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Research Article Published Date: 2025-06-26

The Use and Prevalence of Cannabis among Students of Nnamdi Azikiwe University, Awka, Anambra State

Cannabis poses a growing public health challenge in Nigeria, affecting various groups, including students. Evidence shows a significant prevalence of Cannabis use among students nationwide, yet limited research has focused on university students, particularly in the Southeast region. This study aimed to assess the extent of Cannabis use and its impact on students at Nnamdi Azikiwe University, Awka, Anambra State. Data were collected using a structured, self-administered questionnaire randomly distributed to select undergraduate students from the Faculties of Arts. Engineering, Pharmaceutical Sciences, and Health Sciences. Data analysis was performed using the Statistical Package for Social Sciences (SPSS), version 27. Out of 377 participants, 113 (30%) reported using Cannabis. Female students accounted for 35.5% of the respondents, while males made up 65.5%. "Weed" emerged as the most prevalent form/identifier of Cannabis prevalent amongst students. The study identified the frequency and patterns of its use, with a majority (41.8% of the Cannabis users) reporting to use it occasionally. It went ahead to establish the various motivations for Cannabis use, including peer influence, confidence building, emotional issues, and recreational purposes, as well as the influence of the media on its prevalence. The media influenced 15.9% of users, while the leading motivation for Cannabis use was peer pressure (33.33%), and followed by emotional challenges (27.27%). Negative mental health effects were reported by 18.3% of users, while 25.8% experienced disrupted Sleep patterns as a result of Cannabis use. Additionally, 58.7% observed a significantly increased appetite as a result of the use of Cannabis. Consequently, engineering students exhibited the highest prevalence of Cannabis use (86.2%) compared to other faculties, and female students (68.5%) were found to be more significantly represented among Cannabis users than their male counterparts (50.2%). These findings underscore the need for targeted interventions and faculty-specific strategies to address Cannabis use, while also paying attention to gender-specific factors contributing to its prevalence.

Research Article Published Date: - 2025-06-17

Medicolegal Aspects of Deaths Due to Poisoning Occurred In Cities of Punjab and the State Of Himachal Pradesh

A poison is a substance capable of causing illness or harm to a living organism upon contact or introduction to the body. Toxins and venoms are poisons of biological origin, with the latter usually reserved to describe the bites or stings of poisonous animals. In India, the suicide rate is 18.5 suicide deaths for every 100,000 people. The majority (79%) of suicides occur in low- and middle-income countries. Ingestion of poison is one of the most common modes of suicide in low and middle-income countries such as India [1].

Research Article Published Date: 2025-06-10

<u>Fact-finding Investigation for the Activation of the Legal-forensic Nursing Consultancy Desk at the Order of Nursing Professions of the Province of Avellino</u>

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Short Review Published Date: - 2025-06-03

Forensic Psychology and Criminal Profiling

Introduction: Forensic psychology plays a critical role in the criminal justice system, bridging the gap between psychology and law enforcement. One of its most significant applications is in criminal profiling, which involves the analysis of crime scene evidence, behavioral patterns, and psychological indicators to construct a profile of potential offenders. This study explores the intersection of forensic psychology and criminal profiling, focusing on how psychological principles aid in understanding and predicting criminal behavior.

Aim: The study aimed to evaluate the effectiveness and limitations of criminal profiling as a tool in criminal investigations, and to examine the methodologies that underpin profiling practices as a vital tool in the field of forensic sciences.

Methodology: Qualitative content analysis of documented criminal cases from reputable journals were reviewed for this study. Related articles were searched for from Google Scholar and Research Gate using the Keywords. A selection of high-profile cases where profiling significantly contributed to suspect identification were analyzed to assess the practical utility of psychological profiling.

Results: The results indicate that while criminal profiling is not a standalone solution, it offers valuable insights when integrated with traditional investigative techniques. Psychological constructs such as personality disorders, cognitive distortions, and behavioral consistency were found to be instrumental in building accurate profiles. However, the findings also highlight challenges including subjectivity, bias, and the risk of stereotyping, potentially compromising investigative objectivity.

Conclusion: Forensic psychology, through the application of criminal profiling, provides a powerful adjunct to investigative procedures. When used responsibly and in conjunction with empirical data and forensic evidence, profiling can enhance the efficiency and direction of criminal investigations. Continued research and standardization of profiling methodologies are essential to maximize its reliability and effectiveness in modern forensic practice. This study contributes to a deeper understanding of the practical roles and limitations of forensic psychology's role in the pursuit of justice.

