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HE Criminal Justice system is an integrated system comprising the Police, the prosecuting Agency, the magistracy and the correctional services. Any lack of coordination and co-operation among these generally leads to the malfunctiotning of the whole system.

Prof. S.K. Jha, in his paper, 'Revamping Criminal Justice System', underlines how every sub-system of the criminal Justice system in India is functioning independently and more often than not, at cross purpose with each other. This has resulted in poor rate of conviction.

The paper, 'The Police in the 21st Century' by K.N. Gupta, vouches for the separation of 'Law Police' from 'Order Police'. It recommends that the 'Law Police' should focus on detection of crime and prosecution of the offenders, while the 'Order Police' should look after prevention of crime and the maintenance of order. Besides, the paper advocates other innovations such as modernization, community policing, etc.

Liberalisation and globalization have led to the rise of new type of economic and non-economic offences. Such crimes require different types of approach and investigating skill for which Police has to master new investigative techniques. In a paper, 'New Era Economic Offences: A Case Study on Successful Detection of Debit Card Scam Cases in Odisha,' Mitrabhanu Mahapatra, IPS, emphasizes the need for new investigative skills as the offenders generally use cutting edge technology as a tool to commit new era economic offences.

Other papers such as 'Notion of Well-being and Success among Female PMF Personnel" by Mallika Dasgupta; 'Women in Policing: a Productive Proposition to Controlling Women Trafficking in Odisha" by Dr. Ramesh Chandra Nayak; 'Influence of Select Psychological Factors on the Occupational Stress and Psychological Well-being Among Women Police' by Dr. S Karunanidhi and Ms. Chitra T., deal with the issues of women Police and other related matters.

Lately, violent protest movements in India have posed a veritable security challenge for the policing and internal security. In a democratic country like India, protest movements and demonstrations are inevitable as they provide outlet for the genuine demands and grievances of the citizen. However, when these turn violent leading to serious law & order problems, it has serious ramifications not only for the policing but also have wider implications for democracy. In the paper, 'Violent Protest Movement: The Blackmailing Tool in Indian Democracy', Dr. Sonia Dutta Sharma discusses how some of these violent protest movements have, at times, turned into 'Blackmailing Tool' in the Indian Democracy and threat to the internal security.

(Gopal K.N. Chowdhary)

Editor

Revamping Criminal Justice System

Prof. S.K. Jha*

Keywords

Jurisprudence, Oblivion, Accusatorial System, Militants, Insurgents, Minuscule, Augury, Politicization, Cumulative, Modernization, Aggrandisation, Modus operandi.

Abstract

The main purpose of Criminal Justice System and its administration are enforcement of law, maintenance of order, fair trial, punishment of offenders and their social rehabilitation through correctional system of justice. The police, the prosecuting agency, the magistracy and the correctional services have to play integrated roles in order to attain this desideratum. But unfortunately today it is functioning independently in India. Every unit, under its own organizational culture and sub-culture, is working in its own way. Process of fixation of responsibility is one of the casualities in the current criminal justice system. As a result, a number of fallouts can be seen and observed.

The coming into force of the Cr. P.C., 1973, has led to lack of co-ordination between the police and the prosecuting agency in states and each unit thinks that it forms an independent wing of criminal justice system. This has resulted into poor rate of conviction. Another major reason for the decreasing rate of conviction is faulty and carelessly executed investigation by the police. Delay in forming the charges by the investigating agency and the adjournments by the courts have become cancer to the institution.

Unnecessary detention of undertrials and the heavy influx of short term convicts have resulted into the overcrowding of jails. Consequently, no correctional activities can be carried on successfully under such circumstances.

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Again the training of Judicial and Magisterial officers presents a bleak panorama. The need to provide for in-service training or refresher courses to the statutory judicials officers has not received its due recognition till recently.

Today the country needs special laws that empower the government to combat terrorism. Hard crime and soft justice cannot co-exist for long if security is desired. The efforts so far made have been piecemeal and of minuscule proportion.

N contemporary Indian society, the spate of heinous crime, organized violence and gangsterism on the one hand and persistent failure of existing criminal justice system and its administration in prevention and control of crime on the other, cry out for multipronged reforms: not only in the areas of criminal laws and procedures but also in respect of all four sub-systems of the criminal justice system viz police, prosecution, judiciary and correctional services.

Maintenance of law and order is one of the basic functions of the state. The quality of civil society depends upon the performance of the state to the discharging of this basic function. The main purpose of criminal justice system and its administration are enforcement of law, maintenance of order, fair trial, punishment of offenders and their social rehabilitation through correctional system of justice.

The Police, the prosecuting agency, the magistracy and the correctional services have to play integrated roles in order to attain the desideratum. The functionaries of the criminal justice system are interdependent and interrelated as one unit when the issue is seen in its totality, but unfortunately today it is functioning independently in India. Every unit under its own organizational culture and sub-culture is working in its own way Investigation, prosecution and prison all have become: "process" in themselves. Process of fixation of responsibility is one of the casualities in the current criminal justice system. As a result, a number of fallouts can be seen and observed.

Denial of Speedy Trial: Violation of Fundamental Rights

Speedy justice has always been the *sine qua non* of criminal jurisprudence. But we sadly feel and badly lack this feature in the present day criminal justice system in our country. The first Law Commission (1958) in its 14th Report on Reforms of Judicial Administration and The Fifth Law Commission in its 41st Report made extensive recommendations

among other things, with regard to the elimination of problems and bottlenecks leading to delays in the disposal of criminal cases The Commission set about its task by focusing on a number of important areas in the code which needed redesigning and restructuring criminal justice system.

The concept of speedy trial for the first time was incorporated in the Verginia Declaration of Rights of 1776. This concept travelled from there into the sixth Amendment to the Constitution of the U.S.A. to bring it into effect. It is worth mentioning in this connection that there is a Federal Act of 1974 in the U.S.A., called Speedy Trial Act. This Act establishes a set of time-limits in prosecution of criminal cases. Similar provisions exists in Canadian Laws also. The right to speedy trial is also recognized as a common law right, flowing from the Magna Carta (1215). This is the view in U.K., U.S.A., Canada and Newzealand. Further under Article 14 of the International Convention on Civil and Political Rights 1966, the right to speedy trial is provided².

So far as India is concerned, the right to speedy trial is an intregral and essential part of the Fundamental Rights to life and liberty enshrined in Article 21 of the Constitution of India. The Supreme Court in the case of Abdul Rehman Antulay Vs. R.S. Nayak declared that right to speedy trial is implicit in Article 21 of the Constitution and this constituted a fundamental right of every person accused of a crime. In Hussainara Khatoon Vs. Home Secretary, State of Bihar, The Supreme Court Observed 'No procedure which does not ensure a reasonably quick trial, can be regarded as reasonable, fair, or just and it would fall foul of Article 21'.

It is to be noted here that the constitutional guarantee of speedy trial is also reflected in section 309 of the Code of Criminal Procedure. Thus right to speedy trial is the right of the accused. However, no real progress has been made in quick disposal of cases.

Repeated Adjournments

The wheels of justice grind slowly. It is so slow that it took two decades to convict former Kerela Minister, R. Balkrishana Pillai, who was involved in the Idamlayar Dam Corruption case. While sentencing Mr. Pillai to one year rigorous imprisonment, the Supreme Court itself drew attention to this indefensible delay by directing the special courts to dispose of all corruption cases against public servants expeditiously.

The two member bench held that High Courts, having a supervisory role over the trial courts, are expected to monitor the progress of these cases and may call for a quarterly report from the court concerned for speedy disposal.

This is indeed, extremely urgent to streamline the time consuming elements in the civil and criminal procedure codes and improving the functioning of alternative dispute resolution mechanism. Speed and efficiency are vital not only to the credibility of any justice delivery system but also to the very well being of any democratic society.

First of all summoning of witnesses is facilitated by repeated adjournments. So every effort has to be made to avoid it. In the state of Tamilnadu, Kerela, Karnataka, Maharastra and those districts of Andhara Pradesh which formed part of the former composite Madras state there was a rule that no session cases would be adjourned under any circumstances, whatsoever, session trials in those areas rarely went beyond three months. High Courts called for explanations of the session judges who adjourned cases or for other reasons were unable to prevent the trials from extending beyond three months. But this practice is not in vogue today. This should be revived to revamp criminal justice system and should prevail in all the states of the Union.

In Bihar and Iharkhand, it is normal to find session trials pending for two years and session cases pending trials for eight years and they do not raise any eyebrows. A glaring recent example (Oct.2010) as to how trials are being delayed even by no less a court than the High Court of Judicature can be seen in the Rajesh Bhardwaj case. In this case the Supreme Court of India pulled up the Patna High Court for preventing the arrest of a murder case accused for nearly three years for granting anticipatory bail and then staying the trial. In addition to it the High Court order directing re-investigation of the completed investigation by an officer of the rank of Director General of Police, that was also when the charge-sheet had already been filed, seems to be extremely unusual. The Bench in its order said "We are extremely surprised by the course undertaken by the High Court. The stance of the High Court in issuing direction not to take any further step in the proceeding of the case is wholly unwarranted." 3 Thus this is nothing but a travesty of criminal justice and it amounts to total abuse of the process of law. It should be a part of the criminal justice policy to institutionalize a

convention or formulate a rule that all session cases in all states of the country should be completed in three months.

As far as adjournments are concerned, it is an unpleasant fact that most courts of law are ready to grant adjournments to defence lawyers at the drop of a hat. It is certainly desirable to legislate on the subject so that it becomes less difficult to reduce the incidence of crime and to tone up criminal justice system. Frequent adjournments result in the suffering to the witnesses. Cases are adjourned many times and on all such days witnesses are required to appear and have to wait sometimes from morning to evening either in the court verandah or under a tree. Consequently, even educated people, who claim a well developed sense of responsibility as citizens, are reluctant and most unwilling to get entangled as witnesses. Fear of reprisal is another problem for the witnesses both in rural and urban areas. Moreover, the manner of their cross examination, as observed by the Law Commission in its 14th report, is often insulting and offensive.⁴

Prosecution Weaknesses

This leads to another important point affecting the criminal justice system, namely the methods of recruitment, training, standard of performance, administrative and disciplinary control and career prospects of prosecuting staff. Prior to the separation of judiciary from the executive, prosecutors were all police officers. The Inspector General of Police and their Gazetted subordinates had firm control over them. All of them knew the lacunae of investigation. With the adoption of the separation of the judiciary from the executive, prosecution work became the responsibility of Public Prosecutors at the session court level and Assistant Public Prosecutors at subdivisional level. The system worked well for sometime. But for the last three decades, a steady deterioration in the standard of performance of the public prosecutors has come to light. First, it has become difficult to get legal personnel of the required caliber, integrity, capacity and of the quality of devotion to work because of the meager emoluments offered. Second, due to increasing politicization of the system there has been a shift from professional competence so far as the criteria for selection are concerned. Third is the dilution of control and administrative discipline over the prosecutors. Previously the lawyer prosecutors continued to be under the control of the Superintendent of Police and District Collectors/Deputy Commissioners at the District level. But at present, most of the states have Director of Prosecution at the state level, who are expected to keep watch and exercise control over the work of Public Prosecutors and Assistant Public Prosecutors. But control and supervision from the state level are not satisfactory.

The actual problem started with the coming into force of the cr. P.C. 1973, when a feeling appears to have grown among the prosecuting staff in states that they form an independent wing of criminal justice system and do not come under the administrative perview of the police set-up. This according to the National Police Commission, has led to lack of co-ordination between the subordinate officers of these two wings at the district level and ultimately resulted in the poor rate of conviction.⁵

In addition to it, in-service training is an essential adjunct of modern administration. The newly recruited prosecutors hardly receive any in-service training after the first few weeks of their recruitment when they are attached to Superintendent of Police and other police officers for learning the rudimentary knowledge of investigation. Thus as far as criminal justice system is concerned, the weakest link is the prosecutor. Unless the police and prosecutors develop a strategy of co-operation and understanding for solving the crime problem, there is no way out of the present impasse. So as a first step in-service training of prosecutors should form a part of the career planning of prosecutors in every state. Political consideration should be delinked from the recruitment policies in respect of prosecutors. Disciplinary and administrative control should rest with District Collectors and Superintendent of police at the district level

Delay in Criminal Justice System

Trial begins with the actual restraint imposed by arrest and consequent incarceration and continues at all stages namely, the stage of investigation, enquiry, trial, appeal and revision so that any possible prejudice that may result from impermissible and avoidable delay from the time of commission of the crime till it consummates into finality can be averted. There is no denying the fact that our existing legal process is too time taking. Delay occurs at two stages:

- (a) When a case is filed by the complainant
- (b) When the case is charge sheeted.

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First of all there is delay in reporting on the part of the complainant. Second, there is a delay on the part of the investigating agency namely the Police. As far as Complainant is concerned, delay is caused due to ignorance, lack of confidence in the system and fear. These cannot be overcome by any instant solution. However, educating the public through victim, witness assistance programmes and victim support scheme as well as qualitative up-lift in the performance of criminal justice administration may improve confidence of the public in the system and its utility and thereby they may contribute to prompt reporting.

Non-Registration of F.I.R. as a means for showing a statistical decline in the crime graph is an age-old *modus operandai* of the police and. is an open secret. An F.I.R. is considered of vital importance as the success of subsequent investigations depend entirely on how carefully it has been recorded by the police, instructions pertaining to this end is explicitly mentioned in section 154(1)(2) and (3) cr.P.C. But very often subordinate police officers do not attach importance to these provisions.

Delay on the part of the police takes place from failure to register cases on the basis of technical reasons like; (a) Lack of jurisdiction (b) Inability to arrest the accused (c) Difficulties in procuring the Medico-Legal certificate from the Medical authorities as well as expert reports from Forensic Laboratories and chemical examiners and (d) corrupt motives.

The jurisdictional reason given by some police officials for driving complainants from pillar to post is hardly an excuse for not registering a case. The criminal law, as it stands, lays down that if a police officer receives a complaint of an offence committed outside his jurisdiction, what he is expected to do is to register the case straightway and transfer it to the officer in whose jurisdiction it falls. Failure on the part of the superior police officers to punish erring subordinates on this score is an inexcusable fault.

As far as arrests of criminals are concerned, investigation of particular categories of serious offences should be entrusted to a special squad in each district and they should work under the control of an Additional Superintendent of Police at the district level and D.I.G. (Crime) at the state level. The squad should consists of such police personnel

who have expertise in scientific investigation and are known for their integrity.

Again an alarming feature in the functioning of the criminal justice administration is the steady deterioration in the quality of medico-legal advice made available to the courts of law. In the sixties, there was an established practice that the Medical Officer who attended on a patient would submit the wound certificate within 48 hours without any prodding. But today it is being delayed by several months. Strenuous efforts on the part of Station House Officers to get these certificates from the Medical doctors seem to produce no effect whatsoever. The courts and investigating police officers and the Directorate of Health Services at the state level appears to be equally helpless. It is said that in some states the Medical personnel deliberately delay the issuance of certificates and wait for the amount of illegal gratification the representative of the accused and complainant are going to offer. From the point of view of criminal justice, it represents a disastrous state of affairs, and should be rectified without any further delay, since it is one of the major reasons which has made people lose their faith in the criminal justice system as such.

Delay occurs at the second stage when a case has been charge sheeted. At this stage delays can take place owing to any one or a combination of all the following reasons:

- Delay in the service of process
- Delay in receiving Forensic Science Experts' and chemical examiners' certificate and
- Delay due to long and frequent adjournments
- It is not possible to quantify how much each of these factors is responsible for the pendency and delays the process service by which is meant both the service of summons and the execution of warrants, and is another police responsibility which appears to have been suffering by default. The courts have been pointing out an admonishing finger at police for this fall in standard and the criticism is justified. It is alleged by the judges that scant attention is paid to the repeated complaints made to senior police officers by the courts regarding the failure on the part of their subordinates in this vital aspect of their duty, but to no purpose. Are summonees and warrantees able to bribe process serving personnel in a big

way? If so, what attention is being paid to curb this evil by the higher echelons of the police administration? These are questions to which no replies have been forthcoming. It calls for immediate attention.

On Feb. 14, 2011 taking note of the fact that inordinate delay in framing the charges by the investing agency, the Supreme Court has asked the centre to address the issue of delay in disposal of cases pending in the session courts. Mr. Justice Singhvi of the Supreme Court cited the instance of a case from Gujrat involving corruption to the tune of between Rs. 100 crore and Rs. 1000 crore and said it had taken about seven years for investigation to be completed. Delay in framing the charges by the investigating agency and the adjournments by the courts have become cancer to the Institution. The Judiciary provides the accused enough leverage in terms of time gap wherein they can tamper with the evidences and go scot-free. This makes judicial process ineffective in dealing with high profile cases of corruption. The cumbersome features of the procedural law also contribute in no small measure to the delay in the disposal of cases. Too many appeals and revisions against even interim orders help vested interests to prolong the litigation.

In states where the Forensic Science Laboratories are under the administrative control of the Inspector General of Police, they function better and the certificates are received quicker. The inference to be drawn is obvious. In states where Laboratories are not under the Inspector General of Police, should be brought under them. One item of work in which there is cumulation and consequent delay in most Forensic Science Laboratories is document examination. There is an urgent need for strengthening the document examining staff. The contemporary crime scenario indicates a pressing need to educate and train the forensic science manpower towards a sustainable professional competence. Today's manpower will have to meet new challenges due to the impact of sophisticated and high-tech crimes. They need to be equipped with the necessary skills and competency to satisfy the complex multi-disciplinary and multifarious needs of the law enforcement agencies and criminal justice system.

At present a number of personnel with no formal education in forensic science are working in the Forensic Science Laboratories. Such people have acquired the technical skills for their job, but are often not able

to acquire criminal justice philosophy, forensic science ethics, attitude and perspective.

At present only two universities, Sagar University, Sagar and Punjabi University, Patiala are offering Graduate and Post Graduate courses with U.G.C. grant. In recent years because of projected demand, some other Universities like Osmania, Agra, Bundelkhand, Indraprasth and Gujrat are running M.Sc. programmes under self-financing schemes, which lack the full strength of competent staff and laboratory infrastructure.

With the huge crime rate in a populous country like India, there have to be many more Forensic Science Laboratories, at least 10 times more than the present number. The U.G.C. and the Ministry of Home Affairs should pay attention towards this urgent requirement in order to strengthen the criminal justice system. It must be remembered that law forms the backbone of society and no civilization without a strong legal system remains worthy of being called one.

Acquittal

Another index of the malfunctioning of the criminal justice administration in the districts and a prime reason for a popular apathy and antagonism towards it, is the rate of acquittal of charge sheeted cases in the courts. It is worth mentioning that the major determinant of the quality of criminal justice system is the rate of conviction in criminal offences. But our existing criminal justice system has been suffering from certain maladies on this score and, and has more concern for the accused than the victim. In fact, the victim remains much in oblivion in our criminal jurisprudence and almost every crime leaves a scar on the victim rather than the accused for instance the victim of a rape case. Why should not the burden of providing proof lie on the accused rather than the victim in all criminal cases? Why should not the accusatorial system of jurisprudence which focuses attention more on evidence than on truth be suitably amended to ensure justice to the victims?

Justice V.R. Krishanalyer, in a landmark judgement pronounced in Shivaji vs. State of Maharastra (1973), had observed, "If unmerited acquittals become general, they tend to lead to a cynical disregard of the law. In short, our jurisprudential enthusiasm for presumed innocence must be moderated by the pragmatic need to make criminal justice potent and realistic."

Slipshod Investigation

One of the major reasons for the decreasing rate of conviction is the faulty and carelessly executed investigation by the police, which is largely due to inadequate staff for investigational work and inability of the concerned police officers to pursue investigation on day-to-day basis with a sense of commitment and determination. A simple survey conducted by the National Police Commission in six states revealed that an average investigating officer was able to devote only 37 percent of his time to investigational work, while the rest of his time was taken up by other duties connected with maintenance of public order. At present due to increasing threats of violence from the terrorists, militants, insurgents and naxalites in many parts of the country, the police officials in general are now more occupied with V.I.P. and V.V.I.P. security and other odd job.⁷

Slipshod investigation by the police is also due to lack of their professional ability and competence in crime investigation. They are not sufficiently exposed to rigorous training and refresher courses to acquire necessary knowledge, skill and aptitude for crime investigation. The net result is the increasing rate of acquittals.

Deleterious Effects on Correctional System

The cumulative effect of protracted legal procedure, delay in trials and poor rate of conviction results into the deleterious effects on correctional services. Unnecessary detention of under trials and the heavy influx of short term convicts have resulted in the overcrowding of jails. As a consequence of unnecessary detention of under trial prisoners, they constitute bulk of India's prison population. The Seventh Finance Commission found this population to be very high in several states such as Bihar, Odisha, Uttar Pradesh and West Bengal and in some cases it rose to 80 percent of the total inmate population. ⁸

Overcrowding in jails has become a normal feature now. For instance, the latest report on India's largest jail (Tihar Jail) reveals that it has at present anywhere between 9,000-10,000 inmates as against its total capacity to accommodate around 3,300 prisoners. Consequently, no correctional activities can be carried on successfully under such circumstances.

The following observation of the All India Jail Manual committee, 1957-59, still holds water:

"Owing to continuous state of overcrowding minimum standards for housing and equipment, sanitary services, water supply, segregating inmates of various categories, etc. cannot be properly maintained: unemployment and idleness increase in prisons, discipline becomes a complicated problem, attention to care the welfare and training of inmates becomes a difficult proposition. The overall efficiency of an institution thus gets lowered."

Training and Modernization in Criminal Justice System

The budget of the police department is under severe strain and there are shocking news reports that police do not have funds even to purchase petrol for their vehicles.¹⁰

The budget of the police needs to be given a higher priority. The process of economic liberalization and globalization set in motion cannot be carried forward, if law and order is not maintained. While the U.S. earmarks about 20 percent of the federal budget for defence, home security and preventing terrorism, the budgetary expenditure in India on police as percentage of GDP is hardly 0.55 percent. ¹¹

It is true that under the wake of terror created by the naxals and the terrorists the government both at the state and the national level have paid attention towards the problem and a sizeable amount of money have been granted to tone-up the criminal justice administration. But the ground truth is that a greater portion of the amount so received has been spent in modernization of the police force in the purchase of modern arms and ammunitions and vehicles. Proper attention has not been paid towards training of the police force. Research and in-service training have little importance in the training curricula of the police force. Precious little is done by way of study of the special problems of the districts, which vary from state to state and region to region. While commenting on modernization of the police force in the post independent era, Dr. Kiran Bedi, I.P.S., reacted, "In British India, the Indian Police force was designed and formed on the British Military Pattern and there has been little reformation at all. In the name of modernization, the government purchased some modern equipment, constructed a few buildings and established a few Forensic Science Laboratories but failed to change the colonial mentality of the Indian police." 12

Police officials who are trained by institutions like I.I.P.A., New Delhi, I.C.F.S. and S.V.P. National Police Academy are rarely utilized by state governments. The Research Methodology course which several officers undergo is practically and entirely washed away on their return to states. There is, therefore, an urgent need to change the laws governing the police, their leadership and management and the procedure of recruitment of the police force.

So far as the selection of officers to be sent for in-service training is concerned, only inconvenient officers from whom the state governments face difficulty or to provide a berth to those who have to be pushed or to find a place for a convenient person are normally selected for in-service training. Consequently, the desired impact on the district criminal justice administration is lacking.

Training of Judicial and Magisterial Officers

Again the training of Judicial and Magisterial officers presents a bleak panorama. The need to impart training both pre-service and in-service has been felt for a long time but has been nationally neglected so far, with disastrous consequences to 'Development and Justice' The most glaring omission in the existing training schemes is that they do not provide for in-service training or refresher courses, and except a few selected individuals being deputed to attend training course on crime and justice and criminology conducted by the Institute of Criminology and Forensic Science, New Delhi, while some others are deputed to participate in the course 'Administration of Criminal Justice' conducted by the Indian Institute of Public Administration, New Delhi. The duration of these courses varies from one week to three weeks. The basic aim of training is to equip the trainees not only with tools to execute their works, but to endow them with vision as to what is expected of the system which they serve. But in such a brief duration of the courses, the trainees are hardly benefited.

Another lacuna in the present day scheme is emphasis only on giving practical training by observation in courts on how to conduct cases. This old practice is without any effort to tone-up the criminal justice administration to the mores of the day.

Since the present system, method and facility for imparting training to judicial officers is wholly inadequate and it has in no way helped the judges to acquire proficiency in the art of rendering justice, it is absolutely necessary to set-up a Central Academy at a suitable place in the country for providing intensive training to new entrants to judicial service.

Efforts to streamline Criminal Justice System

According to the United Nations Population Fund, as many as 70 percent of married women in India between the age of 15 and 49 are victims of beating, rape, or coerced sex.

Violence against women is a serious problem in India. According to the National Health Survey (N.F.H.S-3), one third of women in the age group of 15-49 have experienced physical violence and one in ten has faced sexual violence. Spousal violence is yet another problem in India as well as in other countries of the world. In India spousal violence varies greatly from state to state. It is 6 percent in Himachal Pradesh and 13 percent in Jammu and Kashmir and Meghalaya, 46 percent in Madhay Pradesh and Rajasthan and 59 percent in Bihar. Other states with 40 percent or higher prevalence of spousal physical or sexual violence are Tripura, Manipur, Uttar Pradesh, Tamilnadu, West Bengal and Assam.¹³

Prevalence of violence is also much higher among women belonging to the SCs and STs than among those who do not belong to these categories. Again the prevalence of spousal physical violence is higher among women in the poorest household (49%) than in the wealthier household (18%).

The passing of the Protection of Women from Domestic Violence Act 2005, is a landmark effort to shun violence against women. However, it is an irony that no state has provided adequate infrastructures to operationalise the law.

The Judicial Standards and Accountability Bill, approved by the Union Cabinet in October, 2010 is yet another landmark step towards transparency and accountability of judges in the country. Mandatory public disclosure of judges' assets is not a radical idea. In the United States, the Ethics of Government Act, 1978 makes it mandatory for certain classes of federal officials, including the federal judges to make public financial disclosure. Many other countries, including Sri Lanka require judges to make periodic declaration of their assets.

The Judicial Standards and Accountability Bill mandate the judges of the High Courts and the Supreme Court to declare their assets and

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liabilities, including those of their spouses and dependents. The bill to replace, The Judges Inquiry Act, retains its basic features, contemplates setting up of a National Oversight Committee with which the public can lodge complaints against erring judge, including the Chief Justice of India and the Chief Justices of High Courts.

There are 9,310 cases of CBI pending before various courts and more than 2,000 cases have been pending for more than 10 years. A large number of these cases are against dishonest and corrupt public servants and their associates who have allegedly played havoc with the system in their pursuit of self aggrandisation. The delay in the trial of such cases essentially means delay in effective action against the corrupt elements and relief to the ordinary citizens who are victims of corruption. Menace of corruption needs to be handled comprehensively and only a multidisciplinary approach of the agencies associated with the delivery of criminal justice could tackle this problem. There is need for rationalization and simplification of procedures to prevent the corrupt and dishonest elements in the system from cornering the benefit of the constitutional safeguards.

In order to instill fear in the corrupt among public servants, the Union government has proposed to set-up 71 new CBI courts in order to expedite the trial of corruption cases Such corruption cases are to be completed in a time frame two to three years from the date of their registration.¹³

Perturbed over the low conviction rate in cases related to trafficking in human beings, the Union has advised all the states to establish one or more designated courts for providing speedy trial in offences under the Immoral Traffic (Prevention) Act.

Summing up

Although there is plenty to weep, nothing is to be gained by weeping. However, it is quite indispensable that judicial reforms should aim at striking a balance between independence and accountability. The lack of judicial data base on matters such as listing of cases, adjournments, managements of witnesses, stay orders, length of arguments, delay in pronouncing judgements etc. has been a major stumbling block to formulating reform strategies. Mounting arrears, perjury and falsification of evidence and absence of clear policy on litigation by the state (the biggest litigant at every level) are among the serious problems plaguing the judicial system.

Today the country needs special laws that empower the government to combat terrorism. Hard crime and soft justice cannot co-exist for long if security is desired. And without security, there is no liberty or freedom, and without liberty and freedom, security is not worth preserving for democratic societies. The fight against terror, is larger and more complex than the challenge of dealing with terrorists. The former requires more of statesmanship and good governance, the latter demands legislative and administrative reforms to plug the loopholes in criminal law and criminal justice administration. In this regard the reforms of the police and the prosecution machinery have been identified as an essential step. Reforms are needed to achieve professionalism and capacity building.

The need to provide for in-service training or refresher courses to the statutory judicial officials has not received its due recognition till recently either of the High Courts and Supreme Court of India or the government.

Large scale enactments of criminal laws by the Parliament and state Legislatures in the post-independence period, without proper study of the availability of manpower and resources of the criminal justice system, would naturally undermine the efficacy of it.

In our country, may be because of colonial legacy of mutual distrust between the common people and the criminal justice functionaries and for whatever reasons, the people's involvement in the criminal justice process is minimal. In countries like the U.S.A., UK and Japan, people's participation in criminal justice activities is prominent. In Japan, the Koban System of policing has a great success because of active public participation. In India the recent trend of promotion of the concept of community policing is a happy augury. However, the effort so far made has been piece meal and of minuscule proportion.

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The Indian Police in the 21st Century

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Keywords

Police, Indian, 21st Century, Laws, Procedural Law, Evidence Law, Forensic Evidence, NPC, Modernisation

Abstract

The citizen expects Police Officer to have the Wisdom of Solomon, the Courage of David, the Strength of Samson, the Patience of Job, the Leadership of Moses, the Kindness of Good Samaritan, the Strategic Training of Alexander, Faith of Daniel, the Diplomacy of Lincoln, the Tolerance of Carpenter of Nazareth and intimate knowledge of all branches of Science. If he had all these, he might be a good policemen, (ICPR, November 1972). Do we come across such policeman in India? How do we get them?

Introduction

XPECTATIONS from Police are always very high. What should be our police in the 21st Century? Father of the Nation had rightly conceived the role of Police as servants of people. There are emerging challenges to Police in the changing scenario. It has to suit the changing pattern. Police has to play important role in nation building by ensuring conditions for progress. People's indifference has to be won over. Training of police personnel has to be suitably amended. Recommendations of National Police Commission need to be implemented by the government. There are qualities of a policeman like 'Bobby' of U.K., which require emphasis.

Police should plan to deal with new challenges, organisational structure of police has to be strong and manpower strengthened, equipments,

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management and leadership needs to be pondered over and police has to improve its relations with the new community. Police has to become "people friendly".

The existing Laws – Procedural Laws, the Evidence Laws, Forensic Evidence need amendments to suit the changing and developing society. The British module could be followed as far as possible. Distrust of police by Courts has to be overcome. Various weaknesses of Criminal Justice System are to be removed and speedy trial has to be ensured.

Modernisation of Police equipments is of high priority for the Indian Police in the 21st Century. The introduction of Computers to the world of Police functioning and scientific advances will translate the concept of Police effectiveness into reality in the 21st Century. The 'Laws Police' has also to be separated from 'Order Police'. Changing attitude of police towards their duties, self and constructive analysis are of prime importance. Police must assist in total development of the society.

The citizen expects Police Officer to have the Wisdom of Solomon, the Courage of David, the Strength of Samson, the Patience of Job, the Leadership of Moses, the Kindness of Good Samaritan, the Strategic Training of Alexander, Faith of Daniel, the Diplomacy of Lincoln, the Tolerance of Carpenter of Nazareth and intimate knowledge of all branches of Science. If he had all these, he might be a good policemen, (ICPR, November 1972). Do we come across such policeman in India? How do we get them?

The Father of the Nation, Mahatma Gandhi once said that his concept of Police is entirely different than that of the present day police. They would be servants of people rather than their 'Swami'. People will themselves help them in all possible ways. With continued co-operation, they will be able to control riots, etc. They would need 'police behaviour' with only thieves and dacoits.

"In their work, they are neither Muslims nor Hindus nor Sikhs. They were Indians bound by oath to give full protection to the afflicted without regard to their religions. Thereby they did not cease to be less Muslims, Hindus or Sikhs, but become better". (Mahatma Gandhi - Prayer speech at Calcutta on 21.8.1947).

Emerging Challenge to Police in the Changing Scenario

The emerging challenges to police can be broadly categorised under following heads:

- Changing patterns of crime, both urban and rural.
- The changing political scenario.
- The changing social scenario.
- The changing religious scenario.
- The changing economic scenario.
- The changing environmental scenario.
- The demographic changes in society.
- The changing value system and the generation gap.
- The rapid expansion and multiplication of central police organization.
- The international campaign for Human Rights and dignity of 'the individuals.
- Information over-load syndrome and how to cope with it.
- The increasing challenges of violence, terrorism -and insurgency.
- The growing nexus between politicians, bureaucrats, businessman and the criminal gangs/mafia.
- Judicial activism and the professional autonomy of the police.

Dr. S. Subramanian feels that peace, tranquillity and stabile social conditions enable the Nation to achieve rapid economic political and social development. By ensuring these conditions for progress, the Police play an important role in nation building. Quality of law enforcement in a society is directly related to: Equitable and Just law; social acceptance of the need for peace and tranquillity; and existence of an idealistic, modern, motivated, humane and professionally competent Police Service. The role and functions of a policeman has become complex. To be effective, he should have the capacity to interpret legal concepts; ability to discern right from the wrong; social commitment, penchant for bringing succour and relief to the needy and host of skills in physical, medical and behavioural Sciences.

In India, after many years of legal existence and the saga of sacrifices and notable achievements by the Police, why the general public are in an eternal state of indifference and antagonism towards the Police? The Gore Committee on Police Training (1972) felt that the root-cause lies in the deficiencies in Training and suggested a futuristic training program, which was tried in the past two decades with hardly any impact on the situation. The National Police Commission (NPC) 1977, found the lack of role clarity, undesirable control by the party in power and legal impediments to be the causes. The recommendation of N.P.C. is gathering dust as they are politically unacceptable. Police is a Service oriented Mission. Quality of life in a society is directly dependent on the quality of Police Service it has. Regretfully, the quality of Police Service in our society is poor. Many people join Police not for serving the public but because they could not get any other job. In most cases, the motivation itself is wrong - to wield power over fellow Beings. The training imparted in the Police training institutions concentrate more on development of skills than on the areas of knowledge and building up of the appropriate psychological attitudes. Consequently, the average Policeman pays more attention to the mechanical details of his work than the social needs and causes. Till this basic lacuna is removed, we will continue to get unsuitable and ill-trained candidates into Police Service.

More than the professional expertise, the human qualities of a policeman determines the quality of life in society. While much is talked about the London Bobby and his Western Colleagues, very little attention is paid to know the conditions and their social standing inputs, working conditions and their social standing. To be effective, an individual after joining Police Service should acquire the Knowledge of Society, Law, Crime and Criminals; Skills to maintain Order, Security and to prevent and detect Crimes; Proper attitudes for public service and habits befitting a Social Worker in uniform. All these can be imparted if an individual has the basic desire to become a policeman and has chosen the calling willingly and voluntarily. People entering professions like Medicine, Engineering, Architecture, etc. are to demonstrate their desire to join these professions by qualifying themselves in prescribed University and Academic Courses and after their induction they are given training in the skills and attitudes. To join Police Service, in India, one has to just possess a general education of prescribed level and physical standards.

