Crime against Women in Chandigarh: A GIS Analysis

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ABSTRACT

The occurrence of crime against women is imbued with a strong spatial element. Not all spaces, neither all time are equally vulnerable to crime. The present study seeks to identify the spaces that are more prone to crime and the reasons thereof. The study was carried out in the GIS environment. It emerges that the occurrence of the crime is linked to the socio-economic profile of the population of an area. Police visibility is a deterrent to the occurrence of crime.

Keywords
Women, crime, GIS

1. INTRODUCTION

The cold hard fact is that women are physically the more vulnerable sex and are susceptible to and the targets of a variety of crimes. Crimes against women are not free of spatial dimension. Certain spaces are more prone to criminal activities as are certain times of the day. The nature of crime may also differ by time and location.

Chandigarh being a planned city is expected to have a more efficient crime management system in place. Yet it is not free of crimes. The present study is an attempt to analyse the occurrence, spatio-temporal trends and management of crime in Chandigarh U.T.

Women may be victims of all kinds of crimes, be it cheating, murder, robbery etc. The crimes in which only women are victims and which are specifically against them are characterised as “crimes against women”.

Broadly, crimes against women are classified under two categories: (1) Crimes under the Indian Penal Code (IPC) which include seven crimes: (i) rape, (ii) kidnapping and abduction, (iii) dowry deaths, (iv) torture physical and mental (including wife battering), (v) molestation, (vi) sexual harassment, and (vii) importation of girls. (2) Crimes under Special and Local Laws (SLL) which include seventeen crimes, of which the important ones are: (i) immoral traffic (1956 and 1978 Act), (ii) dowry prohibition (1961 Act), (iii) committing Sati (1987 Act), and (iv) indecent representation of women (1986 Act).

Definition of Crime: Four crimes have been taken under consideration for this report. These include:

- Eve Teasing (Section 294 IPC)
Eve teasing refers to public sexual harassment or verbal harassment of a girl by a boy. Section 294 (b) in the Indian Penal Code (b) sings, recites or utters any obscene song, ballad or words, in or near any public place, shall be punished with imprisonment of either description for a term which may extend to three months, or with fine, or with both.

- Molestation (Section 354 IPC)
If a person either physically or mentally offends (outraging the modesty of a girl/lady in the legal parlance) a girl or a lady with the intentions of or knowing well that the self-respect of the victims will be offended, apply the physical or the criminal force, then for any such actions, he shall be liable to get a two years jail term, or may be fined or both. This is a bailable crime but be noted there cannot be a compromise after the case is registered.

- Rape (Section 376 IPC)
A man is said to commit “rape” who, except in the case hereinafter excepted, has sexual intercourse with a woman under circumstances falling under any of the six following descriptions:-
First: Against her will.
Secondly: Without her consent.
Thirdly: With her consent, when her consent has been obtained by putting her or any person in whom she is interested in fear of death or of hurt.
Fourthly: With her consent, when the man knows that he is not her husband, and that her consent is given because she believes that he is another man to whom she is or believes herself to be lawfully married.
Fifthly: With her consent, when, at the time of giving such consent, by reason of unsoundness of mind or intoxication or the administration by him personally or through another of any stupefying or unwholesome substance, she is unable to understand the nature and consequences of that to which she gives consent.
Sixthly: With or without her consent, when less than sixteen years old.

Explanation: Penetration is sufficient to constitute the sexual intercourse necessary to the offence of rape.

- Dowry (Section 498 IPC)
In this Act, “dowry” means any property or valuable security given or agreed to be given either directly or indirectly (a) by one party to a marriage to the other party
to the marriage, or (b) by the parent of either party to a marriage or by any other person, to either party to the marriage or to any other person, at or before (or any time after the marriage) [in connection with the marriage of the said parties, but does not include dower or mahr in the case of persons to whom the Muslim Personal Law (Shariat) applies]. (As defined by Law Commission of India, 2014)

Geographic Information Systems (GIS) is used to combine all types of crime data at a single platform. GIS plays an important role in crime mapping and analysis (Johnson 2000). It provides the facility to map the crime locations, combine the resulting visual display with other geographic data, analyze and investigate the causes of crime, and develop responses (Harries 1999; Environmental Systems Research Institute (ESRI) 2008). Recent advances in statistical analysis make it possible to add more geographic and social dimensions to the analysis (National Institute of Justice 2013). The locations and analysis of crime can be easily done by GIS software.