Review Article Published Date:- 2025-05-27

Fast identification for Evidences in Crime Scene with Macroscopic Properties and Portable Techniques

In this work we are concerned with identifying visible evidence that can only be observed with the naked eye and is required for experiments by forensic scientists. The search details include many visible physical properties that could be used to explain many unknowns in the crime scene, which means critical truths for different cases. The details include appearance phenomena such as color, odor, shape, size, material type, and inferred properties based on physical appearance. The properties discussed in this work can be further analyzed using specific portable apparatuses that could give very important information about the structure and nature of the properties of evidence in a crime scene. We also deal in this work with general expertise, which forensic scientists should understand and could treat to make the process of identification and characterization in crime scenes be done more systematically in a short time.

Research Article Published Date: - 2025-05-22

<u>Survey on the Underutilization of Forensic Expertise in India: Examining the Dominance of Law Enforcement in Evidence Collection and Investigations</u>

Forensic science can significantly enhance criminal investigation equity and accuracy. In India, though, forensic experts remain underutilized as case investigations are predominantly performed by law enforcement agencies. This article documents findings of a survey of 230 respondents half of them being forensic experts and other non-forensic respondents like law enforcers exhibiting a wide perceptual gap. While forensic experts emphasize the need for independent intervention so that objective outcomes would be achieved, police respondents strongly favor conventional investigation methods. Systemic barriers like training constraints, availability limitations, and formalization of processes also discourage effective integration of forensic science. The research highlights efforts at policy reform that accord forensic experts a more active role, thereby strengthening the credibility and objectivity of India's justice system.

Research Article Published Date: 2025-05-16

A Systematic Review of Advancement in Gait Analysis Techniques

The examination and the survey of how a person moves, particularly the way of life of walking and running. It entails studying and quantifying a person's gait in terms of their stride length, cadence, foot position, and movement of various body joints. Wearable technology makes it possible to monitor the gait pattern continually while moving about freely. The direction line, gait line, foot line, foot angle, principle line, step length, step breadth, and displacement value obtained from the gyro and accelerated sensors coupled to the shank and thigh are all used to analyze the gait pattern. There has been a lot of research on this method of recognizing people by the way they walk.

The two most crucial facts are that OpenPose, a 2D multi-person posture estimation library, can detect 135 critical body locations without the requirement for fiducial markers, and that smartphone cameras can detect the gait pattern without the use of physical markers. In addition, lower extremity sagittal joint angles, spatiotemporal gait parameters, and timings of gait events were independently determined for motion capture. Gait analysis systems use portable, readily available cameras to measure gait characteristics. The pace of gait, length of steps, time of steps, cadence of steps, and the period of stance are the most crucial factors. Recently, the top standard for the examination of gait was used to evaluate the schemes based on two camera usage to evaluate the framework of different gait patterns.

The precision of the examination of SCA is being increased by data scientists through the development of Al-based computer algorithms. To increase individualization, Bertillon measured the body and faces of several convicts in 1883.

Research Article Published Date: 2025-05-12

Analyzing Maternal Inheritance of Mitochondrial DNA using PCR-RFLP

Background & objectives: Mitochondrial DNA (mtDNA) contains valuable genetic information and plays a crucial role in missing person investigations, mass disasters, and forensic cases involving limited or degraded biological material. mtDNA is maternally inherited, with a highly variable control region divided into three hypervariable regions are generally used for forensic investigation. This study aimed to evaluate maternal inheritance patterns of mtDNA using PCR-RFLP techniques to confirm maternal relatedness.

Method: The study was designed after prior permission from the institute's ethical committee in which subjects were enrolled. This pilot study analyzed 50 voluntary participants (mother-child pairs). DNA was extracted from blood or saliva, and the mtDNA hypervariable region (HV region) was amplified by PCR using specific primers for the HV1 region. The amplified fragments (1024 bp) were subjected to RFLP analysis using seven restriction endonucleases (Alu I, BsuR I (Hae III), Hinf I, HsYF31 (Dde I), Mbo I, Rsa I, and SsPI) to reveal morphotypes.

Results: The study identified five morphotypes for Alu I, three for BsuR I (Hae III) and Rsa I, two for Hinf I, and one each for HsYF31 (Dde I), Mbo I, and SsPI. There was minimal genetic polymorphism in the hypervariable region among unrelated individuals, but consistent restriction patterns were observed between mothers and their children in same pair.

Conclusion: The findings demonstrate the low genetic polymorphism in the hypervariable region among unrelated individuals and consistent restriction patterns

within maternal pairs, underscoring mtDNA's utility in forensic and genealogical applications.

