incision that goes from the top of the neck down the midline of the front of the body to the pubis [10, 11].

The skin is then peeled back from the underlying bones, by cutting roughly parallel to the skin surface along the subcutaneous layer of soft tissues. The chest plate is removed by first separating the sternoclavicular joints, and cutting the ribs near the anterior costochondral junctions, preferably cutting through the cartilaginous parts so that the cut edges are relatively dull to reduce risk of injury during subsequent evisceration.

There are several techniques for evisceration (the removal of organs from body cavities) [12, 13]. The technique of Virchow employs removal of body organs one after another. This technique is good for demonstrating pathology in individual organs, but the relationships between various organs may be hard to interpret. The technique of Letulle or the en masse technique is when the cervical, thoracic, abdominal, and pelvic organs are removed as one mass, and then subsequently dissected into organ blocks. This technique is good for preserving vascular supply and relationships between organs. However, the organ mass is sometimes awkward to handle, and an assistant may be required to help with handling. The technique of Ghon or the en bloc technique is where the cervical and thoracic organs, the abdominal organs, and the urogenital system are removed as separate organ blocks. This is a mixture of the Virchow and en masse techniques, allowing the preservation of anatomical relationship sufficiently while enabling one person to execute without an assistant. Finally, the technique of Rokitansky consists of in-situ dissection combined with en bloc removal.

The organs are then examined individually, and any diseases and/or injuries are documented. During examination, sections of organs may be submitted for subsequent microscopic examination (see Section 5.1 below).

3. Special dissection procedures

Selected procedures and techniques that differ from or are added to the routine autopsy are performed in certain situations to better demonstrate the diseases or injuries involved.

3.1 Pneumothorax

Pneumothorax is usually associated with injury to the lung, although pure pneumothorax, although rare, can happen. The pleural cavities, therefore, should be checked for the presence of air in cases of chest injuries.

The skin and muscle on the injured side of the chest are reflected and dissected to form a pocket lateral to the chest wall, just below the level of the axilla. This pocket is then filled with water, and a scalpel is introduced under the water level, incising into an intercostal space through to the pleural cavity. Air bubbles observed exiting through this incision represent presence of pneumothorax. An inverted graduated cylinder filled with water can be held over the pocket prior to the incision into the pleural cavity to collect and measure the amount of air in the pleural cavity if desired [14].

3.2 Posterior leg dissection

Deep vein thrombosis in the calves is frequently seen associated with cases of death by pulmonary embolism, and is a frequent complication of immobilization and/or trauma. With the body positioned prone, the calf is incised vertically from the heel to the popliteal fossa, and the skin is then reflected. The tendon of Achilles is severed, and the attached calf musculature is then reflected and dissected gently from the underlying tibia and fibula from the heel upward. Transverse sections through the reflected musculature are then performed, and thrombi, if present, will thus be transversely sectioned, and their relationship with the attached vessels can be visualized. Antemortem thrombi typically maintain their sausage-like shape even if they become dislodged from the vessels, and show a concentrically layered cut surface (an indication of antemortem organization) [14]. Postmortem clots are typically soft and collapsible in nature, and do not show concentric laminations on cut surfaces.

3.3 Layered neck and facial dissections

Examination of the neck structures can aid in determining injuries in the neck that may have medicolegal implications. The neck should be examined at the end of the autopsy following removal of all other organs including the brain so as to create a dry/bloodless field to minimize the possibility of introducing blood seepage into the neck structures during dissection.

The routine Y-incision is extended from the tips of both shoulders upward along the posterior-lateral aspects of the neck and behind the ears toward the level of mid-ear. The skin is then undermined and reflected from the shoulder regions to the ears, proceeding to the level of the mandible on both sides. Layerwise reflection of the muscles of the neck is then carried out and injuries of the anterior neck are documented. Examination of the posterior neck takes on a similar approach, which is most easily done with the body positioned prone. A single vertical incision from the protruding C7 spinous process up toward the midline occiput is coupled with a horizontal incision at the mid posterior neck, effectively creating a cross-shaped incision, where the skin can then be reflected back to expose underlying musculature. The posterior neck muscles are then reflected in a layerwise manner and examined for injuries.

Sometimes it is necessary to examine the soft tissues of the face, and the anterior skin flap can be further reflected by undermining the facial skin from the level of the mandible. Subcutaneous severing of the external auditory meatus will mobilize the skin for better visualization of the facial skull, and will not interfere with the cosmetic appearance of the face as long as midline attachments of skin to subcutaneous tissues are maintained at the midline of the face.

3.4 Exploration of middle and inner ears

The middle and inner ears are encased in the petrous portions of the temporal bones, located at the base of the skull.

