

CHAPTER 3

3. Research Methodology

3.1 Design

This research was conducted as a survey study in which questionnaires were administered to a large number of learners (875) in a number of primary schools (18) in a designated area. By its nature, as a non-experimental study, there was no need to look for any causal relationships or in anyway manipulate the independent variable. The study was undertaken in an attempt to identify the presence and prevalence of Posttraumatic Stress Disorder in preadolescent school children in a black township of Sebokeng in the Vaal Triangle. Singleton, Straits, Straits and McAllister (1988) indicated, as the strengths of the survey study its capacity to include a large number of subjects in a sample.

The survey study can also study a large number of important independent variables in relation to any dependent variable (Levin & Fox, 1994). It is not confined to any particular variable that can be manipulated thus making it more representative than other methods. The results of the survey can, therefore, be generalised to a broader range of people (Levin & Fox, 1994). The survey also allows one to identify the characteristics of respondents and their relationship to particular variables (Singleton et. al. 1988). In this way it become easier to understand and describe the incident of the variable in question among particular groups.

The need for a community prevalence study was emphatically stated in the previous sections. The reason being that this sort of study presents a number of advantages. It is highly appreciated that prevalence studies have significant values in most arenas of information exchange (Cuffe, et. al, 1998). For instance, there are clearly clinical, diagnostic, and etiologic benefits embedded in this study. With the lifetime prevalence rate clearly expressed (many studies show different prevalence rates), it will become easier to make better diagnosis. It also has research implications in that the aetiology will be clearly understood thus facilitating better treatment intervention. There are also general health policy matters, such as the need for preventative measures. Since most studies have tended to focus solely on high-risk populations such as people exposed to some kind of traumatic stressor, it is possible that the prevalence rate of PTSD might be influenced.

3.2 Method

3.2.1 Subjects

Firstly, the schools that are included in this study were selected using the simple random sampling technique. This technique ensures unbiasedness in the selection of participants in that it allows all members of the population to have an equal chance of being selected (Heiman, 1995). This according to Leedy (1993) is an example of probability sampling. It implies that “the researcher can specify in advance that each segment of the population will be represented in the sample” (Leedy, 1993: 200).

Secondly, although individual learners were not randomly selected per se, the sample- that is learners who were chosen for this study by their teachers- is still to be considered to have been random by virtue of having the schools selected in this manner. It will be noted that because schools were randomly selected it was possible to find more than one school in one area (i.e. Zone). About 875 learners from 18 schools were included in this study. Ideally 30 learners were supposed to have been included in the sample from each of the 30 schools, making the sample size the maximum of 900.

As it became obvious that some schools had and were prepared to provide more learners as part of the sample, it made sense to seek an aide in order to assist the researcher in administering questionnaires in classes that exceeded 40. It was felt that the researcher would not be able to handle classes that exceeded this number and that the aide would only be required in such conditions. This made it possible to obtain a sample size of 875 learners in only 18 schools. Following this revision an attempt was made to include schools from different areas of the Sebokeng Township by re-selecting 20 schools from the 30 that were originally selected. This was meant to maintain the randomness of the sample and thus maintaining the representativeness of the study.

According to the research proposal the study was to focus on the 9 to 11 years age groups. Upon receiving the research questionnaire from the author, it was thought that children might have difficulties comprehending the questions. That is, the face validity in this particular sample was somehow doubtful. A pilot study was therefore conducted shortly after written approval was obtained from the Gauteng Education

Department in an attempt to assess the children's level of understanding of the scale. The pilot was conducted on a group of children in a situation similar to the final sample. It was found that younger children were incapable of understanding the scale thus prompting the researcher to shift focus to the upper preadolescent age groups (i.e. 11, 12 years old). During the analysis, it was thought highly unlikely that the inclusion of 13 years old group would bring the effect of maturity as the extraneous variable and were thus included in a sample.

Most languages spoken in Sebokeng Township (viz. Sesotho, isiZulu, Setswana, Xhosa, and Sepedi, in order of prominence) were proportionally represented in the study. The sample originally constituted 10 to 17 year old learners (the reason for this will be explained in the procedure section). A number of learners who were either under aged or over aged were excluded from the analysis of the results thus only the data of 797 school children comprising of 439 girls and 358 boys was included. This meant that as the age groups were cut to 11, 12, and subsequently 13 years old, the new mean age of 11.67 was obtained with a standard deviation of .64.

Most learners fell within the grades 3 to 8 range with grade 5 as the mode. Only 3 learners reported to have been in grade 8. This would be received with some doubt in light of the current education policy, which stipulates that children start schooling at age 7. Naturally, this would place most of the 13 years old into the 7th grade. It should therefore be born in mind that many children in the study would have started schooling before the current education policy. In light of the previous policy therefore, it makes sense that a number of 13 years old children would fall into the 8th grade (holding other things equal) since they would have started schooling at age 6.

