# CHAPTER 3: METHODOLOGY

## 3.1 Introduction

This study is a secondary data analysis of the 1998 South African Demographic and Health Survey (SADHS) data set of women and households. According to the SADHS 1998 Full Report the sample of the SADHS was designed to be a nationally representative probability sample of approximately 12, 000 completed interviews with women between the ages of 15-49. The actual sample results were such that 12, 860 households were selected for the sample, within which 12, 327 women were identified as eligible for the individual women's interview, and interviews were completed with 11, 735 (95.2%) of the women.

## 3.2 Sources of Data

The SADHS 1998 data set used in this study was obtained from Measure DHS. The data specific to this study was gleaned from responses to the Women Questionnaire of the SADHS 1998.

## 3.2.1 Sample Size and Description

The country was divided into nine strata, representing the nine provinces, and each stratum further divided into Urban and Rural strata. A two-stage sample was then selected from each of the strata. The sampling frame created by the Central Statistics Office (CSO) for the 1996 census was used. This sampling frame consisted of about 86,000 Enumeration Areas (EAs) each ranging from 100-250 households.

The Primary Sampling Unit (PSU) was the EAs, which were systematically selected with Probability Proportional to Size (PPS), the size being the number of households in the EA. Nine hundred and seventy two (972) EAs were selected of which six hundred and ninety (690) were from the urban Areas and two hundred and eighty two (282) from the rural Areas. Ten (10) visiting points were then selected and twenty (20) from the rural EAs.

All eligible women were interviewed if the visiting point contained 1 or 2 households, and where there were more than 2 households, 1 household was randomly selected. A total of 12,860 households were selected which recorded a response rate of 92.3%

Information was collected on women's experience of violence and whether they tried to get help from services of any kind after experiencing violence. The study is based on a sample of 11735 women aged 15-49 of which 1078 (9.2%) experienced violence in the 12 months preceding the survey. Out of the 1078 women, 250 (23.2%) sought help from at least one of the available services i.e. shelter, counseling, women's centre, social worker, police, clinic/hospital and other service.

#### 3.2.2 Questionnaire Design

The questionnaires used in the survey were adopted from the DHS model questionnaire and translated into all eleven (11) official languages of South Africa (English, Afrikaans, isi Xhosa, isi Zulu, Sesotho, Setwana, Sepedi, Tshi Venda, Xitsonga, and isi Ndebele). The questionnaires were pre-tested in November/December of 1996 and finalized based on the results of the pilot study.

#### 3.2.3 Data Collection

The field work was carried out for approximately 9 months, from January to September of 1998 by 33 interviewing teams comprising 107 interviewers. The interviewers were selected on account of their education, maturity, field experience and ability to conduct interviews in languages of a given province. These interviewers were trained by teams from the Medical Research Council (MRC), Human Science Research Council (HSRC), Free State University (centre for Health Systems Research and Development), and Macro International. The two phase training comprised of a plenary session on general issues and the second on specific discussions by section for each of the provinces in separate venues.

#### 3.2.4 Quality Control

Three levels of quality control were instituted, the first being that of field leaders and editors, who were trained to identify EAs in the samples. This guided the interviewers in the selection of dwellings for interviews. The second level was approximately 10% of the samples that were re-visited in the month of the interview to ensure that appropriate dwellings were selected and the occupant interviewed. And thirdly, a team of HSRC staff carried out independent quality control visits to check questionnaires for errors, quality of identification and interviews at the dwelling level and EA's

## 3.3 Data Analysis

In this study some variables were recoded while others were computed to facilitate analysis and to make interpretation meaningful.

## 3.3.1 Description of Variables

Age was regrouped into seven categories of five years each from 15-19 years up to 45-49 years.

Marital status was collapsed into three categories from six that were present in the data set. 'Never married' include those that have never been married or lived with a partner; 'Married and Living together' were placed together in a single group due to the improperly defined marriage pattern in South Africa, and comprised respondents that were living with their partners; and 'Separated', that was made up by women who were divorced, widowed and not living together, who were as such not living with their partners. This was done to make comparability between respondents that were in regular relationships, those that were not, and those that had never been, easier.

**Socio-economic status (SES)** was computed from the respondent's ownership of household assets, as the SADHS 1998 did not collect information on household income or expenditure, but rather provided information on household assets. According to the SADHS 1998 'the presence of durable consumer goods is a measure of household

socio-economic status' (pp: 9). Ownership of the following household assets were used to compute the respondent's SES: electricity; refrigerator; television; telephone; and motor car. To facilitate measurement of SES, ownership of 0 - 2 assets from the selected assets was coded 'Low SES'; ownership of 3 assets was coded 'Medium SES'; and ownership of 4 - 5 assets was coded 'High SES'.

Household size was computed from data collected by the SADHS 1998 based on 'de jure' numbers, implying usual residents. This variable was recoded into three categories from a continuous variable where 'Small' refers to a household size between 1-3 usual residents; 'Medium' refers to a household size between 4-5 usual residents; and 'Large' refers to a household size of 6 and more usual residents.