Following the removal of the brain, the dura is stripped from the middle fossa, and the petrous regions are dried. Bone cutters are used to excise the petrous ridge from all four sides to produce a roughly rectangular segment. The inner surface of the tympanic membrane is exposed and can be examined for evidence of inflammation. Findings of purulent inflammation should be reported and swabs may be submitted for culture. The entire petrous block can be decalcified and submitted for microscopic examination if so desired [14].

3.5 Air embolism

Air embolism should be suspected in cases involving an open wound to the neck area, diving misadventures, chest trauma, or cases associated with childbirth or abortions. An interrupted blood column at autopsy in cerebral or cardiac vessels is often artefactual and thus is not regarded as evidence of air embolism.

The pericardial sac is opened anteriorly, and the edges are grasped with tools such as forceps or hemostats to create a pocket. Water is poured into the sac and the heart is submerged. A scalpel is then used to incise into the right side of the heart under the water level. Bubbles will arise if air is present. For measurement, an inverted graduated cylinder filled with water can be placed in the water prior to incising the heart [14].

3.6 Exploration of the sphenoid sinus

The presence of water in the sphenoid sinus, although recognized to be present in any body that has been immersed in water, is one extra finding that can lend support to cases of drowning, which remains a diagnosis of exclusion. A large-bore needle attached to a syringe is used to perforate the sphenoid bone on either side of the sella, while it is directed downward and medially at a 45° angle. An average of 2–3 ml (sometimes up to 5 ml) of water may be aspirated [14].

3.7 Removal of the spinal cord

The spinal cord can be visualized or removed for further examination by either an anterior or posterior approach, traditionally by sawing through the pedicles (anterior approach) or the laminae (posterior approach) to expose the underlying spinal cord following the routine autopsy and removal of the brain. Alternatively, an intervertebral disc in the lumbar spine can be transected, as well as another intervertebral disc in the thoracic area. A Stryker saw is used to cut out the segment of vertebral bodies between the two transected discs. The exposed dura is visualized, and can be slit vertically and reflected sideways. The exposed portion of the cord/cauda is then loosened by severing the nerves within the spinal canal, and slow downward traction toward the feet can be applied to retrieve the remaining cord in its entirety [14, 15].

3.8 Examination of the cervical spine/vertebral artery

Examination of the cervical spine may be warranted in cases of traffic deaths, falls, diving deaths, and suspected shaken baby cases. One radiological study showed that cervical injuries in road crash victims can be above C3 (50% of cases)

or below C3 (22% of cases) [16]. Injuries range from severe fractures and dislocations to a few deep hemorrhages in the musculature. Injuries to the vertebral artery can sometimes occur when hyperextension/flexion and rotational forces are in play, with the most vulnerable regions being the third section [17].

The body is placed face down, and a head block is placed under the chest, with the head flexed at the neck. A posterior midline incision is made, and the musculature dissected in a layered fashion down to the vertebral column. The atlanto-occipital joint capsules are incised into, so that the articular surfaces can be examined. The atlas is disarticulated and removed. Laminectomy is then performed on the cervical vertebrae, and the dura mater can be incised and the spinal cord examined prior to removal. The exposed underside of the base of the skull can now be examined for fractures [14].

To begin the vertebral artery examination, the brain should be examined for basal subarachnoid hemorrhage, and if present, the basilar artery can be clamped with a hemostat. The skull cap can be replaced to ensure stability. The vertebral arteries can then be accessed from its branching point from the subclavian artery (most often the first branch) and cannulated with an 8F catheter, and secured and sutured to ensure no leakage around the catheter. An anterior-posterior x-ray is then obtained, and each cannulated artery is injected with 3–5 ml of contrast medium repeatedly until the vessel is visible on x-ray. The lesion, if present, can be established radiographically, and the entire neck block can be excised by cutting around the foramen magnum superiorly and disarticulating the seventh cervical vertebra inferiorly [14]. Fixation and decalcification can then proceed, and the vertebral arteries and surrounding tissues can then be exposed and examined.

3.9 Fixation of the brain

The brain is a soft structure that goes into decomposition quickly following death, thus making processing and examination difficult in the fresh state. In addition, many brain findings can be subtle and require the tissue to be in optimal condition in order for these findings to be exhibited. Thus, it is advisable for the brain, following removal from the cranial cavity, to be suspended in a bucket of formalin using a string placed under the basilar artery of the circle of Willis, for at least a week and most optimally beyond 2 weeks prior to cutting into the brain parenchyma. The hardened tissue also provides better exhibits for photographing subtle lesions.

4. Other examination/testing

4.1 Microscopic examination

Some conditions (such as myocarditis) are diagnosed only on microscopic examination, with no specific corresponding gross findings. Forensic microscopy should be a part of investigations of sudden unexpected deaths, determination of the premortem nature of diseases or injuries, and interpretation and substantiation of gross findings (such as in cases of infections and/or malignancies). In my experience, samples of major organs (heart, lungs, liver, kidneys, and brain) should be microscopically examined in every autopsy.