STUDY AREA

Chandigarh is sandwiched between Punjab and Haryana. It serves as their joint capital and also enjoys the status of a Union Territory. With several VIPs residing in Chandigarh, a major part of Chandigarh police force has been deployed to provide security to them. As per census 2011, the total population of Chandigarh is 1,054,686 and the population density is 9252 persons/sq. km. Thus Chandigarh being densely populated and acting as a capital to three administrative divisions, policing is a major issue here.

OBJECTIVES

The main objectives of the present study are:
- To map the incidences of crimes against women in Chandigarh during the period 2011-2013.
- To identify the spatial and temporal trends in crime for the period 2011-2013.
- To provide suggestions for efficient and gender sensitive police.

DATA SOURCES AND METHODOLOGY

Primary as well as secondary data were used as per the requirements of the objectives of the study. The study has been primarily based on secondary data which was taken from Index Registers of all eleven police stations. 2011-2013 has been taken as the time period. Primary data was collected through interview schedules which were canvassed among women and police personnel. ArcGIS software was used to prepare maps. Data was represented using bar graphs, choropleth maps and point maps.

POLICING STRUCTURE

Chandigarh policing structure is divided into three divisions. There are eleven police stations and only one police headquarter. Map 1 shows the police stations along with their service areas. There are total 6030 policemen in Chandigarh police. Table 1 shows the police strength and the average area being served by one police personnel at each police station.

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<tr>
<th>Name</th>
<th>Area (in sq. m.)</th>
<th>Police strength</th>
<th>Average area being served by one police personnel (in sq. m)</th>
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Source: Field Work-2014

Location of Police Stations and Police Accessibility

A buffer of one km was drawn around each police station to judge the accessibility of police to the public. Map 1 shows the location of police stations in Chandigarh and the area served by them.
The sectors with highest accessibility to police include Sectors 1, 2, 3, 10, 11, 7, 26, 19, 16, 17, 34, 33, 35, 36 and Sector 39. On the other hand areas that are unserved by Police Stations include Sectors 24, 25, 5, 6, 8, 38, 38-W, 54, 55, 52, 53, 45, 48, 49, 50 and 51. In addition to these the rural areas on the fringes of the Union Territory is also underserved. The Police Stations that have unserved area within their jurisdiction include Sector 11, Sector 34, Sector 31, Sector 39 and Mani Majra. It would be prudent to set up additional police posts or police station in areas with poor accessibility to the policing services.

SPATIO-TEMPORAL ANALYSIS

A spatio-temporal analysis of the occurrence of crime against women in the city of Chandigarh reveals that on the whole the incidence of crime within the city has gone up. This may be attributed to better reporting of crime, rise of population within the city or the rise of unsavoury elements within the population. The last is a trend that conforms with the national and regional trends.

The crime that is perpetrated most frequently against women in the city is Dowry. Dowry being a social evil has been in evidence for a long time now. Most complaints of marital discord in early years of the marriage get registered as dowry complaints. However quite a few of these are amicably resolved. All the same the number of complaints on count of dowry shows a rising trend. The crime was reported most frequently at the Sector-34 Police Station followed by Sector-39 Police Station. Both the police stations are located in areas that are densely populated. The crime of Molestation follows that of Dowry. In fact there has been a sharp rise in this crime during the year 2012-13. The incidence of this crime is the highest in the area served by Police Station Mani Majra followed by Police Station Sector 11 and Police Station Sector 39. The occurrence of this crime is found on the periphery of the city. The Sector 11 Police Station in addition to serving Panjab University, PGI and Sector 11 also includes the rural areas along the Northern periphery of Chandigarh.
Table 2: Chandigarh: Nature and Location of Crime

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Source: Index Registers of Concerned Police Stations

The incidence of Eve-teasing in Chandigarh rose from 33 in 2011 to 73 in 2012 and then came down to 48 in 2013. Police Stations of Sectors 34, 39, 11 and 17 report the highest incidence of this crime. The area served by Sector 34 and Sector 11 has a lot of young population owing to the location of institutional areas as well as paying guests accommodations. Sector 17 is the Central business district of the city as well as its favoured commercial area. It records a high population influx during the day and being a crowded place, the likelihood of such a crime occurring over here is high.