Two most visible jobs in Police are the Police Constable and the Station House Officer (Sub-Inspector). The Universities should organise their Public Administration Departments Courses to provide the required knowledge inputs to the requirements of these two jobs, both under regular College and Distance Education Stream.

The inadequates of police work may be ascribed to our in a ability to think ahead, as rightly observed by former CBI Director. Let us, therefore, not fail to think of and plan to meet the challenges that will arise during the next two decades:

- How should the police plan to deal with such challenges?
- Will the organization structure of the police be strong enough to meer those challenges?
- What will be the quantitative and qualitative needs of manpower?
- What will be the equipment and hardware that the police will need?
- What type of management and leadership the police force need in the changing context?
- How should the police improve its relations with the new community that will emerge?

These are some of the questions to which answers must be found if we are to withstand the future shocks of changing society and on those answers will depend our acceptance or rejection by society.

As a first step, it will be pertinent to examine what are the basic changes that top police management in the States have encountered in the past ten years. It is hardly necessary to spell out the changes in great detail. As a matter of fact, going into details of the complex problem carries with it the risk of a loss of perspective. To stick to broad outlines, the basic changes that have taken place in our environment are clearly political, social and economic. In all these spheres, there has been an increasing assertion of rights and decreasing acceptance of responsibilities, and this is reflected in a sharp decline as much of law observance as of law enforcement. This is increased in political disturbance and social unrest. Traditional crime itself is not only increasing but is becoming in prices, hoarding, profiteering, adulteration, tax evasion and corruption,

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all of which have far outstripped traditional crime. These trends have sharpened in the last ten years and are likely to sharpen in the next ten years.

These changes have long since overtaken police forces in the States; Policy-making levels in the administration today are either unable or unwilling to accept the administrative consequences of such an assessment. Till this is done, police forces will remain totally impervious to the problems of growing size and complexity. The most direct needs of police forces today, in decreasing order of costs but increasing order of speed of results are:

- Improvement in quality of manpower.
- Strengthening the middle and higher levels where problems can be handled on the basis of intelligence, maturity and experience.
- Provision of adequate equipment.

These needs mean expenses: There is unfortunately no objective norm by which the level of police expenditure or its growth is determined. The Sixth Finance Commission recognized the need for a growth rate of 6%. But if, as in the past, resources provided are absorbed entirely by pay and allowances leaving no resources for real growth, there will obviously be not merely stagnation but positive deterioration. There is a clear need to address ourselves seriously to this question and in the meanwhile allocate resources on a provisional basis to secure atleast some growth in real terms related to the needs and objectives.

Operational Efficiency

It will be agreed that the primary objective of the police management is to increase police operational efficiency. The main point is that there is a sizeable potential of managerial skill available in the police forces even now which remains unutilised because of the lack of equipment. The provision of effective communication, data processing and transport facilities can bring out this potential fully with striking results in quick time and at comparatively low costs. No amount of reorganization or reorientation of the existing manpower can produce results comparable to those flowing from the provision of these facilities.

Law and order in the present day is much like a conflagration that starts with a spark. The cause of trouble is often obscure but the spread is rapid and the effect is widespread. At the police station level, the station House-Officer perceives local incidents but not their wider repercussions. At district or higher levels, senior officers perceive the repercussions but not the local causes. And at no level is there a perception of the cause-effect chain in its entirety as it develops.

When there is no full perception of a problem, there can obviously be no well-informed action towards an effective solution. Without a communication' network linking all levels, there can obviously be no upward flow of information and intelligence or downward control and direction of action. Here then is the root-cause of failure of police operations. The first requirement for improvement of police operational efficiency, therefore, is the provision of a telecommunication network that links every police station and every vehicle and foot patrol with every supervisory officer whether he is at home or in the office or on the road into an integrated network that can monitor daily events. perceive the entire cause-effect chain as it develops and deal with the trouble at its earliest point of origin in time and place. And as the communication network expands in its geographic coverage from the district to the State, Zonal and National levels, the need for multichannel UHF or Microwave trunk lines capable of quickly clearing huge volumes of traffic of different types such as voice, teleprinter, facsimile and computer data becomes inescapable.

Communication & Transportation

If problems have to be effectively handled they must be studied centrally in the widest possible perspective of related facts. Vast volumes of information and intelligence not merely in respect of current problems, but of similar problems in the past, must be analysed at high speed in order to extract all points of significance, and this can be accomplished only by a central computer facility. Existing field units with a little training can easily furnish a variety of essential data in simple input formats, from which only a computer can furnish the vital management information on various aspects of the administration. Indeed, problems can be seen in proper perspectives only by extending beyond what strictly relates to the police, e.g., crime can be studied in the context not merely of prevention, investigation and prosecution, but also of punishment and correction, so that the crime problem can be handled within a more comprehensive framework of action. With such information forthcoming, top management even as at present constituted would rise to a higher level of performance.

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The need and value of transport facilities is more obvious. It straightway introduces speed into the physical police response to situations. It increases the productivity of the field police officer or supervisory officer in terms of areas visited, people met, cases looked into, and other work turned out. It visibly extends the police presence at a lower cost than increased numbers. And with vehicles linked with Central Network their movement and development can be coordinated to get the maximum results.

Given these facilities, there is little doubt that top police management would have a versatile, flexible and responsive police force at their disposal, capable of meeting many, if not most, of the challenges of the present day and the future. (It is felt that the first change on our limited resources should be towards setting up of this basic infrastructure facility, without which no management is possible in the environment of today). It may be stated that it is on this kind of approach that the Central Government's scheme of aid for modernisation of State Police Forces is based. But the pace of investment and utilisation of resources under this scheme bear no comparison with the speed at which problems are overtaking police forces.

Spectre of Terrorism

Early decades of twenty first century will continue to be haunted by the spectre of terrorism, though the theatres of action may shift from Punjab and Jammu & Kashmir as observed by Dr. S. Subramanian. Increased political awareness and awakening of the masses will accentuate social tensions giving rise to wide variety of disorders. Crime will increase in numbers and variety, and will become more sophisticated. The need of the hour is to prepare the police in India to meet these challenges by restructuring, reorienting, re.-equipping and retraining. A Five-Year Police Development Plan, 1984-1989, financed and executed by the Central Government is the answer.

India is poised to take a quantum leap in Social, Economic and Industrial Development in the twenty first century: For this peace, tranquillity and stable social conditions in the country are essential. Are we preparing the Police in India to ensure these? Past events have proved that Police were inadequately prepared to meet the threats posed by terrorism, secessionism, widespread disorders and sophisticated crime. We paid a heavy price in terms of human lives for this benign neglect. Let not the history repeat itself.

Let us identify, with the help of social and political scientists and Police professionals, the future tasks and challenges for the Police and prepare a comprehensive Five Year Plan to retrain, reorient, re-equip and restructure the Police Organisation to give better results. We have enough time in twenty first century. The plan could be prepared and implemented even now and we will still have sometime left to correct the distortions in implementation.

Let there be a National consensus and non-partisan approach to the Development of Police in India. A comprehensive plan would need massive financial outlay: As the Central Government is responsible for National Security, this plan will have to be implemented by the centre under its aegis as a central project. If need be, finances for this plan could be raised through, tax-free, 'SURAKSHA BONDS'. People will be only too happy to help the Government by subscribing to these bonds.

Future Scenario

Based on national and international trends, terrorism will continue to be our main problem, though the theatres of action may shift from Punjab and Jammu & Kashmir. External powers will aid and abet political malcontents to take to destructive methods in order to deflect India from her path to progress. Increased political awareness and awakening of the masses will accentuate social tensions between the 'haves' and 'have-nots' resulting in violent political movements in rural areas; labour unrest, caste conflicts and communal tension. Urbanisation and Megapolises will provide opportunities for lawless elements in slums and ghettos to create disorder. Social disorder is an essential concomitant of economic development and situations affecting order and peace will manifest themselves.

Economic prosperity will create more opportunities for conventional crime. New types of crime like white-collar, organised, computer, drug-related, white slave traffic, industrial espionage and sabotage and other will emerge. Plethora of social and regulatory legislations will result in large-scale violations of the same and law enforcement will become difficult

Better economic, social and living conditions and total literacy will make people aware of their rights and privileges resulting in the actions of Police being questioned at all stages. Meek obedience and compliance to Law will become the thing of the past.

All these would call for higher standards of policing, better personnel, training, attitudes, equipment and mobility for police.

Law enforcement would need sophistication and finesse and police would be forced by these developments to become 'people-friendly'. The requirements of professional and technical knowledge for Police personnel would be vast and varied and police training institutions alone cannot meet these demands. Universities and educational institutions should establish and offer programme in Law Enforcement at graduate and post-graduate levels to prepare the prospective entrants to Police service with pre-entry educational inputs. Police training institutions will have to upgrade their curricula and syllabus to include more scientific and technological inputs to cover forensic science, computers, simulators and technical aids to investigation: To equip Police personnel with proper psychological attitudes and to make them eschew violence and respect Human Rights, adequate behavioural science inputs are to be provided in the training programmes.

Organisational Problem

Police personnel of the future will have better educational standards and awareness of their rights and privileges. It is not be possible for the political and police leadership to force them to undertake illegal tasks in the garb of discipline. They would demand living wages, adequate amenities, career advancement, etc. Denial of these would result in Police unrest and unionisation. Police leadership will have to change their 'styles' and utilise better management and inter-personal skills to motivate and get the best out of their personnel.

Standard of policing is the barometer of the quality of life in a society. People should take active interest in the functioning of the Police Organisation and assist them to provide better services. Better Police-public relations are to be fostered by public-spirited citizens and the media.

Political Leadership can play a vital role in the transformation of Police into a public service organisation, by replacing the Police Act of 1861 with a futuristic legislation to enable the police to shed its colonial past and anti-people image and play a positive role in society. By providing police organisation with the required finances to get better personnel and equipment, quality of public service rendered by the Police can be improved. By keeping Police away from political interference and

political exploitation, public accountability of the Police as 'social workers in uniform' will be established.

The need of the hour is to take positive action to usher in peoplefriendly and efficient Police Organisation, well equipped and oriented to meet the challenges of the twenty first century.

Existing Laws and Desired Changes

Let us also ponder over the relevance of the existing laws relating to police functioning, prevention and investigation of crimes and the desired changes. Looking into crime scenario in India, it is felt that there is cogent need to strengthen the Criminal Laws in the following fields, as rightly spelled by Shri M.L. Sharma, Ex-Joint Director, CBI:

Procedural Laws

- Amendment of Section 167
- Bail Provisions
- Anticipatory Bail
- Compoundability of Offenses
- Time frame for Trial
- Written Arguments
- Admission of Documents
- Prosecution Agency
- Confiscation of Proceeds of Crime
- Plea-bargaining.

The Evidence Laws

- Admissibility of Confessional Statement made before a Police Officer
- Presumption against the Accused.

Forensic Evidence

The forensic evidence may be of the following types:

- Handwritings
- Finger Prints and Foot Prints
- Photographs
- Intimate and non-intimate body samples, viz hair, saliva, semen, blood etc.

Conclusions

Shri K.F. Rustamji, one of the most distinguished Police Officer of India, in an open letter to the Union Minister (The Hindustan Times, September 9, 1996) summarises the prevailing situations in the following words:

"In India, We go through a regular spell of panic and hysteria in dealing with any violent problem like rioting or terrorism. First, there are reports that unless drastic action is taken there will be complete destabilisation of the Nation. Senior Police Officers are told "Do what you like but stop it at once: or get out". Word is passed down the line. A few innocent persons are killed. Critics appear in the Press and Legislature, and then steps are taken to improve intelligence, and send additional forces and capable Officers. Over a period of time, with much hostile criticism from foreign agencies, often those who have started the trouble, the situation is brought under control. The cost is serious, the experience is helpful. There is never at any stage a desire to use the normal judicial process of crime control. The problem in a country like India assumes such a serious shape that normal methods seem ineffective. Yet this is the one cause of some rightful criticism by agencies such as the Red Cross and a lot of hoo-ha by International critics."

In his view, the Indian law enforcement agencies resort to knee-jerk reaction as normal methods of crime control seem ineffective. The law enforcement agencies are issued pre-emptory orders to bring a situation under control through legal means or otherwise and in the process innocent persons are killed. It is a sad commentary on our criminal justice system.

The National Police Commission has also deliberated over this problem, while summarising the several weaknesses of our criminal justice system. In its Seventh Report, it has observed that the system has to protect society from such acts of individuals or groups of individual as can damage it. The visible processes of this protective operation are to ensure that the individuals and the society do not suffer harm from criminal acts and should they inspite of such efforts, become victims of criminal acts, the offenders are deducted, their guilt

or innocence adjudged abjectively and depending upon the case, punishment imposed and/or rehabilitation attempted. If the police do their job inefficiently and poorly while investigating a case, the law courts can do little about it. If a Court of Law insists on unrealistic evidentiary requirements, then most criminals are likely to be acquitted to continue their career of crime. If dacoits are repeatedly left at large on bail by courts of law, then no amount of effort by any subsystem can control dacoity."

The Police Commission has also referred to the fact that police are viewed with distrust by courts because the law which the courts administer views them with distrust. Some of the Provisions of the Indian Evidence Act and the Cr.PC. appear to raise statutory presumption against the credibility of police officers. Referring to Sec. 25 of the Evidence Act, the commission has observed that multitudes of statutes which are investigated by agencies other than the police, such as Excise Officials, Customs Officials, Drug Inspectors etc., can record a confessional statement of the accused. There is no reason worth the name, why a police officer recommended deletion of Secs. 25 and 27 of the Evidence Act and other disabling provision in various statutes.

Rule of Law

Our democratic policy is governed by the Rule of Law. A conscious balance has to be stuck between the individual liberties and collective interest of the State. No liberty can be absolute, restraints are inherent in liberty. If the Rule of Law is to prevail and the questionable practices adopted by the police are to be discontinued, it is necessary that the police should be vested with adequate legal powers for collection of evidence against the accused, leading to their successful-prosecution in the courts of law. Similarly, our adjudicatory system is also required to be made more focussed and faster for quick disposal of cases. It would also be expedient to incorporate some of the provisions of the British Law referred to above in our statutes. It is hoped that if some of the suggestions outlined are implemented, our criminal justice system would definitely improve, thereby strengthening people's faith in it and creating favorable conditions for true Rule of Law in the country.

Modernisation

Modernisation of Police equipments is of high priority for the Indian Police in the 21st Century. The effectiveness of the police depends much on the latest types of equipments. It is well known that terrorists, insurgents and other criminals are having AK-47 and other latest equipments whereas the police has got only outdated and obsolete equipments. The introduction of computers and IT technology in the arena of police functioning and scientific advancements and research outcomes in the field of criminology and forensic science can translate the concept of police effectiveness into a reality in 21st century. Scientific equipment automation and the overall use of science and technology in the various areas of police performance will go a long way towards providing police with the status of a profession. As already recommended by National Police Commission, the old Police Act 1861 must be replaced immediately in the changing scenario.

Separation of 'Law Police' & Order Police

For the Indian Police of the 21st century, there is a strong need to separate the 'Laws Police' from the 'Order Police' at all levels. The 'Law Police' will look after detection of crime and prosecution of the offenders. The 'Order Police' will took after prevention of crime and the maintenance of order. Since these days police has become order maintenance oriented and investigation into crime are being relegated to the background, this separation arrangement has become essential in the changed circumstances. Shri K. Vijaya Rama Rao, the then Director, CBI had stressed this point in the Annual DGPs/IGPs Conference in 1995 and 1996, which was supported by a large number of delegates.

The change over must be and has to be brought in a peaceful and democratic manner. Police has to help the society in its natural development process. Police must assist in total development of society. Modernisation 'of Indian police heading towards 21st century, restructuring its training and changing the attitude towards the duties, self and constructive analysis are of prime importance.

"The Policeman is denounced by the public, criticised by the preacher, ridiculed by the movies, berated by the Prosecuting Officers and Judges. He is shunned by the respectable. He is exposed to countless temptations and dangers, condemned while he enforces the law and

dismissed when does not. He is supposed to possess the qualifications of Soldier, Doctor, Lawyer, Diplomat and Educator with remuneration less than that of a daily labourer."

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Registration of F.I.R.s in some Cases- a Lacuna in Law

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Keywords

Registration, F.I.R., Lacuna, AP Police Manual, Cr.P.C. 174.

Abstract

Several complaints are received in Police Stations where citizens inform about missing of movable properties, including valuable securities like passport, etc. although there is no specific information of theft or otherwise in the first instance. In several matters, certain regulatory authorities, including insurance companies require that an F.I.R. should have been got lodged. In absence of a specific provision, the police find it difficult to issue F.I.Rs., although it is a real felt need of the citizens.

Introduction

HENEVER a complaint is made in a Police Station with regard to a missing person (minor or otherwise), in Andhra Pradesh, as per A.P. Police Manual (APPM) order No. 410–2(B) an F.I.R. under section "missing person" is issued. In several states, no such provision exists even in the state police manual.

In cases of minors, this has also become mandatory after the Supreme Court judgement of 10-05-2013 in W.P. (Civil) No. 75/2012 in the Bachpan Bachao Andolan case. However, no specific section of law is invoked. It is true that as per the Supreme Court in the above case, in the cases of missing children, 'there will be an initial presumption of either abduction or trafficking, unless, in the investigation, the same is proved otherwise.' However, it is not easy to draw the same presumption in other cases, including cases where for instance a

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major woman is missing, although she is an equal target of possible trafficking. Hence, although "missing person" FIRs are being registered in the state of A.P. since before, it would be more appropriate to have a specific provision in the law for the same.

Similarly, several complaints are received in Police Stations where citizens inform about missing of movable properties, including valuable securities like passport, etc. although there is no specific information of theft or otherwise in the first instance. In several matters, certain regulatory authorities, including insurance companies require that an F.I.R. should have been got lodged. In absence of a specific provision, the police find it difficult to issue F.I.Rs., although it is a real felt need of the citizens.

Similarly, as per provision of APPM order 410–2(B), in A.P., police is issuing FIRs under the section "Fire Accident" whenever fire accidents are reported although there is no specific provision of law. Hence, it may be advisable to introduce an amendment to the Cr.P.C. in section 174 as follows:

Cr.P.C.174

174(1)(B)

When the officer-in-charge of a police station or some other police officer, specially empowered by the State Government in that behalf, receives information that a person is missing, other than the circumstances of section 176(1-A)(a) of this Code, he shall immediately give information thereof to the nearest Executive Magistrate and shall proceed to make an investigation into the apparent cause of such disappearance, and draw up a report describing the circumstances of the said disappearance and whether any cognizable offence has been committed in respect of the same.

174(1)(C)

When the officer-in-charge of a police station or some other police officer, specially empowered by the State Government in that behalf, receives information that any movable property, valuable security or animal is missing, he shall immediately give information thereof to the nearest Executive Magistrate and shall proceed to make an investigation into the apparent cause of such disappearance, and draw up a report

describing the circumstances of the said disappearance and whether any cognizable offence has been committed in respect of the same.

174(1)(D)

When the officer-in-charge of a police station or some other police officer, specially empowered by the State Government in that behalf, receives information regarding an accident, by Fire or otherwise, he shall immediately give information thereof to the nearest Executive Magistrate and shall proceed to make an investigation into the apparent cause of such accident, and draw up a report describing the circumstances of the accident and whether any cognizable offence has been committed in respect of the same.

This will enable the police to register FIRs, initiate investigation properly, without the need to conduct any preliminary enquiry which is now prohibited by the Supreme Court judgement of 12.11.2013 in W.P. (Criminal) 68/08 in the Lalita Kumari case, in the above category of cases which do require police investigation. This will also enable the State Crime Records Bureaus to collect data more efficiently in the above categories.

There are instances where cases of prima facie murder have been investigated u/s 174 Cr.P.C. Hence, there could be a legitimate concern that prima-facie cases of abduction / kidnapping, theft, arson / mischief may be got registered under the above proposed sections. Therefore, it would also be appropriate to include one proviso amendment in the Cr.P.C. as follows:

174(5)

Provided that, when the officer-in-charge of a police station or some other police officer, specially empowered by the State Government in that behalf, has registered a case under the provisions of subsection (1), and it is revealed at any stage during the ensuing investigation that a cognizable offence has been committed, he shall forthwith alter the section of law to the relevant penal provision and proceed accordingly.



Police Stations in India: Rethinking the Basics

Dev Chaudhary* & Nishant Shokeen**

Keywords

Police Station, Basics, Community, Political Will, Decentralized Systems, Order Maintenance, Security, Law Enforcement.

Abstract

The Indian Police Station is the most important part in the administration of justice in India. Police plays a vital role in the society and is the front-runner in protecting and promoting the welfare and well-being of the citizen. The police system in India can be traced back to the Arthashashtra, However, the more formal system was evolved in India after the Britishers attempted to reform the existing system. The present legislation governing the police in India was enacted during the British period and has led to many problems in the present scenario. This paper seeks to analyse the underlying problems that the Indian police stations face in their working. Police Stations in India have become the symbols of unprecedented corruption and brutality. This misconduct can be attributed to the fact that police stations are commanded by subordinate rank officers. Police is seen as a tool used by the politicians and the common man finds no use in approaching the police for solving their problems. Taking cue from these problems, the authors have suggested that it is the community members who need to step up and get themselves involved in the functioning of police stations. Various measures need to be adopted by the Governments to make sure that the police functions in a well-organised, efficient and transparent manner. Political will is needed from the States to make sure that the recommendations of various National Police Commissions are adopted and police stations are made to function in the way they should.

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Introduction

HE first image that comes to mind when thinking about a police station in India is of a shabby and badly lit building, with a big fat policeman sitting at his desk, striped to his vest and enjoying his ever-present tea and biscuits, while shrieks of some poor man being beaten up in a dingy room in the back fill the air. This is the grim reality of the police stations in India, and they are in a dire need of change. The police station is arguably one of the most important, and easily the most visible component of the criminal justice system. However, with time, it has been seen that the police stations across India have gone through a phase of moral and professional decadence that has led to growing concern.¹

The word 'police' is derived from the Greek word 'politia' meaning the state, and it is called so because of the power of law enforcement of the state.² The origin of policing in India can be traced back to the *Arthashastra*.³ The more recent and elaborate policing systems were established by the Mughals, where the duties of police officers were predefined and an administrative set-up was established. However, it was the Britishers who made serious attempts at organizing and transforming the policing system in India. The Britishers also faced the formidable challenge of administering the vast country with its diverse people. Adapting the existing arrangement for revenue collection, the British carved out well-defined districts of each province. They divided each province into Districts, Sub-Districts and Police Stations.⁴ The police force thus formed was given various duties and responsibilities.

Role of Police

The important role that the police of a country play for creating and maintaining a civilized society is undisputable. The First Police Commission was responsible for framing The Police Act, 1861 which

¹ Mriganka Shekhar Dutta & Marico Baruah, Policing The Nation In The 21st Century: An Appraisal of The Proposed Reforms, Nujs L. Rev. 121, 121 (2008).

² Alan Wright, Policing: Introduction to Concepts and Practice, 3 (Lawman 2002).

³ Arvind Verma, *Understanding The Police In India, 4* (Lexis Nexis 2008) (The Arthashashtra had stipulated two wings of secret service, 'samstha' and 'sancara'. Each group had defined duties and was headed by spymasters. The existence of one group was not known by the other group. This classification of Chanakya has been followed World over by different police systems).

⁴ Id. (The police system that was prevalent during the British times in India was basically used by the Britishers to help them maintain imperial control over the country. They did not want a professional police which did basic crime work. However, the important legislations like the Indian Police Act, 1861, the Indian Penal Code (IPC), the Criminal Procedure Code, the Indian Evidence Act were enacted during the British time).

holds good even today. However, the shortcoming while framing the said Act was that the Commission was not apprised of the role of the police with the regard to the society. This led to the poor drafting of a law that is outdated and lacks vision.⁵ Largely, a police force of a county has the role of preventing and detecting crime and preserving social order within the modern state. This functional way of thinking has dedicated the character of the modern police from its inception until the present.

The duties performed by the police broadly fall into three functionsorder maintenance, law enforcement and services.⁶ The order maintenance function of the police includes the surveillance of political leaders and religious social leaders, mass arrests and dispersal of political assemblies. The law enforcement and services functions of the police however involve preventing and prosecuting non-political crimes, such as murder, theft and waging a constant battle against professional criminals who seek to victimize the overwhelmingly law-abiding population; these functions presuppose an amicable relationship between the police and the people. The role of police is constantly evolving in a modern society. Whereas the Preamble of The Police Act, 1861 stipulated the role of police to be that of prevention and detection of crime, The Model Police Act, 2006 provides for changed role of the police by making it the protector and promoter of civil, political, social, economic and cultural rights of citizens, in addition to other roles.7

Police Station: Significance and Functioning

Police Stations symbolize the presence of the police organization in the community, and provides an assurance of security to the people in general. The public can rest at ease believing that there is a place that provides safety, security, relief, help and assistance to them in their hour of need. The police station is the basic and most important unit of police administration in India as it is the platform for interaction between the community and the police. It is generally headed by the SHO, and the other policemen work under his supervision and command.⁸ All the police stations are allocated the resources and

⁵ Id., at. 4

⁶ Andrew Millie, Law Enforcement and Policing, 32 (Boca Raton Crc, 27th. 2008).

⁷ Preamble of Police Act, 1861 and Model Police Act, 2006, respectively.

BPR&D Paper, Indian Police: An Introductory And Statistical Overview, available at: http://bprd.nic.in/writereaddata/linkimages/1645442204-Volume%201.pdf (Basically all the police Stations comprises of SHO, Second Officer, Duty Officer, Investigating Officer, Station Clerk/Head Moharrir/Incharge Daily Diary/General Diary/Roznamcha, Incharge Store including Malkhana, Beat Officer/Beat Incharge, Patrolling Officer, Driver, Receptionist, Computer Operator, Wireless Operator).

police officers based on certain parameters set by the Bureau of Police Research & Development.⁹ The Police Act, 1861 stipulates that all the police stations remain active for all 24 hours since people may need the help of the police officials at any point of time.¹⁰

A Police Station is the most visible and approachable place, as the people can come and voice any and every kind of help, assistance or relief that they may need. Some of the main functions of a police station include registration of FIRs, dealing with cognizable and noncognizable offences separately, properly clarifying the queries of the victims or other civilians, recording statements of the accused and the complainants, making the citizens aware of their rights and duties, and also to the people who are under arrest in the police station. Above all these, the most important function is to ensure safety and security within its jurisdiction by having friendly, cordial and harmonious relations with the various segments of the societies and building positive image of the police. However, the reality of the police stations functioning in India is far from ideal. The functioning of police stations in India has not been as expected and there are serious deficiencies leading to the collective failure of administration of justice.

Problems in working

The causes of police misconduct can be traced back to the founding of the police in India. ¹¹ The Police Act, which governs the police till date, mentions the police to be a 'force'. ¹² This can be viewed in contrast with the Model Police Act that prescribes the police to be a 'service'. ¹³ Therefore, it can be seen that the approach of the police force since its inception has not been to help people but to coerce them. Stemming from this attitude, many other problems have arisen, such as:

- 9 BPR&D, available at: http://bprd.nic.in/index.asp (The parameters might include the number of crimes taking place in the jurisdiction of that particular police station. It also depends upon the population pressure, migration situation, trend of urbanization, industrialization & other social, cultural, ethnic &crimenogenic features of the concerned police station).
- 10 Police Act, 1861 § 22, (Every police-officer shall, for all purposes in this Act contained, be considered to be always on duty, and may, at any time, be employed as a police-officer in any part of the general police-district.).
- 11 Rohit Chouhdary, Policing: *Reinvention Strategies Marketing Framework*, 7 (Sage 1st ed. 2009) (When the police was introduced in India during the Mughal period, it was represented by a military officer and performed actions similar to the army. Even in the British period, the police was used for protecting the colonial interests of the Britishers. Further, even during the post-independence era, the police force was used in a coercive fashion during the Emergency in 1975-77).
- 12 Police Act, 1861 § 2.
- 13 Model Police Act, 2006 § 2(1)(n).

Police Misconduct in Police Stations

People fear approaching police stations due to the fact that the police are seen as a brutal force that is not helpful to the masses. ¹⁴ The mere presence of the police officer in the station defers people from approaching the police station with their problems. Other forms of wrongdoing on part of officers posted at police stations include sleeping on duty, drinking on duty and drug abuse. ¹⁵ What actually happens inside the police station is well hidden from public view. The police use this to their advantage and indulge in acts of brutality. This includes verbal abuse and physical force. The sad part is that the only witnesses to this brutality at police stations are either the other police officers present at the station or the victim himself/herself.

Another major form of police misconduct is corruption. Indian police has been constantly ranked as the most corrupt department in India. Police stations are the hub of corruption where the officers use the discretion vested in them to indulge in corrupt practices. They indulge in bribery, favoritism, prejudice, extortion etc. FIRs are not registered unless bribes are paid, and alterations in police diary as well as statements etc. are done by the officers present in police stations. These unfair practices pollute the whole criminal justice administration, and render it meaningless.

Power to low-level officers

The corruption in police stations can be linked to the fact that in India, the low level officers are in the charge of the working of the police stations. These officers are usually of the rank of Sub-Inspector and Inspector, and have not been properly recruited, are ill-trained and are under-paid. The Indian Police Stations follow the decentralized system of command whereby officers who are young in the system are given so many responsibilities and powers, which then results in officers not handling their responsibility successfully. This would be unthinkable in other countries. Many police officers/SHOs do not register FIRs and instead try to mould them into complaints. The fact

¹⁴ R.K. Raghvan, The Indian Police: Problems and Prospects, 33 Publius 119, 127 (2003).

¹⁵ Peter Nevroud & Alan Beckley, Policing, Ethics & Human Rights, 143 (Lawman 2nd ed. 2001).

¹⁶ Arvind Verma, Cultural Roots of Police Corruption in India, 22 Policing Int. J. Policing Strat. & Mgmt. 264, 273 (1999).

¹⁷ David H. Bayley, Comparative Organisation of the Police in English-Speaking Countries, 15 Crime and Justice, Modern Policing 509, 521 (1992).

¹⁸ Choudhary, *supra* note 11, at 134 (The process of criminal justice system starts with the lodging of a FIR that is registered in a police station. The FIR is an important document as it is the only document prepared by the police that is admissible in Court as evidence. FIRs also form the basis of crime statistics that are used by the government to assess the performance of the police).

that the SHO is given so many powers and has no accountability has made the Indian police station a place for extensive corruption. Also, the police have a lot of powers to arrest and detain people for mere suspicion and this, in turn, has led to a lot of corruption.¹⁹

Political Interference in functioning

Politics and police have become so inseparable that it is difficult to imagine one without the other. Whenever the police are perceived as a tool in the hands of the politicians in power to meet their political ends, it does irreparable damage to the image of the police.²⁰ In India, the political machination is capable of demoralizing the police just by effecting frequent and arbitrary transfer of police officers to unfavorable positions or locations. In fact, the district administration of police, which is the backbone of Indian bureaucratic machine, has been run down under political pressure and interference.²¹

The National Police Commission in its second report had observed that:

"The manner in which political control has been exercised over the police in this country has led to gross abuses, resulting in erosion of rule of law and loss of police credibility as a professional organisation. The threat of transfer/suspension is the most potent weapon in the hands of the politician to bend the police down to his will. The Commission recommended that the superintendence of the state government over the police should be limited to ensure that police performance is in strict accordance with law."²²

It is true that the performance levels of police decreases and the efficiency in operations are hampered due to political interference. Interference at the operational level in police stations, police circles, etc. results in the total bypassing of the supervisory officers in the hierarchy.²³ Employing the police to the advantage of any political party is a sure source of subverting the rule of law.

¹⁹ Verma, supra note 3, at 233.

²⁰ Choudhary, supra note 11, at 257.

²¹ Dutta &Baruah, supra note 1, at 122.

²² The National Police Commission, Second Report, 15.14, pg. 38.

²³ Id., at 15.19, pg. 40.

No Involvement of Community in functioning

Another pressing problem with the Indian police is the non-involvement of public in policing. The community, for whom the police guarantee safety and security, has to participate hand in hand with the police and reap the benefit of the services they have to offer. However, the Indian community has been distancing itself from the police force over the years, and the gap is now wider than ever. The public has little to no confidence in the police as their protector, and the disenchantment has widened with the belief that the police has failed in its role of controlling and detecting crime. The public lacks the power to get the policing they want.²⁴There is no clear idea as to what is the need of the present hour and no one can better explain this aspect than the society itself. Therefore, in order to facilitate the better performance of the police forces, the active involvement of the citizens in policing practices is extremely crucial.

Recommendations

Over the years, many recommendations dealing with each issue in policing were given by the National Police Commissions in its eight reports. As Police is a state subject, these recommendations are not yet adopted.²⁵ The recommendations, in addition to the Model Police Act, 2006, must be accepted. In addition, some specific recommendations with respect to the police stations are given below:

Front Office of Police Stations

It is seen that in the prevailing atmosphere, no one is encouraged to visit a police station. A police station can be understood as a back office, where every kind of work is done. A possible suggestion is that people should not be asked to approach the 'back office' of the police and should instead approach the 'front reception'. A specific area of a police station should be ear marked to be converted into a front office which has a neat and clean waiting area, proper seats, computers, good lighting and has well mannered and polite staff which does the public dealing. The other part of the police station should be separated. People prefer having their accounts in private banks that have a good customer relation agent at the reception who takes care of all their banking needs as soon as they enter the bank. No one wants to go

²⁴ Peter Joyce, Policing Development and Contemporary Practice, 141 (Sage19th ed. 2010).

²⁵ Entry 2, List II, Seventh Schedule, Constitution of India.

to public sector banks and wait in the queue to get their work done. Police stations are a similar case and making sure that an area inside the police station is converted into a good reception point, it would make approaching the police much easier and convenient. Similar front offices can also be established at different points throughout the city.

Community Policing

In order to further improve the police station system, community policing should be taken into account. It simply means that the society must come forward and help the police in solving problems prevalent in the society such as crime, drugs, fear of crime, social and physical disorder, and overall neighborhood decay, with the goal of improving the overall quality of life in the area. This is in turn enhances the faith the society has in policing because now the society itself is a part of the policing.²⁶ There will be less chances of any bias and also police will be taking the complaints more seriously. It also increases effective public control over the police. Also, since the main objective of policing is welfare and security of the society, the society itself should have a say in working of the police.

Check on working of Police Stations

The major problems lies in the fact that there is no effective check on the activities going inside a police station on a daily and regular basis. In addition to strengthening the mechanisms for checks on police stations presently available, some new methods can be adopted, which are given below:²⁷

Community Observer

The community observers are local volunteers who would sit in the police station with the task to watch the activities within the

²⁶ Michael J. Palmiotto, Community Policing: A Policing Strategy for the 21st Century, 69 (New York Aspen 9th ed. 2000).

²⁷ BPR&D, available at: < http://bprd.nic.in/writereaddata/linkimages/5664198205-EIGHT% 20 REPORT.pdf > (National Police Commission, in its eighth report, recommended that there should be continuous monitoring of the performance of the police forces in the country. The State Security Commission should have an independent cell to evaluate police performance. The annual administration report of the head of the police force and assessment report of the Central Police Committee will provide additional material to the State Security Commission to prepare a final report on the performance of the state police to be placed before the State Legislature. The police functionaries individually as well as in groups should be sensitised to the idea of accountability to the people).

police station and become familiar with the duties, procedures and challenges faced by the police. The community observer program has two main goals: first, to give a group of citizens first-hand experience with the police in a positive setting and encourage them to share their experience with others; and second, to provide community oversight in the police station. The presence of the observer would encourage the police to treat complainants with more sympathy and patience. ²⁸Also, the citizen should be of an impeccable character and there should be rotation of citizens per week/month.

