

CHAPTER III

METHODOLOGY

This chapter presents the procedure adopted to carry out the present study. The scheme and design of the research have been delineated in the following sequence:

- 1) Selection of the Problem
- 2) Operational definition
- 3) Location of the Study
- 4) Sample selection and sampling technique
- 5) Preparation of Questionnaire and pilot study
- 6) Period of Study
- 7) Analytical Tools Applied
- 8) Limitations

I. Selection of the problem

Violence toward women, which leads to gender domination and sexism, is an embodiment of unequal relations of power between men and women. Violence against women remains a worldwide phenomenon which threatens women physically, mentally, sexually and economically. By denying dignity, immunity, equality, and the right of women to enjoy fundamental freedoms, this is one of the most insidious forms of violating human rights. In every nation, violence against women is widespread, crossing cultural, social, educational, income, ethnicity and age limits. Physical or sexual IPV ranged from 17 percent in the Dominican Republic to 75 percent in Bangladesh in the study of DHS data across ten countries (Hindin, Kishor, Ansara, 2008). Devries et al. (2013) observed that “approximately 30 percent of women aged 15 years and older worldwide have experienced physical and sexual harassment by their spouses, according to recent information, and only 7percent of women have experienced sexual assault by non-partners during their lifetime”. According to IIPS and Macro International, (2007) “in India, 34 per cent of women have experienced physical abuse in the reproductive age group”. The combination of high incidence and limited exposure in the public eye makes it one of this era's most important social issues.

The problem of domestic violence imposes a significant economic burden on society, in the shape of health care costs, policing and legal fees, or declines in productivity, among others. It can also have a detrimental effect on children in terms of their emotional, cognitive, and behavioural development. In addition, it is well-researched that family violence passes across generations, with children more likely to become involved in violent relationships when they become men when exposed to violence in their homes. Hence it is essential to consider not only the short-term consequences of domestic violence but also its lifelong effects.

One probable way advocated to prevent abuse is to improve the bargaining power of women within the household. Gelles (1976) finds a negative relationship between female wherewithal and intimate-partner violence. Studies exploring the correlation between female empowerment and intimate partner violence (IPV) have, however, provided contradictory findings. Several studies have found in the Indian context that working women are more likely compared to non-working women to suffer physical violence during their lives. In contrast, Panda and Agarwal (2005) report that in Kerala, “women with regular employment as compared to unemployed women were far less likely to have experienced abuse and use women's ownership of property to capture economic status and finds that women's ownership of property was associated with a sharp reduction in domestic violence”. Therefore, the findings on women empowerment and domestic violence produce conflicting results that warrant further analysis to better realize the association between women empowerment and domestic abuse.

In a world where gender roles are continuously shifting and domestic violence rates are high, this study seeks to explain the association between domestic abuse and empowerment of women. The researcher examined the relationship between economic and social factors between married women belonging to the low income community living in urban slums of the Coimbatore City that reflect different dimensions of gender-based power and domestic violence. Such studies will enable one to understand the underlying proportions of domestic violence and its impact on women empowerment and suggest suitable measures which will effectively contribute towards empowering women subject to domestic violence.

II. Operational Definition

Domestic Violence

Domestic violence refers to any kind of violence behaviour (physical/sexual, emotional/psychological, financial, etc.) inflicted on the victim by their spouse or his family members to control their intimate partner.

1) Physical Abuse

Physical violence includes hitting/ slapping, punching/ beating, burning/ kicking/ pushing, throwing objects/ beating with objects, assault with weapon, coercing partner into substance abuse, pinning against the wall or bed, locking a women out of the house or in the house, sleep and food deprivation or forced feeding, denying medical care, forcing to use drug/alcohol, sexual abuse, etc. In the present study, sexual abuse is included as a part of physical abuse. It includes not only sexual assault and rape but also harassment.

