

In a developing country like India, there is an increase in crime rate and so is the dearth of Neuro-Forensic Psychologists. There is also a lack of awareness about the importance of Neuro-Forensic Psychologists and related employment in Indian set-up.

Table A: Table showing crime incidences, crime rate and percentage variations in from Year 2014 to 2016.

Crime Head Crime	Crime Incidence			Crime Rate			Percentage Variation	
	2014	2015	2016	2014	2015	2016	2014-2015	2015 -2016
Indian Penal Code	28,51,563	29,49,400	29,75,711	229.2	234.2	233.6	3.4%	0.9%
Special and Local Laws	17,20,100	17,61,276	18,55,804	138.3	139.9	145.7	2.4%	5.4%
Total	45,71,663	47,10,676	48,31,515	367.5	374.1	379.3	3.0%	2.6%

Also, as per NCRB report a total of 2,194 cases of murder were reported during 2016, showing a decline of 0.6% over 2015 (2,207 cases). Delhi (479 cases) reported the highest number of cases of murder accounting for 21.8% followed by Bengaluru with 10.4% (229 cases) and Patna with 8.9% (195 cases) during 2016. Personal vendetta or enmity (483 cases) was the motive of murder in highest number of cases followed by gain (162 cases) and property dispute (146 cases). Kidnapping & Abduction: A total of 11,285 cases of kidnapping & abduction were reported during 2016, showing an increase of 10.2% over 2015 (10,242 cases).

To deal with crime there are laws and enforcement but in order to understand the causal factors of crime, its psychological assessment, diagnosis, investigation, treatment and rehabilitation an army of professionals are required specialized in Neuro-forensic Psychology because the crimes are related to neuropsychological issues which require attention of Neuropsychologists and for investigation Forensic Psychologists are needed.

Forensic Psychology: It is highly specialized branch of psychology; concerned with the production and application of psychological knowledge and principles within the legal process. According to Heilbrun (2000), Forensic psychology is a specialized field within psychology wherein psychologists provide professional expertise to the judicial system, a specialty recognized by the American Psychological Association.

Changing Pattern of Crimes: The changing pattern of crime has also created a strong need of Neuro-Forensic Psychologists. Earlier the crimes were impulsive and Brutal, the possibility of getting evidence was relatively easy and also to break the culprit to get the truth but now the crimes are more organised and well executed. Criminals distort and dispose of the evidences and are also well aware of legal implications. Also there a rise in types of Crime like Rape, Murder, terrorism, Atrocity, Sexual Harassment, Mass suicide, Cyber crimes, white collar crimes, Sex offenders, Drug and alcohol abuse, Domestic Violence, Child protection/ parenting assessment, Physical assault, violence, Malingering, Benefit fraud, Post Traumatic Stress Disorder, Road Traffic Accidents/ personal injury compensation cases, Medical Negligence, Striking off from the Professional Register - Unprofessional behaviour, Mental Disorders, Developmental Disabilities, Discrimination – sexual, racism, employment, Equal Opportunities; Death penalty trials and appeals, Family challenging education, health or social services etc need referrals to Neuro-Forensic Psychologists.

Referral Process: The referral process can be done through Solicitor, Probation Officer, Court, tribunal or a professional council. There shall be an agreement on professional fee, Terms of Instruction need to be directed, Accompanying documents shall be presented, Neuro-Forensic Assessments shall be done and based on all the above mentioned information submission of the Report shall be done. An Expert witness (defending the report) can be assigned to defend the report submitted.

Education and awareness about Neuro-Forensic Psychology in India: There is lack of awareness as well as proper courses available in India. However, a University was established in 2009 which provide Neuro-forensic Degree/Diploma Courses in India. Institute of Behavioural Science, Gujarat Forensic Sciences University is the only University in Asia giving Degree, Diploma and M.Phil. Forensic Psychology courses.