CCTV Cameras

CCTV cameras should be installed in each police station at all strategic locations. These cameras would prove as a constant check on activities going inside the police stations. There can be a central authority that monitors all the footage of the CCTV and takes actions against any misconduct in police stations.

Community Liaison Group

The Model Police Act, 2006 provides for the creation of a Community Liaison Group (C.L.G.) for each police station whereby the District Superintendent of Police creates a committee of various representatives from all walks of society.²⁹ The Committee has been given the task of identifying the existing and emerging policing needs of the area, which then will be taken into consideration by the Station House Officer in preparing the annual policing strategy.³⁰

Freeze on Transfers

The police officers are exposed to regular political influence and they have a fear that they would get transferred, in case they disobey the politicians. In order to prevent such a situation, the police officers do the needful to keep the politicians happy no matter whether the act done is ethical or not. Therefore, to eliminate this fear out of their minds, there is a need to freeze frequent police transfers. A study was done in police stations of Rajasthan and various policies were implemented. Freeze of transfers was one of the most effective policies.³¹ The ban on

²⁸ Abhijit Banarjee, Can Institutions Be Reformed Within? Evidence from a Randomized Experiment with the Rajasthan Police 12 (Massachusetts Institute of Technology, Department of Economics, Working Paper 12-04, February 24, 2012).

²⁹ Veerendra Mishra, Community Policing: Misnomer or Fact, 177 (Sage 4thed. 2011).

³⁰ Model Police Act, 2006 § 85.

³¹ Banarjee, supra note 28, at 3.

transfer resulted into a significant increase in the efficiency of the police officers, as they had no fear of getting transferred while performing their duties and had a guaranteed tenure to fulfill their targets.

Use of Technology

The use of technology in the various functions of the police station would help reduce the corruption and improve the efficiency in the working of police stations. The use of technology was not imagined when the Indian Police Act, 1861 was enacted. Things have changed since and drastic changes are needed in the law to incorporate the use of technology in police stations. Presently, the law does not permit filing of FIRs by use of electronic means.³² The Model Police Act, 2006 has provisions where a victim can file a FIR electronically. Enabling citizens to file online FIRs would reduce the workload of the police in the stations to a great extent. Also, the practice of refusing to register FIRs would be curbed as victims would have always have the option to lodge online FIR. Use of technology will go in a long way in improving the efficiency in the working of police station and serious measures need to be taken in this regard.

Conclusion: Policing the Police

It can be said that the present day Police Stations are doing more damage than the good. The police are not viewed as a solution to the problems of the people; rather they are viewed as the problem themselves. The people are wary of approaching the police, as almost everyone has an unpleasant event to narrate in this regard. Such a situation in any civilized society is extremely shameful, to say the least.

If a citizen cannot trust the authority meant to safeguard the rights and interests, and if the country fails to instill a sense of security in its own citizens, then the country cannot be said to be developed. Crime rate is at an all time high in the country, and if the Police of our country cannot make us feel safe and secure, then who can? Our Indian Policing system needs a revamp, both in its provisions and its approach. It is high time that this change is implemented, and it is high time that the peace and security of our society, as granted by our Constitution, is safeguarded.

³² Criminal Procedure Code, 1973 § 154 (Every complaint has to be reduced in "writing" by the police officer).



New Era Economic Offences: A Case Study on Successful Detection of Debit Card Scam Cases in Odisha

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Keywords

White Collar Crime, Debit Card Fraud, Debit Card Cloning, Online Shopping, Skimmer, PIN, Magnetic Strip, Magnetic Encoder/decoder, Track Layout.

Abstract

It is an accepted fact that the investigating officers (I.O.) face a lot of difficulty in detection of economic offences. The difficulty is greatly enhanced when the criminals use cutting edge technology as a tool to commit such white collar crimes. In such cases, the major challenge for the I.O. is to understand the modality of the crime as these types crimes are quite different from the conventional property offences enlisted in the Indian Penal Code. For example, in case of banking offences the I.O. needs to have thorough knowledge on the banking processes and should have the ability to find out possible loopholes. The present article is a case study on detection of debit card scam registered in various police stations of Odisha in the years 2011 to 2013. In this article the author details the modus operandi of the crime as well as the steps taken by the investigating officers during investigations. The author also speaks of the challenges faced during the investigation of such crimes and steps to overcome those challenges.

Introduction

CONOMIC offences and cybercrimes are not limited to the big cities only. The incidence of such crimes is increasing day by day in places where it is most unlikely to occur. It is because the concept of inclusive growth of technology has made people of the rural areas dependent on the technology. But their technical awareness is at rudimentary level. Criminals exploit this lack of technical awareness

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among the end users of technology and commit the crimes. The present article is a case study on debit card related financial crimes that had been prevalent in certain districts of Odisha like Koraput, Malkangiri, Nabrangpur and Berhampur from the year 2011 to the year 2013.

During the period September, 2010 to May, 2013, a certain types of cases were registered in various police stations of districts of Koraput, Malkangiri, Nabrangpur and Brahmapur of Odisha and bordering districts of Andhra Pradesh like Srikakulam and Karimnagar. The gist of the FIR was same in every such case. The complainant would say, money had been withdrawn from his bank account from ATM located in New Delhi/Varanasi/Indore/Bhopal/Mumbai though he possessed the ATM card with himself. Total numbers of cases registered in various districts are:

Koraput	Malkangiri	Nabrangpur	Berhampur
17	27	22	28

As the number of cases was rising at an alarming proportion, it was assumed that an organized gang must be behind such crimes. The responsibility of detecting the crime was given to a motivated team of police personnel drawn from Malkangiri and Koraput district police. In this article, the author has enumerated the *modus operandi* of the crime as well as the steps taken to detect the crimes. Finally, the author also provides the challenges that were faced during the investigation.

The present article has been divided into the following sections:

- 1. Types of ATM fraud cases:- This section discusses the types of debit card related case registered in various districts of South Western police Range of Odisha.
- **2. Brief of investigation leading to the arrest of the accused:-** This section gives a brief of the steps of investigation that has resulted in the arrest of the main accused persons.
- **3.** *Modus Operandi* of the crime:- This section discusses the *modus operandi* of the criminals.
- **4. SOP of investigation of ATM related crime:** This section details the lessons learnt from the investigation of the debit card fraud cases.

Section-1: Types of Debit Card Fraud Cases

Within the framework of this document, debit card fraud means wrongful loss of money to a bank account holder without his knowledge. This wrongful loss may be effected through any of the following modalities:

- **Type-1:** Money has been transferred from victim's account to the account of any merchant site through online debit card payment.
- **Type-2:** Cash has been withdrawn from ATM even when the cardholder is in possession of his ATM-cum-Debit card.
- Type-3: Miscellaneous types of crimes, like Nigerian scam, Russian Scam, which cannot be generalized to either of the above category.

Debit Card Fraud Cases: Type-1

In these types of cases, money from the victim's account is expended in any of the following manner without the knowledge of the victim.

- Money is used for online recharge of mobile phones/DTH set up boxes:- one can find a lot of cell phone recharge sites on the web world, which offer the service of easy recharge or quick recharge. Those sites don't require any identity verification of the user or synchronization with the user's bank account. One can easily recharge mobile phones from those sites through debit cards.
- In this type of crime, the criminal uses the victim's debit card data to recharge mobile phones, DTH set up boxes (like TATA Sky, Dish TV), USB data cards etc. Normally, the wrongful loss to the victim, at a time, is not more than a few hundred rupees. For example, in all the cases that have been detected the typical amounts of wrongful losses are Rs. 333/- (BSNL recharge) Rs. 444/- (Airtel recharge), Rs. 410/- (Blackberry recharge for BSNL) etc. at any given instance. As the monetary loss in each such transaction is very less, it is very difficult for the victims to realize that they have been wronged. In all the cases, that have been detected so far, the criminals used a single bank account (debit card) for only a few recharges and the use of the card is staggered over a long period of time (for example, a particular debit card was

- used for recharge of five mobile phone numbers for a period of two years) so that suspicion was not aroused instantly, and by the time victim knew about this he had lost a considerable amount of money.
- Money is used for online shopping:- One can find a lot of online shopping sites in the web world. Most famous online shopping sites are www.ebay.in, www.amazon.com, www.flipkart.com, www.myntra.com etc. These sites have a proper user identification system and they are constantly upgrading their user verification framework for avoiding instances of fraud. However, there are a host of other online shopping sites, which don't require a lot of access verification and also can be used for easy shopping i.e. shopping without online registration. In this type of crime the criminals use the victim's bank account to do online shopping without the knowledge of the victim. In one of the detected cases, the criminal had bought LCD TV, branded clothes, Reebok and Nike shoes, laptops, mobile phones, etc. using the bank account of others/victims. In another case, the criminal bought stuff through online and sold in his village.

Debit Card Fraud Cases: Type-2

In this type of cases, money has been withdrawn from the victim's account from ATMs located outside Odisha. All these withdrawals occurred even if the victim had possessed the ATM card with himself. Typically, money has been withdrawn from ATMs in Indore, Bhopal, Varanasi, Guwahati, and New Delhi whereas the victims belonged to villages in the districts of Koraput, Malkangiri, Nabarangpur etc. and had never visited the above stated cities.

Debit Card Fraud Cases: Type-3

There are certain other types of crimes, which cannot be put into either of the above categories. These types of crimes are based on confidence tricks. Most famous kind of confidence trick crimes that have been reported in South West Range of Odisha Police are, SMS based Nigerian scams, tele-marketing scams and Russian scams. However, the number of confidence trick crimes reported in this area is very few and no great head away has been made in the investigation of such crimes. So any detail discussion of this kind of crime is beyond the scope of this article.

Section-2: Brief of Investigation

How it started

The number of cases related to debit card fraud had arisen to the alarming levels in the year 2013. Each month seven to eight cases had been registered in the districts of Malkangiri, Koraput, Nabrangpur, etc. The victims demanded the bank to refund their lost amount. In some cases, people resorted to consumer courts to give direction to the bank to refund their lost money. The cases were piling up in the police stations and no headway could be made to tackle this new type of crime.

One day training was conducted in the conference hall of DIG SWR (South West Region) Odisha, in which high officials of fraud investigation team of various banks had lectured on the various aspects of financial and banking fraud investigation. The focus of the training was on card cloning. In the day-long training the following important conclusions were drawn.

- ▶ The ATM fraud could be done by tampering with the data embossed in the magnetic stripe of a debit card.
- Only the SBI ATM-cum-Debit cards which were basically Maestro cards had been compromised. It was emphasized on geographical spread and statistical analysis of the crimes.
- It was also concluded that the cases, in which there is a wrongful loss of an amount of money that is the exact multiple of 100, denote money withdrawal from ATMs. In those cases where the amount of money lost is not an exact multiple of 100 i.e. Rs. 18,377/- denote online purchase.
- With the above four conclusions completely understood, the investigation into the crime started.

Step-1: Statistical Analysis of Crime Data

The data of debit card related cases registered in various PS (Police Station) of Koraput district, Nabarangpur district, Malkangiri district were collected and a database was prepared. The database contained the following fields.

- Case no.
- Amount lost

- Card number which has been compromised
- Name and address of the card holder
- ▶ The ATM from which money has been withdrawn
- Date on which money was withdrawn
- Last three genuine transactions made by the account holder
- After the database was prepared, rigorous data mining was done with the aim of reaching three targets, (a) if all the cases involved fraudulent money withdrawal from ATM (b) if there existed one or two common ATM centers from which money had been withdrawn and (c) if only SBI accounts were involved.

[Condition (a) was to find out if there was any case of online shopping and condition (b) was to find out if skimmer machine had been installed in any of the unguarded ATMs and card digital data had been stolen and (c) if the target of investigation was SBI only or other bank accounts had been compromised also]

On analysis of the data it was found that some cases registered in the year 2011 and 2012 in Malkangiri town PS involved cases of online shopping because the stolen amount in each of the cases were typically not multiples of 100. (Here the key point is multiples of 100 because, in an ATM machine we can withdraw money in multiples of 100 only) Also, the case of possibility of skimmer could not be substantiated because of lack of any evidence. CCTV footage of all the SBI ATMs in and around Koraput and Malkangiri districts did not reveal any interesting fact. The target of investigation was SBI only because all the fraud cases were related to SBI only. Once these three conclusions were made the investigation was directed towards detecting the fraudulent online shopping. And also the video footages of various ATM centers, from where money had been fraudulently withdrawn, were requested through the bank i.e. State Bank of India.

Step-2: Investigation into Cases of Online Shopping

 First, various stakeholders were contacted to understand the basic principle of online shopping. In case of online shopping, there is a payment gateway. For international online shopping, the payment gate way is typically a company called "PayPal". However, in case of domestic online shopping sites, the payment gateway, normally, is a bank. When a customer pays online through debit card, it is the payment gateway of the bank, which actually transfers the money to the vendor. Vendor then procures the product from the merchant and delivers to the customer. In a nutshell, if customer buys a Samsung LCD TV from the 100Bestbuy the latter will be the vendor and Samsung India will be the merchant. The customer will transfer the money to 100Bestbuy through bank and 100Bestbuy will collect the product i.e. LCD TV from Samsung India and deliver it to the customer. In case of online shopping that involves a successful transaction, the bank online database is populated with the following fields:

- Transaction number
- Transaction amount
- Transaction date
- Vendor ID
- Vendor name
- Bank order number
- Flag
- Similarly, on Vendor side database of the following fields are populated:
 - RR number
 - Transaction date
 - Merchant ID
 - Merchant name
 - Sub merchant ID
 - Product name
 - Product transaction ID
 - Customer order number
 - Order status
 - Bank order number
 - Customer name
 - Customer address and telephone detail

The fields above are self-explanatory. Bank order number is the primary key that connects the two databases, i.e. the database on bank side and the database on vendor side. Whenever there is a successful

transaction, i.e. when money is transferred from payment gateway to the vendor, a bank order number is created at vendor's database, which later on, if necessary, acts as a reference for the bank transaction. After a successful bank order is created, the product is procured from the merchant and shipped to the customer.

- For part of investigation a certain case was chosen which involved a wrongful loss of money to the amount to Rs. 1,551/-. For this transaction a transaction number was generated in the database of the bank. The bank was requested to provide the bank order number of the transaction as well as the vendor.
- After receiving the bank order number (CCA12GRJI431) and transaction date and time (06/07/2012 1:48:29 PM) the vendor (Avenues India) was contacted to provide the details of the transaction.
- ▶ The vendor provided the following details: customer name, customer mailing address, customer contact number, customer email id, customer IP address, merchant URL, merchant email id, merchant name, merchant address and merchant contact number. Out of all the data, the fields important for investigation were:

Bank Ord No.	er Customer Name		Customer Telephone No.		Customer IP
CCA12C RJI431	Jiban das	MV 45, PO chalanguda	7894933367	jibandas45@ gmail.com	117.200. 231.32

- From this data, the customer was identified. Here customer was the person who had done online shopping by fraudulently using somebody else's bank details. So it means, customer here was the accused (the fraudster).
- After, the target was identified; the CDR of the accused was obtained. And based on the location details of his cell phone the accused Jiban Das was arrested by personnel of Jeypore town PS. After the accused was arrested, on analysis of his email accounts and SMS, another accused Sooraj Bala was identified. He was arrested with the help of Malkangiri police.
- On interrogation, Jiban Das and Sooraj Bala had confessed to their crime. Their Modus operandi would be discussed in the next section.

- Step-3: Investigation into cases of illegal money withdrawal from various ATM across the country.
- Sooraj Bala and Jiban Das confessed that they had made fraudulent online shopping, but they could not provide any detail regarding the illegal cash withdrawal. However, after they were arrested, on analysis of their Facebook account, and their SMS as well as chat messages, two more persons namely Haridas Biswas and BrahmanandTalukdar were suspected. After analysis of the bank account details of Haridas Biswas it was found that there were huge cash transactions in and out of their bank accounts. Intelligence gathered by local police station revealed that he did not have any known source of income, but had amassed a lot of property.
- From his bank details his correspondence address was obtained which happened to be a rented apartment at New Delhi. After getting all the data, a trap was set up and Haridas Biswas and his main accomplices Dijen Majumdar, Asit Dutta, Sonal Narendra Likhar and Brahmananda Talukdar and a host of receivers of stolen property were arrested. The modus operandi is discussed in the next section.

Section-3: Modus Operandi of the Crime

Though in the earlier sections it has been indirectly suggested that fraudulent online shopping and fraudulent cash withdrawal from ATM belong to two different genres of crime, the modus operandi of both kind of crime are similar in nature.

Crimes related to debit card fraud is basically a case of theft of private data. The victim's Debit card number and PIN are stolen by various means like stealth and/or deception. These secure data are, then, miss-utilized for wrongful gain purposes.

How ATM Card Data is Stolen:

All the cases are related to SBI Maestro cards. The card number of SBI Maestro cards follows a peculiar series. For example, a typical card number is 6220180132500031845. All SBI Maestro cards in Odisha region start with 6220180. Next four digits are branch codes. When a person goes to ATM in, say, Malkangiri, there is a high probability that he has his account in Malkangiri. In Malkangiri district there are only two SBI branches. SBI Malkangiri branch code is 1325 and SBI, Orkel branch code is 1324. Next two digits are usually 00. So for a person who has the knowledge of SBI Maestro card series issued from a particular branch in a particular area, he only needs to get last 5 or last 6 digits to generate a valid card number. So a person X goes to the ATM, stands in the queue for a long time and tries to see the last six digits of the card of ATM users. He goes to unguarded SBI ATM counters and stays there for whole day and gets as many card numbers as possible.

- Then, person X steals the PIN corresponding to each card number. For this he employs a variety of techniques like deception (for example helping an old man withdraw money from his account) or shoulder surfing (standing behind a customer and trying to study his shoulder movements to guess the PIN) or just directly looking into the keypad while the customer is entering the PIN.
- After the data is stolen, person X verifies the correctness of data.
- There is a simple method of verifying the card number. The person X calls SBI customer care and when instructed to enter the card number, he enters the number, which he has collected. If he has entered the correct card number, he will be proceeded to next level of authentication in the IVR system else he again will be asked to enter the correct card number. So one can identify if one has got the correct card number or not.
- The next step is to rectify the wrong card number. This step is followed only if the person is very sure of the PIN and also he knows out of the last six digits of the card which one or two digits he might have been wrong while trying to collect the card number. The SBI Maestro card numbers follow the Luhn algorithm or the modulus 10 algorithms. The Maestro card number has 19 digits of which the first seven digits are common i.e. 6220180. If the card number is stolen in Malkangiri, then next digits will be most probably 1325 (Malkangiri SBI branch) or 1324 (Balimela SBI branch).

So next four digits are also fixed. Next two digits are 00 almost all the SBI ATM card in Malkangiri. So one can easily get 13 digits correctly. While getting the next six digits, if by chance there occurs a single digit error and if the card number collector knows in which place he might be wrong, Luhn algorithm can be applied to find out the correct digit.

The most important step is to verify the PIN. The method Sooraj Bala and Jiban Das employed was to try shopping online. If transaction was possible then they understood they had the correct PIN. If the PIN was wrong, they used to call the customer service executive and coax the executive to get the account number of the card number they possess. Jiban Das had confessed that he had got correct account number in many of cases directly from the bank. After getting the bank account number, he had requested for new ATM card once, though the ATM card did not arrive. However, the craft of the trade is to collect correct card number and PIN.

► How stolen ATM card data is (mis) used by fraudsters who did online shopping:-

- Sooraj Bala and Jiban Das used to do online shopping with the help of stolen card details. They not only purchased goods of luxury for themselves, they also sold such things in the neighborhood.
- Sooraj Bala, Jiban Das and also Haridas Biswas used to recharge mobile phones, digital satellite TV, and data cards online from various easy recharge sites.

How stolen ATM card data is (mis) used by fraudsters who did cash withdrawal from various ATMs:-

- Haridas Biswas and his team used to manufacture Debit cards by using the card number and PIN. The procedure is described below. Every Debit card has a magnetic strip at the back. When we swipe the card in an ATM or in a POS, the data encrypted in the card is read, authenticated through PIN and transaction is made. The data is stored in the magnetic stripe in three layers or tracks.
- Haridas Biswas bought a magnetic card reader and read his own SBI Maestro debit card and understood how data

was stored in the magnetic strip of the card. After reading a number of Maestro debit cards through magnetic card reader he understood that the most important layer is Track-2. Many a times, the track-1 layouts were used to be blank in the Debit cards issued in Malkangiri. In track-2 the format is:

Field	Abbreviation	Character Length	Value
Start Sentinel	SS	1	"%"
Primary account number	PAN	Maximum 19 characters	Debit card number
Field Separator	FS	1	" = "
Country code	Part of the field additional details	3	Country code
Expiration date	Part of the field additional details	4	YYMM format of expiration date of the card
Separator**	Part of the field additional details	1	" = "
Discretionary Data	Part of the field additional details	The balance to maximum record length	
End Sentinel	ES	1	"?"
LRC	LRC	1	LRC value

^{**}If expiration date is not available then only separator is entered and expiration date field is not populated at all.

Refer to the three track lay outs below.

```
*** Track 1 Layout: ***
```

| SS | FC | PAN | Name | FS | Additional Data | ES | LRC |

SS = Start Sentinel "%"

FC = Format Code

PAN = Primary Acct. # (19 digits max)

FS = Field Separator "^"

Name = 26 alphanumeric characters max.

Additional Data = Expiration Date, offset, encrypted PIN, etc.

ES = End Sentinel "?"

```
LRC = Longitudinal Redundancy Check
```

*** Track 2 Layout: ***

| SS | PAN | FS | Additional Data | ES | LRC |

SS = Start Sentinel ";"

PAN = Primary Acct. # (19 digits max)

FS = Field Separator "="

Additional Data = Expiration Date or if expiration date not available then a field separator " = "

ES = End Sentinel "?"

LRC = Longitudinal Redundancy Check

*** Track 3 Layout: **

Similar to tracks 1 and 2. Almost never used.

- After understanding the dynamics of magnetic cards, he decided to get a magnetic card encoder and blank magnetic cards. For the purpose he had floated a false (nonexistent) company called Ritu fashion and purchased blank magnetic cards from a vendor on the plea that he would provide cashable points to privileged customers of his merchandize. He procured a magnetic strip encoder from the same vendor for the purpose.
- Next he employed a number of young people from Malkangiri to collect ATM card number and PIN from the customers. He had his accomplices in Koraput, Malkangiri, Nabarangpur, Kandhamal, Gajapati, Ganjam, Bhubaneswar etc. to collect the card number and PIN as described earlier.
- After they had collected card number and PIN, they used to send it to Haridas, who used to get the additional details like branch code from his contacts in various banks. Older Maestro Debit cards used by SBI did not have expiration date. So only knowing the account number was sufficient to populate the track 2 data of the magnetic card. Once all the necessary data had been gathered he embossed those data in track -2 of the blank cards and thereby manufactured duplicate Debit cards.
- Once the cards are manufactured, he and his three partners Sonal Narendra Likhar, Dijen Majumdar, Asit Dutta used to travel to various parts of the country like Bhopal, Indore, Guwahati,

Mumbai, Varanasi etc. to withdraw money through the cards they had manufactured.

- He had invested, the collected money in a rice mill, constructed a big house in his village, rented more than two apartments in Delhi, visited Mauritius, Dubai and Port Blair and led a lavish lifestyle. He had also transferred huge amount of money to the bank accounts of his kith and kin and invested money in fixed deposits.
- Some peculiar behavioral trends of Haridas:-
 - Most of the crimes in SWR (South West Range) region of Odisha police were committed on 22nd, 23rd, 24th, 25th and 27th of the month, because he thought by the end of the third week of a month the employed persons normally do not withdraw money from ATM and they wait for next month for salary. So unless they have activated SMS alert, it is impossible for them to know their account has been compromised till the first week of the following month.
 - In none of the cases, the PIN numbers were changed because; if the PIN numbers were changed there would be doubt in the minds of the genuine cardholders.
 - As the daily withdrawal limit was 40,000/- if he saw there
 was a lot of money in any particular account, he used to
 transfer money from one account to other one or more
 accounts through card-to-card transfer and withdrew from
 all of them.
 - He had paid a software professional around two lakh rupees for designing a software for automatic PIN dialer. However, after 22nd October 2012, bank security system was updated and the automatic dialer program was never made.

Section-4: SOP of Investigation of Debit Card related Crimes

The following steps may be adhered to while investigating crimes related to ATM frauds.

- If any case is reported, first it should be determined, whether it is a case of online shopping or ATM withdrawal.
 - If it is a case of online shopping fraud, then following steps may be taken

- Get the transaction number, date and time of transaction, the vendor detail as well as bank order number.
- Then from the vendor, get the merchant details and customer details
- From the customer details, try to narrow down the customer/ accused person. This can be achieved by location tracing of cell phone number if provided.
- If cell phone number was not there, then the location can be traced from IP address.
- Collect all the invoices and other transaction related documents from the merchant.
- An analysis of accused person's social networking sites like Facebook/Twitter etc. would give a lot of insight into his friends, accomplices and his social/virtual behavior.
 - If it is a case of fraudulent withdrawal of money, then the following steps may be taken First identify from which ATM money has been withdrawn. Concerned bank should be able to give the relevant data.
 - Get the video footage of the CCTV camera of ATM from where the money has been withdrawn.
 - Prepare a database of all the cases with last 3 or 5 genuine transactions (before fraud) in an area and try to find out if any common ATM center is involved in unusually large number of cases. If such is the case analyze the CCTV camera footage of that ATM for last six months to identify any suspicious activity in the ATM like installation of skimmer or tampering with the ATM machine in any other way.
 - One can get the photo of the suspect from CCTV footage, but the challenge is to identify the person who is in the photo. If one wants to identify the suspect then one may take a long round about route,
 - Take a sample of say 10-15 cases where money has been withdrawn from different places.
 - o Typically, it is seen that, these kind of white color

fraudsters lead a lavish lifestyle. So find out the details of flights and their passenger list that come to the place of crime. For example, if money has been withdrawn from, say, Bhopal on 22-03-2013, find out all the flights that had come to Bhopal on that day and their passenger list. Similarly, collect data for other places of occurrence also. Then on analysis if it is found, there is a common person involved, he is the target.

However, in case of fraudulent withdrawal of money, it is very difficult to identify the accused. The present cases could be cracked because the suspects were linked in some manner (Facebook friends, living in the same neighborhood) to the persons arrested in fraudulent online purchasing.

Challenges

- The biggest challenge was to identify the persons who were fraudulently withdrawing money from ATMs all across India. Even after the detection of the cases, there is no standard procedure to identify accused persons involved in such type of crime (like withdrawing cash from ATMs) unlike accused person involved in online shopping.
- Another challenge during the course of investigation was getting the co-operation from State Bank of India. The local branch managers normally deal with the business side of banking and they have very limited knowledge about banking security systems.
- It is still a challenge to know from where the arrested people got the technical know-how of such sophisticated crime. Though involvement of a pan India gang is suspected, the present course of investigation did not reveal anything of that nature.
- The only way to prevent such type of crime is to generate awareness among the card holders like:
 - Not to disclose card number to anybody
 - Take utmost care in entering PIN in the ATM
 - Periodically changing PIN.

- Subscribing to the facility of SMS alert
- Having utmost care in protecting private digital data like Internet used id, password, PIN, T-PIN, etc.
- f. However the biggest challenge is to generate awareness among the ATM-cum-debit card users.

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Notion of Wellbeing & Success among female PMF Personnel

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Keywords

Beam-Balance, Perceived Success, Volitional-Self, Wellbeing.

Abstract

The article explores notion of wellbeing and success among contemporary Indian female Para-Military Force (PMF) personnel by focusing on their inner realities and meaning-making processes through qualitative methodology. It is based on a study of fifty senior and middle level female PMF personnel posted in Kolkata. Findings revealed that notion of wellbeing and success was characterized by heterogeneous and kaleidoscopic images and patterns. The two core categories which emerged were beam-balance and volitional-self. The detailed thematic analysis of these core categories and their implications for Female PMF personnel and the organizational policy-makers has been presented in the article.

Introduction

CROSS the centuries women in India has silently been maintaining the permanence and stability of society's cultural institutions, and the continuities and consistencies of its ethos. Women were treated as virtue holders of society, discharging roles as daughters, wives and mothers. These relationship-oriented identities continued even after they joined workforce. (Parikh & Pulin, 1989; Kakkar, 1978). This historical context makes modern Indian women, who have ventured into the world of work and has especially chosen a male-dominated profession like Para-Military Force (PMF), a very interesting group to study. The present article examines Female PMF officials' wellbeing and perceived success in light of their experiential

Author Intro:

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realities and how they negotiate between forces of modernity on the one hand and above stated historical legacy on the other. The following review would establish the historical context in which Female PMF officials operate and also revisit the notions of wellbeing and perceived success to provide a sound rationale for carrying out the present research.

Review of Literature

Indian woman's identity is deeply embedded in the entire family, caste and community (Ghadially, 1988; Bhatnagar and Rajadhyaksha, 2001). It is no mean task to untangle her true self from this morass of intertwining network. Indian women are committed to the idea of gradual change. Radicalization and innovativeness are not yet a part of Indian woman's consciousness.

Middle class women's outside-work-participation is not merely an economic activity but impacts the entire social balance in conjunction with her status vis-à-vis her husband, patriarchal family values and her role as a mother (Desai, 1990; Kapoor, Bhardwaj and Pestonjee, 1999). This creates an inherent dissonance in the entire socio-cultural fabric. This is very much expected from societies like India, where tradition is being transformed but what is modern is not clearly defined and fully accepted. Thus a great deal of ambiguity in social mores and moral values exist. This impacts women more as they are the traditional role holders.

The above stated psycho-social and historical context has to be kept in mind for any meaningful exploration of reality of Indian working women, especially those employed in Paramilitary forces, who have transcended these psycho-historical forces to carve out a niche for themselves in the world of male-dominated profession. Their entry, sustenance and successful assimilation in such a workforce has added new dimension in their life. Mukherjee (1999) states, it is increasingly being realized that overall development of women in the liberalized global scenario should be rooted in economic capability. After six decades of existence as an independent nation, we should look towards the reality of Indian women through the looking glass of women's work. Tracing the history of third world women's entry into the world of management, Parikh, I.J. & Pauline. F. (1988) identifies three distinct phases. In the first phase women took marginal positions. Women, men and organizations had little or no experience of relating

to and working with each other in formal settings. In second phase of woman's entry into organization, a large number of women accepted that work and career aspirations were an integral part of their life. In the third phase, some of the women slowly but steadily climbed up the positional ladder. They had to redefine and redesign their roles relevant to the times.

Female PMF officials have indeed established themselves as a relevant. social category, in the changing contours of the contemporary world. They provide a new vantage point through which the reality of contemporary Indian women can be seen, though with unclear boundaries and ill-defined pathways. Contemporary Female PMF officials are surrounded by a web of multi-cultural influences. Parikh & Pulin (1993) capture this dilemma of modern Indian woman, "Modern woman is at the cross roads of culture wherein she is caught between ideals of a bygone era and today's environment of wider horizons with dreams and aspirations, hopes and goals of a career and a profession in the world of work. Caught between the shackles of the past and romantic vision of the future, the woman walks on the tight rope. They carry the responsibility of both traditional and modern expectations and deny themselves the privileges and rights of both." Gupta, Koshal & Koshal (1998) have termed Female PMF officials as pioneers who have transformed the organizations and society. They have been admired and envied for their multi-faceted qualities and also been accused of breaking the socio-cultural norms.

The present study is an effort to capture the living realities of these Female PMF officials by specifically focusing on their experience of wellbeing and success in the changing contours of their organizational, familial and societal world.

Past literature on the notion of wellbeing and success is provided below:

OECD (2013) defines notion of wellbeing as good mental states, including all of the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experiences. The notion of subjective wellbeing received attention as late as in 1970s and has progressed through three different phases. The first phase was descriptive in nature with demographic variables. The second phase, led by Diener, called for more psychological and theoretical research in this field. The third phase included several

elements like longitudinal designs to better determine causal pathways, measures of underlying processes, experimental manipulations, and multiple measures. Diener and Chan (2011) revealed that most studies follow empirical-positivistic tradition constituting experimental human and animal studies and naturalistic studies relating physiological processes to wellbeing. Furthermore, these were self-report surveys with large samples. Overall, a paucity of wellbeing studies in qualitative literature with organizational settings may be noted. Another research related the meaning of work to women (Grossmen & Chester, 1990). But it did not directly deal with well-being except relating mid-life well-being to employment patterns. Some studies related to worklife-balance were conducted in Indian settings without exploring the notion of well-being (Valk and Srinivasan, 2011). The present study would attempt to cover this gap by focusing on notion of wellbeing among contemporary Female PMF officials in a context-oriented and participant-centered approach. It would attempt to define wellbeing in terms of subjective realities of research participants rather than imposing a predefined variable-oriented quantitative-approach.

The review on notion of success indicated that concept of attainment was the dominant notion attached to it, though it had multiple dimensions and meanings. Most studies used external criteria as measures of success. Berglas (1986) and Korda (1977) highlighted the predominance of executive, hierarchical, monetary view on success. Huber (1975) proposed the relative view of success stating that it's important to consider from where the individual began and where he is now in order to determine his success. Uris (1969) opines that success should be evaluated from the individual's perspective. Career-success among women received research attention only in the late eighties and nineties (Hoschlid, 1989). The career-development models primarily focused on males (Gallos, 1989). There is very little research on the notion of success in psychology and none views it holistically. Success is described either in academic, financial, career or entrepreneurial terms (Fuller, 2010; Nicky, 2011). In a latest work, Lang, Margund and Betina (2011) define success as dynamic, multi-faceted and contingent on specific life-span contexts. This view of success resonates most with the purpose of the present study. However, it focused more on external criteria and male viewpoint on success and the present study attempts to provide a context specific, holistic view of success pertaining to Female PMF officials.

Review related to Female PMF officials reveals that most of the research is macro-social, based on large scale, impersonal, aggregated and static data (Almquist, 1977). Secondly, the focus of most research is to adapt and transform women-officials to fit into the existing organizational moulds in the name of professionalism and leadership development, without being sensitive to the varied needs of the women workforce. Also there is paucity of studies on success and wellbeing among woman officials, in participant-oriented, context-specific qualitative-tradition.

Need and Importance of the Study

Female PMF officials surely mirror an important segment of modern Indian women. They are breaking conventional boundaries and carving out newer pathways, amidst the legacy of psycho-historical baggage and equally compelling forces of the modernity and the globalization. The present study would focus upon the experiential reality of this group in order to provide an understanding of their notion of wellbeing and success amidst the web of multi-cultural influences. The study hopes to provide a unique understanding of the notion of the wellbeing and success apart from the dominant positivistic and quantitative paradigm.

Statement of the Problem

The problem of the present study can be stated as follows:

What does wellbeing and success mean to Indian Female PMF officials with respect to their personal & professional life?