3.2.2 Procedure

Prior to the administration of the assessment instrument, approval was sought and obtained from the Gauteng Department of Education (see Appendix 1). The approval, however, came with a price. Firstly, the GDE felt the scale was too long at 90 items. Unless the researcher provided evidence that the duration of questionnaire administration would not exceed 45 minutes, approval could not be granted. The suggestion was that the scale should be reduced to a reasonable number of items. This prompted some communication with the author of the scale on ways to truncate the scale without compromising its psychometric qualities. As the scale was divided into two parts, it was suggested by the researcher that the second part be removed, as it did not qualify to make a diagnosis but rather to identify other associated symptoms. In an e-mail sent to the researcher, K. Fletcher (personal communication, March 06, 2000) writes:

“Yes, it is quite possible to divide the scale as you suggest. Items 1-58 will provide you with information on the DSM-IV PTSD symptoms and diagnosis. The additional items simply assess additional symptoms and are primarily for more rigorous testing and/or research purpose. Feel free to drop the last items and use only the first 58”.

Secondly, this scale was to be accompanied by the exposure to violence checklist to increase our power in the analysis of the results. The checklist was developed in South Africa and its inclusion was based on this factor. But then again the time

restraint imposed by the Department of Education meant that this checklist was to be removed from the administration.

3.2.2.1 The Pilot Study

The above prompted the researcher to apply a pilot study in an attempt to look at the possibility of administering what was left of the instrument within the specified time period. A letter explaining this was sent to the relevant authorities that then later issued the approval letter. Certain conditions were highlighted in the approval letter, which the researcher can confidently attest were strictly followed. The principal condition attached to the letter was that the administrations were to be undertaken after normal classes and that learning should be disrupted as minimally as possible. It was as a result that all questionnaires were administered after classes. In some schools, the researcher was permitted to start about 15 minutes before classes ended. Approval and consent were also obtained from school principals (see Appendix 2) and parents (see Appendix 3) respectively. In some schools the approvals were obtained with the consent of the School Governing Bodies (SGB).

3.2.2.2 The Study

Questionnaires were administered to a group of learners in a classroom situation. Each classroom consisted of the minimum of 20 and the maximum of 40 learners. The reason for this discrepancy was that as the date and time of the actual administration were negotiated, all the schools took the responsibility of organising the learners and places them in the identified rooms. Most of these schools were however disorganised

such that when the researcher arrived, learners had not been organised into the classrooms.

Upon the arrival of the researcher, learners would be swiftly organised. This would normally take about 15 to 20 frustrating minutes. This therefore, led to a number of implications: 1) the administration took longer than expected; 2) variables such as under aged and over aged learners could not be easily controlled, as a result some classes ended up with children aged 9 to 17 years old; 3) by the time the administration started, most children would be restless and thus wanting to go home.

During the administration in the first few schools, an aide with a BA degree in psychology was employed. The assistant was trained thoroughly to administer the scale. She was then allowed to administer questionnaires in separate classes in the same schools the researcher was visiting. Hence higher numbers were recorded in some other schools.

Research materials such as questionnaire, pencils and the eraser were provided by the researcher to groups of learners. Each school was also given a copy of the questionnaire for their records. Schools principals were told that the results of the research would be communicated to them upon completion of the study.

The questionnaire administrations were conducted in the absence of the school authorities. While the teachers and principals were told that they could leave since they were not needed, some decided to stay over (albeit in their offices) until the administrations were over. A description and explanation of the questionnaire was

offered to the learners. The importance of the study was conveyed to them but they were also told that participation was voluntary. It was also made clear that their responses were confidential and that only the researcher would have access to them. However, since their names were included in the questionnaire the researcher cannot claim anonymity. The reason children's names were included in the questionnaire was that in cases where it is obvious that a child needs urgent help, this would be made possible by referring to their names on the questionnaire. Also emphasised was that should they wish to discontinue for any reason, they would not be disadvantaged for this.

The researcher remained in the classroom for the remainder of the questionnaire administration in order to offer explanations and any help that may be needed by the learners. The intention was also to watch for any emotional effects as a result of the involuntary recall of exposure to extreme traumatic stress. One referral was as a result made to the Sharpeville clinic, where a psychology intern is placed on a six months period every Thursday of the week.

