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The Importance of Forensic Protocols with the Role of Forensic Experts and Sindh Police at Crime Scene: A Case of Sindh

Abstract

The study was conducted specifically to examine the role of forensic experts and Sindh police in investigating various crimes in the Karachi and Hyderabad areas. Forensic science can use technical expertise to detect, identify and prosecute criminals. In Pakistan, the application and understanding of forensic science in law enforcement agencies is increasing. This research has been analyzed with the help of qualitative research methodology. When forensic experts were asked if forensic evidence in court is a comprehensive defense, it was found that about 93.3% has agreed on it, while 6.7% denied it. When police participants were asked if modern forensic techniques could give immediate results in any case, 58.8% agreed, while 41.2% refused. This signifies that 58.8% of police respondents have less forensic knowledge and acquaintance. The biggest obstacles are lack of funds and lack of trained personnel, equipment and laboratories. The future of forensic science in Sindh will depend on overcoming the barriers and strengthening capacity building and improvement.

Key Words: Forensic Science, Police Investigation, Sindh Police, and DNA

Introduction

The word "forensic" is derived from the Latin term "forensic", meaning "in front of or before the forum". The term dates back to Roman times, during which time criminal charges meant prosecuting a group of public figures in a forum.

Forensic science (often referred to as forensics) is a tool for a wide range of sciences to answer queries of significance in a legal system. It could be an offence or a civil case. In addition to its compatibility with the legal system, forensic science generally covers conventional scientific methods and principles that help establish facts about an event, or a pattern, or any other physical object. In this regard, the perception is associated with the theory of affirmation, where there is interest outside of legal form in determining whether something is desired or claimed.

The most important aspect of any criminal investigation is forensic science, as it permits the authorities to accomplish everything from completely identifying a suspect in an offence to finding out accurately when and how the crime took place. Forensic science plays an imperative role in any criminal investigation for identifying the culprit and using scientific methods (Fox, 2002).

Today, crime is easier to solve than it was 70 years ago, thanks to advances in science, especially forensic science. Latest crime-solving procedures were developed in order to facilitate legal experts to resolve cases that are mysterious initially. Forensic science helps to dispel one's intolerance about crime; it recruits officers only to look for evidence and does not look at their emotions and instincts. For that reason, it helps find the accurate approach to unravel a crime (Murphy, 2007).

The need for forensic science in a criminal investigation in Pakistan is increasing significantly as the pattern of crime is changing and becoming more complex.

Forensic science is playing an important role in criminal justice systems around the world (Mennell, 2006). The threat of terrorism and suicide assaults is spreading all over the world. In developed countries, detective sergeants and forensic scientists are implementing modern criminal

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analysis practices to decrease the crime rate, but regrettably, in Pakistan, the method of investigation to find the culprit is the same as it was decades ago.

Crime Investigation

Legally an investigation involves the entire process of gathering evidence by the police or by a person who is given authority by a magistrate in this regard (Hall, 2008). A good quality investigation is a precise process that involves detection, collection, protection and presentation of proof in the court. The investigation includes investigating, searching a case to find out the fact, to know the whole story or to resolve an offence. The investigation is a multi-disciplinary technique, which involves organized and logical thinking, where minutes and detailed inspections are required, including observations, inspections and fact-finding inquiries. The Criminal Procedure Code distinguishes between investigations and inquiries (Bullock, 2011).

The investigation is described in section 4 (l) of the Criminal Code as following:

“The investigation includes all the actions taken by the police officer to gather evidence under this regulation which is authorized by the magistrate in this regard.”

While -

Section 4 (k) is as follows:

“Inquiries include any inquiries other than trials by a magistrate or court under this Code.”

Code of Criminal Procedure restricts the span of the investigation to evidence gathering only. The investigating officer is limited to gather evidence without creating any estimation on the guilt or incorruptibility of the accused. Another vital aspect is an endorsement. The role which an investigating officer is performing cannot be accepted by all. Therefore to find the crime, an investigating officer should be a police officer or a person authorized by a Magistrate.

