# Chapter three

## 3.0 Interdiction

This section contains, research design, research population, sample size, sample procedure, research instrument, validity and reliability of instrument, date collection procedure, date analysis technique, Ethical consideration, limitation of the study,

## 3.1 Research design

The study will be conducted between February and august 2020 in Guriel district. It was community based cross sectional done. This means that the sample was taking form the target population and information was obtained at the same time on particular point in time. Cross sectional study design was used in this study.

In this study the researcher will conduct through descriptive research design to investigate effect of the toxoplasmosis on pregnant women.

Research design is the arrangement of conditions for collection and analysis of

Data in a manner that aims to combine relevance to the research purpose with economy in procedure (former principle, 2004)**.**

**Descriptive research** .Sometimes an individual wants to know something about a group of people. Maybe the individual is a would-be senator and wants to know who they're representing or a surveyor who is looking to see if there is a need for a mental health program.

The researchers choose descriptive because Descriptive research may be a pre-cursor to future research because it can be helpful in identifying variables that can be tested.

## 3.2 Research population

According to target population refers to all members of a real set of people for this study (Ali, 2016).

Although accurate statistics of population size in Guriel district is not available because there is no effective working local authority in this district right now. Thus the researchers adapted the target population that most literatures adapted (120-50 individuals) in this study the researchers adapted 100 individuals as target population of this study as shown in the below table.

**Table 1: Target population distribution**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | | **Respondents** | **Target population** | **Sample size** |
|  | | Effected children | 33 | 20 |
| 2. | | Tewfik NGO. | 33 | 20 |
| 3. | | MCHs | 34 | 30 |
| **Total** | | **100** | **80** |

## 3.2.1 Sample size

To determine the sample size from the target population of the study, the researchers used **Slovene’s formula.**

Where **n**= sample size, **N=** target population, **100** and e = margin of error of 0.05

***n*=80.**

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## 3.2.2 Sample procedure

The researcher used simple random sampling and all the respondents will have an equal chance to participate when responding the question being asked.

## 3.3Research instrument

Questionnaire method has been used for data collection. this questionnaire was easy to analyze since it was in immediate usable form they was easier to administer because each item is followed by alternative answer and it was economical to use in items of times and money on the other hand it was more difficult to construct because categories must be well throughout and response was limited

The study will use mainly primary data and secondary data. Primary will be collect by using questionnaire. Questionnaire is the easiest method which data collects from the respondents. Questionnaire is a data collection instrument consistent of a series of questions and other prompts for the purpose of gathering information from respondents.

A questionnaire is a research instrument that consists of a set of questions or other types of prompts that aims to collect information from a respondent. A research questionnaire is typically a mix of [close-ended questions](https://www.questionpro.com/close-ended-questions.html) and [open-ended questions](https://www.questionpro.com/open-ended-questions.html). Open-ended, long-form questions offer the respondent the ability to elaborate on their thoughts. Research questionnaires were developed in 1838 by the Statistical Society of London.

The data collected from a data collection questionnaire can be both [qualitative](https://www.questionpro.com/blog/qualitative-market-research/) as well as [quantitative](https://www.questionpro.com/blog/quantitative-market-research/) in nature. A questionnaire may or may not be delivered in the form of a [survey](https://www.questionpro.com/tour/surveys.html), but a survey always consists of a questionnaire.

### [Questionnaire Examples](https://www.questionpro.com/blog/what-is-a-questionnaire/)

1. **Customer Satisfaction Questionnaire:**This type of research can be used in any situation where there’s an interaction between a customer and an organization. For example, you might send a customer satisfaction survey after someone eats at your restaurant. You can use the survey to determine if your staff is offering excellent customer service and if the overall experience was positive.
2. **Product Use Satisfaction Questionnaire:** You can use a product use research questionnaire to better understand the usage trends of your product and similar products. This also allows you to collect customer preferences about the types of products they enjoy or want to see on the market.
3. **Company Communications Evaluation Questionnaire:** Unlike other types of questionnaire examples, a company communications evaluation looks at both internal and external communications. It can be used to check if the policies of the organization are being enforced across the board, both with employees and clients.

The above survey questionnaire examples are typically less expensive to execute than in-person surveys or interviews. Additionally, the standardized answers of a survey questionnaire instead of a person-to-person conversation make it easier to compile useable data.