- M.Sc. Forensic Psychology (2 Years/4 semesters)
- M.Sc. Neuropsychology (2 Years/4 semesters)
- M.Phil. Forensic Psychology (2 years/4 Semesters)

As part of the course the students are getting internship at Directorate of Forensic Sciences (DFS), Gandhinagar and Hospital for Mental Health, Ahmadabad, 6 months each. Students are also involved in research work for which they are working on prisoners, juvenile offenders, and white collar crime/criminals etc. Also, getting training to work as Forensic Scientists/Forensic Psychologists using various Investigative Techniques, Conducting Psychological Assessments of Suspects, learning how to write and present forensic reports in Court as expert witnesses. Understanding the Competency to stand trial/Fitness to plead, Criminal responsibility/Insanity defense, Prediction of violent behaviour and Sentence Mitigation

Areas where Neuro-Forensic Psychologists are needed: As day by day number and types of crime are increasing. This is increasing the demand of Neuro-Forensic Psychologists.

- Need of FPs as part of Crime Scene Investigation team.
- Forensic Assessment: Neuro-Forensic psychological tests development for Forensic assessment.
- Police/Army Psychology: Recruitment, Stress management of Police/Army personnel and treatment.
- Development of behavioural checklists and assessment scales/inventory for diagnosing various forensic aspects of suspects and white collar criminals.
- Juvenile homes/Correctional centres for counselling, treatment and rehabilitations of juvenile offenders.
- Prisons: For developing Counselling, treatment, coping skills and improving subjective well- being training and rehabilitation program for prisoners/Jailor/relatives of prisoners.
- Schools/Colleges: For prediction of violent behaviour among students, suicidal tendencies, bullying in children.
- NGOs: To give counselling and to rehabilitate victims of domestic violence and rape, child rights, child custody, Divorce cases etc.
- Parenting assessment: How parents are raising their children.

Actions that can be taken and implemented

- Form a governing body who can discuss various issues and can make policies to resolve or deal with the issues.
- Licensed Professionals: People from various areas like Social work, clinical psychology, neuropsychology, Counsellors, Police, Social psychologists, developmental psychologists can do Forensic Psychology course and undergo forensic training program can get License and practise forensic psychology and can become forensic psychologist.
- More number of FSLs and Forensic psychologists.
- Development of Neuro-Forensic tests/Behaviour Checklists for forensic assessments.
- Conduction of workshops/Conferences at various places in India to discuss various issues and cases in this area.
- Offer more Ph.D and Dissertation programs in collaboration with FSLs where Forensic Psychologist can become co-guide.
- Development and conduction of various awareness program in schools/colleges/Institutions to spread awareness about various types of crimes and importance and seriousness of Forensic Psychology course as career.
- Need of Socialization: Proper socialization training programs for parents and teachers.

- Standardized format of report which can be followed in all FSLs.
- Detailed and subjective type report covering all the observations made by the forensic psychologist. Not only to find out whether suspect is involved in the ongoing crime investigation but also to see whether the person has characteristics of criminal so that he/she can be referred for counselling/treatment/correctional centre.
- Ethics committee and new set rules and regulations for Forensic investigation and report writing.
- Training in Forensic Psychological Investigation techniques like Polygraph, Brain Electrical Oscillation Signature Profiling (BEOS), a test for measuring experience is a Scientific technology which is helping Forensic Psychologists to solve various complex cases and other advanced techniques like micro-expressions, eye-tracking etc.

Conclusion: In modern era, where people are victimized by various criminal activities and facing the different stressful situation. In order to deal with criminal there appears to be a growing demand for experts in the field of behavioural science who can help law enforcement to solve different types of complex and peculiar cases. The hunt for operative aids to interrogation is probably as old as man's need to obtain information from an uncooperative source and as insistent as his impatience to shortcut any complicated path. Expansion of new techniques of investigation has led to the emergence of scientific tools for finding deception using Forensic Psychological Investigation. And with all these awareness, education and employment of such Neuro-Forensic Psychologists and experts are the much needed in schools, Institutes, NGOs, Prisons, Industries, Juvenile homes, Hospitals, Forensic Laboratories, Universities and that shall be the Vision 3E of Indians.