“Evidence or proof means "anything that tries to prove or disprove something”.”

(Yilmaz, 2014) Qanun-e-Shahdat Order 1984, in the strict sense of the evidence comprises

- All declarations that the court allows or requires a witness to present in the case of facts under inquiry, such declaration is entitled as oral evidence.
- All documents submitted for court examination, these documents are known as documentary evidence. Crimes under the Pakistan Penal Code 1898 are investigated in Pakistan under Part V, chapter XIV of Code of Criminal Procedure 1898 and police Rules 1934 (Goldberg, 2005).

In the case of crimes arising under special laws, there is a detached law that governs the process of investigation, such as the Federal Investigation Agency, the Anti-Corruption and Anti-Terrorism Court, etc.

An investigation is carried out when an incident has taken place, i.e. lodging of FIR u/s 154 Cr. PC, and when it closes, it will either close with a review that there is no credible evidence that a crime has been committed (cancellation report) or one or Submitting multiple reports stating what happened (submission of challan to the court by the prosecutor) (Mughal, 2012).

Literature Review

Current literature suggests that forensic science is looking at the least probably disjointed, incomplete, unmanageable factor in an event. The expression "forensic science" covers a wide range of disciplines with their own different approaches (Parker, 2017). Forensic science disciplines demonstrate a wide range of procedures, methods, consistency, error levels, research, all-purpose acceptance, and published substance. A few disciplines are laboratory-based (e.g., nuclear and mitochondrial DNA examination, toxicology, and medicine investigation); other observations are based on specialist interpretation of patterns (such as fingerprints, text writing patterns, cut marks and tool marks). Some tasks have needed the skills and investigative skills of trained people as scientists (such as Apothecary, Pharmacists or biologists). Other actions are performed by scientists as well as police or law enforcement (such as crime sight investigators, blood spotter forecasters, crime restoration specialists), drug (e.g., coroner), or laboratory procedures (such as technologists). A lot of the procedures used in the fields of forensic science are widely used as science experiments, meaning that they are not based on a body of knowledge that recognizes the basic limits of uses the scientific

principles and methods used to solve and discover problems (Nissan, 2012). It is, therefore, significant to emphasize improving and systematizing activities and procedures.

Police Investigation and Trial

The criminal justice system that Pakistan implemented in 1947 was designed to suit the needs of the British royally rulers and to suit their majestic design. Other attribute laws, including the Pakistan Penal Code (PPC), 1860 and other laws that create and punish crimes (mostly criminal law), the Code of Criminal Procedure (Cr.P.C.) (Alam, 2019), 1898 and the Evidence Act, are traditional examples of British heritage. The march of development has brought many complexities to society. Twenty-first-century society is obviously dissimilar to nineteenth-century society. Technology, information evolution, fast socio-economic and scientific revolution have simultaneously made societal and cultural principles multifaceted. It has provided the Pakistan Penal Code (PPC) and Code of Criminal Procedure (Cr.P.C.); insufficient, sometimes outdated and in many cases useless, therefore alteration is required.

Evidence Handling

Forensic science is the application of science throughout criminal examination in accordance with legally established processes. This signifies a major breakthrough in the criminal investigation, provided that answers can be found to too many questions that could never be answered. Based on this comprehension, criminals can be recognized, or guiltless suspects can be cleared of doubts. Forensic science is the use of knowledge that is used for the law (Pyrek, 2010); it has three main stages, which are, recovery of confirmation from the crime scene, forensic examination of the evidence in the laboratory and the test results of the evidence is presented in court (Jones, Alan Wayne, 2010).