Specific Objectives

- To cull out the notion of success and wellbeing in contemporary Female PMF officials by focusing on their experiential reality
- To understand the multicultural influences operating upon the Female PMF officials as subjective processes in their lived world and relate it to their notion of wellbeing and success

Hypotheses

Since, the present study is qualitative in nature based on semi-structured interviews and grounded-theory methodology, no hypothesis is formed prior to the conducting of the research.

Research Methodology

Context

The investigator visited a number of PMF offices situated in Kolkata and selected two forces which seemed to be heavily loaded with female officials – Central Industrial Security Force (CISF) & Central Reserve Police Force (CRPF). In the first phase, pilot interviews were conducted to get the first-hand experience of the participants and the actual organizational scenario. A wide and a varied spectrum of issues and concerns were raised. Pilot interviews provided a useful beginning to the actual qualitative interviewing process. Fifty qualitative interviews were conducted, each lasting on an average for about an hour and a half.

Participants belonged to various life-stages depending upon their chronological-age, familial set-up, marital-status, motherhood and their hierarchical-positions in their respective organizations. Most of them were in the middle and senior management levels. Age range varied from twenties to mid-forties. A detailed participant profile is provided in table 1.1& Table 1.2 presents parameters of the organizations to which all the participants belonged.

Table 1.1: Participant Profile

	Parameters				
Ago Dango	T	hirties	26		
Age Range	F	orties	24		
Eamily Catum	N	luclear	28		
Family Setup	Ex	ktended	22		
	Manniad	with Children	20		
	Married	without children	13		
	C: I	with Children	0		
Marital	Single	without children	16		
Status	Divorced	with Children	0		
	Divorced	without children	1		
	Living le	with Children	0		
	Living In	without children	0		

Table 1.2: Organizational Parameters

	Parameters			
Organisational	Middle Management Level	31		
Position	Senior Management Level	19		
Name of	CRPF	12		
Organization	CISF	38		

Method

The present study was based upon the principles of active-qualitative-interviewing and grounded-theory methodology, keeping in view the interpretive, post-modern, context-oriented stance of the study.

The interview process adhered to the following assumptions as presented by Gubrium and Holstein (1995):

- Both Parties are necessarily and unavoidably active.
- Meaning is actively and communicatively assembled in the interview.
- Respondents are constructers rather than repositories of knowledge in collaboration with the interviewer.

No formal interview schedule was finalized at the outset of the study. The interviews centered around participants' experiences, dreams and aspirations in the organizational social and personal domains with an underlying objective to capture their notion of wellbeing and success. Each interview was qualitatively different from other interviews. The interview took place in an unstructured manner with key themes, issues and concerns being actively evolved rather than being predetermined.

The entire study closely followed the principles of grounded-theory methodology. It would be worthwhile to state the underlying characteristics of the grounded-theory methodology below:

- One does not begin with theory and then prove it but begins with an area of study and what is relevant is allowed to emerge.
- The theory which emerges is grounded in the reality.
- Research participants play an active role in shaping the world they live in.
- It lays emphasis on change and process and variability and complexity of life.

• It makes sense to both persons who were studied and those practicing in that area.

The basic conceptual scheme for data analysis was adopted from Strauss and Corbin (1990) as provided in figure 1.1. It involves the identification of core-category, which is the central category of the emergent grounded-theory with high frequency of mention and is connected to many other categories.

Core-category (CC)
Central Category, High Frequency of Mention
Connected to many other categories

Meaning Ascribed to the CC
(in terms of informant's version of reality and the interpretation of the researcher)

Sub Categories & Properties (SC&P)
Category classification of similar concepts
Attributes characteristics pertaining to a category

Figure 1.1:Basic Conceptual Scheme

The core categories have been described in the analysis in terms of meaning ascribed to the core categories representing informant's version of reality and researcher's interpretation. Core categories have further sub-categories and properties attached to them. Sub-categories and properties are simply similar attributes and characteristics attached to the sub-category. The analysis contains detailed description of corecategories, sub-categories and properties which emerged in the study.

The process of arriving at the core-categories of the emergent grounded-theory was iterative in nature where data-collection and analysis proceeded in tandem with each other. Constant comparative method of analysis and flip-flop technique were utilized, under which each interview was compared to every other interview and each data-set was compared to every other data-set to generate the similarities and differences to let the grounded-theory emerge, which would be true to the data at hand.

Results and Analysis

The process of arriving at the results was as important as the results themselves. The narratives generated qualitatively complex themes representing kaleidoscopic images of wellbeing and success of Female PMF officials. During the initial stages of the analysis, several instances of wellbeing and success and their manifestations were coded independently. They reflected multiple interfaces in the lives

of the participants where there were several references to the world of work, familial and social lives. The fundamental theme which started emerging was that notion of wellbeing and success was diverse, heterogeneous and constantly evolving. The challenge in front of the researcher was to crystallize these experiences in form of a plausible theoretical formulation which would do justice to these diverse subjectivities and offer a coherent overview of the notion of wellbeing and success, within the rigours of the grounded-theory. The process of crystallization constituted several rounds of coding and memoing, giving rise to formulation of several categories. But as the evidence in the narratives accumulated, notion of wellbeing and success was crystallized around two important core-categories, namely beam-balance and volitional-self. These core categories represent the cornerstones of the grounded theory generated which had dynamically evolved from the socio-cultural context (constituting professional, personal, familial and social arenas) and life-stage to which the participant had belonged. Figure 1.2 dynamic model of wellbeing and success with its major core-categories.

The subsequent analysis would proceed in either a specific-to-general mode or vice versa, wherein all the core-categories and their properties will be given a generic description supported by specific exemplars derived from the narrative accounts of the participants. Excerpts have been picked not only for their unique experiential quality but also their value as representing reality of the research sample as a whole.

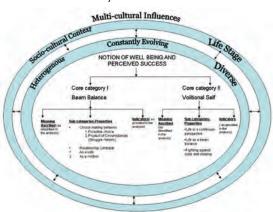


Figure 1.2:Notion of Wellbeing and Perceived Success-A Dynamic Model

Beam-Balance

The predominant core-category, which constituted the notion of well-being and perceived success for the participants, was the Beam-Balance. It had the most dominant presence in the narratives of the participants. Every participant had a hypothetical Beam-Balance in her life. The notion of wellbeing and success were defined by how well she was balancing the multiple roles and commitments of her life whether in terms of her family or work-commitments. None of the participants derived their success and wellbeing solely from their professional lives, though they were operating in a competitive workculture. In majority of the participants the notion of family consisted of a conventional family with husband and children and sometimes extended to in-laws. A respectable salaried job with high amount of job-security & positional power constituted dominant notion of wellbeing attached to the world of work, while they identified certain job-characteristics like frequent transferability and lack of stability as detrimental to their wellbeing. These notions symbolize that Female PMF officials as a group adhered to the conventional and traditional values of their culture in the personal as well as work front. But at the same time they were the harbingers of change too, as they had successfully created a niche for themselves in the male-dominated work-culture. In fact, the need for the Beam-Balance had risen from competing demands of both work and home fronts.

Beam-Balance was not static and absolute; in fact each individual hovered between state of equity and balance or inequity and imbalance. Though, equity and balance was the desired goal for their wellbeing and success. The analysis below describes the subcategories and properties attached to the notion of Beam-Balance namely choicemaking behavior and relationship-centrality (refer to figure 1.1, 1.2)

(I) Choice-making Behaviour

The major subcategory related to the notion of Beam-Balance was the choice-making behavior; it would essentially be an instance, experience or behavior in the narrative which depicted the choice alternatives by the participants related to family, career, transfer, relationships and personal time management to achieve an overall life-balance and equity. The two properties related to choice-making behavior were proactive choice and struggle-rhetoric. They are described in the analysis below.

(a) Proactive Choice(Choice-making behavior)

Proactive choice-making behavior involved choosing alternatives out of their own volition. It also involved saying no to certain things, in order to focus on the areas which had higher priority in the participants' life. There were innumerable instances where participants expressed that prerogative for saying no lied with them and it was this ability to say no which ultimately realized their notion of wellbeing and success representing proactive choice. Important characteristic of proactive choice was that participant perceived herself as the key decision-maker and chose an alternative out of her own volition whether the choice was in favor of family or profession or whatever the situation presented.

"No I was never the kind who would not pursue a career. There was never any doubt in my mind about my working. It's matter of generations, it is how and where you are brought up. We came up in a generation where everybody was looking to work. We were never really sheltered or protected.

Never in my life have I ignored my kids. I try my best to take leaves and visit home when they come home on vacations. I try to make sure that I stay with them on their special days."

In the above excerpt we witness two seemingly opposite life-position in terms of being work-centric and family-centric. This excerpt clearly illustrates how these opposing life-positions co-exist within one individual and how she negotiated between different roles. On both fronts, her priorities are clear and her choices justified.

Here, the investigator would like to point out that the balance achieved as a result of proactive choices was never static, it was ever evolving and participants hovered between states of equity and balance and inequity with traces of regret. Like the extract below illustrates. It is a lady who has been posted far off her hometown for a long time and has negotiated her roles of a wife and a mother around these realities.

"Yes I definitely feel the clash between work and personal life. When I am here I keep receiving calls from children, "Mummy kab ghar ayoge." One of my most regretful moments was when I was here on duty and my daughter got her chums. That was the most touching for me. She had needed me and I was not there.

Let me tell you striking a relationship with few important people in your life is very important. I can afford to do this job because I have an excellent support mechanism. I question the definition of parenthood. Why do we have to equate motherhood with parenthood?"

The above extract clearly illustrates the shifting nature of Beam-Balance how wellbeing and success get defined and authenticated with the choices that the participants make. Participants made radically different choices but justified them in accordance with their own unique contexts and preferences along with active questioning of rigid role prescriptions, eloquently illustrated by questioning the notion of parenthood as being equated to motherhood.

(b) Product of Circumstances/Struggle Rhetoric (Choice-making behavior)

Narratives of the participants did not ubiquitously express attainment of life balance. In fact, an equally compelling voice in the narratives was that of struggle-rhetoric where the participants perceived herself as making difficult choices governed by external circumstances rather than her own volition. It was characterized by states of inequity and imbalance, where they were not able to maintain a balance between there idealized roles and goals and there enactment. It had a detrimental effect on their notion of wellbeing and success, and they experienced a constant struggle to do justice to their multiple commitments. This phenomenon was linked to the life-stage which they were passing or some crises which they were facing presently. For example one participant who had just had a second child, in part to fulfill the social obligation of having a second child and had joined back work, exhibited this struggle-rhetoric.

"Frankly speaking being a woman has not given me a very high sense of self-esteem. Most of the times I have faced struggle at home and I have faced struggle at work. Being a woman personally means that I have not been very successful in all the efforts that I have done. I struggle at the office, I come back home I struggle with my children. I am leaving my small child of two months because I have to go and work and earn a living for the family. It's not that out of choice that I would love to leave my house. I never knew that I would have to struggle so much..."

The above narrative shows how the urge to balance all the life roles and do justice to them, sometimes, is detrimental to the notion of wellbeing and success. It is eloquently illustrated when the participant had second child to fulfill her familial obligation, and then subsequently joining her work back and leaving her small child behind.

II. Relationship-Centrality

Another sub-category of Beam-Balance was the family and relationship-centrality in the lives of the participants. The notion of Beam-Balance rose in first place because of the desire to balance significant personal relationships along with professional commitments. Maintaining healthy relationships constituted their notion of wellbeing and success.

The analysis examines relationship-centrality as a wife and mother because they emerged as most meaningful for the majority of the participants. This could be because of the unique socialization in the Indian cultural context. Though the narratives also represented that wellbeing and success depended upon relating well to others and relevant groups in general whether in the world of work or personal life, and not only as a mother and wife. Many participants who were not into conventional marriage also expressed the importance of relationships as central to their wellbeing and success.

(a) As a Wife

The relationship between husband and wife was the most important and sensitive issue for the participants, as they had not voluntarily talked much about it. Their sense of wellbeing and perceived success was intricately linked to the kind and quality of the support their husbands had to offer them. There were numerous instances but only two representative ones have been quoted:

"I did not think of changing jobs because in the first place their were not many lucrative offers and secondly I did not want to disturb my family life."

"As far as my personal life is concerned, I am a very satisfied person. My husband is very supportive. Had it not been for his support, I would not have been where I am today."

There were divergences also in the tone of narratives like the one, which follows.

"My fellow professionals when they are at work they are hundred percent their. When my daughter is running 102 degree temperature and I have meeting at six, then making a choice to be with my baby or attend the meeting becomes difficult. My husband does not have to make such a choice."

Relationship with the spouse represented respect, gratitude and an expectation of nurturance and support to manage their multiple commitments. It also involved an active negotiation for greater space and redefinition of roles.

(b) As a Mother

Adrienne Rich in 'Of Woman Born' (1977) stated that, for women, motherhood is source of strength and pleasure as well as oppression and dependence. The role of mother is the greatest source of joy and at the same time major source of concern and guilt for women-managers. Their narratives reflected an overarching concern whether they would be able to do the best for their child:

"One of the happiest moments in my life was when I held my baby in my arms."

"Being a good mom is also a matter of success to me. If my daughter shares her crushes with me it would definitely be a matter of success to me."

The moments of regret were equally poignant.

"One of my most regretful moments was when I was here on duty and my daughter got her chums. That was the most touching for me. She had needed me and I was not there."

Thus motherhood touched the most vulnerable cord in their psyche. It impacted their notion of wellbeing and success to great extent. They had given it the most prominent place in their lives and had directed most of their emotional and psychological energies to the fulfillment of their role as mothers. But here also, narratives had diverse actively questioning voices where they protested against the social stereotype of equating parenthood with motherhood.

Volitional-Self

Volitional-self was a consistent pattern in the narratives of the participant, which signified a high sense of self-esteem, well-being and perceived success. Participant gave self-descriptions indicating a high

sense of self-confidence and a high sense of control in her overall life. In very simple way the narrative conveyed-

I am happy with the way my life is moving.

I feel in control of my day-to-day life.

I proactively accept the responsibility of the choices that I have made in life.

The extract below illustrates what volitional-self behavior-pattern signified in essence-

"Without meaning sound arrogant, I am proud of who I am. I am proud because I have strong relationships. My parents, my children. I feel good about myself. I am not a noble human being or anything. I have strong sense of self in my mind. I feel that if I am happy with myself then I can only give from a position of strength and not from a position of weakness."

Volitional-self was characterized by the participant proactively operating upon her environment by using positive influence and self-assertion. It also involved teamwork and enrolling people in your cause or on the other hand actively resisting individuals or organization trying to interfere with personal or group goals. Volitional-self was characterized by deep faith in internal capabilities. It involved uncanny ability to rise above adversity. The notion of wellbeing and success were to a large extent determined by the imbibed images and expectations from the multi-cultural influences of tradition and modernity.

Volitional-self not only involved an element of assertion but also an equally important element of giving in and the acceptance depending upon the specific context and situation in which the participant was operating. Thus the notion of wellbeing and perceived success was a semblance of individual aspirations and group aspirations and their fulfillment. The notion of giving and altering self-priorities to accommodate group priorities was also a channel through which the notion of wellbeing and success were lived out. But the underlying theme proactively owned up to the choices made.

Thus when an individual conformed to volitional-self behavior-pattern she had this uncanny ability to overcome any guilt or frustration, which she experienced while pursuing self or group goals. The participant also did not indulge in the blame game and self-defeating behavior, especially regarding the non-changeable elements in her environment. The specific indicators which were characteristic of the volitional-self revolved around the expression of experiences signifying high sense of self-esteem and confidence, winning against odds, accepting challenges, proactively aligning external environment with group and self-goals, the giving accompanied by sense of pride and ownership, overcoming bitterness and blaming and acceptance of the perceived unchangeable givens of life. The three subcategories through which volitional-self was livedout were Life-in-a-continuum perspective, life as a Beam-Balance, fighting against odds and winning. They were also indicative of the life-positions from which the participants were operating upon their environment.

Life-in-a-continuum Perspective

It can be defined as a life-position where the participant did not take work and family as demarcated areas which had to be balanced. Participant operating in this life-position took herself as an individual first. Her identity as an individual and as a working woman were the accepted givens of her life and rest of areas fell into place, as depicted in the exemplar below:

"I describe my sense of identity as an individual. I have been a very self-focused person. My success does not really include the success of my child or my husband. I do not have notion that I should act as an inspiration for the success of my husband or child. I feel that my child has his own destiny."

Life as a Beam-Balance

The second life-position, Life as a Beam-Balance (refer to detailed section on Beam-Balance for exemplars) was where work and family are clearly demarcated areas, which had to be continuously balanced with each other. The onus of this balancing act was upon the individual. The choices made in this balancing act were proactively owned up by the individual herself in most of the instances. In brief, the choices were out of her own volition.

Fighting against odds and winning

The third major life-position though which volitional-self was livedout was fighting against odds and winning. In this life-position the participant grappled with perceived external realities and odds to achieve certain positive outcomes for the self as well as significant others of her life or the team or organization. Thus, presentation of challenges from the environment and overcoming those challenges on the part of the individual was the major operative mode through which wellbeing and success were lived out. "My parents did not want me to take up commerce and I did that. I found that I would get what I really wanted in spite of all the odds. You must have conviction, commitment, and the perseverance to go for it, the key word being positive."

"If you ask which job did I enjoy the most, I would say that it was my first posting at the Calcutta Airport. It was very challenging and it was new, My boss was good and I worked with complete autonomy and that was what got me on, though it was fairly laborious as compared to the present-posting, but you se, I am a field-oriented person. I don't enjoy these routine-jobs much. Rather I look for that kind of job where things are not spelled out and you need to work out things.....but definitely a lot of recognition should be there for the work done. I has that, since my superior was very supportive there."

The core-categories of volitional-self and Beam-Balance have brought out some very interesting and intriguing realities related to the contemporary women-managers, which further mirror an important facet of the reality of contemporary Indian women. Volitional-self signifies that apart from life-balance, an equally compelling reality of wellbeing and success for contemporary Female PMF officials is self-realization. They are negotiating their various roles and goals, and they are not passive recipients of the dominant social order they are grappling with. They are in the process of creating space for their feminine identities which co-exist with their aspirations and careergoals. Core-category of Beam-Balance indicates that women-managers have managed to create a niche for themselves in the world of maledominated work and also have remained sensitive to their sociocultural context. They want to live out their professional and personal identities without making either/or and the defeatist choices but would rather create win-win situations to fulfill their multiple roles. The analysis further illustrates the heterogeneity and diversity within the larger group of Female PMF officials themselves.

The above findings have very important implications for the organizations at large and perspectives in human resource management particularly. Organizational life has a dominant rhetoric of materialistic attainment

and masculine way of life. It is there since the legacy of industrial era, where patriarchy was at the core of the existence. Chater.K. & Gaster. R. (1995) define patriarchy as, "A way of life that has been set up according to male values. The key leadership and power positions tend to be predominantly in the hands of males. The system is based on power, strength and control, and tend to value material progress, profit and wealth and to foster aggression, competition, winners and losers, haves and have-nots."

It is very important for the significant socio-cultural and corporate institutions namely the family, work place, society and community at large to create socio-culturally sensitive spaces for the contemporary women to address their diverse needs and live to live out their heterogeneous notions of wellbeing and success.

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Violent Protest Movement: The Blackmailing Tool in Indian Democracy

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Keywords

Violent, Protest, Movement, Democracy, Blackmailing, Non-violent.

Abstract

Indian Democracy is not only the biggest democracy in the world but the most liberal democracy also, in which we can oppose the system and abuse the system holders, by black words printed in news papers, by black flag march, by painting them in black, and by doing funeral of their effigies, without any hesitation, fear and punishments. It happens only in India. Because Article 19 of the Constitution of India guarantees to every citizen various important human rights as fundamental rights. Every citizen has a fundamental right of "freedom of speech and expression", "to assemble peaceably and without arms"; to from associations or unions"; to move freely throughout the territory of India"; "to reside arid settle in any part of the territory of India": "to practice any profession"; or "to carry on any occupation trade or business".

Historical Background

HE legend Bhagat Singh and many more freedom fighters followed both violent and non-violent protest movement against Britishers: Violent protest movement in a no injurious way and non-violent protest in jail as a hunger strike for 63 days for invoking inspiration. It is only during Independence struggle under the leadership of Mahatma Gandhi that insistence was on non-violent agitation methods against the British. Gandhi evolved various techniques of non-violent protests like Satyagarh, Civil Disobedience, Boycott of foreign products and goods, non-co-operation with the British Government. He had even

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appealed to the students to give up their education and join the Independence struggle.

The question that is being debated in free India in its about 63 years of governance is whether non-violent and violent protest movement can be allowed as fundamental rights of citizens and as part of their guaranteed fundamental freedoms of 'speech and expression', assemble peaceably and without arms' and 'forming associations or unions. The fundamental guaranteed right 'to assemble peaceably and without arms, can be restricted by suitable law in the interest of sovereignty and integrity of India' and 'public order'.

Protest Movement: A Theoretical Analysis

The term protest is applied to actions of groups that are painted as outside the mainstream. When trade unions go on strike that is recognized as a form of political protest and often stigmatized-but when corporations redirect investments out of a particular area (a 'capital strike') that is taken to be a normal exercise of corporate prerogatives. When peace activists purposefully break a regulation to block a train carrying nuclear materials that is civil disobedience. When government departments fail to provide information by mandatory deadlines, when corporations continually flout environmental regulations. The major political struggles in liberal democracies, such as between workers and employers are usually about the balance of power within the system, not about the organizing principles of the system itself. Nevertheless, the dominant institutions are backed in the last resort by force, namely by the police and the military. Whereas violence by 'protesters' is invariably condemned and often called terrorism, violence by the police or military is usually seen as legitimate.

The issue of protest arises when open challenges to existing social structures are made by members and supporters of weaker groups in society, such as workers, women and minorities. Such challenges are singled out for special attention, unlike the usual political manoeuvres of dominant groups. Student radicalism is portrayed as a much greater cause for concern than routine dealings by firms.

'Non-violence' refers to actions which do not by themselves cause physical harm to humans, whereas 'violence' refers to those which do. If police attack and harm peaceful demonstrators, it is the police that are violent, not the demonstrators. Whether violence to property counts as 'violence' is an issue that has often been debated.

'Civil disobedience' can be defined as non-violent direct action that breaks a law. Theorists of liberal democracy usually consider political actions to fall into the category of legitimate civil disobedience if they are deliberate, non-violent, non-revolutionary, done in public and done mainly to educate or persuade the majority.

To many people, protesters have a bad image: the rabble in the streets. Although the vast majority of protest activity in liberal democracies is non-violent in reality and intent, an aura of actual or potential violence commonly accompanies media presentations and popular perceptions of protest. These images are part of an overall view which balances the 'right to protest' against a need for 'law and order'.

Debates about protest are relevant here. Is civil disobedience ever justified? Must civil disobedience be non-violent? Do disobedient have a responsibility to accept punishment according to the law? Can the liberal state survive in the face of widespread challenges to its legal authority? These are the sorts of questions that exercise political philosophers. That protest is allowed so long as it doesn't have much impact. Once protest on a massive scale develops in way that threatens powerful interests in or allied to the state, police or military force is brought to bear against it. That protest is part of a wider political struggle is apparent in this double standard.

Challenges to the police and military are the most fundamental threat to the liberal state and hence have been met with the most severe repression. Opposition to conscription is a basic challenge to the state mobilization of the population for violence, and hence this form of protest has been dealt with severely in most countries even in 'peacetime '. In wartime civil liberties of all sorts are drastically curtailed, so much so that a liberal democracy at war can be characterized as a 'constitutional dictatorship'. Rights of free speech, assembly, protection from arbitrary arrest, the right of trial by jury: these and other freedoms are reduced or removed in wartime. The usual discussions of 'peaceful protest' ignores the vital role of state repression. An awareness of this repression exposes the narrowness of focusing on the actions of protesters and the immediate legal or moral context in which they operate. Rather than analyze protest solely in terms of rights, it can more usefully be seen in the context of a wide social struggle in which both the legitimacy and practice of action and nonviolence of violence and nonviolence are at stake

Violent Protest Movements in India

In the recent past agitation of Gujjars of Rajasthan demanding their inclusion in Schedule Castes led to month long strike in which human life was disrupted and railway properties were destroyed. For month railway, traffic came to halt causing incalculable and irreparable harm to life and inconvenience to the common men.

The public agitation sponsored by a political party with Bands in Singur (as a protest against acquisition of land by Tata Company) also resulted in use of fire arms by Police and consequent loss of human life, as also of livelihood and survival of poor people and farmers.

The strikes and Band called in Jammu in support of demand of land for shelter of Amaranth Pilgrims and counter strike and agitation in Kashmir against proposal of Government to hand over land to Amaranth Shrine, seriously paralyzed life for many days both in Jammu and in Kashmir The two counter strikes and agitations in Jammu and Kashmir gave rise to communal disharmony.

A reactionary call of strike in Madhya Pradesh led to communal Violence in Indore, in which many people lost their lives and properties.

Public Opinion about Violent Protest Movement

A survey conducted by Hindustan Times to ascertain the views of common man on right to strike and organizing bands and Chaka iams shows 78% people were against Bands and over 80% opposed political parties or religious institutions organizing Bands. A sample random survey of about 1,031 people revealed that half of woman from 9 cities in Rajasthan, Punjab, Haryana, Delhi & North Central Region and three out of 4 people want a legal ban on bands and eight out of 10 favor severe punishment or hefty fines for the ringleaders of mob violence. 62 per cent of the people say the band organizers should foot the bill or suffer punishment. Only 55 per cent of the people expressed the view that in extreme circumstances, when civil liberties are suppressed or where land and property is forcibly acquired, Band may be held to be legitimate. It is significant that most of people are against police firing and 9% support shoot-at-sight order for arsonists. Those who believe that Band is justified are meagerly 15 per cent. Another 10 per cent preferred voluntary participation. 95 percent People said that political parties organize Bands for narrow sectarian gains and for personal profits.

The heartening result of the social survey is that majority of people affirm *citizens'* activism minus violence and trouble. Civil disobedience and peaceful dharnas, rallies and lighting of candles have the support of 60 percent. Another 30 per cent in which 19 per cent would choose 'gheraos' - only 11 per cent prefer violent confrontation, if the agitators are victims of injustice. Opinion is divided on, which section suffers the most but more respondents think that the bands hit the poor people, laborers and street vendors than the big and medium enterprises or the middle class, students and housewives.

New Social movement theory of Protest Movements

Protest reflects the key aspect of this relationship between the state and society. State is responsible for formulating and carrying out policies for a society. State may lack the resources to meet the demands and expectations of various competing social groups. That may lead to anger among some groups in the society, which can take the shape of protest movement. Protest arises from disagreement over limited issues, such as opposition to particular policies of a government, or antagonisms between groups competing for political influence. The character of the protest is its short duration, low degree of organization, and limited goals. The type of political system sharply affects the nature of protest.

Within democracies, we do not see a uniform pattern of popular protest movements. Some democracies experience more protest than other democracies. France hosts more protest annually than Germany does. Bangladeshis invade the streets much more than the people in SriLanka do. Answers to this difference may be found in their political cultures or by carefully auditing the performance of their democratic institutions. However, it is more puzzling when within the same democracy, people in some areas protest more successfully than other areas. It seems that some ordinary people, who are busy in their struggle for day-to-day survival, attain the degree of co-ordination and, mutual awareness that they need to wage strategically effective protests, while some others fail.

Social Network and Social Movements

Subsequent research has accepted the important role played by the Social Network or ties in the mobilization process of the movement. A movement drawing support from a dense social network is more likely

to spread and be sustained. The weak ties among social networks are conducive for broader mobilization and large-scale collective action. Weak ties help to link members of different small groups with each other. Weak ties are necessary for individual opportunities and to their integration into communities. Following the same line, for the formation of a broader and successful social movement, networks of ties among different and interdependent social groups and localities.

The concept of social network has recently gained popularity among the researchers of social movements. It has even been suggested that movements should be regarded as networks or as network of networks. Despite widespread acceptance of the idea, there are very few studies on the significance and interaction of the networks or ties in a movement. Existing studies give a statistically count of the social ties and treat them as intermediate variables in the mobilization of social movements. The success and failure of a social movement depends on both the capacities and character of state and the roles of a variety of social fore thus, while studying the mobilization of movements, we cannot ignore the mutually conditioning interactions that occur between segments of the state and society.

International Interventions of Social Movement

Social movements may be said to be transnational when they involve conscious efforts to build transnational co-operation around shared goals that include social change. Increasingly, many states are being challenged by movements, some of them operating across national borders in more than one country. Through regular communication, organizations and activists are able to share technical and strategic information, coordinate parallel activities, or even to mount truly transnational collective actions. Like national social movements, transnational ones incorporate a range of political actors, including individuals, church groups, professional associations, and other social groups. Movements are distinguished by the actors and resources they mobilize and in the extent to which they communicate, consult, coordinate, and cooperate in the international arena.

There are many attempts to provide outside support to the locally based social movements. However, internationalizing the social movements might have local fallouts, one being a hardening of local sentiments against the movement. This is what happened in the case of Narmada

movement in India. International reaction and support to the anti-dam movement strengthened the pro-dam support, particularly in the state of Gujarat. Taking the cause from local to global terrain might also alter the focus of the movements to suit the ideas and interest at the international level.

In Layman's language we can classify all protest movement in the following sections:-

1. **Violent Protest Movement:** Like Protest in Maruti manufacturing Plant in Manesar, Haryana.

2. Non violent protest movement:

- The huge Candle march (country wide) for effective Legislation and Penalty system in India against the Sexual Offences or heinous Gang Rapes like Nirbhaya's brutal Gang Rape in the National capital Dehli.
- Like Anshan (Hunger strike) by Anna Hazare against the corruption in India,
- By Baba Ramdev against the Black money power in India.
- By 51 villagers, who stayed in water for 14 days in Bhopal (M.P.), protesting against the govt. decision to open all the gates of Omkareshwar Dam Project (in 1 & 2nd week of Sept. 2012).
- 3. Silent Protest Movement: Followed by Indian "Aang Le Soo", Irom Sharmila, who is doing Continuous Anshan for many years, against of Govt. Polices regarding Special Arms Force Act's implementation in Manipur.
- 4. **Passive Protest Movement:** Followed by the Public servants like Doctors, Transporters, Business or market Traders, Lawyers, Drivers, etc. They deny to go to work and disrupts the whole routine public services. So many times Government & Judiciary both criticizes these movements because it is more harmful than violent Protest Movement.
- 5. Quasi Legal Protest Movement: It is legalized by legislation under commercial and labor laws where any Industrial labor, worker, employee or Employer may choose legal way to oppose the system like strike, Lockout, Pen down or Tool down strike, etc.

- 6. **Digital Protest:** It is the New Origin of Digitalization, in which through internet facilities like Facebook, Orkut, Twitter etc. anyone can share his/her views, and they can post their opinions in favour or in against of the system. But it may be controversial like Maharashtra case, in which two girls were arrested due to the sharing of the comments against the Band declared by Shiv Sena.
- 7. **Purely Publicity Protest Movement:** These kinds of protest movement are very usual in India, where any person or group get involved in Paparazzi movements. Sometime politician follows it to maintain their good will in public. But they never show their inner views or mentality in and about these movements. As an example, Samajvadi & Bahujan Samajvadi party opposed the FDI on roads but voted in its favour in Parliament.

And many more examples are there in which Public use this way to attract the attention of system's stakeholders, but these tricks are not appropriate to solve these issues.

Conclusion & Suggestions

From constitutional perspective, the basic question is what should be the permissible legal method of protests in democracy, because protest is dissent and opposition to the acts and policies of those in power. It is a part of democratic process. Democracy is meaningful only if people have participation in the governance.

To enforce the law laid down by **Supreme Court**¹ on violent Protest Movements like strikes, Bands and *Chakka jams*, the following suggestions need serious consideration:

- A call for non-violent Protest Movement, if results in movement and in the course thereof people are hurt or their lives are lost and private or public properties are destroyed, criminal cases should be instituted against the organizers of the Protest Movement. Those indulging in criminal activities during Protest Movement should be fined and should be recovered coercively on the spot. Criminal cases under penal code are registered against those found to be the offenders.
- Political parties or organizers who organize such illegal Protest Movement should be made to pay the compensation for injuries and loss of human life and private or public properties.

¹ Kerala Vyapari Vyavsay EKopana Samiti Ottappalam vs. State of Kerala AIR, 2000 Ker. 389, Sec.

- An effective remedy to the common man for approaching a specially constituted judicial or quasi-judicial body should be provided, where the victims of such illegal or Protest Movement may approach for seeking early redressed, and the payment of compensation for the loss they sustain as well as to take penal action against the offenders.
- A separate comprehensive legislation in the light of decisions of Supreme Court on the subject is a felt necessity 'to ensure' holding of peaceful Protest Movement.

At last we can say that opposing is the way of expression, but always stay put in the opposition may be the blackmailing attitude. So we should adopt the protest movement according to necessity, not to blackmail the system or system holders.

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Analysis of Return to Unit (RTU) on NSG Probation Courses

Col. Navdeep Singh* & Maj. Nimit Agarwal**

"Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit"

- Aristotle

Keywords

Internal Security, Peace, Sovereign State, Counter Terrorism Force, NSG, Deputation Force.

Abstract

Internal security is the act of keeping peace within the borders of a sovereign state or other self-governing territories, generally by upholding the national law and defending against internal security threats. Responsibility for internal security may range from police to paramilitary forces, and in exceptional circumstances, the military itself. As India shares common boundary with many countries and also due to many internal conflicts, Internal Security is a major concern to India.

Introduction

HE National Security Guard is our Nation's elite Counter-Terrorist (CT) Force. The role of NSG is to combat Terrorism in all its manifestations. Unlike many Special Forces, the NSG is a deputation force, drawing its manpower from the Indian Army and Central Armed Police Forces (CAPF). While NSG's deputation

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character may not be advantageous for 'institutional memory', it does ensure high standards of training, discipline and the youthful profile of the force. As per current policy, Army personnel are turned over after two to three year tenure, while CAPF personnel get five year tenure.

2. NSG Training Centre conducts two types of probation courses for the NSG's combat units: the Conversion Course Special Action Group (CC SAG), for Indian Army personnel and the Conversion Course Special Rangers Groups (CC SRG) for CAPF personnel. Both the CCs are identical in design, except for the parent force of the trainees. The 12-week NSG CCs maintains a tough and grueling regimen, where trainees are expected to achieve excellent standards in physical, endurance, marksmanship and commando techniques, amongst other skills. Trainees who fail to meet the standards are RTU.

Design of the CC

- 3. The aim of the CC is to train a potential commando to be able to effectively undertake Counter Terrorist (CT) operations, with special emphasis on hostage rescue skills. The training is structured to enable a trainee to achieve progressive levels in multiple proficiencies. Terminal Objectives of the NSG CC are as under:
- To achieve high level of physical fitness & mental robustness
- To achieve high degree of marksmanship with Small Arms and proficiency in reflex shooting
- To be able to function as an effective team member of a commando unit
- To achieve basic skills for negotiation of heights
- To achieve basic skills in Unarmed Combat (UAC)
- To achieve basic knowledge of explosives & Improvised Explosive Devices (IEDs).

