CHAPTER III

RESEARCH METHODS

3.1 Research Design

This research uses a quantitative method with a correlative design, which aims to identify and explain the relationship between two or more variables without any special treatment of respondents (Arikunto, 2002).

The type of approach used is cross-sectional , namely a data collection technique carried out at one time on all variables studied, both independent and dependent variables, so that data is obtained simultaneously without the need for further observation. This approach does not require follow-up or re-measurement, because observations are only carried out once at a certain time (Nursalam, 2015).

In this study, the researcher wants to explain the correlation between peer social support and anxiety in the elderly at the Tresna Werdha Social Care Home.

3.2 Research Subjects

3.2.1 Population

According to Raihan (2009), population refers to all subjects or individuals who have certain characteristics that are determined within the research boundaries.In this study, the population consisted of 36 elderly individuals.

3.2.2 Sample

A sample is a representative or total portion of the population to be studied (Raihan, 2009). In this study, the sample was elderly people living at the Tresna Werdha Social Care Home in Blitar, with 36 respondents experiencing anxiety problems.

3.2.3 Sampling

The sample selection technique in this study was carried out using an approach that considered the entire population that met the criteria as part of the sample. The method used was total sampling, in which all subjects who met the inclusion and exclusion requirements were selected as respondents in the study to ensure maximum representation of the population being studied.

The inclusion criteria for this study are:

a. Elderly people aged 60-74 (early old age), 75-90 (middle old age), >90 (very old age)
b. Elderly people who have anxiety levels ranging from no anxiety/minimal anxiety to having various anxiety problems.
c. Elderly people who are aware and do not have chronic cognitive impairment problems and can communicate with others
d. Elderly people who have never experienced serious mental health problems until they are diagnosed with a mental disorder
e. Elderly people who are able to live well independently and do not receive total care assistance from werdha care home staff.

Meanwhile, the exclusion criteria include:

a. Elderly people who suddenly cancel their participation during the research
b. Elderly people who were uncooperative during the study
c. Elderly people who were sick or died at the time of the study

3.3 Time and Place of Research

1) This research will be conducted on November 24-December 5, 2025
2) This research will be conducted at the Tresna Werdha Social Care Home (*PSTW*) Blitar, located at Panglima Sudirman Street, Ngambak, Beru, Wlingi District, Blitar Regency, East Java.

3.4 Research Variables

In this study, two types of variables were analyzed: independent variables and dependent variables. Independent variables function as factors thought to influence other variables, while dependent variables *are* components that experience changes as a consequence of these independent variables. The relationship between the two is analyzed to determine the extent of the influence. The research variables are as follows:

1) Peer Social Support as an independent variable
2) Anxiety in the Elderly as a dependent variable.

3.5 Operational Definition

Table 3.1 *Operational Definition of the Relationship between Peer Social Support and Anxiety in the Elderly*

Variables	Operational Definition	Parameter	Measuring instrument	Scale	Score
Peer Social Support	The results of the assessment of elderly individuals regarding the availability and quality of emotional assistance, information, and instrumental assistance provided by fellow elderly residents of the Tresna Werdha Social Care Home (*PSTW*) Blitar	1. Emotional attention 2. Informational 3. instrumental 4. Judgment	The measurement value of social support is based on the results of the adapted *Multidimensional Scale of Percieved Social Support* (MSPSS) questionnaire by modifying the assessment indicators to focus on peer social support: **1** : Strongly Disagree **2** : Disagree **3** : Agree **4** : Strongly Agree	Ordinal	Total score between (20-80) with details as follows: 1. Low social support **20-39** 2. Moderate social support **40-59** 3. High social support **60-80**

Anxiety in the Elderly	The results of research on the emotional or psychological conditions of the elderly when facing threatening situations or stressful thoughts are characterized by feelings of worry, tension, or anxiety about a particular situation experienced or perceived by elderly individuals, whether related to health, death, dependency, or changes in the social role of the elderly in the institution.	1. Somatic Symptoms 2. Cognitive Symptoms 3. Affective Symptoms	Measurement of anxiety in the elderly based on the results of the modified *Geriatric Anxiety Scale* (GAS) questionnaire: **0** : Not at all **1** : Sometimes **2** : Often **3** :At any time	Ordinal	Total score between (0-60) with details as follows: 1. **0-15** = not experiencing anxiety/minimal anxiety/ *borderlin*e 2. **16-30** = mild anxiety 3. **31-45** = moderate anxiety 4. **46-60-** = severe anxiety.