The evidence is originated during a gathering procedure known as Crime Scene Investigation. Investigators collect proof from crime scenes and take it to a laboratory for investigation so that it can be used in illicit or civil cases. Identifying, collecting and storing any forensic evidence will eventually involve a number of individuals. Evidence may be misused at any stage of the process, intentionally or accidentally. This threat starts at the crime scene, where there is a likelihood of evidence, destruction or misconduct. After the scene is processed, the proof is then sent to a forensic laboratory for examination. Here, contamination can be caused by poor testing techniques, overuse, misrepresentation, and even damage or destruction. Once the analysis is done, those who analyze the proof must report their conclusions.

The crime scene is imperative because, if handled with care, it can offer the physical proof needed to prosecute a suspect. Proof from a crime scene can be used in a variety of ways, including to prove that a crime did occur, because it is not always clear at initial glance, for example, someone it will be needed in case of fire. Set up if the fire was started accidentally or intentionally. Recognition evidence can assist in recognizing victims, criminals and anyone else who may be part of the crime. Only credible and unprejudiced proof can be used in court, so evidence of criminal evidence needs to be properly handled, stored, packaged and transferred throughout the investigation process. This cautious process is called a chain of continuity and requests to be established for the forensic laboratory to obtain accurate evidence that can be used in jurisprudential proceedings (Nakhaezadeh, 2015).

Forensic Laboratory

A crime laboratory, also known as a forensic laboratory, is a facility where investigation and analysis are made on evidence produced by offences or sometimes civil interferences. Crime laboratories can examine tangible, compound, organic, or digital evidence and mostly utilize experts in a diversity of disciplines, containing forensic pathology, behavioral forensic science, criminal investigations, forensic anthropology, and ballistics.

A wide range of specialities is covered by Forensic laboratories, which include: Pathology, which would include rape or any other unnatural death. Firearms specialists who, other techniques too, are involved in testing bullets collected from the scene and questioning documentation specialists who

would be involved in fraudulent matters (Ghannam, 2019). The forensic expert is accountable to provide a proof report that can be used in afterwords in law court; it is printed so that those who are not familiar with the scientific expressions can comprehend the conclusion. Crime scene occurs at any place or location where there is evidence that can assist in a criminal investigation. Hence, the crime scene can acquire numerous forms, be it inside or outside the home, i.e. road accident or stolen goods, and it can be just a fingerprint, or it can contain acres of land.

The forensic laboratory is a significant component of the criminal examination because it investigates the evidence that is established at the crime scene and on sufferers and suspects in order to uncover the connection that can be used as specialist proof in court. The forensic examination is used to corroborate the evidence which was found at the crime scene with scientific proof that can endure rigorous scrutiny in a court. The forensic investigation may be helpful in criminal investigations in several ways, surrounded by others; it can be by identifying alcohol or drugs in an individual's blood, which can lead to investigations, for example, blood tests. Laboratories suggest different areas of knowledge depending on how they examine evidence of different types (Kintz, 2015). For example, a poisonous and drug recognition laboratory will be used to test drugs, poisons and a forensic serology laboratory for the investigation of bodily fluids like blood and semen (Dodson, 2000). Hence, a laboratory has an imperative role in the procedure of investigation, but unless there is significant care and stability to preserve all stages of the investigation, namely protection, documentation, storage and carrying and transportation of evidence, until then, the work in the laboratory is notorious.

Therefore, the entire recovered proof should be cautiously labeled and kept properly; many different collected samples be kept in diverse methods, like, blood spots required to be dried in the air before packaging to avoid bacterial action that may obstruct the investigation (Neckovic, 2015). Stability forms, comments and labels are filled out properly, and it is significant to maintain the relationship between the crime scene and the physical evidence and by photographers, illustrations and written observations. The crime scene is the "initial link in the sequence", and if the legal process is not followed, the whole procedure of forensic investigation can be declared worthless. Therefore, so as to achieve and maintain the veracity of the evidence, continuity is important in the investigation process so that it can be used in proceedings of the court.