Conduct of Training & RTU

4. At the commencement of the CC, trainees are subjected to a Personality Improvement Test (PIT) to assess their Personality Profile (PP). Trainees whose Personality Profile (PP) do not match the requirements of NSG are Return to Unit (RTU). The 12-week Conventional Course (CC) is structured in three training modules. Modules 1 & 2 focus on physical conditioning, precision firing, psychomotor abilities, tactical

knowledge & its application. During Module 3 emphasis is laid on specialized CT and Counter Hijack (CH) training. Progressive standards have been laid down for each module, which trainees are expected to qualify. Failure to qualify in any of the Module tests, also results in RTU.

RTU Analysis in 2013

5. In 2013, the total number of trainees, who underwent the NSG CC were 2290 and 847 trainees were RTU, on various grounds. Thus, only 63% of trainees qualified on the CC and 37% were RTU on various grounds. However, while 78% of the Indian Army trainees qualified on the CC, only 42% of policemen made the grade. Details are indicated in Table 1 below.

Table 1: RTU from NSG CC in 2013					
Course	Strength RTU RTU Qualifyin Percentage Percentage				
CC SAG	1318	288	22	78	
CC SRG	972	560	58	42	
Total	2290	848	37	63	

6. **Force-wise RTU Analysis:** Since there was a substantial difference in qualifying percentage between Army men and Policemen, a forcewise analysis was done of trainees attending the CC SRG. It was seen that while the Assam Rifles obtained a qualifying percentage of 86%, way higher than the Indian Army (78%), all the other CAPF scored poorly. Only one SSB trainee out of 24 qualified on the course. CISF and ITBP obtained a qualifying percentage of only 30%. The details are depicted in Table 2 below.

Table 2: Force-wise Analysis of RTU					
Force	Strength Reported	RTU	RTU Percentage	Qualifying Percentage	
BSF	146	<i>7</i> 5	51	49	
CISF	233	164	70	30	
CRPF	424	231	54	46	
ITBP	53	37	70	30	
SSB	24	23	96	4	
Assam Rifles	58	8	14	86	
Others	34	21	62	38	
Total	972	559	58	42	

7. **Reasons for RTU:** There were six reasons for which trainees were RTU, which include not meeting the Qualification Requirement (QR), failing in the Personality Improvement Test (PIT), unwillingness to undergo the course, missing more than 10% of the scheduled training, failing in mandatory tests and miscellaneous reasons. In 2013, 2290 trainees attempted the NSG CC and 848 were RTU. Table 3 below indicates reasons for RTU for these 848 trainees. Thus, Failing in PIT (22%) and Failing in Mandatory tests (7%) are the most common reasons for trainees, being RTU. It is also evident that the major difference between SAG and SRG performance, was failing in PIT (22 points) and failing in Mandatory tests (7 points).

Table 3: Reasons for RTU in 2013						
Reason	CC SAG		CC SRG		Total	
Reason	Nos	Percent	Nos	Percent	Nos	Percent
Not Meeting QR	4	0	18	2	23	1
Failing in PIT	171	13	342	35	513	22
Unwilling	15	1	52	5	67	3
Missing 10% Training	43	3	32	3	75	3
Failing in Mandatory Tests	55	4	106	11	161	7
Misc Reasons		0	9	1	9	0
Total	288	22	559	58	848	37
Reported Strength		1318		972	2290	

8. **Failing in PIT:** A comparison was carried out between CC SAG and CC SRG, on their performance in the PIT. Table 4 below indicates failures in PIT, in the CC SAG and CC SRG, both in numbers and as percentages. Thus, while 87% of Army men cleared the PIT, only 65% of Policemen performed likewise.

Table 4: Performance in PIT						
Course	Strength Reported Failures RTU Qualifying Percentage Percentage					
CC SAG	1318	1 <i>7</i> 1	13	87		
CC SRG	972	342	35	65		
Total	2290	513	22	78		

9. Performance in PIT:

(a) The PIT is an instrument developed by the Defence Institute of Psychological Research (DIPR). The test is administered in the form of a objective type, multiple-choice question paper. Answer scripts are corrected by an Optical Marker Reader (OMR). A trainee requires scoring a minimum of 110 marks, to pass. It has been observed that a motivated soldier, who fails the test, still scores around 100 marks, out of a maximum score of 140 marks. Table No 4 below indicates the scoring pattern of CC SRG. Scores were analyzed in three different ranges; personal scoring below 70, those scoring between 70-109 and personal scoring 110 and above.

Table 5: CC SRG Scoring Pattern in PIT					
Course	Appeared	Below 70	Between 70 -109	110 & Above	
CC SRG 97	309	<i>7</i> 1	59	1 <i>7</i> 9	
CC SRG 96	158	32	16	110	
CC SRG 95	417	87	<i>7</i> 5	255	
Total	884	190	150	544	
Percentages		21	17	62	

(b) There are a substantial percentage of personnel, scoring less than 70 marks (21%), which may indicate a pattern of deliberate failure by some trainees. In one instance, a trainee scored only 9 marks in the PITand later revealed that he did not want to join NSG, in the first place.

10. Other Reasons for RTU:

- (a) **Missing More than 10** % **of Training:** About 3 % of Trainees are RTU for missing more than 10 % of the scheduled training. Some trainees take emergency leave to attend to personal domestic challenges, while others miss training on medical grounds for ailments caused as a result of the hard physical training. One trainee, attending CCSAG-96, injured his right shoulder during the 9th week of training and was admitted in hospital for 12 Days. The individual was later RTU, since he had missed more than 10 % of training. Considering the rigorous and challenging nature of NSG training, 3 % RTU for missing more than 10% of scheduled training, is acceptable.
- (b) **Failing Mandatory Tests:** 4% of the CC SAG and 11% of the CC SRG, were RTU for failure in mandatoryPhysical Proficiency Test (PPT), Battle Proficiency & Efficiency Test (BPET) and the Battle Assault Obstacle Course (BAOC) tests.In PPT, failures were in Chin Ups (85 trainees) and 2.4 Km run (28 trainees). In BPET, the failures were in Horizontal rope (25) and the 5 Km run (11). In the BAOC, there were

28 failures all in the 26 Foot Wall and all from the CC SRG. While 7% failures in mandatory tests is also acceptable, it should be noted that the primary cause for failure was weakness in Upper Body strength, as is evident from the Chin Up and 26 Foot Wall tests.

Observations and Deductions

11. **RTU in CC SRG:** The percentage of trainees being RTU, is much higher for CC SRG (58%) as compared to CC SAG (22%).

Deductions: The following deductions can be drawn:

- (a) For most Army personnel, who serve in difficult field areas, the NSG is an attractive posting. NSG's elite culture, availability of quality infrastructure and professional ethos are substantial reasons for Army personnel, wanting to join the NSG.
- (b) On the other hand, many Police personnel do not find the NSG so attractive. They find the tough professional standards challenging and many do not wish to leave their current employment, particularly if it is in a peace profile.
- 12. **Performance of Assam Rifles:** The Assam Rifles has performed exceedingly well in the NSG CC. With a retention rate of 86%, their performance even surpasses that of the Indian Army (78%).

Deduction: It would be mutually beneficial to all stakeholders, if additional vacancies are allotted to the Assam Rifles. On the other hand, allotting vacancies to forces with very poor qualifying rates, like SSB (4%), is a waste to the national exchequer.

13. **Deliberate Failure in PIT:** The failure rate in PIT, for CC SRG (35%) is much higher than the failure rate in CC SAG (13%).

Deduction: The scoring pattern in the PIT, with 21% scoring less than 75 marks, suggests that some SRG trainees may be deliberately failing, in the test. Informal interaction suggests that trainees are forced to attend the NSG CC, by their respective forces and they find failing in the PIT, an easy way out.

Analysis of Qualified Personnel

14. Though the Indian Army's retention in the NSG is much better than that of CAPF (78% versus 42%), the relative performance of successful police personnel reflects a paradoxical result. Successful

police personnel achieve relatively higher standards and consequently better grading than successful Army personnel. Table 6 below indicates the grading scored by trainees in the NSG CC, for SAG and SRG, respectively.

Table 6: Grading Achieved on NSG CC						
Course	Strength	Strength	Grading			
Course	Reported	Qualified	Outstanding	Excellent	Good	Satisfactory
CC SAG	1318	1030	0	271	475	284
Percentages		78%		26%	46%	28%
CC SRG	972	411	0	15 <i>7</i>	233	21
Percentages		42%		38%	57%	5%

15. It is also relevant to bring out that the age profile of Indian Army personnel is more than that of the police. Due to contrasting promotion polices, police trainees have a much younger profile. Table 7 below shows the age profiles of the CC NSG trainees in 2013. Thus, the average age profile of the police trainee is 2.4 years younger than that of the Army trainee. Considering the physical nature of the course, it is considerably more difficult for older trainees to perform well.

Table 7: Age Profile of Trainees on the NSG CC						
Course	Strength		Age of Trainee			
	Reported	Under 30 Years	30-35 Years	35-40 Years	Above 40 Years	Average
CC SAG	1318	460	426	263	169	33.3
Percentages		35%	32%	20%	13%	
CC SRG	972	630	276	65	1	30.9
Percentages		65%	28%	7%	0 %	

Conclusion

16. NSG is an elite Federal CT contingency force and needs to maintain the high standards of inductees to achieve its task. The training curriculum of probationers is time tested and scientifically designed. Special Forces can discharge their duties if they are highly motivated and they take pride in their organization. Hence, we should encourage only motivated individuals to be part of this elite organization.



Personality Improvement Test (PIT)

Col. Navin Varma* & Maj. Girish Datt**

Keywords

Democracy, Internal Security Challenge, Peace & Harmony, Extremist Act, DRDO, Personality Improvement, DIPR, PIT, Indian Army.

Abstract

In a democracy, the sense of belongingness of populace towards the government and vice-versa is the key factor in maintaining the peace and harmony within the state. If the same is not a bi-directional phenomenon, it may lead to confusion and trust deficit. An extremist act will be viewed by some as just and moral (such as pro-social "freedom fighting"), and by others as unjust and immoral (anti-social "terrorism") depending on the observer's values, politics, moral scope and the nature of their relationship with the extremist/actor. In Indian context, the term is more relevant to the Left Wing Extremism, wherein the nation is facing its biggest internal security challenge.

Introduction

he Defence Institute of Psychological Research (DIPR) is a premier research laboratory of the Defence Research & Development Organization (DRDO). The mission of DIPR is to provide psychological support to the armed forces in selection, training, man-machine interface and motivation; to enhance mental health and operational efficiency of the armed forces. In 1993, the DIPR has designed for the NSG a special evaluation tool, called the Personality Improvement Test (PIT). The PIT is a mandatory test for all NSG probationers, less Indian Army officers. Indian Army officers are

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exempted from the PIT because they have already successfully cleared the Services Selection Board (SSB), which is a more rigorous test than the PIT.

- 2. The PIT should not be misconstrued as a Psychology Test. A Psychology Test is expected to deal with more complex mind behavior relationships. The PIT, on the other hand, is administered through a single written test and measures a Trainee's responses, in 11 personality traits, pertaining to the Cognitive, Psycho-motor and Affective domains. For the purpose of the PIT, the 11 traits are defined as under:-
- Analytical Ability: Ability to quickly arrive at logical conclusions by grasping the essentials well and applying rational thinking. It includes – receptivity (quick grasp), logical reasoning and understanding of fundamentals.
- Planning: Ability and intention to work on the assigned task methodically by working out the details in advance and approaching it in an organized and sequential manner to arrive at a solution within the stipulated time. It includes – resourcefulness, skillfulness and methodical approach.
- Mental Robustness: Ability to withstand and positively adapt to physical/mental stress and hardships/adversities by remaining emotionally stable and the ability to maintain optimum performance under all circumstances without giving up persistence of effort for achieving the target. It includes – endurance, stamina, stress tolerance, emotional stability, optimism and cheerfulness.
- Sense of Responsibility: Ability to willingly take and discharge duty with discipline and dedication, even without supervision or guidance, following the laid down rules and procedures in pursuance of the desired goal and for achievement of the specified results. It includes – Loyalty to Nation and organisation, discipline, devotion to duty, unconditional respect for seniors and fellows.
- Determination & Dedication: The ability and inclination to make whole hearted and diligent efforts for achieving the desired goals and ability to sustain the energy of effort towards the goals for long periods of time despite facing difficulties. It includes the hardwork, optimum level of motivation and morale, fastidiousness to the goal achievement.

- Values honesty & integrity: The quality of being truthful, trustworthy, upright and inclination to behave according to sound moral principles. It includes - high moral values, patriotism and sacrifice.
- Co-operation: The inclination to willingly extend and accept help from others in an endeavour to contribute to the best of one's ability towards the group effort for the achievement of goals. It includes team spirit, helpfulness and comradeship.
- Promptness: Ability to respond swiftly and appropriately based on realistic appraisal of the immediate situation. It includes the high mental alertness and quick responsiveness.
- **Self-Confidence:** Ability of having faith in oneself and one's abilities to face and ultimately solve the problem and being optimistic to achieve the desired goal.
- Courage: Ability to face danger, difficulty, uncertainity and pain
 without being overcome by fear and without losing consistency
 of purpose and determination to work for achieving the goal. It
 includes bravery, fearlessness and readiness to accept any risk.
- Decisiveness: Ability to take quick, apt and firm decisions based on realistic appraisal of the situation and the resources at hand.
- 3. NSG Commandos are trained and selected in two types of probationary courses, called as Conditioning Course Special Action Group (CC SAG) and Conditioning Course Special Ranger Group (CC SRG). Both the courses are of 12 weeks duration, while the CC SAG is run for Indian.
 - Army Personnel, the CC SRG is run for personnel from the Central Armed Police Forces (CAPF). The test is administered in the first week of the CC.
- 4. For obvious reasons the test should be kept confidential. However, it is a multiple-choice objective test and the evaluation is done through an optical mark reader. Trainees not qualifying in the PIT are RTU (Returned to Unit) on the grounds, 'Personality Profile of the Trainee does not match the requirements of the NSG'.

Analysis of PIT Results

5. Results of the last eight CC SAG and CC SRG are indicated in Tables 1 & 2 below.

Table 1: PIT Results for CC SAG					
Course	Appeared	Passed	Pass %		
CC SAG 93	202	194	96%		
CC SAG 92	429	371	87%		
CC SAG 91	447	379	85%		
CC SAG 90	388	338	87%		
CC SAG 89	514	379	74%		
CC SAG 88	385	322	84%		
CC SAG 87	315	232	74%		
CC SAG 86	366	252	69%		
Average	381	308	82%		

Table 2: PIT Results for CC SRG					
Course	Appeared	Passed	Pass %		
CC SRG 97	309	179	58%		
CC SRG 96	158	110	70%		
CC SRG 95	417	255	61%		
CC SRG 94	360	226	63%		
CC SRG 93	491	267	54%		
CC SRG 92	540	236	44%		
CC SRG 91	527	176	33%		
CC SRG 90	270	67	25%		
Average	387	193	50 %		

- 6. It is observed from the tables above that while the average pass percentage for CC SAG is 82%, the pass percentage of CC SRG is only 50%. What are the reasons for this disparity in PIT results, between Indian Army and CAPF personnel?
- 7. It may be tempting to state that the Indian Army our Nation's pride, are more inspired, and display better capabilities than our

- Police comrades. However, the truth may not be so obvious. Informal interactions with trainees suggest the following:
- For most Army personnel, who serve in difficult field areas, the NSG is an attractive posting. NSG's elite culture, availability of quality infrastructure and professional ethos are substantial reasons for Army personnel wanting to join the NSG.
- On the other hand, many Police personnel do not find the NSG so attractive. They find the tough professional standards challenging and they do not wish to leave their current employment, particularly if it is in a peace profile.
- Many Police personnel do not volunteer for the NSG and some are forced by their respective Forces, to proceed for NSG's probationary training. Some of these personnel are tempted to deliberately fail in the PIT.

Force Wise Analysis

 A further study revealed disparities in PIT results, between various CAPFs. It can be seen that within CAPFs, PIT failures are substantially more in CISF, ITBP and SSB. Table 3 below indicates a force wise analysis of pass percentage, in the last eight courses.

Table 3: Force Wise Analysis					
Organisation	Appeared	Passed	Average Pass %		
ASSAM RIFLE	234	144	62		
BSF	304	161	53		
CRPF	916	481	53		
SSB	472	216	48		
ITBP	250	108	43		
CISF	840	323	38		

Score Analysis

9. It has been our experience that over 82% of the Army soldiers clear the test, and a motivated soldier, who fails the test, still scores more than 100 marks out of a maximum score of 140 marks (pass marks are 110 and above).

10. Table No 4 below shows a score analysis in three ranges i.e. personal scoring below 70, those scoring between 70-109 and personal scoring 110 and above.

Table 4: Score Analysis								
Course	Appeared	Below 70	Between 70 -109	110 & Above				
CC SRG 97	309	<i>7</i> 1	59	1 <i>7</i> 9				
CC SRG 96	158	32	16	110				
CC SRG 95	41 <i>7</i>	87	<i>7</i> 5	255				
CC SRG 94	360	90	44	226				
Average	311	70	49	193				
Perce	entage	23 %	16 %	62 %				

[NOTE: The pass score is 110 marks out of a total of 140 marks]

11. The substantially high percentage of personnel scoring less than 70, is perhaps indicative of deliberate failure. Deliberate failure is a waste of government time and money. It is also indicative of poor individual motivation. Is there merit in intimating the particulars of such personnel to the parent unit?

Recommendations

- 12. The analysis is purely an attempt to encourage the concerned authorities or the organisations to delimitate the trends and send motivated soldiers for induction into the NSG. Some of the recommendations which may generate positive results are as following:-
- Selecting and sending willing personnel for the course.
- An informal interaction of all the trainees, prior to the conduct of PIT, with SRG personnel will act as a motivational factor. The same could be arranged just after the opening address.
- Infrastructure with respect to family accommodation could be built upon as it acts as a great motivational factor.
- Readjusting the allotment of vacancies to various CAPFs could be given a thought.
- The results of affected individuals, those scoring less than 70 marks, should be shared with the parent organisations with necessary details.

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Conclusion

13. NSG is a deputation force with personnel coming from Army and various CAPFs. Hence, selecting and sending a motivated soldier is the first step in making of a successful commando, possessing desirable traits to the mandate of NSG. The individuals reporting to NSG for undergoing the probation training must be thoroughly interviewed at parent unit and, only a willing and motivated individual should be sent forth for the training. Also, a change in the allotment of the vacancies to various CAPFs could be given a thought by the competent authority. The quality infrastructure facilities, primarily pertaining to family accommodation, could further be improved in NSG. For a federal contingency force like NSG, modern threat scenarios are becoming more challenging; thus selection and training of a right person under right guidance is very important to counter such threats. However, this will only materialise when a soldier is willing and mentally prepared to clear the first step in the training pyramid, the Personality Improvement Test.



Community Policing in Andhra Pradesh

A. Kumara Swamy*

Keywords

Community Policing, Conventional, Model Police, Crime Prevention, Crime Detection, Neighborhood, Pro-active, SHO (Station House Officer), MMR (Maithri Monthly Report), Patrolling, Eve-teasing, Peace, AASARA "SANIHITHA" "Police Meekosam [Police For You]".

Abstract

The community policing was pioneered by Robert Peel in 1829 in England. In India each state is experimenting with community policing. The community policing was introduced through the concept of "Maithri" in Andhra Pradesh on April 5, 2000. It is a police public partnership programme. Maithri system believes that modern day police requires decentralized and personalized police approach that involves the process of policing. The concept of Maithri was introduced to consult people on regular basis to know their needs and encourage them to suggest possible solutions to their problems. All the supervisory police officers from the rank of Inspector to DIG constantly guide the SHO. In the implementation of Maithri concept, SHO will send monthly reports to the supervisors with regard to the activities of Maithri committee. Maithri committee members maintain a watch over the movements and activities of anti-social elements. Since Maithri policing system fail to produce expected results in Andhra Pradesh, other community policing systems like Police meekosam [police for you], parivarthanasadassu, sannihitha, Assara etc. are introduced.

Introduction

OMMUNITY policing has been embraced by many law enforcement organizations across the country. The new system of policing was innovated first in England by "Sir Robert peel

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(Home secretary)" in 1829 in London. Its general name "Metropolitan policing" subscribed to its latter development as "Community Oriented Policing" (COP).¹

According to Sir Robert peel, the real key for policing is, "The police are the people and the people are the police". Peel believed that prevention of crime could not be accomplished without introducing into the lives of citizens.

In India, Indian police Act 1861 is the conventional [Integrated] model police act. It concentrates on prevention and detection of crime, and the enforcement of law and order. Law enforcement in India keeps abreast with the international trends. After independence the Government of India appointed number of committees, commissions to suggest reform in Indian police system. They are Gore committee [1971], Dharmaveera committee [1977], Riberio committee [1998], Malimath committee [2003] etc. On the basis of the recommendations of all the committees, commissions, Indian government made reforms in police system. The Bureau of police Research & Development [BPR&D] has organized 41st All India Police Science Congress at Dehradun [Uttarakand] from 21st to 23rd June, 2011. This congress made suggestions to evolve a model of community policing in India. Indian Police Service Officers being at leadership levels are taking particular pride in introducing the innovative techniques in police working. Various governments introduced various models of community policing systems like Friends of police [FOP] in Tamilnadu, samathayojana in Coimbatore city police, PRAHARI, AASWAS in Assam/VISHWAS YOJANA, SUVIDHA YOJANA in Himachal Pradesh, SAHAYATA, NABADISHA [New direction] in West Bengal, etc.

Community policing, however, has generated interest at both leadership as well as field level police officers. Thus in India each state has been experimenting with community policing and various projects have been undertaken by the police officers of different ranks.

Maithri Community Policing in Andhra Pradesh

"Maithri" is the name given to community policing in Andhra Pradesh. It is a police public partnership program. Maithri (community policing) was launched in Andhra Pradesh on April 5, 2000.²

Definition of Community Policing

Community policing is a philosophy and an organizational strategy that promotes a new partnership between people and their police. It is based on the premise that both the police and the community must work together to identify, prioritize, and solve contemporary problems such as crime, drugs, fear of crime, social and physical disorder, and overall neighborhood decay, with the goal of improving the overall of life in the area.³

"Maithri" believes that modern day policing requires a decentralized and personalized police approach that involves citizen in the process of policing themselves. It creates a positive shift in the role of the police from "working against the bad people to working with good people" in the society. As a result, police no longer remain law enforces but take the role of facilitators and mentors to the society.

Objectives of Maithri

The following are the objectives of the Maithri (community policing) in Andhra Pradesh:

- To meet the felt and expressed needs of small and varied groups of people in the community by actively involving them in the process. Addressing the problems, both crime and non- crime related, faced by the community at field level and attend to those problems.
- To organize proactive measures to prevent and detect crime.
 Maithri emphasizes pro-action rather than reaction in solving various types of crimes connected to the body, property and other matters.
- To provide personalized quality service to the people at the decentralized level "Maithri" program is organized at the decentralized level, i.e.: at the village level in the rural areas and the locality level in the urban areas.⁴

Process of Maithri

The process of Maithri can understood by using the acronym "CAMP"⁵ which as follows:

C - Consultation A - Adaptation
M- Mobilization P - Problem solving

Consultation

The community is consulted on a regular basis to know and enumerate all their needs and they are actively encouraged to suggest all possible legally acceptable solutions.

Adaptation

Adaptation means changing or devising new policing methods and adopting appropriate legal procedures for solving the local problems.

Example: (1) Changing the timings of the day beat covering the colleges for preventing eve-teasing. (2) Counseling a delinquent child, or a drug addict, instead of arrest and prosecution.

Mobilization

Once the needs of the community are assessed along with the community resources (such as manpower, material and finances) these are mobilized for implementing the solution. Therefore, co-ordinating with other agencies and mobilizing power, material or financial resources, in addition to the resources of the police department are highly essential.

Example: For removing encroachments on the streets the services of the local municipality or panchayat or the revenue department are needed. Similarly, machinery, equipment and transport may be required for removing encroachments and transporting the seized material.

Problem solving

After the resources are mobilized, the actual work of solving the problem is launched and completed.

Example: After mobilizing the resources, as explained above, for removing the encroachments, the police and others have to go to the area encroached upon and do the physical act of removing encroachments, which may include taking legal action, if there is resistance from the encroachers.

Size and Composition of Maithri

Category	Percentage	No. of Memberships (up to End of Year 2000)
Senior citizens/Freedom Fighters	5%	22,478
Women	15%	31,859
Youth	40%	73,560
Members of SC/ST	10%	27,471
Minority Community	5%	14,293
Professional	20%	24,080
Miscellaneous groups trade unions, NGO, Physical Education Teachers etc.	5%	24,612
	Total	2,81,353

Source: www.appa.ac.in

By August 2002, as much as 25% of the habitations were covered under Maithri with as many as 6,900 Maithri committees with a membership of about 2.9 lakh citizens⁶

Traffic Maithri Committees

Traffic police was independent of the law and order wing. Separate traffic Maithri committees were formed. Traffic Maithri committees consist of 50 members. Out of these 50 members, 4 to 5 motivators are selected for motivating Maithri members. They are selected by station house office (S.H.O). They are:

- Shop Keepers
- Hoteliers
- Cinema Hall Owners
- School and College Principle
- Auto or Taxi Drivers
- Members of R&B, Electricity, Municipality Departments etc.
- NGO's
- Public Associations etc.

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The Maithri members are selected carefully considering their background and usefullness. Responsible members of the local community not involved in any criminal activity directly or indirectly are selected as members of the committee. Identity cards are issued to the members of the committee. Normally the tenure will be 2 years.

The committee meets at least once in a month. All members are treated equally and the meetings are conducted in a simple manner. An assistant sub inspector (ASI) or a head constable or a constable acts as facilitator for each Maithri committee.⁷

Supervisory Officers

All the supervisory officers like Inspectors, Sub-Divisional Police officers (Dy.S.P) Additional Superintendents of Police (Addl. S.P) Deputy Commissioners of police (D.C.P) etc., constantly guide and empower the station House officers (SHO) in making Maithri work successfully.

Monthly Maithri Report (MMR)

It consists of the meetings held, issues, problems indentified and solved pending issues and the activities planned for that month, etc. The MMR is sent by the inspectors to the unit officers along with the monthly crime Review. The unit officers send a copy of the MMR, along with a brief Executive summary to the Deputy Inspector General of Police (D.I.G.), Community Relations and Maithri every month. Andhra Pradesh is the first state in the country to launch community policing in a big way throughout the state by creating a special post of Deputy Inspector General of Police (D.I.G.) "Maithri" in the country.

Role of Maithri Committee

Maithri members can maintain a watch over the movements and activities of criminals, rowdies, anti-social elements and activities like gambling, prostitution, black-marketing, etc., and share the information with the police for preventing and detecting crimes or maintaining peace.

They can offer their services in organizing the community related such as:

- Eradication of Superstitions
- Family counseling

- Faction-reduction
- Eve-teasing
- Traffic awareness
- Blood donation
- Drug addiction
- Street children and Missing children
- Women protection
- Protection of civil Rights
- Legal literacy
- Rehabilitation etc.

The Maithri project which has introduced complaint cell "SANNIHTHA" has been functioning under the charge of an inspector of police of the respective police station limits. Hyderabad city police personal call "Dial 100" system has brought several advantages. Apart from it, "RAKSHAK" police patrolling vehicles have been stationed at strategic points. Crime stopper cells are introduced in 1998. Traffic Monitors are introduced to regulate traffic. The reception counters are established in all the police stations. Citizen charters are introduced to bring police and people together.⁸

The Andhra Pradesh Government conducted a survey in Feb 2003, in which it is observed that the Adilabad District Police was the least corrupt and least partisan towards the public in the Andhra Pradesh.

On 14th July, 2004 during his Hyderabad visit Hon'ble president of India Dr. A.P.J. Abdul Kalam has appreciated the efforts of the Adilabad community policing "Meekosam" (police for you) experiment by Mr. Mahesh M. Bhagwat, I.P.S. for preventing extremism.

Adilabad in North Telangana with 46% forest cover and 20% Scheduled Tribe population was badly hit by the left wing extremism until recently. The people's war group currently known as CPI (Maoist) was having control of the district and making it inaccessible, especially the remote villages to the police. The district was facing extreme poverty and was one of the most backward in the country. The people in the area used to feel that the government was uninterested in their progress, becoming antagonistic towards the government.

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The Andhra Pradesh government tried to tackle the issue on two fronts with mission of fighting the crime and not the criminals. Firstly through backward area development and rehabilitation of the surrendered Maoist, and secondly taking stern action against the law breakers. Reforms were introduced by the police and the police tried to project its human face while discharging their duties.

In 2001, the Adilabad police conducted gram sabhas [village meetings] in rural areas, mainly in extremist affected villages. Over 1000 Gramasabhas [interaction with villagers] were conducted which were attended by approximately 1.25 lakh people. In the gram sabhas, the police gave emphatic listening to the rural people and identified the problem by the consulting them. The problem mainly discussed were: poor medicare, lack of proper supply of drinking water, irrigation, lack of roads and electricity in the remote areas.

Based on the feedback at gram sabhas, the police and other departments concerned launched **"Police Meekosam"** [police for you].

- Under "police Meekosam" [police for you] banner, over 110 free medical camps were conducted in the villages, mostly in inaccessible tribal villages. Over 1 lac villages were estimated to have been covered by the camps. There were also eye camps, which resulted in the cataract operations of over 1300 near blind persons. Ten youth, including 6 small children of both area got new life because the police organized costly heart surgeries for them.
- The police conducted watershed development program and executed desiltation works in many irrigation and drinking water tanks across the district.
- Many villages were connected with power supply such as in Dedra, Koutegaon, and Chorpaly villages.
- Bus services were started in the left wing extremism affected villages of Agarguda from Bejjur. The villagers had seen an RTC bus plying on this route for the first time.
- The police organized mass marriage for 106 Gond tribal youth couples at a function at 'lchoda' after several months of negotiations.

- "PARIVARTANA SADASSU" programs [removel of attendance sheet of extremist and sympathizers] the police released from incarceration the fringe extremist and militants. In order to win them over, 1000 militants and sympathizers of the people's war group were freed from their mandatory reporting to the police station.
- The tribal youths were taken on trips to Hyderabad and nearby places under the "VIGYAAN VIHARA YATRAS" [excursion tours].
 These excursions helped the youth to see the world outside their own and imbibe new ideas for their community.
- 27 tribal organizations were brought under one umbrella called 'Adivasi Mahasabha' by the police.

In year 2004, police Meekosam (police for you) experiment got an International recognition through the finalist award in community policing & special honor in homeland security category in International Association of Chief of Police (IACP) annual conference at Los Angeles USA, held from 13th to 17th, November 2004.⁹

Project Aasara

Project Aasara was launched by Nalgonda district police. Aasara means "shelter or support". Through project Aasara, law enforcement officials of Nalgonda district in the state partnered with government and Nongovernment sources including the Red Cross, to tackle the crime and rehabilitate "sex workers". Through Aasara, women are counseled, provided job training and AIDS education, and their children are eligible to attend a special school. This project has helped the women in prostitution to overcome the social stigma of being a former sex worker and reintegrate into the society. This community policing initiative won global recognization from International Association of Chief of Police [IACP] USA in 2006 Boston, USA. In March 2005, the Jeedimetla police station, in Hyberabad Commissionorate, has become the first ever police station in the country to be conferred with the International standards' for quality management system certificate:ISO 9001:2000.

Conclusion

The community policing is being widely applied by law enforcing agencies all over the Andhra Pradesh. It helped in bringing transparency

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in the functioning of police and created awareness among the people. In a free and democratic society, citizens are supposed to have a say in how they are governed. Police is required to be responsive as well as accountable. It leads to the controlling and the curbing of the crime and criminals in the state.

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Women in Policing: A Productive Proposition to Controlling Women Trafficking in Odisha

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Keywords

Trafficking, Methodological Triangulation, Eufunction, Women Policing.

Abstract

Human trafficking is the trade in human beings. It is the cruelest brutality against women and the nastiest violation of their human rights by commodificating and commercializing them largely for sex. Legal efforts made so far at the global, national and local level are not completely fruitful to arrest the menace. This paper developed on the basis of the author's doctoral research on "The Job Challenges and Coping Strategies of Women" Police in Odisha" with the application of Methodological Triangulation and interpretation of Gender Theories puts forward the skill augmentation of women police to control it. The need of the hour is to prioritize psychological and social responsibility aspect of women police's training, escalating their induction into and ensuring their retention in policing and reducing strangle hold of tradition towards them. This will be eufunctional for the society. the idea developed by Marion Levy in his functionalist theory. The paper hints at the concept of trafficking, magnitude of women trafficking, legal provisions made to control it and capacitating women police as a suggestive weapon to control the threat.

Introduction

RAFFICKING in human beings is one of the bitterest experiences witnessed in the humankind at present, violating all known canons of human rights and dignity. In this form of heartbreaking and complex human abuse, women and girls form a particularly vulnerable class, the majority of whom are trafficked for the purpose of

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sexual exploitation. Irrefutable is the fact that trafficking in women, an obscene affront to their self-esteem and rights is a gross commodification and commercialization of the innocent human lives, indulged in by the organized criminals. Moreover, very often, it is equated with prostitution. All of this is further compounded by an apathetic attitude of society fueled by the masculine mindset which views women as meager chattels. While, on the one side, the situation is disquieting and disturbing, the response by agencies concerned, on the other side, is equally disturbing for want of sensitivity, responsiveness and commitment. The *modus operandi* the traffickers use are: befriending, boyfriending, promise of job, money and marriage; adoption, blackmailing, use of force or persuading husbands to use force. Arresting the problem is the foremost concern of the hour.

In the National Conference for Women in Police, Dehradun, Uttarnchal, 27th to 29th, July, 2005, the then iconic president of India A.P.J. Abdul Kalam recited a poem composed by Mahakabi (great poet) Subramaniya Bharati, envisioning women of India in 1910. According to him the dream of the poet for emerging women aptly suits the police women in the country. The essence of the poem suggests that women are the mother of the race and the liaisons between generations (Mohanty and Mohanty, 2010). So women police should be empowered and energized as per the condition to tackle trafficking in women.

Literature Review

One of the essential preliminary tasks for the researcher is to go through the existing literature in order to be acquainted with the existing body of knowledge in the area of interest and to find the research gap. The literatures available on this aspect of women policing have been discussed thematically below:

Pro-Women Police Arguments

Positive arguments for women police mean the advantages drawn from the involvement of women in policing. The National Center for Women & Policing (2001) suggested that the increased involvement of women in policing improves police response to crimes committed by and against women. Women police show more concern, patience and understanding and less likely to use third degree against and show misconduct towards the victims than their male counterparts (Homant & Kennedy, 1985). The Center stressed that their communication

skills leads to a service-oriented style of policing. Their presence in policing reduces sex discrimination and harassment and aids in implementation of community policing. Singh (2005) views that the protection of women is a crying need of the hour. For preserving the dignity of women criminals or under-trails during arrest and remand, police women must be present. All these in brief are pro women police arguments.

Women Police as Agents of Social Control

Women police as agents of social control refers to the role played by them in maintaining law and order. They can prevent violent situations, communicate with citizens, and their crime preventing attitudes prove to be more effective than police men's muscle-power (Bell, 1982). The first police woman employed in the Dutch police in 1911, looked into sexual offences and the increasing number of prostitutes (Hazenberg and Ormiston, 1995). Women police bring with them a culture of reformation that comes from feelings of care and sensitivity (Hunt, 1990). In Andhra Pradesh, India, woman police force acts as an instrument of social change to raise the status of women in society (Shamim, 1991). A majority of women police in Orissa have also taken up their jobs with an altruistic motive (Pattanaik, 1996).