3.6 Research Instruments

According to Nursalam (2017), instruments in nursing research can be categorized into five types based on measurement methods, namely: biophysiological, observation, interviews, questionnaires, and scales. In this study, the data collection technique used was through questionnaires**.** This is a method carried out by presenting a number of written questions or statements that must be answered by respondents. According to Sugiyono's explanation (2017), a questionnaire is a data collection tool that allows researchers to obtain information directly from participants through answers to previously prepared items.

The questionnaire used in this study is as follows:

1. Sociodemographic Data Questionnaire

   This questionnaire contains information related to the respondents' identities. This includes age, gender, education level, marital status, and health status, including medical history.

2. Peer Social Support Questionnaire

   The Multidimensional Scale of Perceived Social Support (MSPSS) instrument developed by Zimet et al. in 1988 has been translated into Indonesian. This measurement tool consists of 12 positive statement items covering three main sources of social support: family, peers, and individuals considered significant in the respondent's life. The use of the MSPSS in this study was chosen because it has been widely proven to have good validity and reliability in various previous studies, making it suitable

for use in assessing perceptions of social support in various populations, including the elderly.

However, in this case, the researcher will modify the questions by focusing on the peer aspect, consisting of 20 questions. This aspect assesses the extent to which elderly people feel satisfied with the friendships they have in their surroundings. During the data collection process, elderly people will be assisted in filling out the questionnaire while it is being filled out.

In this section, respondents were asked to express their level of satisfaction with the form of social support received from individuals they considered friends within the orphanage environment.

3. Anxiety Questionnaire for the Elderly

Data collection regarding elderly anxiety using the Geriatric Anxiety Scale (GAS) questionnaire was carried out by providing an instrument in the form of a questionnaire consisting of 25–30 statement items to elderly respondents, each of which was measured using a Likert scale (0 = never to 3 = always).

The GAS is specifically designed to measure anxiety in older adults across three main aspects: somatic (physical symptoms), affective (emotional), and cognitive (anxious thoughts). Before completing the questionnaire, researchers explained the purpose of the study and obtained consent from respondents. The questionnaire could be completed independently by the elderly, or read aloud by researchers or werdha care

home staff if the respondent had difficulty reading or understanding, without influencing their responses.

However, in this case, the researcher will modify several questions by adapting them to local culture with language that is easy for the elderly in the shelter to understand.

3.6.1 Grid of Peer Social Support Questionnaire According to the Multidimensional Scale of Percieved Social Support (MSPSS)

Table 3.2 Modified Peer Social Support Questionnaire Grid

No.	Variables/ Sub Variables	Indicator	Number of Questions	Question Number
1.	Emotional Support	Emotional availability	5 grains	1,2,3,4,5
2.	Informational support	Ability to share feelings and problems	5 grains	6,7,8,9,10
3.	Instrumental Support	Availability of real help	5 grains	11,12,13,14, 15
4.	Judgment support	Awards given	5 grains	16,17,18,19, 20

3.6.2 Grid of the Elderly Anxiety Questionnaire According to the Geriatric Anxiety Scale (GAS)

Table 3.3 Modified Elderly Anxiety Questionnaire Grid

No.	Variables/Sub Variables	Indicator	Number of Questions	Question Number
1.	Somatic Symptoms: • Cardiovascular problems (heart palpitations) • Breathing problems (shortness of breath) • Digestive problems (stomach ache) • Musculoskeletal problems (back and neck pain, muscle cramps) • Difficulty sleeping • Woke up while sleeping	A condition where the elderly experience physical symptoms such as heart palpitations, shortness of breath, muscle tension, abdominal pain, and sleep disturbances that arise as a response to stress or anxiety.	6 grains	1,2,3,4,5,6

2.	Cognitive Symptoms: • Difficulty concentrating • Feeling confused and dazed • Feelings of helplessness/ lack of control • The feeling of fear becomes a burden • Feelings of worry about children • Fear of death • Feelings of fear (fear of criticism, fear of embarrassment, fear of health problems)	A condition where the elderly experience disturbances in thinking or concentrating, such as difficulty focusing, being confused, or difficulty remaining still and calm in certain situations, in the form of excessive fear, constant worry, feeling a loss of control, or having unrealistic bad feelings about the future.	7 grains	7,8,9,10,11,12,13
3.	Affective Symptoms • Feeling of restlessness	A condition where the elderly experience	7 grains	14,15,16,17,18,19,20

	• Difficulty controlling oneself (sitting still) • Easy to get angry • Difficulty controlling anger • Feelings of separation or isolation • Feeling of lack of interest • Feeling tired	emotional changes such as being easily irritated, easily angered, losing interest in daily activities, feeling unreal, or feeling emotionally tired without a clear physical cause.		