4.2 Toxicology/biochemical analysis

Collection of postmortem specimens for toxicological testing has become almost routine for many institutions involved in death investigation, and can be performed

with or without a complete internal examination. The routinely collected specimens include blood from a peripheral source, urine, vitreous humor, and liver tissue [18]. Other specimens that may be of value include bile and stomach contents.

Blood should be collected from a peripheral site such as the femoral vessels to minimize effects of postmortem redistribution of certain drugs. Collection can be achieved by inserting a large bore needle attached to a syringe through the skin, overlying the location of the femoral vessels (medial anterior inguinal regions), or internally by directly visualizing the vessels during the autopsy. Urine can be collected through the skin as well by inserting needle into the suprapubic area. Vitreous humor is collected by inserting needle into the whites (scleral portion) of the eyes, aiming toward the center of the globes.

Fluid specimens should be deposited and stored in glass tubes with sodium fluoride, to preserve the storage stability of drugs such as cocaine [19]. Vitreous fluid is also useful in the evaluation of diabetic complications, in that glucose and ketones are seen to increase substantially in cases of diabetic ketoacidosis [20].

Conflict of interest


The author declares no conflict of interest.

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Autopsy in Foetal Infant Deaths

Luv Sharma

Abstract

Child autopsies are not more difficult than adult autopsies, but do require a number of extra techniques to be performed routinely. This chapter aims to cover the basic techniques required for foetal, perinatal, and infant post mortems. Post mortem examinations of children older than 2 years of age do not differ greatly from adult autopsies.

Keywords: autopsy, incisions, paediatric, neonatal, pathology

1. Introduction

At present, specialised foetal/child autopsy is more in demand as parents want need to be informed about the cause of death of their child and its effect on future pregnancies. The post mortem examination helps in planning better treatment and caution for the future. The normal anatomy of the adult and child are similar, differences do exist in foetal/neonate anatomy of the cardio-vascular system making the prenatal/paediatric autopsy significantly different from the adult one. The presence of congenital anomalies found in perinatal and foetal autopsies is another confounding factor making meticulous examination during autopsy necessary for getting information to educate families concerning future pregnancies [1]. An autopsy is not required in every case; though debates about the cause of death do necessitate an autopsy to be performed. Normally, a deceased's body is the property of the relatives. However, in deaths that are unusual, unnatural or suspicious in nature the state has an overriding interest which supersedes the interests of the family; such circumstances fall into the category of medico-legal cases. A death case with an obvious cause and manner of death may require an autopsy for legal purposes. The usual classifications of death are: natural, accident, suicide, homicide or undetermined. A forensic autopsy is normally requested by the police, the coroner or in the Latin countries by that quaint institution 'the Investigating Judge' [2]. The age at which a foetus becomes legally viable is defined either by the gestational age or by the body weight, and varies from nation to nation. A foetus exhibiting one or more of the described signs of life are technically considered viable, however foetuses below intrauterine age of 180 days have negligible to no chance of survival. Post mortem examinations are carried out on all foetuses, though the inferences drawn from them are legally applicable only to viable foetuses. Most of the foetal and neonatal autopsies are hospital admitted cases. However, infant post mortems may be medico-legal cases if the cause of death is not known.

2. Rules for autopsy

(1) Conducted in mortuary only, except spot post mortem. (2) Requisition from police or Magistrate necessary. (3) Avoid delay. (4) Collect information

from inquest, accident register, case sheet, etc. (5) Conducted in day-light as far as possible, because colour changes, such as jaundice, P.M. hypostasis and colour of contusions cannot be made out in artificial light. (6) Body should be identified by the police officials. (7) No unauthorised person should be present. (8) Assistant should note findings. (9) Autopsy must be complete and never partial [3].

Important definitions [2]:

Embryo – 1–8 weeks of gestation.

Foetus – 8 weeks of gestation to term.

Stillbirth intrauterine/intrapartum foetal death – after the age of legal viability, i.e., born with no “signs of life.”

Perinatal – stillbirths + neonates in first week after birth.

Early neonate – first week after birth.

Neonatal period – first month after birth.

Post neonatal period – between 28 days and 1 year.

Infant – from 1 month of age to 1 years of age.

Preterm – <37 weeks of gestation or weight less than <2500 gram at birth.

Term – 37–41 weeks of gestation.

Post term – >42 weeks of gestation.

Small for dates weight at birth <10th centile expected for gestational age.

Very low birth weight – weight at birth <1500 gram.

Premature – preterm, small for dates and very low birth weight.

Intrauterine growth retardation – weight/other parameters <10th centile expected for gestational age.