Scope of the Paper

This paper is an outcome of the doctoral research completed by the author on "Job Challenges and Coping Strategies of Women Police in Orissa-A Sociological Study in the Twin Cities of Cuttack and Bhubaneswar". The problem has been cracked into with the use of Methodological Triangulation and gender theories. This paper attempts conceptualising human trafficking; the magnitude of trafficking in women and legal steps designed globally, nationally and locally to arrest the menace and the need to bridge the gap in women policing to prevent the problem and protect women.

Conceptual Framework

Trafficking is the trade in something that should not be traded in for various social, economic or political reasons. It takes place in different forms like drug trafficking, arms trafficking, human trafficking etc. The concept of human trafficking refers to the criminal practice of exploiting human beings by commoditizing them for return. It is the

unlawful recruitment, transportation, transfer, harbouring, or receipt of persons by means of coercion, kidnapping, abduction, fraud, deception or abuse of power of position of vulnerability in human beings for the purposes of money-making, sexual exploitation or reproductive slavery, forced labor, or a modern-day form of slavery. In early treaties, trafficking was often tantamount with the trade in women for prostitution.

The Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children presents the first international consensus definition of the problem. The Protocol defines "trafficking in persons" as "The recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, prostitution of women or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, servitude or the removal of organs." As the concept suggests trafficking mostly refers to trafficking in women and young girls.

Methodology

The study has used exploratory-cum-descriptive research design. The population covers women police in Odisha and the study population covers those working in the twin city Cuttack-Bhubaneswar. The study employs both census and sampling methods. Census method has been used to study those police women such as Deputy Superintendents of Police (DSP), Inspectors and Assistant Sub Inspectors (ASI) whose number in the population is arbitrarily less i.e. (08), to satisfy the research objectives from their stand point. Proportionate stratified random sampling has been used to select samples from Sub-Inspectors (SI) and Constables because their number is higher in the population. Both primary and secondary data have been collected for the study. The study has used triangulation method i.e. combining qualitative and quantitative paradigms to interpret primary data for hitting at the bull's eye of the research objectives. Under the qualitative paradigm techniques such as observation

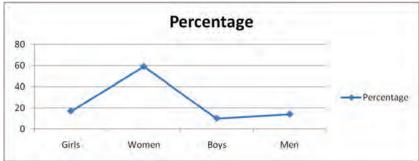
and Focused Group Discussion (through Ten Seed Technique) have been used. Tools used under the method are ten black colour seeds and pink colour velvet handkerchief. Under the quantitative paradigm the tool and technique used are interview schedule and interviewing. The study has used Methodological, Investigator and Social Environmental Triangulation to bring completeness, abductive inspiration and confirmation. The method has been used to cross check data collected through interviewing, by observation and FGD in the benefit of doubt to increase the reliability and validity of the findings. Social Environmental Triangulation is a new type which the study suggests to social science researches. The key informants contacted are the Director General of Police (DGP), Odisha, Ex-Director General of Crime Branch, Odisha and the Commissioner of Police, Commissionerate Police, Cuttack-Bhubaneswar.

Secondary data have been collected from Reserve Police Offices, Odisha State Police Head Quarter and Crime Branch and Deputy Commissioner of Police Offices. The other sources include The Indian Police Journals; Indian Police Academy Journal; White Papers of Ministry of Home Affairs, Government of Odisha; Compendium of Proceedings and Souvenir of the 4th National Conference for Women in Police. The findings of the study have been interpreted in terms of Functionalistic theory of Stratification, Radical Feminism, Marist Feminism, Cultural Feminism and Human Bio-grammar Theory of gender.

The Magnitude of Trafficking

Trafficking in women is prevalent not only in some particular pockets of the globe but is found in all the nook and corners of the humanity. So the paper discusses the extent of the problem in global, Indian and in the context of Odisha. In 2008, the United Nations estimated nearly 2.5 million people trafficked, the most of whom were women. They were trafficked from 127 different countries into 137 countries around the world. NGOs estimate that this problem affects 20 to 65 million Indians. The Global Report on Trafficking in Persons, 2012 reveals that those who are trafficked are largely women which is depicted in the following graph.

Graph 1 Victims of Trafficking



Source: The Global Report on Trafficking in Persons, 2012

As the above table shows, the victims of trafficking are generally women and children i.e. 59+17=76% of the victims of trafficking are women and girls. India is a destination for women and girls from Nepal and Bangladesh, trafficked for the purpose of commercial sexual exploitation. Indian women are trafficked to Thailand, Kenya, South Africa and Middle East countries like Bahrin, Dubai, Oman, Britain, South Korea and Philippines for commercial sexual exploitation. They are mostly trafficked from Dindigal, Madurai, Tiruchirapalli, and Chengalpattu in TamilNadu; Gaya, Kishanganj, Patna, Katihar, Purnea, Araria and Madhubani in Bihar; Murshidabad and 24 Parganas in West Bengal; Maharajgunj in UP; Dholpur, Alwar, Tonk in Rajasthan and Mangalore, Gulbarga and Raichur in Karnataka.

As per the 2001 Census, 49.07% of the total population of Odisha was women. According to Government statistics, the crime graph against women has also registered a sharp increase. These include dowry, murders, widow-burning, rape, wife-beating, sex-determination tests, devdasi system, prostitution, increasing desertion etc. As per the Crime Branch Police, Government of Orissa, overall reported cases of violence against women in Orissa have increased by139 per cent, from 1,999 cases in the year 1990 to 4,774 cases in the year 2000. The total cases of violence against women have also shown positive annual growth rate. The annual growing figure of crime against women (from 1990 to 2000) is presented in the following table.

Table 1: Reported Cases of Violence against Women in Odisha

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Rape	250	309	326	405	422	562	617	683	796	816	<i>7</i> 53
Molestation	912	944	902	1064	1123	1238	1281	1363	1418	1555	1661
Eveteasing	-	-	106	131	150	140	169	176	194	183	154
Kidnapping Abduction	295	299	252	314	295	325	468	405	446	429	358
Dowry suicide	60	<i>7</i> 1	49	45	43	39	37	54	55	30	41
Dowry homicide	80	98	155	187	65	314	354	324	387	382	448
Dowry torture	176	214	252	376	488	565	710	727	901	875	889
Non-dowry	215	183	168	207	302	377	405	413	499	445	452
Immoral trafficking	11	9	12	8	13	24	16	11	11	26	18
Total	1999	2127	2222	2737	3101	3584	4057	4156	4707	4741	774

Source: Orissa Human Development Report, 2004

Crimes against women agricultural labourers by armed *goondas* of landlords and gang rapes of tribal and dalit women are being used as weapons in the hands of dominant class and caste forces with connivance of the local leaders. In fact, many of these crimes are committed by the guardians of law and order. A statistical picture of crimes of all types against women in Odisha from 2000-2010 is presented in the following table:

Table 2: Incidence & Rate of Crime Committed against Women during 2001-2010

Year	Incidence			of Total ble Crime	Percentage Contributing to All-India Total	Rank as per Rate of total cognizable crime	Rank as per percent-age share
	Orissa	All India	Orissa	All India	Orissa	Orissa	Orissa
2001	5357	1,43,795	14.6	14.0	3.7	14	11
2002	4779	1,43,034	12.8	14.1	3.2	17	14
2003	4946	1,40,601	13.1	13.2	3.5	14	13
2004	5239	1,54,333	13.7	14,2	3.4	13	13
2005	6249	1,55,553	16.1	14.1	4.0	11	10
2006	6825	1,64,765	17.4	14.7	4.1	11	09
2007	7304	1,85,312	18.4	16.3	3.9	12	11
2008	8303	1,95,856	20.7	17.0	4.2	10	09
2009	8120	2,03,804	20.1	17.4	4.0	12	09
2010	8501	2,13,585	20.8	18.0	4.0	10	10

Source: Crime Statistics 2001-2010, Table-5.1, NCRB, New Delhi.

Odisha is also vulnerable so far as trafficking in women and girls is concerned. Data available with the home department state that as many as 3,578 trafficked women, mostly minor and young girls, remained untraced between 2000 and 2005. Of them, 1,418 were minor girls (12 to 14 years old), 1,342 young girls (21 to 30 years old) and 818 married women. The districts, most affected by trafficking in women are: Balasore, Malkangiri, Nayagarh, Kendrapara, Nabarangpur, Nuapada, Koraput, Rayagada, Ganjam and Puri (Trafficking in India 2004, Shakti Vahini). The House Committee on Women and Child Welfare (1999-2000) of the Orissa Assembly formally acknowledged that immoral trafficking of girls by brokers or agencies, on the pretext of providing employment as well as arranging marriage has been rampant in the Kalahandi, Balangir, Mayurbhanj and Balasore districts.

More or less 26 districts of the state are affected and cases have been reported of trafficking in women, especially for commercial sex work, to varying degree, depending upon the socio-political, cultural, ethnic, economical and other factors causing vulnerability to different communities and groups. The trafficking affected districts of Odisha are presented in the following table:

Table 3: Trafficking Affected Districts in Odisha

Trafficking Affected Districts in Odisha									
Sl. No.	No. Districts Sl. No. Districts		Districts	Sl. No.	Districts				
1.	Kalahandi	10.	Rayagada	19.	Angul				
2.	Balangir	11.	Ganjam	20.	Jharsuguda				
3.	Mayurbhanj	12.	Puri	21.	Nayagarh				
4.	Baleshwar	13.	Cuttack	22.	Dhenkanal				
5.	Malkangiri	14.	Jajapur	23.	Gajapati				
6.	Kendrapara	15.	Khordha	24.	Kendujhar				
7.	Nabarangpur	16.	Bhadrak	25.	Kandhamal				
8.	Nuapada	1 <i>7</i> .	Jagatsinghpur	26.	Baudh				
9.	Koraput	18.	Keonjhar						

Source: Shakti Vahini, UNDP, TAHA Project.

The trafficking of women from Odisha, is mostly taking place to the states of Uttar Pradesh (Brothels, coerced marriages, brick kilns), Madhya Pradesh (coerced marriages, brick kilns), Punjab (coerced marriages, bonded labour in agriculture and domestic maids), Haryana (coerced marriages, bonded labour in agriculture, stone quarries, brick kilns),

Chattisgarh (coerced marriages, brick kilns), Andhra Brick Kilns, Chillyfarms, Goa (sex work), Tamil Nadu (Sex work and paedophilic abuse) and metropolises of Mumbai, Delhi or Calcutta (Brothels and domestic services) (Trafficking in India 2004-Shakti Vahini). So the women of Odisha are being trafficked to different states mainly for the purpose of coerced marriage, labour supply and sex work.

Legal Efforts to Arrest the Menace

The Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children was adopted by the United Nations in Palermo, Italy in 2000. It is the first global, legally binding instrument on trafficking in over half a century. The purposes of the protocol are: a) to facilitate convergence in national co-operation in investigating and prosecuting trafficking in persons and b) to protect and assist the victims of trafficking in persons with full respect for their human rights. The '3P Anti-trafficking Policy Index' measures the effectiveness of government policies to fight human trafficking based on an evaluation of policy requirements prescribed by the Protocol using a five-point scale, where a score of five indicates the best policy practice, while score 1 is the worst. This scale is used to analyze the main three anti-trafficking policy areas: (i) Prosecuting (criminalizing) traffickers, (ii) Protecting victims, and (iii) Preventing human trafficking. Each subindex of prosecution, protection and prevention is aggregated to the overall index with an unweighted sum, with the overall index ranging from a score of 3 (worst) to 15 (best). It is available for up to 177 countries over the 2000-2009 period (on an annual basis).

The United Nation's Global Initiative to Fight Human Trafficking (UN. GIFT), launched in March 2007 by UNODC was conceived to promote the global fight on human trafficking, on, the basis of international agreements reached at the UN. It is managed in cooperation with the International Labour Organization (ILO); the International Organization for Migration (IOM); the UN Children's Fund (UNICEF); the Office of the High Commissioner for Human Rights (OHCHR) and the Organization for Security and Co-operation in Europe (OSCE).

Further UNODC efforts to motivate action, launched the Blue Heart Campaign Against Human Trafficking on March 6, 2009. The campaign encourages people to show solidarity with human trafficking victims by wearing the blue heart. On November 4,2010, U.N. Secretary-General Ban Ki-moon launched the United Nations Voluntary Trust

Fund for Victims of Trafficking in Persons to provide humanitarian, legal and financial aid to victims of human trafficking.

The Government of India prohibits some forms of trafficking for commercial sexual exploitation through the Immoral Trafficking Prevention Act (ITPA). Prescribed penalties under the ITPA range from seven years' to life imprisonment. Indian authorities use Sections 366(A) and 372 of the Indian Penal Code, prohibiting kidnapping and selling minors into prostitution respectively, to arrest traffickers. Penalties under these provisions are a maximum of ten years' imprisonment and a fine. India's Central Bureau of Investigation has also incorporated anti-trafficking training into its standard curriculum. The Indian Constitution, the supreme law of the land prohibits all forms of trafficking under Article 23. The Suppression of the Immoral Traffic Act, 1956 has also been enacted to control the trafficking.

Alarmed at the growing incidence of trafficking in women and children in Odisha, the state government has come out with a special policy to address the issue. The policy provides for psychological support, economic empowerment and reintegration of the victims to ensure that the rescued victims of trafficking do not get drawn into the trade again due to non-availability of other options for livelihood. The policy stipulates formation of Integrated Anti-Human Trafficking Units (IAHTs) at five different places like Bhubaneswar, Cuttack, Rourkela, Berhampur and Sambalpur. While commissioner of police would ensure the setting up of AHTUs in Bhubaneswar and Cuttack, the range inspector general (IG) of police offices at three other locations would have such units. Each unit would be headed by a Deputy Superintendent of Police (DSP) rank officer while one inspector, two assistant inspectors and six constables would be part of the unit. These units would look into trafficking of women and children in their respective regions and there would be a provision of one crore rupees corpus fund per annum for the rehabilitation of rescued women and children. The policy also deals with prevention of trafficking, intelligence sharing, rescue, rehabilitation, economic empowerment, health care, education, housing, legal reforms and creation of a corpus for addressing the problem. While chief secretary will be heading the State Level Committee to check women trafficking, the districts collectors would get instant support to deal with the problem. Other departments like Labour and Panchayati Raj would also help the police and the WCD department to ensure that women trafficking come to an end in the state.

Skill Enhancement of Women Police to Control the Menace

In spite of such laws implemented at the global, national and local level to control trafficking, the menace is still on rise. Thus the situation needs rejuvenating women police to address the issue. Women are delicate, meek, emotional, empathetic, considerate, patient, tolerant, gentle and affectionate. So they can humanize the police by transforming it from police force to police service. This premise is encapsulated in the slogan "Sisterhood is Powerful" which gained currency in the American feminist movement of the 1960s (Dash, 2010).

The women lawyers tend to become lawyers to women clients. Similarly, the most vital positive argument concerning women in police found in this study is that the deviance involving women and children can be best addressed by women police. Marion Levy in his functional analysis defines the term eufunction to refer to positive or favourable consequences which contribute to the maintenance and survival of the social system and dysfunctions to mean negative or unfavourable consequences that contribute to the system's disintegration and change (Levy, 1952). Thus the role of women police towards women as discovered in this study are the eufunctions for the police system and the society. This role also involves treating trafficked women and the prevention of the menace.

Women are not preferred for policing and military due to male domination in these organizations. Thus all over the world women had to struggle hard to make a breakthrough into police. But in the due course there arose recognition of their value in dealing with important cases relating to women and children. The United States first inducted women as Police Matrons with custodial duties in the New York City of America in 1845, first time in the world. Grate Britain first introduced women into policing in 1907 to record statements and interrogates female victims of sexual assault for the London Criminal Intelligence Division. Then other countries introduced women into their police systems i.e. Australia, 1915; Poland, 1925, India, 1938; New Zealand, 1942; Japan, 1946; Singapore, 1949; Indonesia, 1951; Guyana, 1953; Nigeria, 1955; Sweden, 1957; Israel &Malaysia, 1960; France, 1969 and West Germany in 1993 (Vishnoi, 1999 and Ghosh, 1981).

The need for women police was felt for the first time in India to handle a labour strike in Kanpur in 1938 (Government of Uttar Pradesh, 1962) in which women labourers laid down at the entrance of the factory

for obstructing the entry of the non- willing workers. The male police were faced with a delicate situation of lifting the women workers physically off the ground. To face any such eventuality in future, police women were appointed in Kanpur for the first time in India in 1939 (Rao, 1975; Ghosh, 1981; Mahajan, 1982). In addition to the above immediate reason, the realization of the need to have women in the police force in India can be attributed to four distant conditions which emerged during the national struggle for Independence and post-Independence period. a) For providing security to the prime minister from the daily approach of women with grief and distress due to communal frenzy and need with the Ministry of Relief and Rehabilitation to recover abducted women during the partition (Bhardwaj, 1976), b) To counter the objections of the national leaders against handling women participating in satyagrahas by police men during the national struggle for independence and handling women involved in political agitations, bundhs, strikes, linguistic and communal riots in many states immediately after Independence (Rao, 1975). c) To successfully implement the laws like Children Act. Suppression of Immoral Traffic in Women and Girls Act (SITWGA) to deal with the weaker sections of society, including women and children in the post-Independence years and d) the weak economic conditions of the girls for employment, women's search for employment, attempt for women's emancipation and increasing involvement of women victims and accused in delinquency and crime (Bhanot and Misra, 1978) made the government and the police administrators realize the need to have women in the police force, to deal with the new situation.

After Uttar Pradesh, other Indian states appointed women police such as Maharashtra & Kerala in 1939; Gujarat, Punjab & Delhi, 1948; West Bengal, 1949; Andhra Pradesh, 1950; Bihar, 1952; Rajasthan, 1955; Madhya Pradesh, 1956; Karnataka, 1960; Manipur & Orissa, 1961; Jammu & Kashmiri, 1965; Himachal Pradesh & Haryana, 1966; Assam, 1967; Nagaland, 1968; Tamil Nadu, 1973; Chandigarh, 1977 (Ghosh, 1981) and though women have also been induced to the police systems of some other state/UTs such as Pondicherry, Tripura, Uttar Pradesh, Meghalaya and Goa the data on the years of their induction are not available. Women entered into Odisha Police in 1961 only in the rank of Sub Inspector and their number was two. At present, Odisha is the second highest at 6.55% state in India after 9.98% in Tamil Nadu so far as the number of women in its police organization is concerned. The present number of women in Odisha police (Civil) in different ranks as

on 21.05.2011 is 3281 (Orissa Police State Headquarters, 2011) and in the Commissionerate of Cuttack-Bhubaneswar is 367 (Reserve Offices, Cuttack and Bhubaneswar, 2010). Now they are present in all police ranks except elite police positions in Odisha. The present presence of the mentioned number of women in Odisha police (Civil) in different ranks as on 21.05.2011 is presented in the following table.

Table 4: Total Strength of Odisha Civil Police (Men and Women)
Rank Wise

SI. No	Ranks	Sanctioned Strength (M/F)	Actual Total Strength (M/F)	Actual Strength (M)	Actual Strength (F)					
	Civil Police									
01	DG & IG	01	01	01	00					
02	Addl. DGP	06	03	03	00					
03	IGP	18	13	13	00					
04	DIGP	17	10	08	02					
05	AIGP	01	02	02	00					
06	SP/Commdt.	50	32	26	06					
07	DC/Addl. SP	04	00	00	00					
08	CDR	41	22	17	05					
09	SDR	25	02	02	00					
10	TR	03	00	00	00					
11	Addl. SP (OPS Sr. Branch)	35	28	28	00					
12	Jr. Scale of IPS	16	06	06	00					
13	Dy. SP	366	262	254	08					
14	Inspector & Equivalent	933	703	628	<i>7</i> 5					
15	SI & Equivalent	2663	1973	1665	308					
16	ASI & Equivalent	4549	3946	3862	84					
17	Head Constable	2934	2591	2587	04					
18	Lance Naik	333	274	274	00					
19	Constables	21160	19097	16308	2789					
	Total	33155	28956	25684	3281					

Source: Data furnished by Orissa Police State Headquarters Cuttack, as on 21.05.2011, vide. Letter No. 26101.

The above table shows a gendered representation of women in policing in terms of their rank and number in comparison to policemen. Though the percentage of women population in Odisha is approximately half of the total population of the state and the crime against women is in an ascending state, the number of women police is much less than the number of police men. The reason behind such a state is the stranglehold of tradition, job-family imbalance, masculine police culture, round the clock accountability, male dominance in policing and lack of proper promotional facilities. All these are also gendered reasons. Stranglehold of tradition is the most potent factor in this respect. The existing number of women in Odisha police due to the mentioned reasons is the worst example of regendering gender, an addition of fuel to the fire. But the role of women police towards the protection of women from trafficking and subsequent sex trade is worth mentioning. So some necessary steps ought to be undertaken to enhance their skill and number and to change the present stranglehold of tradition towards them to arrest the problem of trafficking in women in Odisha

As the present study finds maximum of the women police are comfortable in dealing with cases involving women. As per their view, women (victim or accused) can be best handled by women police because women and children are sensitive to soft approaches. Women police can properly counsel them by their affectionate behavior that the police men can't do, so easily. Keeping this in view, five Women's Police Stations in Odisha-one each in Cuttack, Bhubaneswar, Berhampur, Rourkela and Sambalpur were set up to help women trafficking, rape, domestic violence, dowry victims and child related cases (Mohanty and Mohanty, 2010). More over all our 537 police stations have established their Mahila and Sisu Desks (MSDs) to facilitate integrated approach towards crime against women and children, commencing with 40 Police stations on experimental basis vide Odisha Police PO No 301/ dated 15.3.2005 (Mohanty, 2011). The role of the desk is to provide women and child friendly services to improve their status. So women police can play special roles in cases of atrocities against women such as trafficking in them and crimes in which women are involved.

Specialized Physical & Psychological Training

But still trafficking in women is not being arrested up to expectation due to certain reasons. One such reason is that the training given to women police in Odisha is not appropriate to control the trafficking in women. All of them are given basic and physical training during their entry as physical efficiency and skill are primary needs for police personnel to control law and order violation. As a result specialized, psychological and social responsibility aspects of training needed to control trafficking get back seat. Basic training includes classes in investigative techniques, laws, defensive tactics, driving pursuit, first aid, writing reports and physical training. Physical training includes drill, parade, games and sports, training in lathi charges, handling weapons, self defence and fire arms. Psychological training covers training in intelligence collection, personality development, counseling and negotiation. Training in social responsibility, patrol and traffic control, field visit, investigation, project assignments, personal search, escorting women convicts, performing *mela* (fair) and procession duties, interrogation of women suspects, VIP duty, etc. Specialized training allows officers to specialize in certain areas that they find interesting, such as homicide or fraud investigation, gang intelligence, accident reconstruction or hostage negotiation. This training is usually required for officers to be promoted or to join speciality units, like a bomb squad or Special Weapons and Tactics (SWAT) team. As most priority is poured on physical aspect of training, the psychological, social responsibility and specialized training needed to control trafficking in women are not given adequate attention, and thus trafficking in women is following an ascending trend in spite of the same trend in the recruitment of women police.

Women victim of trafficking need more counseling than application of force for treatment. This situation needs the inculcation of right attitude, ethics and social responsibilities in women police through training. Training in mediation, counseling and communication skill can improve the condition a lot also. This can be made possible by giving emphasis to the psychological, social responsibility and specialized aspects of training at par with physical training given to the woman police. The situation also needs the involvement of women police in maintaining all the necessary procedures to implement laws on trafficking and there is need to establish a special unit of police, headed and staffed by women police only to control trafficking.

Another effective step is to increase the number of women in police organization. Policing is traditionally a male's domain. Women are generally perceived to be unfit for the job by male members in the selection board as per their views. They are physically less competent than men but the selection process of policing gives more emphasis to the physical fitness and the application for a police job needs some physical conditions in terms of height and chest as binding. This creates obstacles for women to enter the policing in large numbers. So there is need for clear job description and recruitment strategy/policy for induction of women in police (Bhattacharya, 2010). As the study reveals, to avoid these obstacles the preconditions are the presence of at least one woman in the selection board, making the physical test qualifying for women and relaxed physical criteria for women in terms of height.

Reduction of trafficking in women also needs the rethink of the attitude of the society towards women police. Traditionally policing was viewed as a masculine pursuit, involving strength, action and danger. Police are corrupt, harassing, foul and in league with the criminals (Srivastava, 1972, Sharma, 1977). Thus the society does not accept women in policing because our people think it shameful for women to be soldiers or police officers. The majority of people in our society is conservative and thinks that police work is not for women because it contradicts age old perception of feminine modesty. As the study reveals the reasons behind this are: women police deal with the anti-social elements of society, they are to be with either criminals or their male counterparts at odd hours and their male counterparts as well as the criminals have also no such remarkable degree of respect and fear towards them, respectively. In the face of such unfair attitude, they are still continuing in the profession due to their economic needs and they are feeling empowered for working as police officers. For these two factors they are becoming insensitive towards the odd attitude of society towards them and are continuing in the service. But they are not interested towards the profession from within which is also a potent factor for the growth of women trafficking. This unfair attitude of society towards them can be addressed through creating awareness among the people through media about the need of women police in the present day society.

Conclusion and Suggestions

Trafficking, a world as well as nationwide phenomena, also prevails in all most all the districts of Odisha. The laws made in Odisha have proved insufficient to tackle the situation. So using women police, as the study discovers with the use of methodological triangulation, to arrest the situation is one of the most potent ways in terms of the functionalist approach. But some lacuna like gaps in training, stranglehold of tradition, less number, etc. stand as barriers to this. So for controlling trafficking in women there is a need to lay due emphasis on the psychological, social responsibility and specialized aspects of training. The need to generate a healthy attitude of the society towards women police through media is also a brilliant suggestion for induction into, and retention of more and more women into police organization which is a constructive step to control trafficking in women.

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Perception of Parent-Child Relationship between Delinquents and Non-Delinquents

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Keywords

Delinquency, Parent-Child relationship.

Abstract

The aim of the present research was to study the perception of the parent-child relationship between the delinquents and non-delinquents. The data were collected from 200 adolescents (100 delinquents and 100 non-delinquents) aged between 13-15 years. Parent-Child Relationship (PCR) Scale developed by Nalini Rao (1989) was used. In context of PCR, the perception attitude of delinquents toward father were Rejection and Indifferent, whereas non-delinquent perceived their father as Demanding and gave Symbolic and Object Reward. Next the perception attitude of delinquents toward mother as Rejection and Indifferent and non-delinquents perceived their mother as Protective, Demanding and gave Symbolic Punishment, Symbolic and Object Reward. Counseling services should be provided to parents and parent they should spend quality time with their children that may be helpful for improving relationship between adolescents and parents.

Introduction

HE term 'parent-child relationship' connotes a more mutual, dynamic, interactive process that describes the process of mechanisms of influence. The relationship consists of a combination of behaviors, feelings and expectations that are unique to a particular parent and a particular child. Parents or guardians act as informal agents, agent of control, and when a break down in a family occurs children are more apt to involve in antisocial behavior. The

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earlier the start of delinquency, the worse the offender becomes. The family can contribute to the delinquency of the child in a number of ways - familial characteristics suggesting familial antisocial behavior or values such as family history of criminal behavior, harsh parental discipline and family conflict have been among the most consistently linked. They also contribute through the way they discipline the child and through the way they interact with each other. "Delinquency according to Coleman (1981) refers to behavior of youths under 18 years of age which is not acceptable to society and it generally regarded as calling for some kind of admonishment, punishment or corrective actions." Delinquent acts are learned and acquired. No child is born delinguent nor is delinguent behavior the product of the genes. Thus, delinquent behavior is a reaction to, or resentment against the prevailing social and environmental conditions. A normal healthy development of any individual starts at home. It is the home, the family that constitutes the backbone of any human being. During childhood, the family constitutes the basic ecology in which the child's behavior is manifested by way of positive or negative reinforcement (Dishion & Patterson, 2006).

Literature Review

Many research studies have emphasized the importance of the child's relationship with the parent in decreasing the likelihood of delinquency (Bachman, 1970; Bandura & Walters, 1959; Glueck & Glueck, 1962; Gold, 1963; Hirschi, 1969). In delinquency; studies have focused on single or both parents instead of differentiating between the sexes of the parent. Loeber and Stouthamer – Loeber (1986) point out "little is known regarding the effects of father as father as parents, it is important to understand the behavior of mother and father separate impact on the children."

Mak (1996) studied differences in perceptions of parental attitudes and behaviors throughout childhood among 103 pair (63 male and 40 female) of delinquents and their matched controls. Male delinquents perceived both parents to be less caring and more protective than did non-delinquents and the female delinquents perceived their parents as overprotective. Simons, Simons, Chen, Brody& Lin (2007) show that children who are provided with adequate parental supervision are less likely to engage in criminal activity, while children from dysfunctional family settings such as conflict, inadequate parental

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control and premature autonomy are more closely associated with juvenile delinquency, hostility and rejection as well as low child involvement are the most salient predictors of behavioral problems and delinquency.

Children, the most precious asset of any nation, deserve the best care that mankind can offer. Consequently, the children are deprived of primary needs—love, affection, care, feeling of security and comfort. The denial of these basic needs leads to maladjustment and results in their becoming hostile and rebellious. Thus delinquent behavior is a reaction to, or resentment against the prevailing social and environmental conditions. Parents need to recognize the continued importance of their relationship with their children. Children need to feel that their parents are engaged and supportive of them. Thus, the objective of the present study was to evaluate the parent-child relationship of delinquents and non-delinquents.

METHOD

Sample

The sample consisted of 200 respondents. Of these 100 male delinquents and 100 male non-delinquents were selected for the study and their age ranged between 13-15 years. The delinquents were selected from remand homes situated in Gwalior and Bhopal where as non-delinquents were selected from various schools of Bhopal.

Tools used

Parent-Child Relationship Scale (PCRS): This scale was developed by Nalini Rao. It consists of 100 items adapted from the Roe-siegalman parent-child relationship questionnaire. It has ten dimensions viz., Protecting, Symbolic Punishment, Rejection, Object Punishment, Demanding, Indifferent, Symbolic Reward, Loving, Object Reward, Neglecting. The subjects were asked to rate statement as their own perception of their relationship with father and mother on the five point scale ranging from always, many times, sometimes, rarely, very rarely weighted 5, 4, 3, 2, 1.Short-term test retest reliability is in the .70s and .80s and long term is in the .50s and .60s. Factor analysis was used to establish construct validity and 12 replications of the original procedure have confirmed the validity of the 14 personality characteristics.

Procedure

The subjects were briefed about the purpose of the study in detail. Each respondent scored the tool for both mother and father separately. Respondents were asked to read each statement carefully and think how well it described the behavior of their father's and mother's towards them. They were assured that all information would be kept confidential.

Table 1: Means, Standard Deviations and t-values of scores on PCRS-Father

S.	Variables	Delinquents		Non-De	linquents	t- values
No.		Mean	Standard	Mean	Standard	
			Deviation		Deviation	
1.	PROTECTION (Father)	20.09	7.75	37.28	6.93	.006
2.	SYMBOLIC PUNISHMENT (Father)	20.99	4.52	29.88	4.20	.471
3.	REJECTION (Father)	33.89	8.14	22.67	6.47	2.576*
4.	OBJECT PUNISHMENT (Father)	23.40	5.28	24.73	5.44	.422
5.	DEMANDING (Father)	20.50	5.84	30.22	4.81	2.502*
6.	INDIFFERENT (Father)	40.27	8.00	22.30	5.35	7.935**
7.	SYMBOLIC REWARD (Father)	17.39	8.68	37.25	7.14	5.94*
8.	LOVE (Father)	17.45	8.21	36.90	7.47	.725
9.	OBJECT REWARD (Father)	21.14	8.10	35.65	5.49	6.590**
10.	NEGLECT (Father)	36.97	7.61	22.96	6.90	.032

^{**}P < .01 : * P < .05

Results and Discussion

The Table 1 revealed that the two groups viz. delinquents and non –delinquents significantly differed on the dimensions such as Rejection, Demanding, Indifferent, Symbolic and Object Reward towards their father.

On factor 'Rejection', the mean value of delinquents (M=33.89) towards fathers was higher than non-delinquents (M=22.67). The result clearly indicated that the delinquents perceived their father rejecting them than the non-delinquents. Wright and Wright (1994), studied Children who are rejected by their parents, who grow up in homes with considerable conflict, or who are inadequately supervised are at the greatest risk of becoming delinquent.

On factor 'Demanding', the mean value of non-delinquents towards father (M = 30.02) was higher than delinquents (M = 20.50). Thus, the

non-delinquents perceived that their fathers were more demanding than their counterparts. The findings reported here Bandura and Walters (1959), Glueck and Glueck (1950) and McCord, McCord, and Howard (1961) found that higher demands were made by the parents of the least hostile or delinquent children.

In regard to factor 'Indifferent', the mean values of delinquents (M=40.27) was higher than the non-delinquents (M=22.30). Delinquents perceived their father as more indifferent as compared to non-delinquents. These result indicated that fathers have little emotional involvement with their kids, offer little or no supervision, have few or no expectation or demand for behaviors and show little warmth, love and affection toward their children, and it tends to exhibit more delinquency during adolescence. Stern, Northman and Van Slyck (1984) suggests that the father has a stabilizing effect and his presence may act as a deterrent in the problem areas studied. They found that males whose fathers were absent had the highest rate of any group studied. They concluded that this data fails to reflect the true significance of the father and his role in transmitting values and being a role model.

On factor 'Symbolic Reward', the mean value of non-delinquents (M = 37.25) was higher than delinquents (M = 17.39). On factor 'Object Reward', the mean values was high for non-delinquents from father (M = 35.65) as compared to delinquents (M = 21.14). Non-delinquents perceived that their fathers provided more Symbolic and Object Rewards as compared to the delinguents. This indicated that non-delinguents perceived as obedient. They had better academic achievement than delinguents. This gave satisfaction to the parents who lead them to give object and symbolic reward to them but delinquents bring more challenging and risk taking, there are possibilities of indulging in antisocial acts. There are some evidences that social reinforcement used for a typical cases will be most beneficial when either varied within itself or combined with other rewards. Johnson (1976) results underlined the effectiveness of a combination social reinforces. While testing he comparative responsiveness to social reinforcement of delinquents, she also measured improvements attributable to money versus social rewards. In five out of her six experiments, delinquents were found to be equally responsive to money but not as responsive to social contingencies, in comparison with the non-delinquents. This reminded

the same whether the reinforcement was delivered by an adult or by a peer. Delinquents were also poorer at discriminating between approval and disapproval. However in the one experiment which varied the social reinforcement, delinquents and non-delinquents responded identically, showing significant gains.