2) Verbal and Emotional Abuse

Emotional abuse includes name calling, insulting in the presence of family members and children, blaming for something or causing them to feel guilty, jealousy, treating as a servant, avoiding parents, relations and friends, suspecting extra marital relationships, undermining family history, threat of divorce / suicide, making them feel alone, verbal threats to use physical strength, no verbal threats to use physical force, Not allowing decision-making, improperly regulating the actions of the individual, remembering past mistakes of a person, voicing negative expectations, yelling/ lying/ withholding valuable details, unreasonably ordering around, etc.

3) Economic Abuse

Financial / economic harassment involves preventing you from attending work, not allowing you to work, restricting the choice of occupation, misuse of attorney's power / forcing you to sign a financial document, not allowing you to review bank accounts or other incomes, taking loan on the victim's behalf, preventing you from taking a job, forcing you to quit the job, recovering full

pay, stealing or damaging the personal possessions of the victim, not having money for necessities, forcing you to get money from your parents, preventing you from making purchases of your choosing, bullying the victim at work, etc.

In this study, domestic violence includes physical, emotional or psychological and economic abuse committed by the spouse or family members against the wife.

Victim

Victim refers to the married women between 18 years to 55 years of age who is subjected to domestic violence by her spouse or other family members.

Women Empowerment

Empowering women is the mechanism by which women gain influence and authority over their lives and the capacity to make strategic decisions. Empowerment has various concepts such as personal autonomy, family decision making, domestic consultation, social empowerment, economic empowerment, etc.

Low Income Communities

Low Income Communities refers to the slums in the city regions and urban areas of Coimbatore that which often not have the essential living conditions necessary for its residents, or slum dwellers, to live in a safe and healthy atmosphere.

III. Profile of Coimbatore

Coimbatore is the third-largest City and one of Tamil Nadu's most industrialized cities. The city on the banks of the river Noyyal is known as the South India's textile capital or the Manchester of South India. It is surrounded by The Nilgiris (the Blue Hills) to the north, Western Ghats side of Kerala to the west, Tiruppur to the south and south-east, and Erode City to the East. This highly progressive Tamil Nadu business and commercial City situated between 10,"-10' and 11,"-30' North latitude and 76,"-40' and 77,"-30' Eastern longitude.

Table No - 3.1
Statistical Indicators of Coimbatore City – 2011

DESCRIPTION	2011
Population	34.58 Lakhs
Actual Population	34,58,045
Male	17,29,297
Female	17,28,748
Population Growth	18.56%
Area Sq. Km	4,732
Density/km ²	731
Proportion to Tamil Nadu Population	4.79%
Sex Ratio (Per 1000)	1001

Source: Census of India, 2011

The population of Coimbatore City increased from 29.17 lakhs in 2001 to 34.58 lakhs in 2011, registering a 19 per cent decennial growth. The density of population has increased from 601 people per square kilometer in 2001 to 942 in 2011, which amounts to a 57 per cent increase in the density of the population in 10 years. Coimbatore City is a highly urbanized City with nearly 70 per cent of the population living in urban areas. There is not much variation in the proportion of urban people in the total population between 2001 and 2011. An important welcome sign among the demographic indicators is the increase in the sex ratio from 968 in 2001 to 1001 in 2011, a rise of 33 females per 1000 males. Of the total population, 50.08 percent were men and 49.92 percent were women. Coimbatore has an 89.23 percent average literacy rate, higher than the (74.04 percent) all India average. 93.17 percent is male literacy, and 85.3 percent is female literacy.

For proper administration, the City is classified into three Revenue divisions, namely Coimbatore, Pollachi and Tiruppur and eleven Taluks comprising of 295 Revenue villages. The City has one corporation, three municipalities, 12 Panchayat Unions, 37 Town Panchayats and 227 Village Panchayats for the effective execution of development activities. The city is split into five administrative zones: East, West, North, South and Central, each further subdivided into 20 wards.

The total geographical area of Coimbatore is 472322 ha. The net and gross sown area accounted for 36.5 and 37.4 per cent of the total geographical area, respectively. Forest area accounted for 23.69 percent in Coimbatore City. Area sown more than once was 0.9 percent. The area under cultivable waste was 1.8 per cent, and current fallows accounted for 5.6 per cent of the total geographical area. Land put to non-agricultural use was 16.1 per cent. The higher proportion of land under non-agricultural use was mainly due to high degree urbanization and industrialization during recent years. The principal crops in the City are Coconut, Sorghum, Pulses, Banana, Spices, Groundnut and Vegetables. These crops together accounted for nearly 80 per cent of the cropped area in the City.