Questionnaires aren’t without limitations. The biggest limit of a data collection questionnaire is that respondents need to read all of the questions and respond to them. For example, you send a questionnaire invitation through email asking respondents to complete the questions on social media. If a target respondent doesn’t havethe right social media profiles, they can’t answer your questions

### [Advantages of a Questionnaire](https://www.questionpro.com/blog/what-is-a-questionnaire/)

* With a survey questionnaire, you can gather a lot of data in less time.
* There is less chance of any bias creeping in if you have a standard set of questions to be used to your target audience. You can apply logic to questions based on the respondents’ answers, but the questionnaire will remain common for a group of respondents that fall in the same segment.
* Conducting a survey through online survey software is really quick and cost-effective. It offers you a rich set of features to design, distribute and analyze the response data.
* A questionnaire can be customized to reflect your brand voice. Thus, it can be used to reinforce your brand image.
* The responses can be compared with the historical data and understand the shift in respondents’ choices and experiences.
* Respondents can answer the questionnaire without revealing their identity. Also, many survey software comply with major data security and privacy regulations.

### the right social media profiles, they can’t answer your questions.

### [Types of Questionnaires](https://www.questionpro.com/blog/what-is-a-questionnaire/)

As we explored before, questionnaires can be either structured or free-flowing. Let’s take a closer look at what that entails for your surveys.

* **Structured Questionnaires:**Structured questionnaires collect [quantitative data](https://www.questionpro.com/blog/quantitative-data/). The questionnaire is planned and designed to gather precise information. It also initiates a formal inquiry, supplements data, checks previously accumulated data, and helps validate any prior hypothesis.
* Unstructured Questionnaires: Unstructured questionnaires collect [qualitative data](https://www.questionpro.com/blog/qualitative-data/). They use a basic structure and some branching questions but nothing that limits the responses of a respondent. The questions are more open-ended to collect specific data from participants.

### [Types of Questions in a Questionnaire](https://www.questionpro.com/blog/what-is-a-questionnaire/)

You can use multiple question types in a questionnaire. In fact, using multiple question types can help increase responses to your research questionnaire as they tend to keep participants more engaged.

Some of the widely used [types of questions](https://www.questionpro.com/article/types-of-questions-question-types.html) are:

* **Open-Ended Questions:** [Open-ended questions](https://www.questionpro.com/open-ended-questions.html) help collect qualitative data in a questionnaire where the respondent can answer in a free form with little to no restrictions.
* **Dichotomous Questions:**The [dichotomous question](https://www.questionpro.com/blog/what-is-a-dichotomous-question/) is generally a “yes/no” [close-ended question](https://www.questionpro.com/close-ended-questions.html). This question is generally used in case of the need of basic validation. It is the easiest form of a questionnaire.
* **Multiple-Choice Questions:** [Multiple-choice questions](https://www.questionpro.com/article/multiple-choice-questions.html) are a close-ended question type in which a respondent has to select one (single select multiple choice question) or many (multiselect multiple choice question) responses from a given list of options. The multiple-choice question consists of an incomplete stem (question), right answer or answers, incorrect answers, close alternatives, and distracters. Of course, not all multiple-choice questions have all of the answer types. For example, you probably won’t have the wrong or right answers if you’re looking for customer opinion.
* **Scaling Questions:** These questions are based on the principles of the four measurement scales – [nominal, ordinal, interval, and ratio](https://www.questionpro.com/blog/nominal-ordinal-interval-ratio/). A few of the question types that utilize the fundamental properties of these scales are [rank order questions](https://www.questionpro.com/features/rank-order.html), [Liker scale questions](https://www.questionpro.com/article/likert-scale-survey-questions.html), [semantic differential scale questions](https://www.questionpro.com/semantic-differential-scale.html), and [staple scale questions](https://www.questionpro.com/blog/stapel-scale/).
* **Pictorial Questions:**This question type is easy to use and encourages respondents to answer. It works similar to a multiple-choice question. Respondents are asked a question, and the answer choices are images. This helps respondents choose an answer quickly without over-thinking their answers, giving you more accurate data.

## 3.3.1 Validity and reliability of the instrument

Two of the most important aspects of the research and data occurrences are validity and reliability of the data. The issue of validity and reliability is one important part that is value to be considered when selecting research design. Thus the study should have to be aware of pressure of reliability and validity of the result in this study.

Defined reliability as the degree to which data collection techniques will yield consistent findings. To increase reliability, the study adapted relevant questionnaire and slightly modified. While Validity refers to the extent to which data collection method accurately measures what it was intended to measure or to the extent to which research findings are about what they are claimed to be about. To ensure the validity of the instrument, it will be given to experts to evaluate the relevance of each item in the instruments to the purpose of this study. So the next section will point out the procedure of data collection.