3.7 Validity and Reliability Test

3.7.1 Validity Test

According to Sugiyono Vira (2023), the validity of an instrument is defined as the extent to which the measuring instrument is truly able to reflect the concept to be studied, so that the measurement results can be considered valid and reliable. The level of validity of a measuring instrument is usually expressed in the form of a coefficient value that indicates the quality of the instrument's accuracy.

In the peer social support questionnaire, the researcher used the previous questionnaire, namely the MSPSS, which had been tested for validity on 30 respondents and met the significant requirements of <0.05

with an r table of 0.361, but the researcher will test the instrument in a modified form.

Before the instrument was used in the main study, the researcher conducted a trial of the Multidimensional Scale of Percieved Social Instrument. The MSPSS will be developed by researchers prior to the study to assess the level of peer social support for individuals meeting the inclusion criteria. The results of this instrument test will serve as the basis for refining the instrument before use in the primary population.

The Multidimensional Scale of Percieved Social Support (MSPSS) instrument was modified by the researchers to accommodate the research sample. This 20-item questionnaire was administered to 30 elderly respondents using the Spearman rank test in SPSS 27, and obtained results ranging from 0.404 to 0.703.

Meanwhile, in the elderly anxiety questionnaire, the Geriatric Anxiety Scale (GAS) questionnaire developed by Segal et al. in 2010 obtained a validity value of 0.8. However, in this case, this questionnaire will be tested with a total of 20 questions. This test was conducted on 30 elderly respondents and obtained validity test results using SPSS 27 using the Spearman rank test, yielding results of 0.372 to 0.624.

3.7.2 Reliability Test

Reliability refers to the extent to which an instrument can produce consistent or stable results when used to measure the same variable under

similar conditions (Sarkawi et al., 2018). In this study, reliability testing was conducted using the Cronbach's Alpha method.

Multidimensional Scale of Percieved Social Support (MSPSS) questionnaire modified by the researcher showed a very reliable figure of 0.906, while the Geriatric Anxiety Scale (GAS) showed a coefficient value reliability level of 0.691, which indicates that both instruments have good internal consistency.

3.8 Data Collection Procedure

3.8.1 Preparation Stage

a. The researcher chose the research area at the Tresna Werdha Social Care Home (*PSTW*) Blitar and submitted the title
b. Researchers conduct preliminary studies as a form of research area orientation.
c. Researchers design proposal documents as a basis for planning research activities.
d. Researchers conduct proposal seminars according to the predetermined schedule and make improvements to the proposal.
e. After the proposal seminar and improvements, the researcher submitted a letter of permission to collect research data to the Academic Section of the Ministry of Health's Health Polytechnic in Malang.
f. The researcher submitted the letter along with the proposal to be submitted to the East Java Social Services via email as a requirement for research permission.

g. The researcher submitted an ethical feasibility test to the KEPK NHM as a requirement for research feasibility at PSTW Blitar while waiting for a reply letter from the East Java Social Service.

h. The researcher submitted a proposal that had been approved and ratified by the three lecturers and the head of the study program, a revision sheet, a minutes letter and carried out an ethical test which would be reviewed by the KEPK NHM.

i. After receiving a reply letter regarding data collection permission from the Social Services and passing the ethics test, the approval letter will be given to the PSTW Blitar.

3.8.2 Implementation Stage

a. The researcher submitted an official research permit application letter to PSTW Blitar which was sent by the East Java Social Service via email.

b. After receiving approval, the researcher will go to the Administration section of the shelter and will be directed to meet the head of the shelter to explain the objectives, duration, targets and methods to be carried out (questionnaire) as well as receive assistance during the collection of research data at the Tresna Werdha Social Care Home (*PSTW*) Blitar.

c. The researcher provided an explanation to the respondents before conducting the study, providing informed consent regarding their willingness to participate. The researcher assisted with completing the informed consent form and the respondents signed it themselves.

d. After the respondents signed the informed consent form , the researchers distributed sociodemographic questionnaires, social

support questionnaires using the Multidimensional Scale of Percieved Social Support (MSPSS) instrument, and elderly anxiety questionnaires using the Geriatry Anxiety Scale (GAS) instrument.