Objectives of a medico-legal autopsy are:

1. To establish the identity of a person.
2. To determine the cause of death whether Natural or Unnatural.
3. If death is unnatural whether it is suicidal, accidental, or homicidal.
4. If death is homicidal, to determine if trace evidence was left behind by assailant.
5. To determine the time elapsed since death.

3. Protocol to be followed at the time of receipt of dead body and autopsy requisition papers

The basic procedures remain the same as with adult autopsies. However, the hospital records must be gone through with great detail. A great deal of vital information can be gathered from notes made by the gynaecologist and the paediatrician involved in the delivery process. The demographic details of the mother & family are also important. The number of pregnancies and their outcome, the method of delivery, any hereditary or congenital illnesses, antenatal records and investigations done assume importance while dealing with an autopsy of a neonate. In addition, if a termination of pregnancy (TOP) for foetal abnormality has been done then the copy of the scan report for comparison with the post mortem findings is necessary [1].

3.1 Autopsy protocol of child

A protocol is a signed document containing a written record which serves as proof of something. Autopsy protocol is used in two basic forms:

1. Narrative
2. Numerical

A numerical protocol is always better to sum up procedures to be followed at autopsy. It is a checklist of sorts and makes the work of the autopsy surgeon more easy and orderly [3].

1. Steps to be done before the autopsy.
2. A summary of the clinical history.
3. A summary of the documents related to the case in order of time sequence.
4. Gross external examination of the dead body.
5. Findings related to identification if the body is unknown or unclaimed.
6. Internal examination of the dead body in relation to pathological findings.
7. A full chart of the viscera.
8. Details of wounds if any.
9. Exhibits to be preserved and sent for analysis.
10. Handing over of the exhibits to the police for onward transmission to concerned centres.

The relatives should identify the body, and radiological examination should be done prior to autopsy. Whole-body radiographs (anteroposterior and lateral) are taken. Photographs of the external features—frontal pictures of the entire body and close-ups of the face and side of the head, as well as, any other unusual aspects are taken [4].

It is best to follow standard guidelines or protocols methodically in each case, whether they be national or have been produced locally as required. In this way, mistakes of omission will be avoided. Although the basic autopsy varies little, there are various special investigations that may or may not be necessary, depending on the particular case. Foetal/infant autopsies are having a slightly different protocol than adult autopsies as findings of the umbilicus and the cord, the placenta, scalp hairs, lanugo hairs, nails & their length, skin colour & texture, scrotal sac wrinkling, as well as specific foetal measurements of the head, chest and abdominal circumference are to be noted.

3.2 Pathology encountered at autopsy

Amniotic infection sequence, oligohydramnios, growth restriction: symmetric, asymmetric (nutritional), viral/protozoal infection (CMV, Parvovirus, toxoplasmosis, other), congenital malformation (all systems), hydrops foetalis, foetal

akinesia sequence, placental and umbilical cord disease, changes in the baby and placenta secondary to intrauterine death.

4. External examination

The body should not be embalmed before the autopsy [3]. A careful external examination should be made to assess any external abnormality. The external features may provide the only information necessary to make the diagnosis of a malformation syndrome. In case of foetal bodies, the measurement of head circumference, chest circumference (at the level of the nipples) and abdominal girth should be measured. The total vertex to heel length has to be noted for an idea regarding maturity and intra-uterine age. The head contour assumes importance in such cases as instrumental delivery may produce trauma mimicking actual violence. Other important procedures include assessing the patency of natural orifices such as the nose, mouth, ears, anus. Evidence of petechial haemorrhages should be looked for in the eyes. For hospital deaths or even in cases found dead after delivery, careful examination of the umbilical cord is paramount; the edges should be checked for sharp cuts, evidence of tearing or gnawing. All puncture marks, needle marks and other injuries should be noted. The skin of the foetus should be examined for staining, discolouration and petechiae. Rodents gnaw away soft tissues of body especially ear, nose, lips etc. They produce shallow craters with irregular border nibbling with leave long grooves and lacks vital reaction [5].

A rough classification exists to help in estimation of maceration (aseptic autolysis) though the changes mentioned are variable depending on temperature and condition of body storage [2].

12 hours – slippage of skin is noted.

24 hours – blebs are formed on the skin.

48 hours – there is sloughing of the skin with blebs rupturing and haemolysis is noted in the viscera.

5 days – the brain liquefies, the cranial sutures overlap (Spalding's sign) and the calvarium collapses.

7 days – the joints get lax and are dislocated.

4.1 External measurements

As already explained above, the following careful measurements should be made with a ruler and a length of string, and compared to tables of normal values to aid assessment of gestational age and allow assessment of growth retardation:

1. Body weight in kg.
2. Crown-rump length (sitting height) in cm.
3. Crown-heel length (standing height) in cm.
4. Foot length in cm.
5. Head circumference in cm.
6. Abdominal girth (at the level of the umbilicus) in cm.
7. Chest circumference (at the level of the nipples) in cm.