Criminal Laboratory or Forensic Science Laboratory Operations

The primary purpose of the laboratory is to supply impartial and factual reports to analytical agencies and thus to assist the courts (Kelty, 2013). Taking into consideration the figure of cases awaiting in the courts, the laboratory assists the investigation of various crimes with the use of modern technology on all grounds of forensic science. The forensic investigator collects both the biological and non-biological proofs commonly found in criminal and civil cases, carefully analyzes using advanced technical tools, and generates reports to assist investigative agencies.

Evidence resources can be classified as biological and non-biological. Whether substance proof is biological or non-biological, the extent and variety of substantial evidence are truly infinite. A biologically evidential resource comprises saliva, blood, viscera, semen, hair, nails, leaves, flesh, fruits, etc. Non-biological proof resources comprise glass, fibres, string, armaments, documents, medals, papers, petroleum products, paints, narcotics, firearms, oils, incendiary devices and other chemicals. The biological proof is mostly found in cases of physical violence where blood is shed. In cases of rape, in addition to blood, 'semen' is an imperative proof substance. The non-biological proof is found in offenses such as robbery, burglary, counterfeit, drug trafficking, etc.

A scientist working in a laboratory has an essential role to play in the investigation of various types of evidential substances found in the crime scene or is used at the beginning of an offense. The laboratories are employed with interdisciplinary employees and are equipped with extremely skilled and sophisticated apparatus to perform all the demanding investigative work connected to any offense. Depending on the nature of the evidence found in these laboratories, there are different special divisions to analyze specific evidential materials. The crime rate in the world is constantly rising. Today, because of scientific development, criminals use the most modern techniques. The analysis of criminal cases has become more complex and difficult day by day.

Material and Methods

Qualitative research depends on the researcher's first-hand observations, questionnaires, focus groups, interviews, contributor observations, documents in instinctive settings, documents and sample data. Statistics are usually innumerable.

Present research included scurvies from police department stakeholders and forensic experts. Semi-structured interviews are conducted with all the above stakeholders to collect relevant data from Pakistan's point of view. The study has examined the research problem using data from books, journals, periodicals, newspapers, magazines, the World Wide Web, unpublished articles, essays, seminar articles and other sources. Therefore this study is assessing the importance of the current method of forensic protocols and investigation of crimes in the Karachi and Hyderabad area of Sindh.

Shank described qualitative research as "a procedure of systematic experimental research in meaning" (Shank, 2006). Systematic means "strategic, organized and public", subsequent to the rules agreed upon by members of the qualified research community. Experimentally, this means that this type of investigation is based on the world of experience. Denzin and Lincoln declare that qualitative research involves an explanatory and instinctive approach; people try to comprehend or understand occurrences in terms of the meaning they bring to them (Denzin, 2006).

To adjust the qualitative research design, a survey was conducted. A questionnaire has been developed as the instrument to address the issues involved in the research problem. In the present study, improbability sampling was used. The survey was conducted among a total of 98 out of the 68 stakeholders were from Police Department, and 30 were Forensics Experts and Laboratory Analyst. Its purpose was to focus specifically to measure the importance of the role of Forensic Experts and Sindh Police adopted for the investigation of various crimes in Sindh, especially in the Karachi and Hyderabad areas, so only those with knowledge of legal knowledge could provide valuable information in the survey. The survey was conducted to obtain respondents' feedback on the procedure that describe indicators, sample groundwork, extraction, tools and controls that are standard for DNA investigation and data interpretation. Survey Questionnaire is the tool that has been specifically designed and distributed for collecting the response from the respondents.

Results and Discussion

The purpose of statistical analysis is to extract meaning from data and to examine how something occurs or exists. Once data was collected for this research, it was then screened and coded based on themes and categories.

To determine the forensic procedure, adopt the compilation in multiple criminal cases and handling the evidence.

This objective is achieved by acquiring data from books, magazines, journals, newspapers, magazines, the World Wide Web, unpublished articles, articles, seminar articles and other sources and their theoretical concepts. With the help of qualitative research methodology, this objective is achieved. It is then used to guide the third objective of the study, which consists of interviews with 30 Forensics Experts and Laboratory Analysts.