e. Data collection took place from November 24 to December 5, 2025, and each respondent took 10–15 minutes to complete the questionnaire. During the questionnaire, the researcher assisted respondents by reading, explaining, and filling in the answers based on the information provided.
f. After the data was collected, the researcher carried out a cross-check by checking again whether all the data had been filled in or not.
g. Expressing gratitude by giving souvenirs to respondents for their willingness to be research respondents
h. After the data has been completely collected, the researcher enters the questionnaire data into the table that has been prepared.
i. Researchers carry out data processing and analysis, researchers will carry out data analysis using Descriptive Statistics tests and *Spearman tests.*
j. Researchers draw conclusions from the research conducted
k. Researchers compile and document research reports

3.9 Data Processing Process

Data processing is the activity of systematically collecting and recording data from observations, interviews, etc. in order to develop a much better understanding than before (Amar, 2023)

Kristanto in Amar(2023) concluded that data represents an actual, ongoing event and has the potential for further processing to serve as valuable input into a system (Autoridad Nacional del Servicio Civil, 2021). Data processing techniques have several stages, such as:

1) Editing

   This is a check to review the data that has been filled in by respondents and make edits if the data contains errors.

2) Scoring

   Scoring is the assignment of a value to each answer chosen by the respondent according to the instrument criteria.

3) Coding

   It is a process of classifying data by coding the data according to its type.

4) Data Entry

   This is an activity of calculating all data that has been filled in using statistical methods and input according to previously determined criteria into a computer database.

5) Cleaning

   Rechecking data to avoid errors when entering data into a computer program so that the data produces accurate results.

3.10 Data analysis

3.10.1 Univariate

Univariate analysis aims to explain or describe the characteristics of each variable. The form of univariate analysis in this study is descriptive, using frequency distributions, and percentages.

Univariate analysis in this study describes the characteristics of respondents including age, gender, educational level, marital status, employment history, and health history. In addition, univariate analysis is used to present an overview of each independent variable including peer social support using a modification of the MSPSS (Multidimensional Scale of Percieved Social Support) instrument with the dependent variable including elderly anxiety using a modification of the GAS (Geriatric Anxiety Scale) questionnaire .

The formula used to calculate the percentage is as follows:

$$P = \frac{F}{N}\ x\ 100\%$$

Information :

P = Presentation Results

F = Achievement Result/number of correct answers

N = Maximum achievement result/total number of questions

100% = constant number

Table 3.4 Interpretation of Percentages in Frequency Distribution

Interpretation	Presentation
All over	100%
Almost All	76 – 99%
Most of it	51 – 75%
Half part	50%
Almost half part	26-49%
Fraction	1-25%
None	0%

3.10.2 Bivariate

This study applies an ordinal measurement scale. Therefore, the analysis of the relationship between variables was conducted using the

Spearman correlation test. Rank test is used to determine the relationship between variables. The correlation test used is a value of 0.05, which means that if $\rho < \alpha = 0.05$, the research hypothesis is accepted, it indicates a relationship between the two variables. The interpretation of the correlation coefficient for the two variables is systematically shown in the following table:

Table 3.5 Interpretation of Correlation Coefficient (r value)

Coefficient Interval	Relationship level
0.00 – 0.199	Very low
0.20 – 0.399	Low
0.40 – 0.599	Moderate
0.60 – 0.799	Strong
0.8 – 1.00	Very strong