Figure 1.
Measuring the length of umbilical cord.

If any abnormality is suspected, relevant radiological investigations (X-rays) and photography is done [2]. In situ photographs can be very helpful, preserving anatomic relationships and depicting visceral lesions before evisceration and fixation (**Figure 1**).

5. Internal examination

There are three types of primary incisions:

1. The 'I' shaped incision: extending from the chin straight down to the pubic symphysis, passing either side of umbilicus because of excess fibrous tissue in umbilicus which causes the difficult penetration of needle during stitching of body after autopsy.
2. The 'Y' shaped incision: begins at a point close to the acromion process and carried downward to pubic symphysis.
3. Modified 'Y' shaped incision.

Opening of body cavities: preference given to cavities depending upon the findings. Initially open such cavities which give trace evidences and lastly open such cavity which give maximum evidence it reduces the various artefacts.

5.1 Method of removal of organs

Evisceration and Block Dissection equipment: It is essential to have a selection of small forceps, scissors, and probes, in addition to a scalpel. A pair of scales accurate at low weights is also necessary. Of all the methods used for eviscerate a foetus, the most common would be the method of Letulle, in which all organs are removed en bloc with the advantage of keeping continuity if malformations are suspected [2]. Alternate techniques for evisceration and dissection include Ghon, which removes the organs in functional "blocks" and Virchow and Rokitansky techniques [2]. Rokitansky method is an in-situ examination of viscera with removal of notable organs. Virchow method is an organ by organ removal.

Initial Stages of Evisceration: the best incision involves an inverted Y, with a central cut from below the chin to just above the umbilicus and then two branches, one down to each inguinal fossa which allows a good exposure of the umbilical arteries.

During reflection the scalp, note whether there is any subaponeurotic haemorrhage to exclude asphyxia or deep bruises (**Figure 2**).

Procedure: In foetuses and infants, Beneke's technique is used to open the skull. The cranium and dura on both the sides are cut with blunt scissors starting at the lateral edge of the anterior fontanelle extending the incisions along the midline and the lateral sides of the skull. The midline strip about 1 cm wide containing the superior sagittal sinus and the falx is left, and also an intact area in the temporal squama on either side, which serves as a hinge when the bone is reflected in a 'butterfly' manner [6].

An alternative method of cutting which follows the cranial suture lines i.e. Rokitansky's method [4]. After carefully inspecting the hemispheres, falx cerebri and tentorium cerebelli through the openings, the midline bone and sinus are removed. Injuries to fontanelles (e.g. punctured wounds through anterior fontanelle) and subdural/subarachnoid haemorrhages are looked for [6] (**Figure 3**).

5.2 Removal of the brain of a macerated baby

If the dura is left intact when the skull plates are cut, and carefully dissected from the skull when the bone flaps are reflected, then the entire brain can be removed while intact inside the dura.

5.3 Removal of the brain in a case of cystic congenital anomalies

It is better to fix the brain before removal of these anomalies. A CSF needle can be used to extract CSF from the ventricles which then can be filled with 50 ml of formalin. An hour of fixation of the brain would help it in maintaining its shape, whereupon removal of the anomaly can be done. If contrast mixture is mixed with the formalin then X-ray films can be taken that will outline the ventricular system [2].

5.4 Removal of the spinal cord in a suspected neural tube defect

The best method is the posterior approach. The skin is incised and at the point of the defect an ellipse shaped piece of the skin is removed, which completely encircles

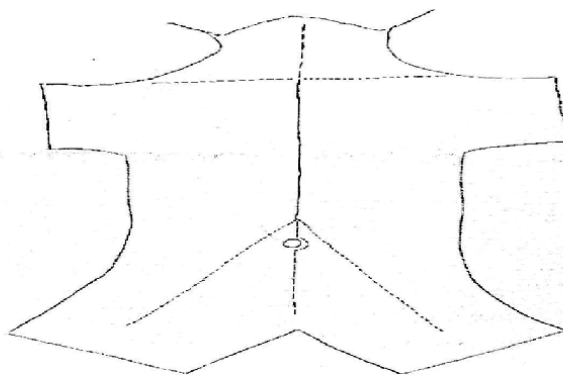


Figure 2.
Removal of the brain.