Pre-testing will be conducted to assist in determining accuracy, clarity and suitability of the Research instrument.

According to Bog and Gall (1989), ten cases are sufficient for the pilot study therefore, the researcher will deficiency since the subjects in this research was 31

Heterogeneous, and ten cases was reasonable representing the different categories of the

Participants.

**3.4** **Data collection**

After the research proposal approve, the researcher passed administrative process to obtain

Approval from academic authorities, the permission to collect the research within the selected respondents.

Questionnaire tool was administered to collect quantitative data from the selected respondents. The researcher will prefer this method because it is the most appropriate in collecting view respondents whose place was geographically spread

## Disadvantages are also present when using such questions

 They do not allow the respondent the opportunity to give a different response to those suggested.

  they ‘suggest’ answers that respondents may not have considered before.

With open-ended questions the respondent is asked to give a reply to a question in his/her own words. No answers are suggested.

3.5: DATA ANALYSIS

In this study the researcher will employ Statistical Package for Social Science (SPSS) version 17 to be processed and analyzed the data collected from the designed questionnaires. SPSS is a suitable for this research Because SPSS can summarize and present data in form of number and percentage.

the researchers used quantitative method of data analysis, to analyze data the researchers used

the software package of SPSS version 17 and excel adopted for data analysis.

Spss is a software program that helps researchers to analyze data electronically with coded and quick procedure

(gordy ethlic, 2012))the researchers have chosen it because it’s easy process and for saving time and cost.

SPSS Statistics is a format that IBM offers for complete analysis. It is the acronym for Statistics product and Service Solution.

The [**IBM**](https://en.wikipedia.org/wiki/IBM) SPSS Statistics is a family of advanced [**computer**](https://www.computertechreviews.com/definition/computer/) programs of statistic analysis. It is a wide and flexible software that is responsible for analyzing all the data

Data which is provided during the performance of various statistical calculations.

SPSS   Statistics also offers all the tools and tests necessary to make any prediction.

Since it performs both simple and complex statistical analyses.

Analyses that allow discovering relationships between variables (dependence and interdependence) as well as classifying subjects and other factors.

The program offers many functions of advanced and basic statistics, as well as 2-variable statistics such as ANOVA and the T-test. It also includes frequencies, cross-tabulations, as well as linear and non-linear models.

Through a series of dialog boxes, the program can perform any analysis of a large amount of [**data**](https://www.computertechreviews.com/definition/data-network/) and variables thanks to its efficient design. It also contains a section to edit data and a menu complete enough to make the necessary adjustments

**Other benefits of SPSS Statistics**

1-It is easy to use.  
2. SPSS offers reliable and fast answers.  
3. It has very dynamic and useful tables and graphs.  
4. Ideal access for anyone as it offers a wide variety of languages.  
5. It has a large number of statistical tests.

## SPSS Statistics Types

There are other different products in the suite, each offering their two-variable unique features.

SPSS is popular software among Windows users, and it is used to perform data capture and analysis to create tables and graphs with complex data. The SPSS is known for its ability to manage [**large volumes of data**](https://www.computertechreviews.com/definition/data-center/)  and carry out text analysis among other formats.

The SPSS statistical software base includes descriptive statistics such as tabulation and crossover frequencies,  statistics, plus T, ANOVA, and correlation tests. With SPSS, it is possible to perform data collection, create statistics, analysis of management decisions, and much more.

**Numeric Variables** – This variable contains only numbers and is responsible for numeric calculations. Numeric calculations, for example, addition and multiplication.

**String Variables** – This variable can contain letters, numbers, and also other characters. In string variables, you cannot do the calculations, even though these variables contain only numbers

3.6 ethical considerations

All residents that look part in this study have been explained for them to fill the questionnaire, all data collected from respondent was kept confidentiality maximum privacy was being maintained

* Every respondent was asked about permit ion to complete the questionnaire
* More explanation is given before respondent of questionnaire.
* Confidentiality of the secret information has the high priority freedom to participate the study.
* The researcher will think about the ethical issues throughout research project and will keep the privacy and confident his respond denasality of the respondents from the public.
* The undisclosed information will stay confidential.
* Good explanation of the respondents was done before filling the questionnaire.

**3.7 Limitations of the study.**

* Lack sufficient library and reference books.