3.11 Operational Framework

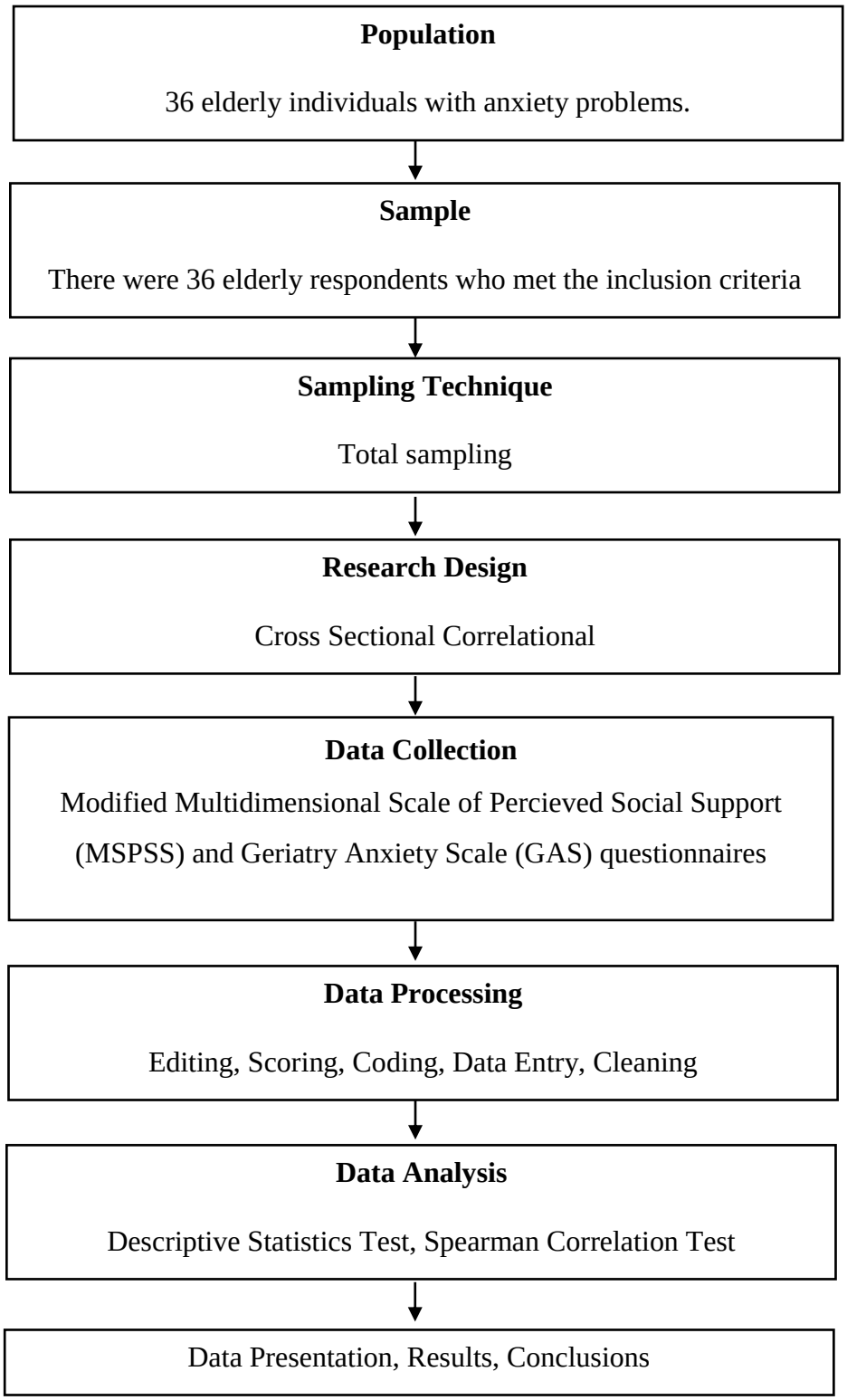


Figure 3.2 *Operational Framework*

3.12 Research Ethics

The researcher understands the importance of avoiding violations and adhering to research ethics. Throughout the research, the researcher is committed to avoiding any detrimental consequences and fully prioritizing the respondents' autonomy. In this study, the researcher submitted an ethics review to the Ethics Commission of Noor Huda Mustofa University (UNHM) under number 2928/KEPK/UNIV-NHM/EC/XI/2025. The following are some ethical guidelines for the research:

This research will use research ethics according to (Notoatmodjo, 2020).

1. Autonomy

   Every individual is free to determine their own life plans. Researchers give respondents the freedom to choose whether or not to participate. Therefore, informed consent is a crucial consideration, with the goal of providing a form of agreement received by research respondents after receiving an explanation of the treatment and the benefits that will arise from the treatment by the researcher. Respondents have the right to use their voice to choose their consent.

2. Confideality

   The information obtained after treatment and informed consent from respondents will be kept confidential by the researcher by not including the respondent's identity in the questionnaire and this

information will only be used by the researcher for research purposes and cannot be accessed by others.

3. Beneficence

   Researchers are obliged to minimize risks and maximize benefits, by helping respondents become aware of the social support they have.

4. Justice

   In this study, researchers must be fair to each respondent, and each respondent will receive an explanation of the treatment and be given the same questionnaire.

5. Non-maleficence (doing no harm)

   This principle is the obligation to do no harm to research respondents. Respondents have the right to voluntarily decide whether to participate in research without risking harm to them. This research has a very low risk because in this research only asks several questions in the form of a questionnaire which will later be given to respondents, where no testing or treatment is carried out.

6. Obtaining informed consent (providing consent form)

   Informing is a mechanical process in explaining the meaning of the idea and the contents of the research that will be carried out to respondents, while *consent* is the respondent's agreement to be part of the research after receiving an explanation from the researcher.