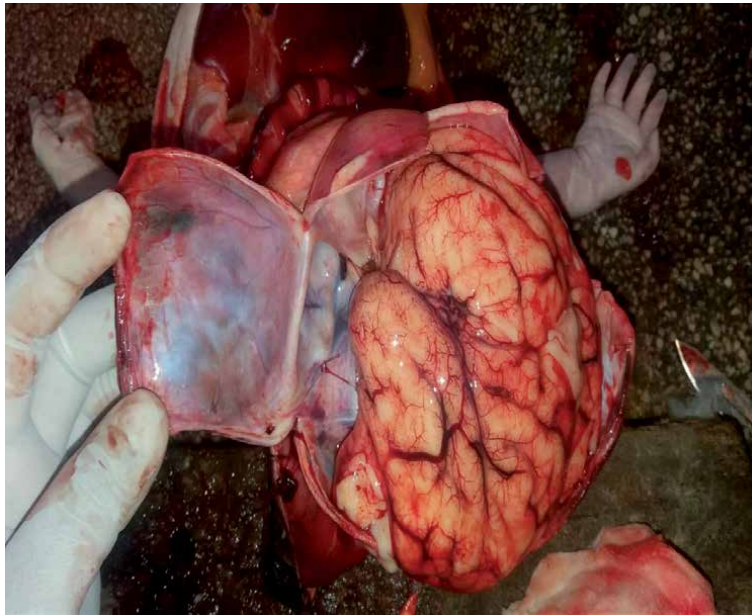


Figure 3.
Opening of skull and dissection of underlying dura and brain.

the defect. When the pedicles have been cut above and below the defect with bony forceps, the cord is removed. Once the cord has been removed above and below the defect, the vertebral column can be transacted. This can be fixed and examined histologically after serial sectioning. The resulting skin defect should be covered.

5.5 Examination of the eye

This may be necessary in cases of non accidental injury, to look for retinal haemorrhage, or in cases of intrauterine infection or suspected retrolental fibroplasia.

5.6 Examination of the musculoskeletal system

This may be necessary in cases of suspected birth injury, other causes of trauma, congenital deformity, or tumours.

5.7 Examination of the neuromuscular system

This would be necessary in cases of suspected neuromuscular disorders or metabolic storage disorders.

5.8 Dissection of pelvic organs with continuity of perineum and anus

This is sometimes when there is suspicion of a urinary tract anomaly or if the external genitalia are ambiguous. The symphysis pubis is bisected with a sharp scalpel. All the connective tissues around the pelvic organs are dissected freeing them anteriorly, posteriorly and sideways. In males, the muscular part of the penis is denuded till the terminal part is reached. The attachment to the glans penis is cut so that the penis can be removed in continuity to the bladder. In females, the skin of the vulva is incised as a circle near the external os. Blunt dissection around the vagina frees the vagina and uterus to be removed. The anus in both sexes, is removed

by blunt dissection in a circular manner in the perineum around the anal aperture. Further dissection would allow the anus to be removed with the pelvic organs [2].

5.9 Organ dissection

All major organs should be accurately weighed after removal, and then compared to normal values. These are produced in terms of both gestational age and body weight, for both live and stillborn babies.

5.10 The cardiovascular system

If congenital heart disease is suspected, the heart is dissected along the path of blood flow, as for the adult. Careful inspection of the chambers in the manner of blood flow is done. Any defects or asymmetrical findings are noted. Cardiac wall hypertrophy or dilatation is noted for each chamber. The openings of the valves are examined and their diameters are noted. Any focal myocardial lesions should be looked for during examination of the ostia. The whole heart must be preserved for histo-pathological examination.

5.11 The respiratory system

The hydrostatic test must be undertaken to come at a conclusion regarding life or dead birth. A piece of the liver acts as a control in such cases. If the liver piece floats when placed on water, it means that putrefaction has set in and then there is no utility of this test as false positive results would be expected when the lungs are placed in the water container. The shape, consistency and weight of the lungs should be noted. It is always better to send the lungs for histo-pathology in such cases where a clearer picture would emerge [1].

A rough estimate of foetal maturity can be got from weight of the lungs: body weight ratio: Lung weight: body weight ratio < 0.012: 1 in gestations \geq 28 weeks.

Lung weight: body weight ratio < 0.015: 1 in gestations <28 weeks.

Deep dissection of the bronchial & pulmonary arteries should be carried out as far as possible. The pulmonary lobes are best dissected in the coronal plane. The lung parenchyma should be examined for consolidation, abscess, haemorrhage, oedema & focal lesions. Small areas of collapse are seen as depressed reddish areas. All pulmonary lobes should be sampled for histology. If a tracheo-oesophageal fistula is suspected, the trachea should be opened anteriorly and the oesophagus dissected distally and attached to the trachea. The trachea and oesophagus should be sampled for histo-pathology preferably at the level of the laryngeal cartilage so as to include thyroid gland in the same block.

5.12 The gastrointestinal system

It is always better to locate the caecum which forms the boundary between the small & large gut. The entire intestines should be opened and the mucosa examined. The distribution of meconium should also be assessed. The mesentery of the gut should also be examined during autopsy.