The City of Coimbatore is home to more than 25,000 small, medium and large industries, with engineering and textiles being main industries. Due to its widespread textile industry, fed by the surrounding cotton fields, Coimbatore is called the "Manchester of South India". The city has two Special Economic Zones (SEZs), the Saravanampatti Coimbatore Hi-Tech Infrastructure (CHIL) and the TIDEL Park near Peelamedu, and there are at least five additional SEZs under consideration. Coimbatore, an emerging I.T. and BPO city, is ranked at 17th place among the global outsourcing cities. The term "Coimbatore Wet Grinder" was given a Geographical indication for the wet grinders manufactured in Coimbatore and Erode in 2006. Coimbatore is also called as the 'pump city of India'. The motor and pump industries in the City supply two-thirds of India's demands. Coimbatore has many trade associations such as CODISSIA, COINDIA, SITRA and COJEWEL.

The presence of research institutes such as Tamil Nadu Agricultural University, SITRA and a large number of engineering colleges generating around 50,000 engineers annually facilitates the large and diversified manufacturing sector of Coimbatore. In addition to catering to the needs of the entire automotive industry, ranging from two-wheelers and four-wheelers to commercial vehicles and tractors, Maruti Udyog and Tata Motors procure up to 30 percent of their automotive components from Coimbatore.

The City is well connected with road, rail and air. Nearly 1456 MW of electricity is produced every year from hydro and wind sources. Coimbatore is linked to other parts of the states by three national highways. The Coimbatore International Airport ensures connectivity to major Indian cities and caters international flights to Sharjah and Singapore. Both rail, road and air connectivity enables the City to attract tourists not only from Tamil Nadu but also from other states and even from foreign countries. Coimbatore has also earned the distinction of being the largest non-metro city for e-commerce in South India.

Coimbatore is also a renowned educational centre in South India, home to seven universities, 78 engineering colleges, three medical colleges, two dental colleges, 35 polytechnics, 150 arts and science colleges and schools. Coimbatore also has a host of prominent research institutes, such as the Central Institute for Cotton Research, the Sugarcane Breeding Institute, the Institute for Forest Genetics and Tree Breeding (IFGTB), the Indian Council for Forestry Research and Education and the Tamil Nadu Institute for Urban Studies. The city is also famous for providing the needy public with extensive and advanced healthcare facilities, as many renowned medical centers are located in the city of Coimbatore.

Selection of the area of study

Though Tamil Nadu is one of the progressive states in the country, the percentage of spousal violence is something which one cannot take pride in. According to the National Family Health Survey 4 (2015-16), two out of every five married women in the State are victims of spousal violence, and there is no decline in the last ten years. Despite the recognition of spousal violence as a criminal offence since 1983 (IPC 498-A), there was no civil law until the Protection of Women from Domestic Violence Act which was enacted in 2005.

While there is a drastic drop in spousal violence in States such as Bihar, Assam, Madhya Pradesh, Tripura and West Bengal, there was only a 1.3 (41.9 to 40.3) per cent drop in Tamil Nadu between 2005 and 2015. Prevalence of spousal violence is higher in rural (44.2) than in urban (37.2) areas.

About 49 percent of the women who have experienced physical and sexual violence were in the age group of 15-49. The most common perpetrator for physical violence for married women since the age of 15 was the husband, and it was a mother/step-mother, father/step-father, and sister/brother for unmarried women (National Family Health Survey, 2015-2016). Violence proved to be a burden for the exchequer in many countries, with the cost varying up to 3.7 percent of their GDP – more than double what most governments spend on education (World Bank, 2018).