**'Ethnicity'** implies race, but was however used in this study in much the same way as in the SADHS 1998.

#### 3.3.2 Independent Variables

The independent variables comprise the demographic and socio-economic profiles of the respondent which are essentially the background variables that predict women's experience of violence, whether or not they seek help, and where victims tried to get help from. It is expected therefore, that these variables are associated with the outcomes, and in this study are use and defined as:

- Age group Current age of respondent in groups 15-19 (1); 20-24 (2); 25-29 (3); 30-34 (4); 35-39 (5); 40-44 (6); and 45-49 (7)
- Education level No education (1); Primary (2); Secondary (3); and Higher (4)
- Marital status Never married (1) Married /Living with partner (2); and Separated (Divorced, Widowed, and not living together) (3).
- Socio-economic status (SES) Low (1); Middle (2); and High (3)
- Household size Small (1); Medium (2); and Large (3)
- Household headship Female (1); and Male (0)

- Province Western Cape (1); Eastern Cape (2); Northern Cape (3); Free State (4); KwaZulu Natal (5); North West (6); Limpopo Province (7); Mpumalanga (8); and Gauteng (9)
- Residence Urban (0); and Rural (1)
- Ethnicity African/Black (1); Colored (2); White (3); and Asian/Indian (4).

## 3.3.3 Outcome Variables

The outcome variables are measured in the following manner:

- Ever experience of violence in preceding 12 months: Respondents were asked the question 'Over the last year has any one ever kicked, bitten, slapped, hit you with a fist, threatened you with a weapon, such as a knife, a stick or a gun, or thrown something at you?' The response was either 'Yes' or 'No'.
- Sought help of any kind: Women who answered in the affirmative to the previous question were asked 'Have you tried to get help from services of any kind because of beatings or other bad treatment?' The response was either 'Yes' or 'No'.
- What service did you use? Women who answered in the affirmative to the previous question were asked 'What did or do you use? Shelter? Counseling? Women's centre? Social Worker? Police? Clinic/hospital? Other?' The answer could be a combination of services.

Descriptive analysis was used to demonstrate the extent of violence experienced by women in South Africa and to describe the population under study, while the bivariate analysis examined relationships between the demographic and socioeconomic factors, and women's ever experience of violence, as well as whether women seek help after victimization.

Binary logistic regression was used to examine differences in women's experience of violence and where they seek help from after victimization, by their demographic and socio-economic factors. The use of logistic regression was dictated by the dependent

variables 'ever experience of violence' and 'where the respondents sought help' being binary variables coded 0 if the respondent did not experience violence and 1 if the respondent did; and coded 0 if the respondent did not use a service and 1 if the respondent did.

In the first regression that examines differences in a woman's experience of violence, all the women interviewed during the SADHS 1998 aged 15 - 49 years were considered in the analysis. The second regression to examine whether women seek help after victimization took into account only those women who reported experiencing abuse, while the regression that examines where women seek help after victimization considers only those women who reported seeking help.

A general model was first estimated that describes the influence of individual characteristics on the likelihood of a woman's experience of violence. Logistic regressions of the odds of experiencing violence were estimated in a base line model (Model 1) with the respondent's individual characteristics (age group, education level, and marital status) as the covariates.

The second model introduced household characteristics into the equation. Model 2 was estimated by adding the respondent's household characteristics (SES, household size, and sex of household head) as the covariates.

The third model considered the socio-economic aspects of the respondent that were estimated to affect her experience of violence. Model 3 was estimated by adding to model 2, the respondent's social characteristics (province, residence and ethnicity).

The odds of experiencing violence were computed relative to a selected reference category for each factor. Throughout the multivariate analysis the odds ratio for each factor is presented. An odds ratio of 1 implies no difference in the odds of experiencing violence between the categories, while an odds ratio that is greater than 1 indicates an increase in the odds of the event. An odds ratio of below 1

indicates a decrease in the odds of experiencing violence relative to the reference category.

Secondly the study focuses on where women seek help after victimization. Logistic regressions were run for each of the different places where services were available, controlling for selected background characteristics.

#### 3.4 Study Limitations

One potential limitation of this study is the possibility of under-reporting of violence which is particularly problematic, especially among older women. The data that will be used in this analysis is not expected to be different as surveys do not measure the number of women who have experienced violence; rather they measure those who are willing to disclose abuse. Respondents may not wish to disclose abuse and therefore under-report it due to perceptions of shame, fear of blame and added violence, seeing it as a private matter, or reluctance to be disloyal to their partner by speaking badly about them, stigmatization and secondary victimization among other reasons. Others do not see themselves as abused because they have been raised to believe that men will discipline women (Heise et al. 1994; Jewkes et al., 2002).

In addition the study could have provided a better estimate if data was used from a survey that was dedicated to women's experiences of violence as general 'victim surveys cannot address the issue of violence against women in its complexity or in the necessary detail to test theories or devise prevention strategies' (Johnson & Sacco, 1995; Jewkes, 1999). Furthermore, it is probable that estimates for the outcomes would have been better had the enumerators been trained to collect data on women's abuse as experienced in other studies (Jewkes, 1999).

The observation suffers from the one-year reference used in the study to estimate the prevalence rate. This leaves out abuse that occurred outside the reference period, and in essence relays an incidence rate i.e. the number of new cases arising in a defined population over a specified period. This misclassifies women who suffered

abuse outside the time frame and seriously undercounts the rate of victimization in the population, thus obscuring the scope of the problem, despite the so called benefits it gives to survey analysts (Johnson & Sacco, 1995).

The analysis of data to answer the research question will be restricted to factors identified in the literature that are available in the data set. Lastly, the lack of qualitative data to enhance the understanding of how women think about violence against them, further limits this study.