The liver should be weighed after removal before being dissected in a coronal plane to allow comparison between the right and left lobes. Any colour change or focal lesions should be noted and both lobes should be sampled for histo-pathology [7].

The pancreas usually is auto digested before the body reaches the mortuary. However, if present it should also be sent for histo-pathology.

The Genitourinary System: Malformations of the urinary tract are quite common and should be looked for. In males these anomalies are found with obstructive lesions of the urinary tract and may require special attention.

The kidneys should be weighed and dissected coronally. The cortices and medullae should be identified. The renal pelvis and calyces should also be examined. Yellow streaks of urate may be seen and prove neonatal survival. Each kidney should be sampled for histo-pathology [4].

The testes normally lie within the scrotum from 32 weeks of gestation.

5.13 The lymphoreticular system

The thymus is a part of the anterior mediastinum and is proportionately much larger than in adults and easier to identify. The spleen should be weighed. Any focal lesions in the splenic parenchyma should be identified. Splenic enlargement is seen in haemolytic syndromes. The spleen should be sampled for histo-pathology [1]. Any lymphadenopathy should obviously be identified and sampled for histo-pathology. Routine histology should include a block of small bowel mesentery which will contain several lymph nodes.

Routine examination of bone marrow is not necessary, but if haematopoietic disturbance is suspected, marrow should be sampled for histology. The ribs is the most approachable and convenient site.

5.14 Precautions

In regions of high maternal HIV prevalence, autopsy practice using universal precautions will significantly protect against accidental transmission.

5.15 The placenta examination

Placenta is a vital part of any foetal or perinatal post mortem. Examination of the placenta is also an essential part of the autopsy of a perinatal case. Before starting the dissection, a bacteriological sample should be taken from the placental membranes and parenchyma in cases of stillbirth, prematurity, or IUGR, or if generalised infection is noted. The site of cord insertion must be identified and the length of cord noted. True knots, ruptured varices, and number of vessels must be noted. The vessels themselves should also be sectioned to assess the possibility of thrombus, an important point in identification is that all arterial branches cross superficial to venous branches. The foetal membranes should also be examined, and any meconium staining or discolouration (suggesting infection) noted. The size of the placental sac and the point of rupture should also be noted. The maternal cotyledons should be examined closely. The membranes and cord should then be removed, and the placental disc weighed and measured. Any blood clot received with the placenta should also be weighed. Serial slices should be made through the placental disc at approximately 1-cm intervals, one of which should go through the insertion of the cord. Any focal lesions, such as infarction, thrombosis, and haemangiomas should of course be noted. For histo-pathology, sections of cord, rolled up membranes, and placental parenchyma should be taken, in addition to any lesions identified macroscopically. The placental sections should include cord insertion, placental edge and membrane. In twin or other multiple placentae, the dividing membranes should be carefully examined to assess the number of chorionic and amniotic membranes. Monochorionic placentae indicate monozygosity whereas dichorionic placentae can occur in both homozygous and heterozygous multiple pregnancies. Any

apparent anastomoses of foetal vessels should also be noted. Histological samples should also include the rolled up dividing membrane(s) and/or the placenta at the point of the division(s).

6. Estimation of gestational age and growth

It is important to make as accurate an estimation of gestational age as possible, and then to use this estimation to make an assessment of intrauterine growth. Measurements of crown-rump, crown-heel, and foot lengths, together with whole body weights and organ weights are the best starting points as already discussed above (Figures 4–6).

To assess gestational age, the following points must be taken into consideration:

1. Fusion of palatal shelves and fingerprints is seen at around 10 weeks.
2. Differentiated external genitalia are identifiable at 12 weeks.
3. Head is erect and lower limbs are well developed at 14 weeks.
4. Ears stand out from head at around 16 weeks.
5. Vernix caseosa is present and early toenail development is seen at 18 weeks.
6. Head and body (lanugo) hairs are visible at 20 weeks.
7. Skin is wrinkled and red at 22 weeks.
8. Fingernails are present at 24 weeks.



Figure 4.
Vernix caseosa, scalp and body (lanugo) hairs and fingernails reach fingertips.



Figure 5.
Ossification centre of Talus bone i.e. 5 months.



Figure 6.
Ossification centre of body of sternum.

9. Partial separation of eyelids; eyelashes present at 26 weeks.
10. Eyes are open, scalp hair well formed at 28 weeks.
11. Toe nails are present at 30 weeks.
12. Fingernails reach fingertips, skin is smooth at 32 weeks.
13. Body plump, lanugo absent, toenails reach toe tips at 36 weeks.
14. Testes palpable, fingernails beyond tips at 38 weeks.
15. Various ossification centres: such as calcaneum at 20 weeks, talus at 28 weeks, lower end of femur at birth and upper end of tibia just after birth are also important indicators of foetal maturity.