According to the latest data of the National Crime Records Bureau, “31.9 percent of the crimes against women were registered under cruelty by husband or his relatives, followed by assault on women with intent to outrage her modesty (27.6 percent), kidnapping & abduction of women (22.5 percent) and rape (10.3 percent). The crime rate per lakh women population is 58.8 in 2018 in comparison with 57.9 in 2017 and Tamil Nadu reporting the highest number of cases against women (5,397)”.

Thus, in Tamil Nadu domestic violence has assumed significant proportion affecting women’s physical and mental health and prevents them from participating actively in social and cultural life. It was important to recognise the local concerns surrounding violence against women in order to better prepare and enforce effective community-based initiatives. Hence, Coimbatore was therefore chosen as the study area, as it was one of Tamil Nadu's leading Districts in the prevalence of domestic violence next to Chennai (NCRB, 2018) and to comprehend the local issues inciting domestic violence to take appropriate measures to counteract the growing menace of domestic violence.

IV. Selection of the Sample

The location of the study was limited to low income communities living in Coimbatore city. The three-stage random sampling method was adopted to give representation to women victims of domestic violence and residing in different slum areas in Coimbatore city, for selecting 500 respondents.

I STAGE

Coimbatore city was classified into five zones, namely North, South, East, West and Central. In each zone, selected two slums having maximum households.

II STAGE

In each slum, using the proportional sampling technique the total number of households to be surveyed was decided based on the proportion of households in each slum to the total number of households in all ten selected slums, making a total of 500 samples (Rajiv Awas Yojana 2013-2022). This is shown in table 3.2.

TABLE NO - 3.2
SELECTION OF SLUM HOUSEHOLDS

S.No	Zone	Area	No.of. Households	Sample Selected
1	North	Ambedkar Nagar	279	20
		Pattalammakoil Street	266	19
2	East	Varadarajapuram	260	19
		Ambedkar Nagar	239	17
3	West	Kamarajapuram	639	46
		Prabhu Nagar	393	28
4	South	North of Perur	1439	103
		South of Perur	2171	156
5	Central	Majeed Colony	509	36
		Siddaputhur Part-I	779	56
Total			6974	500