To determine the importance of the protocol for forensic investigation of DNA testing of various cases with the help of a Survey Questionnaire, responses were collecting from the respondents. This Survey Questionnaire is designed to evaluate the significance of the Forensic Protocol for the forensic investigation of DNA testing adopted by the Forensics Expert and Laboratory Analyst in the laboratory for the investigation of diverse offenses in Sindh, particularly in the region of Karachi and Hyderabad. This will facilitate us to achieve a better perceptive of forensic procedures and protocol and the role of forensic experts and laboratory analysts in any criminal investigation.

Findings

Statistical quantities of each variable have been analyzed through the frequency tables and summarized to uncover the important characteristics of the gathered data.

Research has been performed by conducting different surveys on:

- 1) Police department stakeholders

2) Forensics Expert and Laboratory Analyst in the laboratory

Qualitatively, data is collected through survey questionnaires. The results of the survey questionnaire will then be analyzed using the SPSS (Statistical Package for Social Science). The frequency of each variable is being analyzed, and a stepwise Chi-Square test will be applied to determine the possible relationship between each variable.

Police Department Stakeholders

This research is one of the first practical attempts to combine the significant role of Sindh police in crime investigation. A survey Questionnaire is the tool that has been specifically designed and distributed for collecting the response from the respondents. The sample size of the survey is 68 police officers in the region of Karachi and Hyderabad. Respondents ranged from constables to inspectors. Therefore, insufficient knowledge of the police could be considered as the limitation of this study which has been observed during the survey as given below: -

1. These were the traditional mindset of the police, who were less trained with less educational background.
2. Police acquaintance about forensic science
3. Inadequate knowledge of forensic protocols used in criminal investigations.

Further, for this study, forensic methods and protocols used by Sindh Police have been recorded, which they adopt during any criminal investigation in Karachi and Hyderabad regions.

Therefore, this study has assessed the importance of the current method of forensic protocols adopted in the investigation of various crimes in Sindh, especially in the Karachi and Hyderabad regions.

Variable 01: Can modern forensic techniques give result quickly in any case?

Table 1. Showing frequency of the variable 01

Can modern forensic techniques gives result quickly in any case		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	40	58.8	58.8	58.8
	No	28	41.2	41.2	100.0
	Total	68	100.0	100.0	

When participants were asked that modern forensic techniques can give results quickly in any case, respondents' responses revealed that most of them agreed, with approximately 58.8% (40 out of 68), while some respondents said no 41.2% (28 out of 68) as comes out in the Table1 and similar statistics are shown in Figure 1 below.

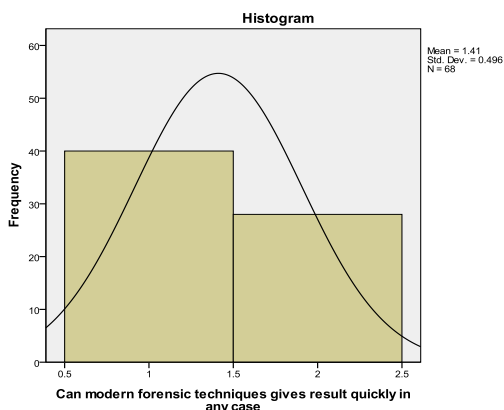


Figure 1: Showing frequency of the variable 1

Correlations and Associations

In order to determine the existence of possible relations and associations among different variables, correlation analysis has been performed over variables by doing cross-tabulation.

Correlation No 01: Knowledge Of Crime Investigation With Can Photos Be Part Of Proof?

In this analysis, both the variables ‘knowledge_crime_investigation’ (Have you any knowledge about crime investigation?) and ‘can_photos_part_proof’ (Can photos be part of proof?) has been put under the Chi-square test for independence in order to determine whether they are related or not. Pearson Chi-Square Test for independence compares the frequency of cases found in the ‘knowledge_crime_investigation’ variable across those of the ‘can_photos_part_proof’ variable.