Rape probably the most heinous of all crimes and most serious of all offences has a relatively lower incidence in the Union Territory as compared to other crimes. Nevertheless its incidence is certainly not as low or negligible as it should be. In fact the reported cases of rape doubled from 2012 to 2013. The highest incidence of rape is reported by the Sector 34 Police Station, closely followed by the Sector 39 Police Station.

Crime against Women in Chandigarh: A GIS Analysis

Using GIS technology, the incidence of crime against women in Chandigarh was mapped for the three calendar years of 2011, 2012 and 2013. This was related to the location of Police Stations, their accessibility for the general population. This was done by drawing one km buffers around police stations and identifying areas that were underserved or where accessibility to police help was low. Further crime hot spots were also identified and mapped.

The entire exercise showed that crime was relatively higher in areas where police presence and visibility as represented by distance from Police Stations was low. In addition to this a component of fieldwork was also included in the research exercise. This was aimed at knowing the perceptions of women on the occurrence of crime against women as well as the perceptions of police personnel on this subject. This was also in the nature of an indirect field verification which forms an important component of any GIS analysis. It emerged that a majority of women surveyed had been subjected to some kind of crime or the other. When asked what the normal reaction of a female was when some crime is committed against them, more than two-thirds seemed to think that women have a tendency to ignore such incidents.

However the respondents did seem to think that women should go to the police for help. At the same time a few of them felt that women did not approach the police because they did not have faith in the efficiency of the police. Interestingly the perception of the female respondents regarding places that were unsafe for women matched with the actual occurrence of crime.
When the police was questioned regarding the occurrence of crime in the Union Territory they admitted that both the incidence and the reporting of crime had increased. According to them eve teasing was the crime most frequently committed against women. The increased number of females in the police force was responsible for higher reporting of crime. The police also felt that lack of co-operation on the part of victimised females was a hindrance to controlling crime.

CONCLUSION

The present study was conducted with the aim of understanding the occurrence and patterns of crime against women in the planned city of Chandigarh and its surrounding area that comes under the jurisdiction of the Chandigarh Union Territory Police Force. The total incidence of crime had increased over the three year period. However the dominant nature of crime had changed. Whereas in 2011 the maximum cases were reported for Dowry, in 2012 the proportion of Eve Teasing increased whereas in 2013 the highest proportion of cases reported were of Molestation. This apart, the absolute number of cases reported for each of the crimes increased expect in the year, 2013. The areas where crime is mostly likely to occur fall under the police station of Mani Majra, Sector-39, Industrial area, Sector-34 and Sector-11. Some of the crime here occurs in the informal localities or resettlement colonies and some occurs in sectors that have allied institutions especially for female students. Such areas also have a preponderance of paying guest accommodation inhabited by the young males and females who form a majority of the student population in the city. This is particularly true for the occurrence of eve teasing incidents. Rape funds a greater reporting in the informal colonies of BapuDham, Hallo Majra, Colony No.5, Sec-45, Sector-14 and Mani Majra. Market areas of sector-14, sector- 15, sector-22 and the colonies of Hallo Majra, Mani Majra and Ram Darbar exhibit higher occurrence of Molestations.

There it emerges that the incidence of crime is associated with the socio-economic and demographic profile of the locality. In addition to this it also appears that proximity to
police station and visibility of the police as represented by the personnel strength are negatively related to the occurrence of crime. Crime particularly eve teasing and molestation occurs in areas that are underserved both in terms of police post/station accessibility and police strength.

The survey conducted among females residence and police personnel served that more and more women think reporting crime is a good idea. One third of the females interviewed felt Chandigarh was not a safe place for females. Places that particularly needed to be avoided by girls when alone included parks, lonely roads, bus stops, unformed colonies and Panjab University. However after sunset and during lunch time were most crucial to the occurrence of crime.

Thus one may suggest an augmentation of police force in the underserved areas, increased vigil of sensitive areas, setting up more police posts and increased patrolling of roads during the more crucial hours.

REFERENCES