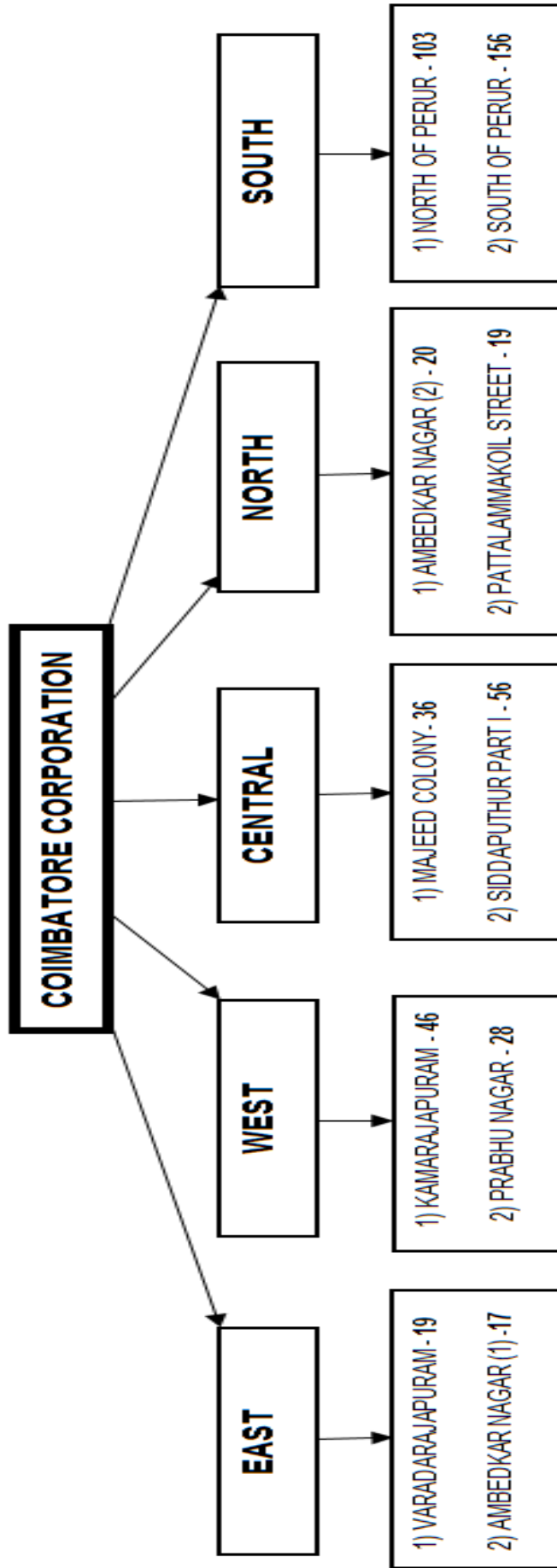
Source: Rajiv AwasYojana 2013-2022

Stage III:

In each slum, women aged above 18 years and who faced domestic violence were selected to form the sample. The samples were selected by adopting the purposive sampling technique. Purposive sampling is a non-probability sampling method which groups research participants according to preselected criteria relevant to a particular research question. The merit of purposive sampling is that it allows the researcher to identify respondents who have good grounds in what they believe and so are critical for research. Figure 3.1 shows the schematic presentation of sample selection in rural areas.

FIGURE NO - 3.1

SAMPLE SELECTION



Preparation of Questionnaire and Pilot Study

An interview schedule was the major tools of data collection. The interview schedule was prepared to identify the incidence of domestic violence and women empowerment among women in low income communities. The interview schedule on domestic violence and women empowerment were prepared after extensive literature survey, internet search and consultation with subject experts and scholars.

A pilot study was administered among 100 married women facing domestic violence from urban slums of Coimbatore. The respondents were also asked what difficulties they faced while reading the questions and filling up their responses. Such terms were clarified and modified so that the respondents could answer the questionnaire promptly and with much ease. In the light of the pilot survey and expert suggestions, modifications were made wherever necessary. The finalized questionnaire is presented in Annexure I.

Before administering the interview schedule, adequate attention was given to build empathy with the respondents, and the researcher emphasized the need to provide honest responses to potentially sensitive questions to gain insight into the concerns and issues of domestic abuse. Participants were also informed that their answers would remain confidential.

Period of Study

Data for the study were collected during the period from November 2019 to January 2020. The researcher created a good rapport with the respondents and explained them the nature and purpose of the study. The average time taken to administer an interview schedule was around 20 – 30 minutes.

Ethical Considerations

The investigator gave special attention to the ethical considerations that need to be taken into account in the study of domestic violence against women. Most of the data usually obtained in the survey was very private and fragile. This asks for informed consent and information protection. Besides, the investigator approached the Institutional Human Ethical Committee for obtaining Ethical Clearance Certificate (Annexure-II).

All respondents were interviewed in private by the researcher, and every attempt was made to guarantee the privacy and confidentiality of the information collected. The researcher informed the respondents that the information they provided would only be used for research purposes and their identity would not be revealed. Respondents were told that participation was entirely voluntary in the survey. If she did not want to continue, the participants were entitled to withdraw from the interview at any time.

Analytical Tools Applied

In order to satisfy the study criteria, primary data obtained from the respondents was coded and tabulated. The following statistical tools were used, in addition to percentages and graphs, to analyse the data compiled:

(i) Chi-Square Test

The chi-square (χ^2) test is used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories. Do the individuals or objects that fall in each category differ significantly from the number you would expect? Is this difference between the expected and observed frequency due to sampling error, or is it a real difference? The χ^2 value is calculated from the formula:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

where O is an observed frequency in each category, and E is the expected frequency in each category. The degrees of freedom are given by (c-1) (r-1) where 'c' denotes the number of columns and 'r' number of rows. The obtained value was compared with the critical value at the given degrees of freedom to draw inference about the sample (Gupta, 2005). In the present study, the chi-square test was done to examine the association between the frequency of violence after marriage and the socio-economic profile of the respondents.