Table 2: Means, Standard Deviations and t-values of scores on PCRS-Mother

S.	Variables	Delinquents		Non – De	linquents	t – values
No.		М	SD	М	SD	
1	PROTECTION (mother)	21.29	9.32	40.80	4.88	23.457**
2	SYMBOLIC PUNISHMENT (mother)	21.02	5.79	28.47	4.20	3.740*
3	REJECTION (mother)	33.02	8.22	20.72	5.98	11.751**
4	OBJECT PUNISHMENT (mother)	21.89	5.96	22.42	5.23	.106
5	DEMANDING (mother)	20.19	6.37	27.98	5.37	2.531*
6	INDIFFERENT (mother)	37.21	6.64	23.42	4.74	3.440*
7	SYMBOLIC REWARD (mother)	18.44	8.5	39.33	5.63	5.977*
8	LOVE (mother)	18.68	9.14	39.16	7.50	1.134
9	OBJECT REWARD (mother)	23.31	7.91	35.69	5.68	8.907**
10	NEGLECT (mother)	35.12	6.80	20.70	6.67	.290

^{**}P < .01; * P < .05

The Table 2 revealed that the two groups viz. delinquents and non –delinquents significantly differed on the dimensions such as Protection, Symbolic punishment, Rejection, Demanding, Indifferent, Symbolic reward and Object Reward towards mother.

On factor 'Protection', the mean values was high for non-delinquents (M=40.80) than delinquents (M=21.29) towards their mother. The result indicated that non-delinquents perceived their mother as much more as protective than the delinquents. This finding reflected the universal pattern of parental role differentiation in which mothers generally assume the traditional role as the nurturing parent. This might be due to the fact that mothers in our culture are more attached to their children than fathers. While family influences are usually investigated as risk factors for delinquency, it is important also to investigate their effects as protective factors. In the Pitsburg Youth Study, good supervision (compared with average levels) predicted non-delinquency, just as poor supervision (compared with average levels) predicted delinquency (stouthamer-loeber et.al. (1993). In the New Castle Thousand Family study, Kolvin et.al. (1988a) studied high risk boys (from deprived backgrounds) who nevertheless did not

become offenders. The most important protective factors included good maternal care and maternal health for children under age 5 years and good parental supervision at ages 11 years and 15 years.

On factor 'Symbolic Punishment', the mean values was high for non-delinquents (M=28.47) than delinquents (M=21.02) toward mother. The result revealed that non-delinquents perceived that their mothers show temporary annoyance with them as compared to mother of delinquents. This may be attributed to the fact that fathers are not tough as mothers and they very often do not make use of any kind of punishment as compared to mothers. Haapasalo and Pokelo (1999) reviewed that parental discipline refers to how parents react to a child's behavior. It is clear that harsh or punitive discipline (involving physical punishment) predicts a child delinquency. The proposition that punishment is an extremely ineffective means of controlling human behavior may indeed be a "legend" as Soloman (1964) and Walters, Parke and Cane (1965) suggest. Under conditions prevailing in the home setting, punishment may be quite effective in helping to accomplish particular objectives.

On factor 'Rejection', the mean values was high for delinquents (M=33.02) than non-delinquents (M=20.72). Delinquents perceived that their mothers tend to reject them than the non-delinquents. Due to rejection from their mother, delinquents develop lack of trust, development of rage, low self-esteem, poor decision making, engage in criminal activities and they are more often victims of bullying. Sampson and Laub (1993) found that low maternal supervision, low mother child attachment and higher levels of parental rejection predicted young adults' arrest, once delinquency was controlled; however, family factors had no direct link with young adult crime.

On factor 'Demanding', the mean values was high for non-delinquents (M=27.98) than delinquents (M=20.19). The result revealed that non-delinquents perceived that their mothers expect more from their children because they want their children to be self-dependent and confident in their lives. Rao (1989) studied demanding behavior of the parent which indicates the expression of authority.

On factor 'Indifferent', the mean values was high for delinquents (M=37.21) than non-delinquents (M=23.42). The result indicated that delinquents show expression of unconcerned, apathetic, passive behavior towards their mothers as compared to non-delinquents. Maccoby and Martin (1983) calls this parenting style Indifferent-

Uninvolved. They describe these parents as emotionally detached. Indifferent-uninvolved, or neglectful parents tend to keep their children at a distance, responding to child demands only to make them cease or stop that.

On factor 'Symbolic Reward', the means were high for non-delinquents (M=39.33) than delinquents (M=18.44). The result revealed that non-delinquents perceived that their mothers gave Symbolic Rewards as compared to delinquents. It indicated that during the adolescent period symbolic reward from mother build confidence, increase security, acceptance and motivate children to achieve goal. On factor 'Object Reward', the mean values was high for non-delinquents from mother (M=35.69) as compared to delinquents (M=23.31). The result indicated that the parents of non-delinquents accept the child on the basis of physical, tangible, concrete action of warmth for emotional psychological security of the child. Rao (1989) studied that rewards stimulates, strengthens right impulses and directs the child into desirable channels.

Parent-child relationships of delinquents are far more likely than those of non-delinquents to be characterized by mutual hostility, lack of family cohesiveness, parental rejection, indifference, dissension or apathy. The findings on perception of non-delinquents on PCR indicated that majority of non-delinquents perceived parenting good. It might be because during adolescence parents begin to realize that their kids are no longer children. As a result they give them more privileges, expected more in the way of work and assumption of responsibilities (Hurlock 2000). Researchers have found important personality differences between delinquents and non-delinquents. For instance, Lipsey and Derzon, (1998) compared Delinquents with Non-Delinguents youths who are exposed to more antisocial behavior from siblings, more antisocial attitudes from parents, more family instability, more harsh and more unsupervised time with peers. Pepler and Slaby (1994) have observed the lack of parental supervision as a strong predictor of serious, violent delinquency. Inconsistent parental discipline and harsh physical punishment by parents are also strongly correlated. Compared to non-delinquents, the delinquents frequently complain of unfair and non-objective administration of discipline. This means that socially desirable behaviors, if engaged in, will not be strengthened in the home environment. Physical punishments of slapping, hitting and punching provide a pattern to be modeled when

youngsters are themselves frustrated and disenchanted. Although harsh physical punishment produces some conformity in the children in the short term, it tends to increase the probability of violent delinquency and crime in the long run. Poor parental monitoring, poor discipline and a lack of family cohesion are consistent features in violent families.

The findings suggest that both maternal and paternal parenting should be the target of interventions among the delinquents. It should be fruitful to include father as well in the treatment program, especially designed for delinquent boys. It also suggests that both parents should develop a healthy relationship with their children, which in turn will enhance a healthy development of the adolescent. Wright and Wright (1994) suggest positive parenting practices during the early years and later in adolescence appear to act as buffers preventing delinquent behavior and assisting adolescents involved in such behavior to desist from delinquency.

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Influence of Select Psychosocial Factors on the Occupational Stress and Psychological Well-being among Women Police

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Keywords

Job Attitude, Occupational Stress, Psychological Well-being, Women Police, Work-life Balance.

Abstract

Recent Tamil Nadu police strength particulars denote increasing trend in the recruitment of women police. In view of the fact that, women may play a crucial role in police force in the future it becomes important to attend to their health and well-being. Hence, the present study aimed at exploring the relationship among occupational stress, work-life balance, job attitude, personality factors, and psychological well-being of women constables in Tamil Nadu State, India. The survey was conducted in four metropolitan cities namely Chennai, Chennai suburban, Coimbatore City and Trichy City, nine districts namely Coimbatore, Erode, Trichy, Pudukottai, Tanjore, Tirupur, Tirunelveli, Kanyakumari and Vellore, and five Battalions namely, TSP-I, TSP-II, TSP-III, TSP-IV, and TSP-V. Women police constables serving in various major police units like Tamilnadu Special Battalion, Armed Reserve, Police Stations- All Women Police Stations (AWPS) and local police stations were included in the study. The study was conducted among 1700 policewomen, using correlational research design using survey method. Due to incomplete information, 1570 data were only included for the study. The age of the respondents ranged from 19 years to 46 years with a mean age of 28 years. Their work experience ranged from 10 months to 20 years with an average experience of six years. Data were analyzed using Pearson's correlation and Regression analysis. The results revealed that select psychosocial variables

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such as high Work Interference with Personal Life (WIPL), more number of years in service, unfavorable job attitude, high neuroticism, high Personal life Interference with Work (PLIW), low agreeableness, low extraversion and joint family system significantly accounted for 46 percent of variance in the occupational stress of policewomen. It was also found that low neuroticism, favorable job attitude, low occupational stress, Low Work Interference with Personal Life (WIPL), high Work/Personal Life Enhancement (WPLE), Low Personal Life Interference with Work (PLIW) and high extraversion significantly accounted for 43 percent of variance in the psychological well-being of policewomen. Further, the results revealed that job attitude moderated the relationship between occupational stress and psychological well-being. This study has implications for recruitment and training for policewomen to reduce their occupational stress and to enhance their psychological well-being.

Introduction

N recent decades, Indian society has been undergoing rapid changes due to the increased pace of modernization and globalization. Due to this, access to education and information is no longer a challenge for women in urban India. This has opened up new vistas, increased awareness and has also raised aspirations for their personal growth. This, along with economic pressures, has been instrumental in influencing women's decision to enter the work force (Reddy, Vranda, Ahmed, Nirmala & Siddaramu, 2010). In the Indian context, a lot of women, especially those from the lower middle class, are seeking the job market today because they have to augment the family income (Ramanna & Bombawale, 1984; Reddy et al., 2010; Srivastava, 1978). Women now manage the work both inside the home and outside in place such as, industry, media, IT, politics, technology, administration/ management, armed forces or in civil services. Women have entered almost all occupations on par with men. One such occupation women have entered is the police force.

They have entered the police force in India as early as 1938. They were recruited initially for specific segments of police duty like dealing with matters concerning women and children (Vishnoi, 1999). After realizing their merits, gradually they were involved in general duties at par with men. They perform duties across the board, ranging from crime investigation and protection to public *bandobust* and serving of warrants. The trend of their strength particulars over a decade in the Tamil Nadu police reveals that there is rapid increase in the recruitment

of women police (Statistical Cell, Handbook on Police Department, as on January, 2010). Further, due to 30% reservation policy of Tamil Nadu Government in recruitment of policewomen since 1995, police occupation has been a promising career for young women. Women were preferred in this occupation as they possess inherent personality characteristics like maternal sympathy, instinctively relating with a person in distress, compassionate, human responsiveness, good listening etc (Ali, 2006). Women police have these qualities to a much greater extent than policemen and they were found to be more successful than their male counterparts in investigation of crimes concerning women and children (Krishnamurthy, 1996). The need for women police are increasing with the rise in number of women accused, criminals, and victims of crimes such as rape, kidnapping, sexual harassment, dowry deaths, etc (Ali, 2006).

Literature Overview

A synthesis of women police and well-being literature has revealed few informal survey, and opinion and inquiries relating to the female police officers, their role in law enforcement, and the effects of police work on their lives. However, to investigator's knowledge there have been no noteworthy empirical studies regarding psychological well-being of women police, especially in India. Studies that have had female officers as subjects have either dropped their results from the study or absorbed the data with no special consideration (Geick, 1998). The number and acceptance of women in law enforcement has increased over the years, efforts to recognize and address additional stressors faced by women, have not increased.

Lipp (2009) reported that a greater proportion of females (54%) than males (40%) were found to have stress. This finding is supported by Brown and Fielding (1993) who also reported that women uniformed officers reported higher levels of associated self-perceived stress than their male counterparts. Women reported a significantly greater number of family-related stressors than men. Female officers reported suffering from physical stress indicators like somatisation and health (Gachter, Savage& Torgler, 2009; He, Zhao, Archbold & Travis, 2002; Slate, Johnson& Colbert, 2007). Female officers frequently reported 'Interference with family life' compared to men (Lipp, 2009). McCarty, Garland and Zhao (2007) reported that female officers may experience unique stressors in the police organization. It has been reported that

women police tend to experience additional stress due to gender discrimination, minority status, negative attitude of male co-workers, sexual harassment, and night duties causing discord within the family etc (McCarty et al., 2007; Wexler & Logan, 1983). Due to their job nature, women police find it very difficult to juggle between the demands of their family and work.

These findings show that women police are at increasing risk of suffering the deleterious consequences of stress, which may affect their psychological well-being. In this scenario, it is important to pay attention to the well-being of women police, as they are likely to play a major role in police force in the near future. Since the importance of well-being is very much felt and stress seems to pervade almost all areas of the life of women police, this study attempts to add to the sparse literature by exploring the psychosocial factors related to the occupational stress and psychological well-being of women police.

Correlates of Occupational Stress and Psychological Well-being

In recent years, psychological or subjective well being (SWB) is the focus of intense research attention (Diener & Diener, 1995). World Health Organization defines health as a "state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (World Health Organization, 1948). Psychological well-being resides within the experience of the individual (Campbell, Converse& Rodgers, 1976). It is person's evaluative reaction to his or her life—either in terms of life satisfaction (Cognitive evaluations) or affect (ongoing emotional reaction).

A large body of research is beginning to accumulate documenting an association between police stress and physical, psychological, and job-related strain (Kaufmann, 1981; Kroes, 1976; Webb & Smith, 1980). Stress appears to be an aversive feeling state that can diminish one's well-being. Police work has often been regarded as a stressful occupation; in fact, it has been described as one of the most stressful occupations in the world (Anshel, 2000). It is known to be associated with certain health problems, such as cardiovascular disease and depression, both of which are prevalent in police populations (Brown & Campbell, 1990; Collins & Gibbs, 2003). Nandini and Karunanidhi (1996) found that occupational stress is negatively related to the psychological well-being of women constables. Police officers are

stressed by many things including long working hours, irregular sleep schedules, irregular eating hours, shift-work resulting in the loss of time spent with their families, expectations from society, unpredictable work schedules, lack of reciprocation from public, daily operational hassles, working during holidays and negative attitude of public at large (Collins & Gibbs, 2003; Morash, Haarr & Kwak, 2006; Pasillas, Follette & Perumean-Chaney, 2006).

In addition with the work-related stress, women police experience a lot of stress as they try to meet work demands and in assuming responsibility for household management and child care. Work-family conflict and interrole conflict is studied among police and women population in general. However, work-life balance is a new concept. It is considered as lynchpin for a healthy and well-functioning society (Diane, 2005). Greenhaus and Allen (2006) defined work-family balance as "the extent to which an individual's effectiveness and satisfaction in work and family roles are compatible with the individual's life priorities." The very nature of the police job, forces the police officers to work long hours and also to work during holidays. Women police are more susceptible to suffer from poor work-life balance and may eventually report poor well-being. Work-life balance is important for an individual's psychological well-being, and that high self-esteem, satisfaction and overall sense of harmony in life can be regarded as the markers of a successful balance between work and family roles (Clark, Koch & Hill, 2004; Marks & MacDermid, 1996). Evidence also suggests that the absence of work-family balance, typically defined in terms of elevated work-family conflict, may undermine individual health and well-being (Frone, Russell & Cooper, 1997; Grzywacz & Bass, 2003; Major, Klein & Ehrhart, 2002), and organizational performance (Allen, Herst, Bruck & Sutton, 2000; Kossek & Ozeki, 1998). Accordingly, it has been suggested that work-life imbalance increases stress levels and lowers quality of life (Kofodimos, 1993). Police women may not be able to strike balance between their hectic work schedules and their family lives, especially if they are married and with children. Women police can be called anytime to report to duty, which would interfere with their home chores and responsibilities, especially when they live in nuclear family system without any support and understanding from family members. Under these circumstances, they are under tremendous physical and psychological pressure to cope with the demands of the family as well as their work.

People typically spend a great deal of time at work. Not surprisingly, work experiences are related to a number of important psychological outcomes such as life satisfaction (Feather & O'Brien, 1986) and overall psychological functioning (Dew, Bromet & Penkower, 1992). Job attitude is the feeling the employee has about his job, his readiness to react in one way or another to specific factors related to a job (Gilmer, 1961). Job satisfaction is the most important and frequently studied attitude. Satisfaction on the job reflects important employee attitude towards their job (Spector, 1997), indicating what makes a job enjoyable and a satisfying working environment (Smither, 1994). lob satisfaction is employee reactions toward their work experiences (Berry, 1997), emotional state or reactions toward the job (Gruneberg, 1979; Landy & Conte, 2004), how positive people feel about their jobs, aspects of their jobs (Spector, 1997) and work situations (Wood, Wood & Boyd, 2007). Job satisfaction refers to the feelings and the emotional aspects of the individual's experience towards his job as different from his intellectual or rational aspects.

The experience of satisfaction/dissatisfaction with one's work and various aspects of it is, in large part, the consequences of one's positive or negative job attitude. Thus, job satisfaction is often considered to be an indicator of employee emotional well-being or psychological health leading to indicate behavior that could effect organizational functioning. Policing requires working in dangerous, strenuous, and tense situations; thus, stress associated with these situations has also been found to be an important factor affecting job satisfaction (Burke, 2005). One of the main reasons for studying job satisfaction is undoubtedly the widely held view that whether a person is satisfied or not with their job has consequences on their health and wellbeing (Cox & Mackay 1979; Gardell 1971; Kornhauser 1965; Koen & McDonald, 1982; Shipley, 1979). Job satisfaction has a long and popular history of inclusion in psychological research and especially within occupational stress investigations (Judge & Church, 2000; Locke, 1976). Job satisfaction is often considered to be the most interesting variable in industrial and organizational psychology research (Smither, 1994).

Positive attitude towards one's job may function as a resistance resource in the encounter with stressful events. Police with positive attitude towards job may not perceive daily stressors of police job distressing, but would face it with vigor. Nandini and Karunanidhi (1996) found that women police with favourable attitude towards their job reported better psychological well-being compared to those with unfavourable attitude towards their job. Brough (2005) quotes from the work of Judge and Church (2000) to point out that job satisfaction is another substantial predictor of psychological well-being. Traditionally utilized as a criterion measure, researchers have recently demonstrated that job satisfaction is a significant predictor of psychological well-being and of various other job characteristics (e.g., promotion opportunities, interpersonal relations and supervision; O'Driscoll & Brough, 2003).

Personality cannot be ignored when assessing the stress of the person, as it influences how an individual perceives and reacts to his environment (Larsen & Buss, 2002). Stressful events do not necessarily lead to strain. Rather, the stress process appears to be the product of a complex interplay between potentially stressful events and the psychosocial characteristics of the individual. An individual's personality is an influential force in his or her life. Furthermore, greater work aggravations interact with certain personality variables. Higher negative affectivity (or neuroticism as used by Brough, 2005) is also associated with diminished well-being and satisfaction, and higher work-family conflict. Personality may mediate the relationship between stress and strain. Highly neurotic personality traits have also been linked to a higher experience of stressful situations by many researchers. Neuroticism has also been found to predispose the individuals to have more frequent experiences of negative emotions and distress (Vollrath, 2001). The inclusion of neuroticism in the evaluation of psychological well-being has also received recent attention (Goddard, Patton & Creed, 2004; Oliver & Brough, 2002). Headey & Wearing (1992) also found that enduring personality characteristics, such as neuroticism and extraversion, determine people's daily work experiences, use of coping strategies, and levels of psychological distress and well-being. Extroversion has been positively correlated with subjective wellbeing (Costa & McCrae, 1980), while introversion and neuroticism are associated with increased stress (Fontana & Abouserie, 1993), emotional exhaustion and depersonalisation (Piedmont, 1993).

Most of the existing research on police stress, however, pertains to the male police officers. Moreover, according to McCarty et al., (2007), the female officers experience unique stressors in the police organization.

The migration of women into law enforcement has prompted a call for the development of an increased understanding of this population. Since the importance of well-being is very much felt and stress seems to pervade almost all areas of the life of women police, this study finds out the influence of certain psychosocial variables on psychological well-being of the women police. The current study attempts to add to the sparse literature by examining the police stress and psychological well-being among women constables in Tamil Nadu State, India.

Objectives

To determine the significant predictors of occupational stress of women police amongst the selected psychosocial variables such as work-life balance, job attitude, personality and demographic factors such as age, marital status, type of family, and work experience.

To determine the significant predictors of psychological well-being of women police amongst the selected psychosocial variables such as occupational stress, work-life balance, job attitude, personality and demographic factors such as age, marital status, type of family, and work experience.

To determine the degree of impact of the moderating variables on occupational stress and its influence on the psychological well-being among women police.

METHOD

Sample

The study was conducted among 1700 women police of Tamil Nadu State using multivariate survey research design. Tamil Nadu is the fifth largest State Police Force in India. According to the Handbook on Police Department, Tamil Nadu State, as of January 2010, 87,973 personnel borne on the strength of the Police Force of Tamil Nadu are deployed throughout the State. Further, it was noted that the majority of the women police were employed in Constables rank. Hence, only women constables were chosen as the target population. Random Sampling was adopted to select the sample for the current study. The State was divided into 4 Police Zones - North, Central, West and South. The population consisted of Grade I and II women police constables in 13 battalions, 30 districts and 7 metropolitan cities of Tamil Nadu State (Handbook on Police Department, Tamil Nadu State, as of January 2010).

The representative sample was chosen from this population on the whole. In this regard, Director General of Police, Commissioner of Police and Inspector General of Police-Armed Police in Chennai were approached to obtain permission. Upon their consent for the research, secondary data were collected for research purpose. These data were needed to estimate the sample and to decide upon the study site for the survey. With the help of secondary data details collected from the police administrative offices regarding the strength particulars of women constables, the sample was estimated and sample site was decided. Using lots, four metropolitan cities namely Chennai, Chennai suburban, Coimbatore City and Trichy City, nine districts namely Coimbatore, Erode, Trichy, Pudukottai, Tanjore, Tirupur, Tirunelveli, Kanyakumari and Vellore, and five Battalions namely, TSP-I (Trichy), TSP-II (Avadi), TSP-III (Veerapuram), TSP-IV (Coimbatore) and TSP-V (Avadi) were chosen for the present study. Women constables in various police units like Battalions, Armed Reserve, All Women Police Stations and Local Police Stations were included for the present study. It was ensured that the percentage of estimated sample represented their actual distribution in the population. Time schedule for data collection in each City, Battalion and Districts were prepared after coordinating with respective police officials. On the day of data collection, the research team met group of women police, in a place arranged by the police department. They were also asked for their consent to participate in the survey prior to the distribution of the booklet. Upon the consent of women constables regarding participation in the survey, the questionnaires were administered to the group of women constables and the responses were collected. Out of 1700 women constables. 1570 data were only included for final analysis, due to incomplete information. The personal characteristics of the respondents are given in Table I.

Measures

Occupational stress: The occupational stress inventory was developed uniquely for the present study by Karunanidhi and Chitra (2010). The occupational stress inventory has six dimensions namely, operational hassles, external factors, hazards of occupation, physical working condition, women related stress, and supervisory stress.

Work-life balance: Work-life balance was measured with a 15 item scale adapted from an instrument developed by Hayman (2005).

The work-life balance comprised three dimensions namely, Work Interference with Personal Life (WIPL), Personal Life Interference with Work (PLIW) and Work/Personal Life Enhancement (WPLE). The original scale used the seven point time related scale (e.g., 1 = Not at all, 4 = Sometimes, and 7 = All the time). For the present study, four point time related scale was used. This modification was made for easy comprehension for the women police.

Job Attitude: Job attitude was assessed using the scale developed and standardized by Brayfield and Rothe (1951). For the present study a few modifications were made to the original scale. The following changes were made to improve the clarity of the scale. Four items such as 1, 5, 9 and 10 were deleted and a few items were reworded without changing the actual meaning of the item. The changes made were: The word 'usually' was removed from item 2. Item 3 was reframed from 'It seems that my friends are more interested in their jobs' to 'My friends seem to be more interested in their jobs than I am'. The word 'rather' was removed from item 4. The word 'fairly' was removed from item 7. Lastly, the word 'pretty' was removed from item 16. The item numbers mentioned above were the position of the items in the original scale with 18 items.

Personality: Personality was measured by NEO-FFI Form S by Costa and McCrae (1992). Personality comprised five factors namely, neuroticism, extraversion, openness, conscientiousness, and agreeableness.

Psychological Well-being: General Health Questionnaire (GHQ-12) by Goldberg (1972) was used to measure the psychological well-being of women police.

All the questionnaires were translated to the regional language, Tamil. Content validity was established for the Tamil version with the help of three experts in the field based on their judgment on relevance and ambiguity of the items. Reliability was also established for all the scales.

Demographic Measures: The demographic details were collected in the form of personal data sheet from the respondents. The details included age, experience, type of family, marital status, annual income and education of women police. The variables such as annual income and educational status were used as controlled measures in the analysis, to avoid the intervening effects of the variables in relation to occupational stress and psychological well-being of the women police.

DATA ANALYSIS

The scores of the sample in the present study were normally distributed. Cronbach alpha was done for all the scales used in the study. Multiple regression was applied to identify the significant predictors of occupational stress and the psychological well-being of women police, and to find the moderating effect of job attitude on the psychological well-being. The Variance Inflation Factor (VIF) was used to detect for high collinearity between any variables included for multiple regression analysis. Dimensions of the occupational stress showed high multicollinearity, during the regression analysis for the prediction of psychological well-being. Due to multicollinearity issues, the dimensions of occupational stress were combined as a single variable and included in the regression analysis to find out the predictors of psychological well-being. Further, age was not included in the analysis as high positive relationship was observed between age and experience (r = 0.88). So, experience was included in the regression analysis along with other socio-demographic variables like marital status and type of family. After these changes, there were no multicollinearity issues. Further, socio-demographic variables such as education and annual family income were also included in the regression analysis as control variables.

RESULTS

The percentage analysis of occupational stress and psychological well-being showed that 84 percent women police were found to have low to moderate levels of psychological well-being and moderate to high levels of perceived occupational stress.

Table I shows that respondents age ranged from 19 years to 46 years with a mean age of 28 years. Their experience ranged from 10 months to 20 years with an average experience of six years. Out of 1570 respondents, 787 (50.1%) of them were married, 755 (48.1%) were unmarried and remaining negligible two percentage belonged to the categories like widow/divorcee/remarried. Nearly forty percentage (39.5%) of the respondents who were married had children. Nearly half of the respondents (56.1%) were from nuclear families and 43.9 percent were from joint families. The majority of the sample were Grade II constables (74.1%) and remaining 25.9 percent were Grade I constables. With regard to the job unit, majority of the sample belonged to Armed Reserve (45.3%), followed by 33.4 percent in

Tamil Nadu Special Police, 15.9 percent belonged to All Women Police Stations and remaining 5.4 percent to Local Police Stations. Majority of the respondents belonged to the annual income category of less than 1,50,000/- (79.6%). Sixteen percent of the women constables were postgraduates. Nearly 44 percent of the respondents were undergraduates and remaining 40.1 percent completed their high school.

Table I
Personal Characteristics of the Respondents (N = 1570)

SI. No	Variable	Category	No. of respondents	%
		< = 24 Years	443	28.2%
1	Age	25 – 31 Years	735	46.8%
		> 31 Years	392	25%
		<= 1 Year	401	25.5%
2	Workexperience	1.1 – 9 Years	815	52%
		> 9 Years	354	22.5%
		10 th /Plus2	630	40.1%
3	Education	UG	689	43.9%
		PG	251	16%
		< RS 150000	1249	79.6%
4	4 Annual family income	RS 150000 - RS 300000	307	19.6%
		> RS 300000	14	0.9%
		Married	787	50.1%
		Unmarried	755	48.1%
5	Marital status	Widow	22	1.4%
		Divorcee	4	0.3%
		Remarried	2	0.1%
		Not Applicable	755	48.1%
6	Children	Yes	620	39.5%
		No	195	12.4%
		1	273	44%
7	Number of children	2	322	52%
	cilidicii	3	25	4%
		City	930	59.2%
8	Place of work	Suburban	526	33.5%
		Rural	114	7.3%
9	Grade level	Grade-I	407	25.9%
9	Grade level	Grade-II	1163	74.1%

Sl. No	Variable	Category	No. of respondents	%
		TSP	524	33.4%
10	11.5	AR	<i>7</i> 11	45.3%
	Unit	AWPS	250	15.9%
		LPS	85	5.4%
		Central	207	41.6%
11	7	North	146	29.3%
11	Zone-wise	West	89	17.9%
		South	56	11.2%
	District-wise	Vellore	146	29.4%
		Tanjore	55	11%
		Trichy	70	14.1%
		Pudukottai	82	16.5%
12		Coimbatore	44	8.8%
		Tirupur	19	3.8%
		Erode	26	5.2%
		Kanyakumari	27	5.4%
		Tutucorin	29	5.8%
		Trichy (I)	88	16.8%
		Avadi (II)	35	6.6%
13	Battalion-wise	Veerapuram (III)	91	17.4%
		Coimbatore (IV)	92	17.6%
		Avadi (V)	218	41.6%
		Chennai	270	49.3%
14	Metropolitan city-	Chennai sub-urban	142	25.9%
14	wise	Trichy	42	7.7%
		Coimbatore	94	17.2%

Note. TSP – Tamil Nadu Special Police; AR – Armed Reserve; AWPS – All Women Police Station; LPS – Local Police Station

Table II shows the descriptive statistics and cronbach alpha of all the variables used in the study.

Table II

Descriptive Statistics and Alpha Coefficients of the Variables in the Study (N = 1570)

Sl. No.	Variable	М	SD	Cronbach's α
1	Psychological well-being	22.53	6.83	.85
2	Occupational stress	88.79	35.15	.91
2.1	Operational hassles	11.16	9.17	.89
2.2	External factors	14	6.76	.86
2.3	Hazards of occupation	19.94	6.89	.89
2.4	Physical working condition	13.93	6.04	.85

Sl. No.	Variable	М	SD	Cronbach's α
2.5	Women related stress	18.25	7.17	.88
2.6	Supervisory stress	11.50	6.96	.89
3	Work life balance	23.15	8	.82
3.1	Work Interference with Personal Life (WIPL)	8.47	4.01	.77
3.2	Personal life interference with work (PLIW)	8.47	2.84	.87
3.3	Work/Personal Life Enhancement (WPLE)	6.21	3.47	.79
4	Job attitude	33.25	10.76	.89
5	Personality			
5.1	Neuroticism	22.47	7.48	.71
5.2	Extraversion	28.87	4.95	.70
5.3	Openness	23.54	4.39	.71
5.4	Agreeableness	32.41	5.25	.72
5.5	Conscientiousness	38.99	5.52	.73

Table III-VI shows the regression analysis for the moderator effect of job attitude on the relationship between occupational stress and psychological well-being. Table VI shows the change indicated in the R^2 and its F ratio, which was significant at p < .05 levels. This indicates that job attitude has moderated the relationship between occupational stress and psychological well-being.

Table III

ANOVA for Regression on Psychological Well-being - Model 1

Multiple correlation co-efficient R = 0.531

Co-efficient of determination $R^2 = 0.282$

Source of variation	Sum of squares	df	Mean square	F
Regression	20323.284	2.000	10161.642	
Residual	51839.469	1539.000	33.684	301.677 **
Total	72162.753	1541.000		

^{**}p < .01

Table IV

ANOVA for Regression on Psychological Well-being - Model 2 Multiple Correlation Co-efficient R = 0.533

Co-efficient of Determination $R^2 = 0.284$

Source of variation	Sum of squares	df	Mean square	F
Regression	20489.657	3.000	6829.886	203.285 **
Residual	51673.096	1538.000	33.598	
Total	72162.753	1541.000		

^{**} p<.01

Table V
Regression Co-Efficient of Two Models and 't' Values of the Variables on Psychological Well-being

Model	Predictor variables	Regression coefficient	t value
1.00	Occupational stress	-0.219	9.194**
	Job attitude	0.399	16.748**
	Occupational stress	-0.222	9.31**
2.00	Job attitude	0.407	16.916**
	Interaction (Occupational stress and job attitude))	-0.049	2.225*

^{**} p<.01

Table VI Moderator Effect of Job Attitude on the Relationship between Occupational Stress and Psychological Well-Being

Change Statistics						
R ² change	<i>F</i> change	df1	df2	F change		
0.282	301.677 **	2.000	1539.000	301.677**		
0.002	4.952 *	1.000	1538.000	4.952*		

^{**} p < .01

The Table VII and VIII shows the regression analysis for predictors of occupational stress. The 't' value in the table VIII revealed that 8 out of 14 variables significantly predicted occupational stress at p < .01 levels except for family type which was significant at p < .05 levels. The predictors ranked according to their regression co-efficient were, high Work Interference with Personal Life (WIPL), more number of years in service, unfavourable job attitude, high neuroticism, high Personal life Interference with Work (PLIW), low agreeableness, low extraversion and joint family system. The 't' value in the Table VIII further revealed that the personality dimensions like conscientiousness and openness, work/personal life enhancement dimension of work-life balance did not predict occupational stress of the respondents. Moreover demographic variables such as marital status, education, and annual family income did not predict the occupational stress among women police.

Table VII
ANOVA for Regression on Occupational Stress

Multiple Correlation Co-efficient R = 0.681: Co-efficient of Determination $R^2 = 0.46$

Source of variation	Sum of squares	df	Mean square	F
Regression	886624.20	14.00	63330.30	
Residual	1025087.05	1527.00	671.31	94.34 **
Total	1911711.24	1541.00		

^{**} p<.01

^{*} p < .05

^{*} p < .05

Table VIII
Psychosocial Predictors of Occupational Stress of Women Police

SI. No	Variables	Regression coefficient	t value	Tolerance	VIF
1	Work Interference With Personal Life (WIPL)	0.38	16.43 **	0.67	1.50
2	Job experience	0.30	12.32 **	0.61	1.63
3	Job attitude	0.19	7.10 **	0.48	2.08
4	Neuroticism	0.12	5.22 **	0.64	1.56
5	Personal life interference with work (PLIW)	0.12	5.14 **	0.68	1.46
6	Agreeableness	0.08	3.90 **	0.83	1.20
7	Extraversion	0.07	3.30 **	0.86	1.17
8	Family type	0.05	2.61 *	0.93	1.07
9	Conscientiousness	0.04	1.79 NS	0.69	1.46
10	Marital status	0.04	1.44 NS	0.61	1.65
11	Education	0.03	1.59 NS	0.94	1.07
12	Openness	0.03	1.69 NS	0.97	1.03
13	Work/Personal Life Enhancement (WPLE)	0.03	1.44 NS	0.64	1.56
14	Annual family income	0.00	0.03 NS	0.98	1.02

Note. VIF - Variation Inflation Factor

NS - Not Significant

Table IX and X indicate the regression analysis for predictors of psychological well-being. The 't' value in the Table X revealed that 7 out of 15 variables significantly predicted psychological well-being at.01 level except for extraversion which was significant at.05 level. The predictors ranked according to their regression co-efficient were low neuroticism, favourable job attitude, low occupational stress, Low Work Interference with Personal Life (WIPL), high Work/Personal Life Enhancement (WPLE), Low Personal Life Interference with Work (PLIW) and high extraversion. The 't' value further revealed that the personality dimensions like openness, conscientiousness and agreeableness did not predict psychological well-being of the respondents. Moreover, none of the demographic variables (experience, family type, experience, annual family income, and education) included in the analysis contributed to the psychological well-being of women police.