Case Presentation Published Date: - 2025-05-09

Menstrual Taboos and Child Rights: Death of a Girl during Menarche

Introduction: Menarche, the onset of a girl's first menstrual cycle, often introduces menstrual taboos in certain eastern cultures. These taboos may manifest as social isolation, dietary restrictions, and exclusion from religious spaces, which can adversely affect health and promote gender inequality.

Case history: A 10-year-old girl developed gastroenteritis while in cultural confinement after reaching menarche. Her parents strictly adhered to traditional customs that limited her interactions with the outside world and deprived her of healthy foods. They believed that her fatigue was a result of hormonal changes associated with menarche. Although her condition worsened over four days, they did not seek medical treatment. The child succumbed upon admission. The autopsy revealed extensive cyanosis in the left hand due to multiple thrombotic occlusions of the brachial vein. Microscopic examination confirmed the presence of brachial venous thrombi. The cause of death was determined to be Multiple Organ Dysfunction Syndrome (MODS) as a consequence of hypovolemic shock.

Discussion: Key medico-legal issues in this case include parental negligence and failure to provide medical care under Section 308A of the Penal Code, potentially leading to criminal liability for negligence-related death under Section 298. Violations of the child's rights, protected by the Children and Young Persons Ordinance (CYPO) and the Protection of Children's Rights Act, form the legal framework for child protection in Sri Lanka. The ISD has interviewed family members and collected witness statements from neighbors and teachers, referring the case to the police for further investigation and notifying the National Child Protection Authority for an additional inquiry. Additionally, Sri Lanka is a signatory to the United Nations Convention on the Rights of the Child (UNCRC), which guarantees children's fundamental rights.

Review Article Published Date: 2025-05-01

Touch DNA Recovery from Non-porous Surfaces

Touch DNA, the minute quantities of DNA deposited through skin contact, has become a valuable tool in forensic investigations. However, the recovery of touch DNA from non-porous surfaces remains a challenging task, requiring optimized collection and extraction techniques to maximize DNA yield, because non-porous surfaces have smooth, non-absorbing material properties. This review explores various non-porous surfaces such as glass, plastic, and metal, analyzing their impact on DNA recovery efficiency. Different collection methods, including swabbing, tape lifting, scrubbing, and vacuum collection methods, are evaluated to determine their effectiveness in retrieving minute amounts of DNA from these surfaces.

Through a comparative analysis of existing studies, this paper identifies which collection methods work best for different non-porous surfaces and why choosing the right technique matters. Factors such as surface type, environmental conditions, and collection technique performed, time duration, and so on can affect DNA recovery, making it crucial to use the most effective approach. This review also emphasizes the need for standardized protocols to ensure consistent and reliable results in forensic investigations. Having clear guidelines can reduce errors, improve DNA analysis, and make touch DNA analysis more reliable in forensic investigations. By focusing on these aspects, this study aims to contribute to the ongoing efforts in refining touch DNA recovery strategies.

Review Article Published Date: 2025-04-23

Forensic Science in Pediatric Dentistry: Collect Preserve & Analyse: A Review

Dentistry has much to offer in the detection and solution of crime or civil proceedings. Forensic dentistry requires an interdisciplinary knowledge of dental science, and it is the role of the Forensic Odontologist to establish a person's identity. Teeth, with their physiologic variations, pathosis record information that remains throughout life and beyond. Forensic Odontology has an important role in the recognition of abuse among children. Teeth may also be used as a weapon against children, and physical evidence such as DNA, bite marks, fingerprints may objectively link suspects to a crime and develop important investigative leads. Gender identification and sex determination by analyzing the pulp tissue in primary teeth can be regarded as an effective tool in providing valuable forensic information. The rights of children and their aspirations are of paramount importance, and the Pediatric dentist can contribute immensely to the field of Forensic Odontology in providing justice to these unfortunate children.

Review Article Published Date:- 2025-04-08

Toxic Components in Baby Care Products – A Comprehensive Review

Background: In addition to being used to keep babies clean and comfortable, baby care products may also include hazardous substances that are harmful to the baby's health. To safeguard the health of new-borns, it is crucial to understand the potential toxins included in baby care products.

Objective: This paper focuses on the very bothering aspect of baby care products. The objective of this study is to identify and summarise the effect of toxicants present in baby care products including their source, exposure, toxicity, and adverse effects on infants.

Methods: Utilizing several internet databases including various open source, including PubMed, Scopus, and research gate, a thorough literature search was carried out. The review covered articles that were written in English and published in last fifteen years. Studies reporting on the sources, effects, and potential exposure pathways of toxicants found in infant care products have been included.