(ii) Discriminant analysis

The discriminant analysis derives an equation as a linear combination of the independent variables that will discriminate best between the groups in the

dependent variable. This linear combination is known as the discriminant function. The weights assigned to each independent variable are corrected for the interrelationships among all the variables. The weights are referred to as discriminant coefficients. The discriminant equation:

$$F = \beta_0 + \beta_1X_1 + \beta_2X_2 + \dots + \beta_pX_p + \varepsilon$$

where, F is a latent variable formed by the linear combination of the dependent variable, X_1, X_2, \dots, X_p is the p independent variables, ε is the error term, and $\beta_0, \beta_1, \beta_2, \dots, \beta_p$ are the discriminant coefficients. The objective discriminant analysis is to test if the classifications of groups in a variable Y depend on at least one of the X_i 's. In terms of hypothesis, it can be written as:

H_0 : Y does not depend on any of the X_i 's.

H_a : Y depends on at least one of the X_i 's.

or simply, $H_0: \beta_i = 0$, for $i=1, 2, \dots, p$ versus $H_a: \beta_i \neq 0$ for at least one i .

Two-group discriminant analysis was applied to discriminate the socio-demographic and cultural factors and the occurrence of domestic violence. The occurrence of violence was measured in terms frequency of violence which classified women into two groups, namely those experiencing low-intensity violence (Group I) and those experiencing high-intensity violence (Group II). Selected variables were used to find out their relative contribution in discriminating the two groups. The variables included were: age, victim's education (measured as 1 = formal education; and 0 otherwise), number of children, husband's education (measured as 1 = formal education; and 0 otherwise), wife's occupation (measured as 1 = working; 0 = not working), husband's occupation (measured as 1 = working; 0 = not working), age difference between husband and wife, alcohol addiction (measured as 1 = yes; 0 = no), and dowry (measured as 1 = yes; 0 = no) . Wilk`s lambda and `F' values were used to find out whether the means of the two groups differ significantly. The canonical discriminant function coefficient and potency index established the contribution of selected variables in discriminating the two groups.

(iii) Garrett's Rating Scale

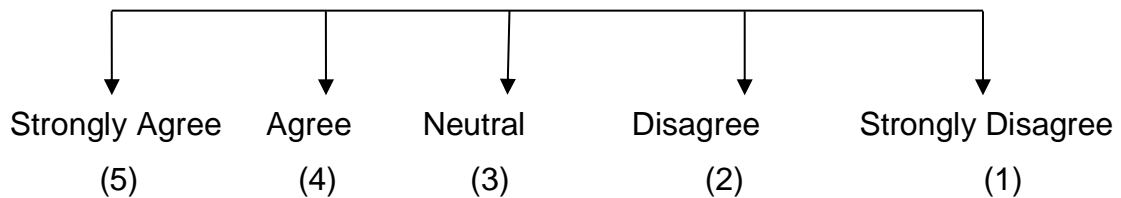
To ascertain the victim's reactions to domestic violence, respondents were asked to prioritize the various responses. The ranks were converted into percent position by using the following formula:

$$\text{Percent Position} = \frac{100 (R_j - 0.5)}{N}$$

where R_j is the rank given by the j^{th} respondent's reaction to domestic violence and N is the number of items ranked. Based on the percent position, the individual score was determined on a scale of 100 using Garratt' scoring table (Garrett, 2005). The score was averaged for each statement and ranked to identify the most important reaction to domestic violence.

(iv) Likert's Summated Scale

Likert's Summated Scale was used to scale the various causes of domestic violence and the dimensions of women empowerment. In the Likert's scale, the respondent was asked to respond to each of the statements in terms of five degrees of agreement or disagreement.



Each point on the scale carries a score. A response indicating the least favourable degree of satisfaction is given the least score (say 1) and the most favourable is given the highest score (say 5). This way, the instrument yields a total score for the respondents, which would then measure the respondents' favourableness or unfavourableness towards the given point of view. In the present study, Likert Summated Scale was used for identifying the causes of domestic violence and dimensions of women empowerment.