^{**} *p* < .01

^{*} p < .05

Table IX ANOVA for Regression on Psychological Well-being

Multiple Correlation Co-efficient R = 0.658Co-efficient of Determination $R^2 = 0.43$

Source of variation	Sum of squares	df	Mean square	F
Regression	31203.59	15.00	2080.24	
Residual	40959.16	1526.00	26.84	77.50 **
Total	72162.75	1541.00		

Table X
Psychosocial Predictors of Psychological well-being of Women Police

Sl. No.	Variables	Regression co-efficient	t value	Tolerance	VIF
1	Neuroticism	0.35	14.23**	0.63	1.59
2	Job attitude	0.14	4.98**	0.47	2.15
3	Occupational stress	0.12	4.37**	0.54	1.87
4	Work Interference With Personal Life (WIPL)	0.08	3.15**	0.57	1.77
5	Work/Personal Life Enhancement (WPLE)	0.08	4.43**	0.64	1.57
6	Personal Life Interference with Work (PLIW)	0.08	3.30**	0.67	1.49
7	Extraversion	0.05	2.28*	0.85	1.18
8	Conscientiousness	0.04	1.83NS	0.69	1.46
9	Annual family income	0.04	1.91NS	0.98	1.02
10	Education	0.03	1.39NS	0.94	1.07
11	Agreeableness	0.03	1.40NS	0.82	1.22
12	Openness	0.02	1.12NS	0.97	1.03
13	Family type	0.01	0.50NS	0.93	1.08
14	Marital status	0.01	0.56NS	0.61	1.65
15	Experience	0.00	0.09NS	0.56	1.80

Note. VIF - Variation Inflation Factor

NS - Not Significant

DISCUSSION

The study attempted to find out the predictors of occupational stress and psychological well-being of women police. Since both occupational stress and psychological well-being are important criterion variables investigated in the context of law enforcement, an attempt was made to find their psycho-social predictors. Moreover, the moderators of psychological well-being is worthy of investigation for the purpose

^{**} p < .01

^{*} p<.05

of prevention of psychological distress among women police. The moderation of job attitude was tested by regression analysis. It was found that job attitude has moderated the relationship between occupational stress and psychological well-being. This finding is supported by previous studies (Nandini & Karunanidhi, 1996; White & Marino, 1983). This finding was also supported by Schaubroeck, Riolli, Peng & Spain (2011), who found in his study that army soldiers fighting in Iraq who were able to maintain a positive outlook in the midst of trauma were less likely to suffer from depression and anxiety. This demonstrates that the negative impact of occupational stress on psychological well-being of women police is buffered by their favorable attitude towards their job. It reveals that attitude they hold determines the impact of occupational stress on psychological well-being of women police.

Multiple regression was carried out to find out the significant predictors of occupational stress and psychological well-being of women police. Nearly half of the variance (46 %) in occupational stress was explained by the variables chosen for regression analysis. The significant predictors of occupational stress of women police ranked according to their regression co-efficient were: high Work Interference with Personal Life (WIPL), more number of years in service, unfavorable job attitude, high neuroticism, high Personal Life Interference with Work (PLIW), low agreeableness, low extraversion, and joint family system of living. However, personality characteristics like conscientiousness and openness; work/personal life enhancement dimension of work-life balance; demographic factors like marital status and control variables like their annual family income and education qualification did not significantly contribute to the perceived occupational stress of women police.

The regression analysis for predictors of psychological well-being, indicated that predictors of the occupational stress were not the same for psychological well-being. The results regarding the significant predictors of psychological well-being shows that out of the 15 variables chosen, 7 variables accounted for 43 percent of variance in the psychological well-being of women police. The significant predictors of psychological well-being of women police ranked according to their regression co-efficient were low neuroticism, favorable job attitude, low occupational stress, low Work Interference with Personal Life (WIPL), high Work/Personal Life Enhancement (WPLE), low

Personal Life Interference with Work (PLIW) and high extraversion. However, personality dimensions like openness, conscientiousness and agreeableness and socio-demographic variables (work experience, marital status, number of children and type of family) as well as the control variables like annual family income and education did not contribute to the psychological well-being of women police.

The finding about influence of work experience on occupational stress is confirmed by many previous studies (Gachter et al, 2009; Jensen, 2009; Lambert, Hogan, Camp & Ventura, 2006; Madu & Poodhun, 2006). This indicates that women police who are working for long periods would more likely experience high occupational stress. However, work experience did not influence their psychological wellbeing. This may be attributed to the fact that as women police become more experienced in the job over a period of time, they would have developed better coping strategy and mastery over job duties which would have buffered their psychological well-being. Further, the results revealed that women police who live in joint families tend to perceive high levels of occupational stress compared to those from nuclear families. Although joint family is considered as a better family system, where one can get support and share one's duties and responsibilities, in the case of women police, they experienced high levels of occupational stress. This may be because they are experiencing more inter-personal conflict, unfavorable attitude and less support from their own family members.

The present finding concerning occupational stress as significant predictor of psychological well-being was similar to other research findings (Biggam, Power, MacDonald, Carcary & Moodie, 1997; Brough, 2005; Liberman et al., 2002; Nandini & Karunanidhi, 1996; Pasillas et al., 2006). This indicates that women police experiencing high levels of occupational stress would more likely have poor psychological well-being and develop minor psychological distress. This finding is apparent as women police are exposed to routine stressors as a result of their occupation like working continuously without break, working during holidays, facing conflicts with public, dealing with various demanding situations, shift work, which would have negative impact on their well-being.

The present finding regarding the influencing role of work-life balance in occupational stress and psychological well-being was confirmed by various other research findings involving occupational stress (Gachter et al, 2009; Griffin, 2006; Kofodimos, 1993) and psychological well-being (Diane, 2005; Hughes & Parkes, 2007). This finding reveals that women police with low levels of work-life balance would more likely perceive high levels of occupational stress and have poor psychological well-being. This can be explained by the fact that women police experiencing interference with work and personal life cannot spend quality time with family members, are not be able to concentrate in the job due to family commitments and are unable to take care of their health needs too. This might cause role overload and role conflict in women police, subsequently resulting in more occupational stress. Moreover, they have to work in shift system causing disturbances in their sleep rhythms, face pressure to work in holidays which subsequently would conflict with their personal life. Due to these imbalances in time sharing between work and family, they may have poor psychological well-being. However, Work/Personal Life Enhancement did not contribute to the occupational stress, and a possible explanation for this is that this is a positive dimension of work-life balance and measures positive emotions, which could be more related to psychological well-being rather than occupational stress.

The finding that women police with unfavorable job attitude would more likely experience perceived occupational stress is supported by previous studies (Nandini & Karunanidhi, 1996; Ortega, Brenner & Leather, 2007; Taylor & Bennel, 2006). Apart from moderating effect of job attitude, it was also found that, it had direct positive influence on the psychological well-being of women police. This finding is supported by many previous studies (Heller, Judge & Watson, 2002; Judge & Church, 2000; O'Driscoll & Brough, 2003). Women police may have unfavorable job attitude due to lack of interest in their job and because of choosing this career due to family situation and poor financial status. Further, the positive attitude of women police towards their job in their initial career period would have shifted to unfavorable attitude due to negative organizational and work experiences they confront during their tenure. As a result, they might not be satisfied with their job and eventually perceive distress in every aspects of their job they are exposed, resulting in their poor mental health. Attitudes make a person to think, feel and behave in a particular way. Women police with positive job attitude would experience positive emotions, think constructively and behave appropriately to any job situation

and this would further enhance their psychological well-being. On the other hand, women police with unfavorable job attitude would see any given situation negatively, express negative emotions and think pessimistically about their job outcomes, eventually resulting in poor psychological well-being. This study produced results which corroborates the findings of a great deal of the previous work in this field. This finding would pave way for the police organization to approach behavior scientists/psychologists to devise strategy to address attitude of women police to improve well-being of police women.

The finding that women police with personality characteristics such as high neuroticism, low agreeableness, and low extraversion will more likely experience high occupational stress is supported by many previous studies (Fontana & Abouserie, 1993; Jenson, 2009; Penley & Tomaka, 2002). Similarly, the finding that women police with certain personality characteristics like high neuroticism and low extraversion will more likely have poor psychological well-being is supported by many previous findings (DeNeve & Cooper, 1998; Goddard et al., 2004; Headey & Wearing, 1992; Ospazuk, 2006).

People with the personality characteristic of neuroticism easily experience unpleasant emotions such as anxiety, anger, or depression. As they tend to view stimuli as threat, they eventually perceive stress when they encounter various day-to-day challenging situations in police job. This would in turn affect their psychological well-being too. With regard to extraversion trait, women police who are extraverts tend to seek stimulation and the company of others, are sociable and energetic. In times of stress, women police who are extraverted better cope with that stress by seeking others company and talking out their problems. On the other hand, women police who are introverts, tend to be shy, guiet and keep the problems to themselves and are eventually stressed out. Moreover, extraversion relates to social capability, ambition, energy, enthusiasm, dominance and positive affectivity (Watson & Clark, 1997). Individuals who are high in extraversion are more physically and verbally active and are more friendly and outgoing than most people and also experience positive emotions (Costa & McCrae, 1992). As a result, they tend to enjoy better psychological well-being.

Openness personality characteristic did not contribute to occupational stress and psychological well-being of women police.

Studies in the literature consistently did not show any association between openness trait of personality and the stress levels and also with psychological well-being (DeNeve & Cooper, 1998; Ospazuk, 2006). DeNeve and Cooper (1998) noted that "Openness to Experience is a 'double-edged sword' that predisposes individuals to feel both the good and the bad more deeply" rendering its directional influence on affective reactions like subjective well-being or job satisfaction unclear.

As far as agreeableness trait is concerned, it is considered to be a more adaptive trait, especially in a disciplinary force like policing. The people who are high in agreeableness are sympathetic, helpful, trusting, cooperative and friendly. As such, women police with these traits eventually would have less interpersonal issues and tend to deal with situations and public amicably, thereby experiencing less occupational stress. However, it did not contribute to the psychological well-being of women police. Agreeableness was actually proposed to have instrumental effects on Subjective Well-being (SWB) by facilitating more positive experiences in interpersonal relationship and in social situations (McCrae &Costa, 1992). However, women police constables in the present study, perform their in isolation most of the time and do not have opportunity for much interaction with their co-workers. This could be the reason for why agreeableness personality characteristic did not contribute to the psychological well-being of women police.

Conscientiousness personality characteristic did not contribute both to the occupational stress and psychological well-being of women police. Conscientiousness people are generally cautious, dependable, organized, and responsible, though, when taken to an extreme, they may also be workaholics, perfectionists, and compulsive in their behavior. However, women constables in the present study have no control over their duty and are expected only to obey the orders of their superiors. Moreover, they cannot do any planning and due to the job nature. Due to these reasons, conscientiousness may not be instrumental in facilitating achievement of tasks. Moreover, this personality characteristic is more studied in relation to police performance (Sanders, 2007), rather than occupational stress and psychological well-being.

With regard to future research, it is recommended to use the path model to find any mediating and moderating effects of the variables in the

study on occupational stress and psychological well-being. Moreover, longitudinal designs should be considered in the investigation of the causality. Gender differences in the prediction of occupational stress and well-being could be studied, to find out the influence of gender. More moderators of psychological well-being in addition to job attitude can be explored in the future studies.

This study contributes to an understanding of the role of work-life balance and personality characteristics in the investigation of the occupational stress and psychological well-being of women police. When considering the practical implications disclosed in the study, some conclusions and recommendations can be made in support of the research. It can be concluded that women police experience poor mental health due to stress manifest in their occupation. Further, job attitude and work-life balance were found to have profound positive influence on psychological well-being of women police. Women police with certain personality characteristics such as high neuroticism and low extraversion were found to have high levels of the perceived occupational stress and poor psychological well-being. Women with personality characteristic of low agreeableness were found to have high perceived occupational stress.

This study had implications for interventions in the form of stress-management programs, training for building positive attitude towards job and enactment of work-life balance policies by the organization. The finding of the study that that 84 percent of women police found to have low to moderate levels of psychological well-being and moderate to high levels of perceived occupational stress, calls for immediate attention to address occupational stress and to improve the psychological well-being of women police. Since, it is not practical and realistic to put a full stop to all the stressors impinging on women constables, it is recommended to improve the strength and skills of women police, to thrive in this kind of stressful occupation. Such kind of training program which would improve resilience of women police is important to prevent women constables from developing psychological disorders and distress.

Moreover, the study has implication for using personality test during the recruitment of women constables, for screening individuals with high neuroticism, as this personality characteristic has been found to have a profound negative influence on their well-being. Based on the

moderating effect of job attitude, the study has suggestions to police department to recruit women police with passion for their job. All this would minimize the risk of work stress among women constables and positively influence their mental health. The present study's results underscore the need to improve the resilience on the part of women police and to reevaluate police training of recruits at the police academy to ensure that they get the training necessary to meet the daily challenges and demands of police work.

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Forensic Data Recovery Unearthing Lost DNA Evidence in a Homicide Case- A Case Study

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Keywords

Forensic Examination, DNA, Biological Sample Data Recovery, Digital Forensic, Information Forensic.

Abstract

Forensic examination of DNA is performed in varying biological samples. Specialized equipment and software are used for doing the analysis and the results are stored in DNA database files. Such files are generally maintained in Windows system or Macintosh system utilizing the relevant software application. In a situation wherein the data is lost due to accidental deletion or a system crash as the case may be, digital forensic/information forensic investigator may be called upon to recover the data forensically. This paper focuses on the method of recovering the unavailable files which are otherwise inaccessible. Existing digital forensics tools were used to extract the information and this attempt of recovering was done utilizing the programmatic interface to the underlying database. The possibility and limitation of obtaining the data via the programmatic interface is reviewed, and identifies the productive strategies in recovering the lost data (accidental/system crash). Moreover this method can be applied to recover any lost confidential data.

Introduction

ICROSOFT windows provides infrastructure to store the database and user interface to allow users to create files, programs and records. The files are created, accessed or modified and they are indexed in a single database. Each file is

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associated with metadata such as the path, timestamp, content specific metadata and other file attributes. Forensic examination of DNA databases are generally maintained in windows system utilizing the relevant software application. In a situation wherein the data is lost due to either accidental deletion or a system crash, forensic data recovery becomes inevitable. Digital forensic process needs to be called upon in order to facilitate forensic data recovery. This paper discusses two aspects of recovering the lost data from a DNA database that may assist forensic data recovery.

- Whether there is an opportunity to obtain a lost information about database files that are otherwise inaccessible due to the accidental deletion or system crash?
- The effectiveness of recovering options for individual cases and likely outcome in the terms of the forensic value?

The results discussed here were obtained using the Windows 7, and the extracting forensic tool was Encase V6.6.

This paper is organized as follows: Section 2 describes about the brief history of the case; Section 3 describes about prior work, related tools and sources of documentation; Section 4 describes the prospects of the database recovery and effective strategy for such a recovery and elicits the practical example of recovery of lost data; and the paper is concluded in section 5.

Brief History

In a homicide case that hinged on the DNA evidence, the crime lab was unable to locate the original digital files stored in the DNA data base analysis results. The evidence was very essential since the homicide involved sexual abuse followed by assault and killing of an innocent child. The clinching evidence was missing, thereby hindering the investigation of the homicide case. The crime lab generally uses an appropriate method to examine the DNA from biological samples and results of the Scan were stored in an application software: "Genoscan" exclusively for storing the evidence of DNA Scan information. The database files has unique file format. The platform on which this software was loaded was windows XP. The system crashed rendering the database/system inaccessible. The crucial evidence about the homicide could not be accessed.

Prior Work

Documentation

In general when files are accidentally deleted/system crash, varying genres of data recovery tools are used to retrieve the information. Both open source and proprietary tools are used to recover deleted/ lost data. Casey(20 I 0) refers to an incident where in an algorithm is developed to perform a customized search on an unique format of files containing the data associated with DNA analysis. "wdsCarve" (20 11) is a standalone tool developed by Howard Chivers which runs on windows Vista and Windows 7, capable of extracting other database records also known as record carving through the extensible storage engine(ESE)(2007) Application Interface (AP I). A guideline (1999) to approach such types of recovery of evidence provides wealth of information from the forensic perspective. Also, scattered information regarding the data recovery of evidence and each of them which are unique in nature are documented online.

Background and Terminology

Each and every database uses its application interface through which the interface retrieves the data by a way of indexing the records in the database. Each database might have several records in a file and the output of the record may be saved as an individual file. Windows uses New Technology File System (NTFS). This file system takes care of allocation of space to the files and folders. In order to facilitate this. it stores information about the files and folders in a table "Master File Table" (MFT). MFT stores the files attributes of files and folders including the filename attribute, standard information attributes such as name of the file, timestamp of the files (created, modified, accessed) and other file characteristics such as full path, size, physical location and the like. One of the primary functions of the master file table is to keep track of the files and the folders using these attributes. Moreover, Microsoft windows, allows third party software applications to store database files and keeps track of these files using indexing. In general, database uses log files to record ongoing changes to the files being updated. The data stored may be in the form of record or a separate file. When a file is saved for the first time in windows, files metadata information is also stored to the keep track of changes/ modification made to it. If a database file is copied/moved from one volume to another volume, the information about the migration of the file is also stored along with other attributes mentioned above. Whenever a data is deleted, the file is sent to the recycle bin which is also another folder to store the deleted data. If a user wishes to retrieve the accidentally deleted data, it is still recoverable from the recycle bin. However, if the data is emptied from the recycle bin, the data is unrecoverable under normal condition. File system forensics process could be used to recover the files and folders by traversing the directory structure, and individual records from a database could be recovered by data carving tools by indexing. Even if the index entry for that file is lost, the content of file is still available in the unallocated space of the hard disk. During a system crash, the Operating system doesn't boot the rendering access to normal files as well as the database files and other files that reside inside. It becomes an arduous task to recover such data from the computer systems that don't work anymore. In such cases, specialized software applications are required to retrieve the data.

About the GeneScan Analysis Software

Genescan (1998) analysis software is used to analyse the DNA fragments isolated from biological samples. It is used to analyze the data that is collected by the ABI Prism Genetic analyzer to size and quantitate DNA Fragments automatically, depending upon the run conditions, resolution sufficient enough to differentiate between the fragments can be achieved. Electropherograms show fluorescence intensity as a function of fragment size or migration time. Each electropherogram represents a single injection. The data provides presize, sizing and quantitative information. The data can be exported to the downstream application such as a Genotyper software. GeneScan analysis software extracts the sample data from the gel files and writes it to the database. The contents of the gel file are not saved to the database. Files can be written to and read from BioLIMS database. The BioLIMS database provides a relational database for the storage and retrieval of DNA fragment. BioLIMS resides on either Oracle and Sybase SQL server.

Data extraction tools

The conventional attempts to recover the data could not be done since the existing system from which the DNA database was to be recovered became dysfunctional. As noted above, Encase V6.6 was used to extract the lost/missing data. It was loaded on to a workstation with Windows Operating system. Encase is a globally accepted proprietary software which requires a license (standard/law enforcement). Moreover, it also requires a dongle (which is having the Security key) without which the software application cannot function. This tool has data extraction facilities that can be done in a forensically sound manner.

Forensic Data Recovery

Planning and Preparatio9n

Planning

Successful implementation in forensic data recovery process involves the policies and procedures, proper equipment, infrastructure, staff, training and experience. It is customary to use a standard operating procedure to perform a forensic analysis on the storage medium like a hard disk. Initial assessment of operating system of the type of recovery to be made has to be ascertained. Additionally, information about the database application such the file extension, file structure, storage format, etc. needs to be ascertained. Moreover, information about the type of hard disk on which the database information is stored have to be gathered. This is essential because each hard disk has different controllers and interfaces in order to facilitate the connectivity. These include Integrated Device Electronics (IDE), SATA, Small Computer System Interface (SCSI), Serial Attached SCSI (SAS), Zero Insertion Force (ZIF) and LIF. In order to access the hard disks, the corresponding cables are required. In this specific scenario, the storage medium was found to be a hard disk with SCSI interface.





Figure 2: IDE and SATA Hard Dilds



Figure 1: IDE Hard Dild

Figure 3: SCSI Hard Dild

Preparation

Computer forensics procedures (2004) can be distilled into three major components:

- Make a digital copy of the original evidence. Investigators make a copy of the evidence and work with the copy to reduce the possibility of inadvertently altering the original evidence.
- Authenticate that the copy of the evidence. Investigators must verify the copy of the evidence is exactly the same as the original.
- Analyze the digital copy. The specific procedures performed in an investigation are determined by the specific circumstances under which the investigation is occurring.

While performing a forensic copy, a bridge which is called a write blocker needs to be used in order to ensure, there is no alteration of data. While performing the imaging process, (i.e.) evidence integrity can be verified using and algorithm either message digest version 5 (M05) or Secure Hashing Algorithm (SHA).

Another way is to forensically preview the original disk using software write-blockers. In both the cases the corresponding cables, convertors and forensic workstation and the like have to be available in order to facilitate the examination.

After creating a forensic copy, the imaged hard disk is generally by utilizing the forensic tools. They include:

- Encase by Guidance Software Commercial
- Forensic Toolkit by Access Data Commercial
- SMART By ASR Data Commercial
- Autopsy and Sleuthkit Open Source tools

This is by no means a comprehensive list of – all tools but most commonly encountered tools.

Productive Strategy in Forensic Data Recover

In this scenario, the database records were available but they were inaccessible due to the system crash. The computer system having

the particular database (GENOSCAN) was running on a windows XP system. The storage medium, that is the hard disk drive was dismounted from the central processing unit was found to be SCSI type. The corresponding interfaces were connected through appropriate cables, that were available in the lab stock. Imaging process was done and the forensic image was examined after duly verifying the integrity. The most important factor in that needs to be considered is that the hard disk in which the data recovery is performed has to be accessible via the write blocker. If it is found inaccessible, then it is not possible to view and recover the information in it.

Carving Strategy

The information obtained during the initial assessment about the API for the database and its file structure information was used to perform a GREP search. GREP means "Globally search for the Regular Expression and Print." This tool comes from the Unix domain and is powerful for constructing searches. It allows to conduct extremely focused or broad searching utility as the situation warrants. The GREP command utility is also available in Encase and the same was used to locate the concerned application interface file structure that was used to store the DNA database. Keyword search is vet another option in the Encase software. The output of the keywords will fetch all the instances/occurrence of the keyword list that is sought. Both these search utility were used. Having known the application associated with the DNA database file, the file that contained the clinching evidence was retrieved. In this case each scan information is stored in the form of a graphical representation that shows the results of the scan and the same is stored in the form image file with an extension ".gta". In this scenario, since the there was no fragmentation of the files, the data recovery process did not require the use of any algorithm specifically written to retrieve the lost information. Fragmentation of data in the file, compounds to Forensic Analysis of a system which is reformatted. However, if the file of interest had been the system (Macintosh) that has been reformatted, and the data in it is fragmented, then the forensic examination (Casey 2011) of the data in unallocated space might reveal fragments of thousands of files associated with DNA analysis from many different cases. To associate the fragmented files of interest, specialized search algorithm needs to be developed to perform a customized search associated with DNA analysis. Once the fragments of files are recovered, they

need to be validated and joined together appropriately. Subsequently, with the assistance of experts in the concerned field, the reconstituted fragments can be put together.

Conclusion

The results, presented in this paper suggests that forensic data recovery can be used to retrieve lost information such as a clinching DNA evidence. Microsoft Windows protects the content of the files. Under favorable condition it is possible to recover data base file using file system forensics. In order to enable this, it uses three strategies: utilizing the application interface (API); shadow files or backup files; carving the deleted files. Recovery of data utilizing the application interface would be the first choice. Carving the records, may be a priority if a recent activity is concerned. Deleted data recovery requires specialized software tools such as ENCASE. The source of data that is otherwise unavailable to the investigator could be retrieved using the search index option of the data recovery tools used. Knowledge about the software application (genoscan), the file extension along with meta data information could be recovered. Files may be unavailable to the investigator, either because the system that has the application is not functioning anymore due to system crash or the system may be reformatted. In order to salvage the data, essential pre-requisite is that the media on which the database is stored must be accessible to the forensic data recovery software. Hence, it is suggested that there are ample opportunities to recover the lost DNA database files that were otherwise inaccessible. Moreover, the outcome of forensic data recovery has its significance even though they are isolated instances. Specifically in this case, the clinching evidence is stored in the DNA database. This method can be applied to recover any database with confidential information stored on it, from systems that are no longer working or reformatted.

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Development and Enhancement of Bloodied Marks Exposed to Arson Simulation

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Keywords

Arson, SPR, fingermarks

Abstract

Blood fingermarks are commonly encountered at the crime scenes. These may not always be present in a protected environment and may require development and enhancement techniques. When subjected to conditions like arson, the conventional methods fail to produce prolific outcomes. Moreover, the method employed should allow subsequent DNA profiling from the blood. In the present work, fluorescent SPR method has been investigated to develop and enhance the blood prints subjected to arson scene simulation. Convincingly favourable results were found and the prints were successfully recovered uptil 900°C.

Introduction

HE biological secretions along the papillary ridges mainly from the eccrine and sebaceous glands result in the latent print deposition at the crime scenes. Apart from the natural exude, visible prints in the form of blood prints are also commonly encountered especially in the criminal offences like murders and assaults. It is mandatory to enhance the faint blood prints or blood prints on dark backgrounds for scientific examination of the ridge details [1]. A diverse range of physical, chemical and optical techniques is available for the development and enhancement

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of fingerprints [2]. Various parameters, such as type of surface, background color, exposure conditions, constituents of the print etc. govern the choice of the method to be employed [3,4]. Techniques like Ninhydrin, superglue fuming and DFO have also been used to enhance blood prints [5]. Protein dyes utilize heme catalytic properties for enhancement of blood prints. These dyes fail to develop and enhance blood prints exposed to a temperature more than 300°C. Above this temperature, Vacuum metal deposition has been ennunciated to give prolific results [1]. Microparticle sized titanium dioxide based SPR has been postulated suitable for enhancing faint blood prints [3].

Arson is considered to be one of the most difficult crimes to investigate inspite of being one of the easiest crimes to commit [6]. Several studies, catering to the technical and chemical analysis of arson investigation have been reported [7]. However, research on the recovery of fingerprints and DNA from arson scenes is scanty. These constitute pivotal evidence for linking the perpetrator to the crime. Electomagnetic radiations, high temperature, soot deposition and subsequent water treatment may affect the fingerprint constituents. Due to these deleterious conditions, it is generally believed that fingerprint evidence recovery is impossible from a fire scene [8]. The choice of method should be such that it not only enhances the fingerprint but also ensures subsequent DNA typing from the blood print.

The present study is a successful attempt to enhance blood fingerprints on various non-porous surfaces exposed to arson simulation using fluorescent small particle reagent method. Wet powder suspensions or SPR is a ubiquitously prevelant method for developing latent prints on smooth, wet surfaces. SPR is based on adhesion of hydrophobic tail to the sebaceous residue of the fingerprint. The tail is further linked to a hydrophilic head to which the inorganic salt adheres [9]. Fluorescent SPR involves the incorporation of a fluorescent dye and hence gives a better contrast than the conventional method [10]. In the present communication blood prints exposed to arson simulation are recovered and enhanced using zinc carbonate based fluorescent SPR compositions.

Materials and Method

Preparation

Zinc carbonate (Glaxo laboratories) based two fluorescent SPR suspensions were prepared using eosin B and eosin Y dyes which were procured from Sigma-Aldrich. Polyray was purchased from Rofin Inc. Genteel ® was used as a surfactant. Suspension A comprised of 5.0g zinc carbonate in 75 ml distilled water, 0.01 g eosin B dye and 0.3 ml surfactant. Suspension B comprised of 5.0 g zinc carbonate in 75 ml distilled water, 0.01 g eosin Y dye and 0.3 ml surfactant. Each suspension was then stirred separately to mix the contents thoroughly.

Surface processed

Prior to the deposition of the prints, the surfaces were washed with water and air dried. Thereafter, these were cleaned with ethanol and again air dried. Blood prints were taken from fourteen random volunteers (both males and females). Using a sterilized needle, the donor's fingers were pricked and each subject deposited 10 blood fingerprints in a single depletion series. The 1st deposition constituted the maximum blood deposit whereas the 10th print comprised of the minimum blood deposition. Fingerprints were taken on various types of smooth surfaces namely glass, aluminum foil, ceramic tiles (both black and white), tin cans and metallic spoons. Substrates were then exposed to arson simulation following the protocol of our previous work on latent prints, wherein, surfaces were exposed to high temperatures (100-900°C) in a muffle furnace for 1h. Pieces of paper were placed in the furnace to cause soot formation. The objects were then cooled and sprinkled with water. Soot formation and water sprinkling were done so as to simulate a natural fire scenario. Sprinkling with water also proved to be a gentle yet efficient method for soot removal. For each temperature and surface, a minimum of 8 samples were taken [8].

Development

Samples were treated with suspension A. After waiting for two minutes, the surface was washed with a gentle stream of water for 30 s and then allowed to dry under natural conditions. The same procedure was done using suspension B. Fingerprints were then illuminated with

radiation having 505-550 nm wavelength. Observations were made using orange cut off filters.

Photography and Examination

Photography was done with a SLR camera (D3100 Nikon) in the macro mode and saved in jpeg format. Quality scale was prepared as per the SWGFAST (scientific working group on friction skin analysis, study and technology). Fingerprints were rated with respect to quality, fluorescence, sharpness and ridge details in accordance with the SWGFAST scale.

Identifiable

- 10- Ridges clear, ideal quality and clarity for identification
- 9- Ridges clear (minutiae and ridges visible, light back- ground noise)
- 8- Ridges clear except for background noise
- 7- Ridges clear but smudges interfere with the print
- 6- Ridges clear but contrast is lacking
- 5- Only partial prints or prints with smudges, background noise

Possibly identifiable

4- Small ridge characteristics visible, only partial prints or more prints with much interference

Not identifiable

- 3- Few ridges and points visible but not enough points available for identification
- 2- Bad print, high background noise
- 1- Almost entire print smudged not able to make any comparison points.

No print can be developed.

Results and Discussion

After exposure to 100°C for one hour, the color of the blood print changed to reddish brown. As temperature rose to 200°C, it changed to

dark brown. The color continued to deepen uptil 300°C. Above 350°C faint, weak prints or no prints were observed unless an enhancement technique was called into action. Fluorescent SPR proved its worth in development and enhancement of blood prints exposed to arson simulation. Both the compositions gave favorable results. Results are promulgated in table 1. The prints were developed and enhanced up to a maximum temperature of 850°C. Above 900°C, no prints could be recovered due to the disintegration and damage of the substrates at this temperature. It can be clearly inferred that for the recovery and development of the prints, the utmost necessity is the survival of the substrate after the exposure to the extreme condition.

Table 1:
Ridge quality of blood prints developed and enhanced on various non- porous surfaces exposed to arson simulation using formulation A and formulation B

Surface	Temperature (°C)	Quality of blood prints developed using formulation A	Quality of blood prints developed using formulation B
I. Glass	100	10	10
	200	10	10
	300	10	10
	400	10	9
	500	9	9
	600	8	8
	700	8	7
	800	5	5
	900	1	1
II. Aluminium Foil	100	10	10
	200	10	10
	300	10	9
	400	9	9
	500	8	8
	600	8	7
	700	2	2
	800	2	1
	900	0	0

Surface	Temperature (°C)	Quality of blood prints developed using formulation A	
III.Ceramic Tile (white)	100	8	8
	200	7	7
	300	5	5
	400	4	5
	500	4	4
	600	1	1
	700	0	0
	800	0	0
	900	0	0
IV. Ceramic tile	100	10	10
(Black)	200	9	10
	300	8	8
	400	7	7
	500	7	7
	600	5	5
	700	1	2
	800	0	1
	900	0	0
V. Tin Can	100	9	8
	200	8	8
	300	7	7
	400	6	7
	500	1	2
	600	0	0
	700	0	0
	800	0	0
	900	0	0
VI. Metallic	100	9	9
Spoon	200	8	7
	300	8	6
	400	6	5
	500	3	1
	600	1	1
	700	0	0
	800	0	0
	900	0	0

A recovery rate of 93.4% was attained. Representative prints, developed and enhanced by the present method, are depicted in figure 1-4. It is pertnent that the quality of blood prints developed and enhanced depends on the exposure temperature, surface and the composition used (graph 1). Formulation A administered better quality and intensity of fluorescence but more background noise in comparison to formulation B. With respect to the surface type, glass, aluminum foil and black (non-glazed) ceramic tiles proved better substrates than white (glazed) ceramic tile, tin cans and metal spoons since the former category could withstand higher temperatures. Protein dyes, ninhydrin and DFO are commonly employed for the enhancement of blood prints [5]. But in case of arson, prior to their application, it is imperitive to use a soot removal technique. Sodium hydroxide is frequently used to remove soot. However, application of sodium hydroxide damages the DNA and thus impairs subsequent DNA profiling [11]. Nevertheless, in SPR method, the water component of the composition washes away the soot. Therefore post development DNA analysis from blood may still be carried out [3,12]. Furthermore, fluorescent SPR gives a better contrast against the background as compared to the protein dve treatment [3]. Titanium dioxide particle based wet powder method has been demonstrated as an efficient approach for blood print enhancement but it is reported to be beneficial only after dye application [3]. In a natural fire or an arson scenario, water is an essential means of firefighting

protocol. Since SPR particles readlily adhere to the water fatty components insoluble of the fingerprint, this water treatment makes SPR the ideal method for development and enhancement of prints subjected to arson. Fluorescent SPR also overcomes limitation of contrast imposed by the conventional technique. The zinc carbonate based fluorescent SPR is a nonhazardous and cost effective method for development and enhancement of blood prints subjected to arson.

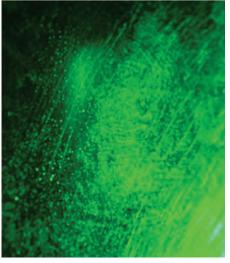


Fig. 1: Blood print developed and enhanced on glass



Fig. 2: Blood print developed and enhanced on glass exposed to 5000C using formulation Aexposed to 4000C using formulation B

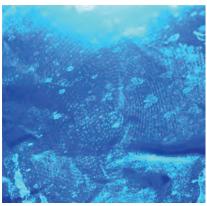


Fig. 3: Blood print developed and enhanced on aluminum



Fig. 4: Blood print developed on aluminum foil foilexposed to 600°C using formulation B exposed to 400°C using formulation A

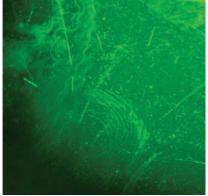
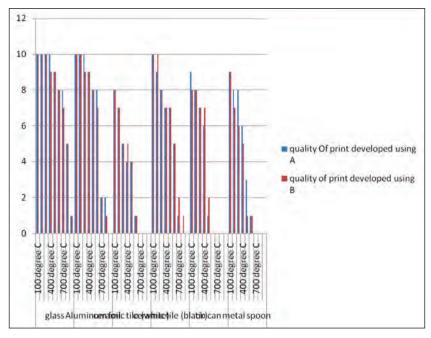


Fig. 5: Blood print developed and enhanced on black ceramic tile exposed to 600°C using formulation A

Conclusion

Blood prints could be recovered, developed and enhanced after exposure to high temperatures, soot deposition and subsequent water spraying. Zinc carbonate based fluorescent SPR is a highly effective method for developing and enhancing blood prints exposed to arson



Graph 1: Ridge quality of blood prints developed and enhanced on various non-porous surfaces exposed to arson simulation using formulation A and formulation B

simulation. A sudden decrease in the quality of prints was observed at a particular temperature, which varied for different surfaces. Both the formulations yielded prolific results, the only prerequisite being the survival of the substrate at such high temperatures. The compositions are recommended for their practical application in case of arson and fire scenes.

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