Table 2. Showing Chi-Square Test results

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	33.493 ^a	1	.000		
Continuity Correction ^b	7.873	1	.005		
Likelihood Ratio	7.652	1	.006		
Fisher's Exact Test				.029	.029
Linear-by-Linear Association	33.000	1	.000		
N of Valid Cases	68				

a. 3 cells (75.0%) have an expected count less than 5. The minimum expected count is .03.
 b. Computed only for a 2x2 table

Table 3. Showing Cross tabulation of Correlation No 01

knowledge_crime_investigation * Can_photos_part_proof Crosstabulation				
Count		Can_photos_part_proof		Total
		Yes	Don't know	
knowledge_crime_investigation	Yes	66	0	66
	No	1	1	2
Total		67	1	68

The results show that the large number of respondents who have knowledge of crime investigation has shown strong agreement towards considering photos as part of the proof, whereas few respondents who have no knowledge about crime investigation have negated the same as comes out in Table 3 that both variables have significant effects in relation as p-value is .029 which less than (0.05) similarly depicted in Figure 2.

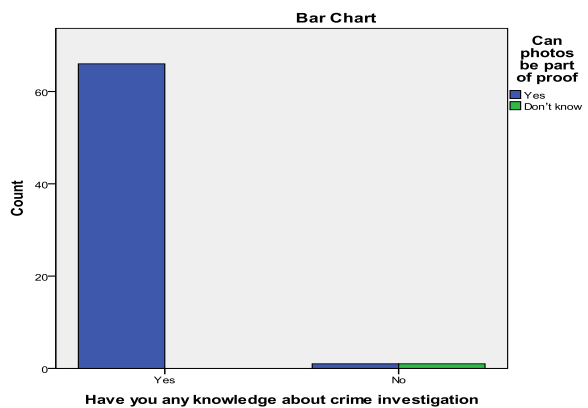


Figure 2: Showing Co-relations

Forensic Experts

This questionnaire is designed to assess the role of forensic experts for forensic investigation of DNA testing in the laboratory for the investigation of various crimes in Sindh, especially in Karachi and Hyderabad areas. Based on this research, further suggestions and implications will be developed to help the Department of Police, the Forensic Science Institute, the Criminal Justice System and other policymakers to improve and enhance the way they deal with existing evidence handling practices.

Variable 02: Can forensic evidence be a comprehensive defense in court?

Table 4. Showing frequency of the variable 02

Can forensic evidence be a comprehensive defense in court?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	93.3	93.3	93.3
	No	2	6.7	6.7	100.0
	Total	30	100.0	100.0	

When participants were asked that forensic evidence be a comprehensive defense in court, respondents' responses revealed that most of them agreed, with approximately 93.3% (28 out of 30), while 6.7% of respondents said no, as comes out in Table 4 and similar statistics are shown in Figure 3.

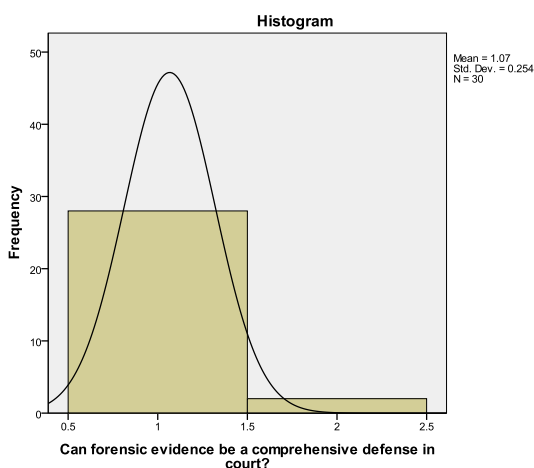


Figure 3: Showing frequency of the variable 02

Correlation No 02: Do you think DNA is enough to find the real culprit wit Do you think forensic labs in Sindh province need to be upgraded?