(v) Cronbach's Alpha

Cronbach's alpha evaluates the unidimensionality of a set of scale items. It's a measure of the extent to which all the variables in a scale are positively related to each other. It is just an adjustment to the average correlation between every variable and every other. The formula for alpha is

$$\alpha_{standardized} = \frac{K.\bar{r}}{(1 + (K - 1).\bar{r})}$$

where k is the number of variables, and r is the average correlation among all pairs of variables. Cronbach's alpha values range from 0 to 1. The higher the score, the more reliable the generated scale is. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient, but lower thresholds are sometimes used in the literature.

In the study, the reliability testing was done for constructs related to the forms of domestic violence, various causes of domestic violence and the dimensions of women empowerment.

(vi) Factor Analysis

Factor analysis is a generic name given to a class of multivariate statistical methods whose primary purpose is to define the underlying structure in a data matrix. It addresses the problem of analyzing the structure of the interrelationships (correlations) among a large number of variables by defining a set of common underlying dimensions, known as factors. With factor analysis, the researcher can first identify the separate dimensions of the structure and then determine the extent to which each variable explains each dimension. Once these dimensions and the explanation of each variable are determined, the two primary uses for factor analysis, namely summarization and data reduction, can be achieved. In summarising the data, factor analysis derives underlying dimensions that, when interpreted and understood, describe the data in a much smaller number of concepts than the original individual variables.

In the present study, factor analysis was used to examine the forms of domestic violence and the causes of domestic violence.

(vii) One way ANOVA

The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of two or more independent (unrelated) groups. The one-way ANOVA compares the means between the groups you are interested in and determines whether any of those means are statistically significantly different from each other. Specifically, it tests the null hypothesis:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \dots = \mu_k$$

Where μ = group mean and k = number of groups. If, however, the one-way ANOVA returns a statistically significant result, we accept the alternative hypothesis (H.A.), which is that there are at least two group means that are statistically significantly different from each other. In the study, one way ANOVA was used to test forms of violence with selected socio-economic variables.

(viii) Empowerment Index

For understanding the impact of domestic violence on women empowerment, the Women Empowerment Index (EEI) was constructed as an average of standardized economic empowerment indicators. The empowerment framework adopted in the present study is given in table 3.3.

TABLE NO - 3.3

MATRIX FOR ANALYSING WOMEN EMPOWERMENT

Type of empowerment	Statement Assessing Empowerment
Personal Autonomy	I have the freedom to visit my natal family/ friends/ associates.
	I have the freedom to travel alone.
	Freedom to give opinions
	I have the freedom to acquire new skills/ training related to the job.
	I wish I can command more respect from my family.
	I have the freedom to enter into new jobs.
Decision Making	I am consulted in the decision regarding no of children.
	Ability to negotiate sexual and reproductive decisions
	Involvement in major household decisions
	My husband shares in household chores
	The responsibilities of the children shared equally by my husband and me.
	I have the freedom to decide day to day expenditure & savings of my family.
Social Empowerment	My family members regard violence as a part of life.
	Freedom and access to Information and Technology
	Freedom to involve in social associations and networks
	The girl child in my family is encouraged to study.
	I can communicate with my family regularly.
Economic Empowerment	I have full freedom to buy /sell the property.
	I have complete ownership rights over my assets.
	I have complete control over my earnings.
	I have the freedom to have my saving and insurance.
	My husband encourages me to enter the labour market.

The respondents were asked to rank the statements on a five-point scale with a maximum score of 5 for strongly agreed, and 1 for strongly disagreed. The score was standardized by using the following formula:

$$Z_i = \frac{X_i - \text{Min } X_i}{\text{Max } X_i - \text{Min } X_i}$$

The standardized score was added to arrive at a score of each indicator. Economic Empowerment Index score was computed by taking the average of the scores of each indicator. Based on the overall scores, the working women were classified into four categories, as shown in table 3.3.

Table 3.4 shows the cut-off principle, which provides the status of empowerment achieved.