Result: The study deals with a list of harmful toxicants like phthalates, asbestos, parabens, heavy metals, sodium laurel sulphates, etc., and their sources and modes of exposure. Exposure to toxicants such as phthalates, asbestos, parabens, heavy metals, and sodium laurel sulphates can lead to cancer, developmental disorders, and endocrine disruption.

Conclusion: It can be concluded that baby care products are having adverse effects on infants, on their skin or health, or in other ways. To avoid the same, the root cause of it should be avoided, which is the inclusion of toxicant chemicals in such baby care products. Parents and caretakers should be aware of the dangers of toxicant chemicals in baby care products and use non-toxic products to protect their babies' health, while manufacturers should use safer components. Government and authorized agencies should enforce restrictions.

Review Article Published Date: 2025-04-04

Advancing Forensic Approaches to Human Trafficking: The Role of Dental Identification

Background: Human trafficking is a significant global issue that affects millions of individuals, where victim identification remains a major challenge. Traditional methods such as DNA or fingerprint analysis are not always viable, necessitating alternative forensic approaches.

Methods: This article reviews the role of dental identification in human trafficking cases through an extensive analysis of existing literature. The study incorporates forensic odontology techniques, including dental charting, radiographic analysis, bite mark analysis, age estimation, and emerging technologies like Artificial Intelligence (AI). Results: Findings indicate that dental identification methods are essential for victim identification, especially when conventional methods prove ineffective. Al integration enhances the accuracy and efficiency of dental forensic investigations, addressing challenges such as record access and cross-border complexities.

Conclusion: Dental identification, augmented by AI advancements, is an indispensable tool in forensic investigations related to human trafficking. The study underscores the necessity of international collaboration and technological innovation to enhance forensic practices.

Case Report Published Date: 2025-04-04

Forensic Insights into Multiple Stab Wounds: Autopsy Findings from a Case of Sixty Stab Wounds

Multiple stab wounds are a critical forensic indicator, frequently linked to violent assaults, homicides, or self-inflicted injuries. These penetrating injuries result from sharp-edged weapons such as knives, daggers, or other pointed instruments. The depth, size, and severity of the wounds depend on factors including the type of weapon used, the force applied, and the anatomical location of impact. Forensic examination of stab wounds is essential in determining the manner of death—homicidal, suicidal, or accidental. Detailed analysis of wound characteristics, such as depth, trajectory, and associated injuries, aids in crime scene reconstruction. Additionally, identifying defensive wounds can indicate victim resistance, further supporting forensic interpretations. A meticulous forensic autopsy, including weapon analysis and internal organ assessment, is crucial in establishing the cause of death. These findings play a vital role in medico-legal investigations, providing key forensic evidence that supports legal proceedings and ensures justice.

Prospective Study Published Date: - 2025-03-06

<u>Digital Forensics and Media Offences – Investigate Synergy in the Cyber Age</u>

In the digital age, media offenses pose significant threats to privacy and reputation. Digital forensics plays a crucial role in combating these crimes by providing systematic methods and valuable knowledge. This work reviews how the field has proven effective in solving cases and preventing offenses, offering a solid career path for those interested in crime-solving and digital evidence collection.

## Review Article Published Date: 2025-02-25

Biotechnology in Forensic Science: Advancements and Applications

Background: Biotechnology is a multidisciplinary field based on the expertise of molecular biology, chemistry, biochemistry, chemical and biological engineering, and digital computing. Biotechnology plays an important role in modern forensic science, driving advances in analytical tools and techniques.

This review study provides a brief overview of applications, highlighting advances in forensic biotechnology and key technologies involved in the domains of genomics and DNA analysis, microbial forensics, forensic medicine, and forensic serology. The integration of forensic expertise with technology has increased the accuracy, sensitivity, and efficiency of forensic casework.

Conclusions: This interdisciplinary field extends beyond its usual association with biology to also include chemistry, fingerprint analysis, and toxicology, among others. Continued progress and innovation in this advanced field will further enhance investigative capabilities and facilitate the pursuit of justice.

## Review Article Published Date: 2025-02-24

The Impact of Forensic Science on the Legal System in India

Forensic science has significantly changed the way investigations into crimes occur by providing an approach to crime solving that is grounded in science. Since developments in investigative methods have a direct impact on litigation, its role has become increasingly important in the nation in recent years. The remarks, difficulties, and possible uses of forensic technology in the Indian legal system are discussed in this paper. By looking at case studies, legal frameworks, and forensic technology, this study emphasizes the increasing relevance of forensic science for sustaining justice, enhancing the accuracy of investigations, and overcoming problems with the use of forensic evidence in courts.