In this analysis, both the variables 'DNA_culprit' (Do you think DNA is enough to find the real culprit?) and 'lab_sindh_upgrade' (Do you think forensic labs in Sindh province need to be upgraded?) have been put under Chi-square test for independence in order to determine whether they are related or not. Pearson Chi-Square Test for independence compares the frequency of cases found in the 'DNA_culprit' variable across those of the 'lab_sindh_upgrade' variable.

Table 5. Showing Chi-Square Test results

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.069 ^a	1	.150		

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Continuity Correction ^b	.129	1	.719		
Likelihood Ratio	2.267	1	.132		
Fisher's Exact Test				.333	.333
Linear-by-Linear Association	2.000	1	.157		
N of Valid Cases	30				

a. 2 cells (50.0%) have an expected count of less than 5. The minimum expected count is .33.
 b. Computed only for a 2x2 table

Table 6. Showing Cross-tabulation of Correlation No 02

Do you think DNA is enough to find the real culprit? * Do you think forensic labs in Sindh province need to be upgraded? Cross-tabulation				
Count		Do you think forensic labs in Sindh province need to be upgraded?		Total
		Agree	Strongly Agree	
Do you think DNA is enough to find the real culprit?	Yes	9	20	29
	No	1	0	1
Total		10	20	30

The results are showing that the large number of respondents who have to think that DNA is enough to find the real culprit has shown strong agreement towards considering forensic labs in Sindh province need to be upgraded, whereas few respondents who do not think that DNA is enough to find the real culprit have negated the same as comes out in Table 6 that both variables has significant effects in relation as p-value is .333 which less than (0.05) similarly depicted in Figure 4.

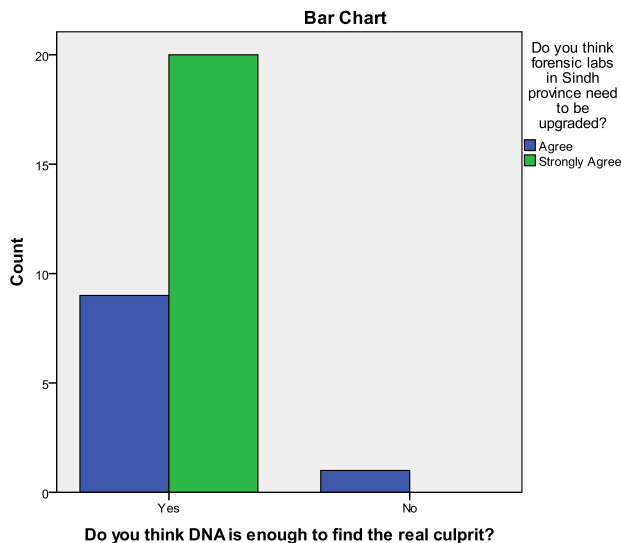


Figure 4: Showing Co-relations

Legal Protocols in Pakistan

There is no specific legal protocol that deals exclusively with DNA evidence in Pakistan, and that is why courts still have to withdraw within the legal framework. DNA evidence has been published in the context of Articles 59 (Gingras, 2009) and 164 (Smith, 2015) of the QSO (Qanun-e-Shahadat

Order). The previous provisions state that expert opinion on matters such as science and art falls within the scope of appropriate evidence', while the latter provides for recognition of the various methods available due to advances in science and technology. Under the current legal protocol framework, a technician who specializes in examining DNA evidence is considered a specialist whose proof/opinions are acceptable in court. This legal protocol framework is no diverse from the one leading the acceptability of medical estimation, which provides the sense that DNA is an additional type of medical proof and that a DNA specialist is like a doctor. If DNA is examined exclusively in this context, we may not be able to take full advantage of its use. The main difference between medical estimation and DNA proof is that the earlier does not identify the culprits, while the latter does so with a large scale of accurateness. Therefore, it would be more suitable to examine it from a diverse legal point of view. However, as we will see, the courts have not commented on the progress of this law, and there is a lot of scopes to cover it.