TABLE NO - 3.4

CUT OFF VALUES FOR WOMEN EMPOWERMENT INDEX (WEI)

Score	Remarks
Up to 2	Not empowered
2.1-3	Partially empowered
3.1-4.0	Empowered
4.1 and above	Fully empowered

Factor analysis was done to draw the inferences and outline the factors that influence the Women Empowerment Index (WEI). After outlining the factors, multivariate regression was carried out to understand the extent of the influence of each factor outlined. In the analysis, the WEI score was used as the dependent variable and the four factors outlined as the independent variables. The model specification is

$$\text{WEI} = \alpha + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4 + U$$

Where WEI is women empowerment index and F are the factor scores of various dimensions, α and β are the parameters and U random factors.

(ix) Path Analysis using AMOS Graphics

Path analysis consists of a family of models that depicts the influence of a set of variables on one another. It is closely related to multiple regression analysis. It is an extension of multiple regression models which researchers use to test the hypothesized causal connections between sets of variables. The path analysis aims to provide estimates of the magnitude and significance of hypothesized causal relationship among groups of variables displayed through the use of path diagrams. A path diagram is an illustration wherein the variables are identified, and arrows from the variables are drawn to another variable to indicate a theoretical based causal relationship. A single-headed arrow points to the cause-effect relationship. A double-headed curved arrow indicates that the variables are merely correlated; no causal relations are assumed.

The path model has two types of effects. The first is the direct effect, and the second is the indirect effect. When the exogenous variable has an arrow directed towards the dependent variable, then it is said to be the direct effect. When an exogenous variable affects the dependent variable, through the other exogenous variable, then it is said to be an indirect effect. To see the total impact of the exogenous variable, we have to add direct and indirect effects. One variable may not have an immediate effect, but it may have an indirect impact as well.

Among the many measures of fit to evaluate the path models, five popular measures are Chi-square (χ^2), normed chi-square (χ^2 / df), the goodness of fit index (GFI), Tucker-Lewis Index (TLI), Root Mean-Square Error of Approximation (RMSEA) (Holmes-Smith 2000). However, all appropriate measures given in table 3.5 were used to evaluate the goodness of fit of the models in this research.

TABLE NO - 3.5
MEASURES OF FIT

MEASURES OF FIT	INDICATIONS OF MODEL FIT
Normed Chi-square CMIN /DF (χ^2/df),	A value close to 3 and not exceeding three indicates a good fit. A value of less than one indicates an over-fit of the model.
CFI	The value lies between 0 and 1. A value close to 1 indicates a very good fit.
TLI	The TLI value lies between 0 and one but is not limited to this range. A value close to 1 indicates a very good fit. A value greater than 1 indicates an over-fit of the model
NFI	The NFI value lies between 0 and 1. A value close to 1 indicates a good fit.
GFI	The GFI value is always less than or equal to 1. A value close to 1 indicates a perfect fit
RMSEA	A value of about 0.05 or less indicates a close fit of the model. A value of 0.0 indicates the exact fit of the model. A value of about 0.08 or less indicates a reasonable error of Approximation. The value should not be greater than 0.1

In the present study, path analysis was used to study the interrelationship between Personal Autonomy, Decision making, Social Empowerment, Economic Empowerment, Women Empowerment Index and Frequency of Domestic Violence.

All the above tools were applied by using IBM SPSS software package.

Limitations

Though every attempt has been made to obtain reliable and generalized results, the investigator would like to own certain unavoidable limitations that have crept into the study.

- The authority that we addressed for collecting the information's of the victims was very reluctant to provide it because of the sensitivity and stealth of the issue.
- The data collection took a long period as in several cases. There was the unwillingness of some respondents to disclose their experience of abuse.

- Only married women facing domestic violence from the urban slums of Coimbatore city have been surveyed and contacted. Married women of the drifting population, however, have been excluded.
- In addition, the current research is focused on knowledge obtained through surveys and face-to-face interviews which are subject to bias. Moreover, errors resulting from lack of cooperation between respondents may have affected the results. All possible precautions were taken to achieve the highest level of accuracy in the results of the limited study.

But these limitations do not negate the results of the study in any way and provide scope for further studies in the future.