7. Cause of death

While giving cause of death the word 'probably' should be avoided. The doctor must consider history, description of fatal environment and circumstances optimally provided by primary sources, treatment leading up to death which can cause injuries, before arriving an autopsy interpretation. After completing the post mortem examination, a complete but concise report should be prepared in duplicate. One copy is sent to investigating officer and another copy is retained for future references [3].

8. Summarising the whole infant/foetal autopsy procedure

1. A whole body X-ray is recommended for each case. This would help in assessing gestational age and congenital malformations in a better way. If need arises other radiological investigations can be carried out.
2. Photographic records of the case; important for documentation of the findings and a recap of them if a subsequent opinion is required by the law enforcement agencies.
3. Specific external body measurements (body weight, crown-rump length, crown-heel length, foot length, occipito-frontal circumference, head circumference, chest circumference & abdominal girth) for assessing gestational age.
4. A detailed external examination of the dead body for findings on the skin, eyes and for injuries if present.
5. Preferably T- or Y-shaped skin incision on body.
6. Cardio-vascular, Respiratory & Central nervous system examination along with examination of the gastrointestinal system.

CNS examination: if there is suspicion of a CNS malformation (including ventriculomegaly), then examination of posterior fossa structures by posterior approach is advised. One may consider sending the whole central nervous system for neuropathological examination in appropriate cases. This may include sampling of peripheral nervous tissue (nerve root, peripheral nerve, muscle, etc.).

7. Detailed systematic examination of other internal organs, including: Umbilical arteries and vein, ductus venosus, in situ examination of the heart and great vessels with sequential segmental analysis of malformations, in situ examination of thoracic and abdominal organs; consider removing in continuity to assess abnormal structures crossing diaphragm, weights of internal organs (minimum: brain, heart, lungs, liver, kidneys, thymus, adrenals, spleen) is always advisable.
8. Detailed examination of placenta and umbilical cord, including: dimensions of placenta umbilical cord: length, diameter, insertion into placental disc, number of vessels, coiling, lesions, membranes: appearance, foetal surface/chorionic vessels: appearance, infection, maternal surface: completeness, craters, etc.
9. An infant/foetal autopsy may include clinical specialities for guidance & expertise such as paediatrics, neurology, neurosurgery, etc.

Limited autopsy: a situation in which consent for a full autopsy is not given by the legal heirs of the dead body. This limited examination may be of some value for arriving at an opinion. The types of such limited autopsy are:

1. Autopsy limited to one or more body cavities only.
2. Open or needle biopsy of specific internal organs.
3. External examination of the body with X-ray, photography in specific situations such as highly infected dead bodies.
4. Placental examination only with genetic sampling if indicated.
5. Imaging (CT, MRI) alone or in combination with biopsy samples.
6. Specific significant organ systems.

For histological examination, the recommended organs include: thymus, heart (septum and free walls), lungs (right and left, each lobe), liver (both major lobes), pancreas, spleen, adrenal glands, kidneys, muscle, diaphragm, stomach, small and large bowels, larynx/trachea and thyroid. Sometimes samples of bone i.e. ribs including growth plate in stillbirth; long bone (including growth plate), vertebral body and skull mandatory for suspected skeletal dysplasia are required to be taken in specific conditions.

Bacteriology may be helpful when there is amniotic infection. In such cases, lung (swab/tissue) & blood (swab/formal culture) are to taken & sent for further analysis. Other samples may also be required depending upon the history & clinical course of the disease.

Genetic samples: genetic samples do assume importance for detailed study of acquired conditions in the young. Skin, muscle, blood from the heart, placenta, etc. can be sampled. One can consider retention of frozen tissue sample (liver/lung/ other) as further DNA resource.

Virology – Virology samples as indicated by clinical history or macroscopic findings can also be taken & sent for analysis in suspected conditions.

Biochemistry & electron microscopy – Biochemical samples can be considered in cases of fetal akinesia and hydrops foetalis. Fibroblast culture and/or snap frozen liver/muscle for metabolic biochemistry can also be taken if indicated [4].


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Edited by Sara Palermo and Raluca Dumache

This book is not a handbook of criminology and forensic medicine but rather a tool that reviews socio-historical and scientific data and notes of methodology based on the different sciences aimed at the study of crime in all its many facets (sociology, jurisprudence, criminalistics, psychology, forensic neuroscience, and forensic medicine). The chapters deal with single aspects of the subject, such as juvenile delinquency, fraud, and the relationship between society, individual personality, and sexual criminal behavior. They then go into more detail, analyzing individual aspects of legal medicine in light of the evolution of the discipline between the 20th and 21st centuries, including infant and adult post-mortem examination and genetic DNA identification.

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