Responsible Aspect of Insufficient Police knowledge

Knowledge of Police Regarding Forensic Protocols

Police investigators in Sindh are forced to deal with a lack of forensic protocol knowledge, skills, resources and a national database. The role of forensic science education and training is seriously significant for police investigators and victorious investigations ([Naqvi, 2019](#)).

Enhancing the Capacity of the Police

DNA databases, protection of biological proof, and power over political pressure can enhance outcomes of forensic investigation. The education, resources, training, funding and forensic laboratories can enhance the capabilities of police investigators in solving many simple and complex offences ([Pyrek, 2010](#)).

Logical Issues

Policing in Pakistan

The Pakistani legislature has empowered the police not only with the security administration but also with some legal powers. The police are inefficiently trained, under-resourced and under-compensated, thus becoming vulnerable to corruption, bribery and incompetence at most levels. The police are not only accountable for filing the first crime report. They are also the investigating authority to investigate crimes and offences. Unfortunately, the police in Pakistan lack the necessary resources to conduct investigations and are poorly trained for conducting a proper investigation. The Sindh government has done little to train police for forensic investigations. It is very important that the essential and appropriate resources be developed for police training and reform in the Sindh province so that there is strong regulation of law in the province.

Lack of Defense and Security during the Prosecution

Individuals involved in the prosecution process, such as the plaintiff, defendant, prosecutor's counsel, and court staff, will all face security issues at some point in their careers. Sindh High Court lawyers, police officials, face the greatest security threats ([Behrens P., 2016](#)). The cases registered by the police in terrorism or high profile cases face serious consequences. The witnesses also face serious security risks. In Pakistan's urban centers, the problem is even more acute. Witnesses who testify endanger their own lives as well as those of their loved ones. Thus, especially with regard to street crime, witnesses refrain from testifying. Unfortunately, very little has been done by the government to ensure the safety and security of witnesses, as evidenced by the partial or almost unenforceable law on witness defence.

Conclusion

The study concludes that forensic experts accumulate, analyze and protect scientific evidence

Throughout the investigations. Besides their laboratory role, forensic experts confirm as specialist witnesses in equally criminal and civil cases and can also work for prosecution or defense. Knowledge, practice, and the role of intuitive spies, police, and other experts in forensic tools and techniques must be supported in criminal investigations. All stakeholders in the criminal investigation should carefully follow the procedure and procedure as evidence is an important link between suspects and victims. Search patterns assist in collecting physical and other evidence. The DNA specialist retrieves fingerprints using technical tools and kits. Shoe prints and tire tracks, vehicle type, height and gait of criminals also provide indications of criminal identification. The police perform different roles in investigating any crime as they receive, and recording witness statements, and gather all kinds of evidence. Therefore, the police are the most prominent representatives of the government and society. Forensic expert police work together to provide the best services in crime investigation.

Recommendation

In order to be tolerated as crime control agents and to respond to a more vigilant society, Forensic experts, police organizations should focus on imitation and stable sources such as material and evidence. Furthermore, it is important that evidence from crime scenes be properly handled and stored for a thorough forensic laboratory examination so that the identification process can be completed. There is also a vital necessitate to set up more forensic labs in Sindh province. For better crime control and forensic investigation, the government should implement more forensic laboratories to defeat the offence. No special forensic procedures have been adopted by the investigation team, so all stakeholders should have some appropriate training during the adoption of forensic procedures in the investigation of their crimes.

Appropriate law enforcement training that prioritizes the police force can prove to be a good approach. This can be done by designating a police department for recruits trained in the field. Both the Forensic experts and police should provide state-of-the-art forensic technology to CSI vans such as proof collection kits, UV flashlights, laser-built terrier devices, protective suits, open print supplies, remaining gunshot kits, blood stain proof kits, blood detection Kits, treatable and lighting equipment and related equipment in remote areas.

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