3.2.2.3 Instrumentation

The instrument used was developed in 1991 by Kenneth Fletcher of the University of Massachusetts medical school in the United States of America. Fletcher is an associate professor of psychology in the department of psychiatry. The scale, called the 'When Bad Things Happen' (WBTH) is a paper-and-pencil self-report questionnaire designed to make the diagnosis of PTSD in third grade level children or higher (see Appendix 4). It is accompanied by a parent's paper-and-pencil report on

the child's responses. Due to time constraints and the size of the sample, it was not possible to make use of the parent's version of the questionnaire. It is reported that preliminary testings have revealed that children found it easier to fill in the self-report than answering questions in the interviews.

The WBTH was designed to be understood by children and adolescents. It has a reading level of third grade or higher. It comprises 90 self-rating items with items 1-58 designed to make the DSM-III-R & IV PTSD diagnosis and items 59-90 to assess the associated symptoms such as depression, anxiety and dissociation among others. Due to some practical reasons the researcher administered the former part of the instrument (that is, items 1-58). The latter items are also designed to measure the severity of symptoms. There is a space provided on the first page of the scale for the children to specify what the Bad Thing is that they are reporting on. Children were as a result requested to report on the type of trauma (i.e. the Bad Things) so that a diagnosis of PTSD could be possible. It should be noted that exposure to traumatic event has to be known for diagnosis of PTSD to be made. The scale is designed to be used by both the professionals and the paraprofessionals. It can be used in clinical and research settings. Scoring is made using the children's own rating scales.

Each item on the WBTH scale is answered either as Never, Some, or Lots. Scoring depends on the direction rule (the rules indicate which direction items are to be scored), i.e. for a **Never** rule, **Never** is scored 2 and lots is scored 0 while a **Lots** rule means lots is scored 2 and never is scored 0. More than two questions are usually asked regarding each symptom. It is expected that with some later refinements by the original author some questions will require some rewording and that only two

questions would be required for each symptom. The diagnosis of PTSD is made if all criteria (i.e. criterion A to criterion F) are checked yes.

The development of scales was conducted in a sample of 30 children aged between 7 and 14 years old (mean= 10.3; SD= 1.6). They were divided into groups of clinical and community samples. Clinical group consisted of children who “were identified by their therapists as having been exposed to a traumatic event in the past five years” and were recruited from the two local counselling clinics (Fletcher, 1996: 3). The community group on the other hand was recruited in two ways. Firstly, letters were sent to the parents whom their children were well patients at a local paediatric clinic. Secondly, the community children in a sample told their friends some of whom volunteered to take part in the study. To determine the nature of the stressor, clinical children were asked how they responded to an event or events identified by a therapist. The community children were asked to report the worst event that happened to them in the past five years.

The community group was further divided into traumatised and non-traumatised groups. They, therefore, ended up with three sample groups. The Dimension of Stressful Life Events scale (DOSE) was used to classify these community children into the two groups. This was based on their DOSE score. That is, those with the DOSE score of 20 or greater were classified as having been exposed to a traumatic event and thus assigned to the community-traumatised group. 10 children were assigned to each of the three groups.

The demographics of the resulting three groups of children were examined for differences. The three groups did not differ significantly on age ($F [2,27] = .1099$, ns). Although the chi-square for groups by sex was not significant ($X^2 [2] = 3.4821$, ns), the clinical group was composed of 30% boys; whereas the traumatised community group was 70% boys, and the non-traumatised community group was composed of 60% boys. The groups differed significantly on income category ($F [2,27] = 5.46$, $p = .01$), with the clinical group reporting significantly lower income than the non-traumatised community group, and the traumatised community group reporting incomes between these two groups but closer to the non-traumatised community group than the clinical group.

Report on the scales shows that they have good psychometric properties. The internal consistency of the WBTH, using the Cronbach's alpha, was very good at .92. It was also good for each of the four DSM-IV criteria: 1) Criterion A- exposure to an upsetting event with the internal consistency of .70; Criterion B- symptoms of reexperiencing, .89; Criterion C- avoidance and denial of the experience and its consequences, .70; and Criterion D- symptoms of over arousal, .82. In terms of convergent validity, the number of stressful events reported by the child was not significantly associated with the scale. Three groups reported different levels of PTSD on the scale, with the clinical group reporting the highest scores and the non-traumatised group the lowest. Tests to follow-up contrast (using Tukey's HSD) indicated that clinical group differed significantly from the nontraumatised community group on the WBTH total severity scores ($F [2,27] = 5.67$, $p = .01$). The WBTH showed the association between the DOSE level and PTSD diagnosis were significant at $p = .02$ using Fisher's exact one tail.

Since the scale did not include items to assess criterion E & F (which the researcher is supposed to assess by using other scales such as Achenbach's Child Behaviour Checklist) two items were added to the 58 WBTH remaining items. These items have no psychometric qualities but were included to get some measure of Criterion E and F and have no bearing on the psychometric properties of the scale