

CHAPTER 3

RESEARCH METHODS

3.1 Types and Design of Research

This type of research is a correlational research with the design used is descriptive correlative, namely research to find the relationship between two or more variables in a group of subjects. In the correlation research between one variable with another variable such as the independent variable with the dependent variable. The research data that has been used is quantitative research *non experimenta*. The approach used in this study is cross-sectional, namely research that tests the correlation between risk factors and effectiveness, using an approach technique or data collection at a certain time (Notoadmojo, 2014).

This research begins when the researcher explains the purpose of the research, then if the respondent agrees, the researcher continues by providing a consent form. *informed consent* and questionnaire sheets.

3.2 Population, Sample, and Sampling Study

3.2.1 Population

Population is a general area that researchers determine consists of objects or subjects that have certain characteristics and qualities so that they can be studied and conclusions drawn. Population is not only

on the object or subject but the characteristics that follow it. The population in this study involved 231 respondents from elementary school students at SDN Tasikmadu 1 Malang with an age range of 8-12 years, namely in grades 2-6.

3.2.2 Sample

A sample is a part of the population to be studied or a portion of the number of characteristics possessed by the population. The purpose of having a sample is because of the large population, limited costs, limited time, and other obstacles so that it is only to represent the characteristics of the population. The sample of this study amounted to 154 respondents taken from the population of students in grades 2-6 at SDN Tasikmadu 1 Malang, the sample is based on the Slovin formula, which is a formula used to find the minimum number of samples from a limited population or also called *finite population survey*.

Slovin's formula:

$$n = \frac{N}{1 + N(d)^2}$$

Information :

n = Number of Samples

N = Population Size

d² = Precision set

Sample size calculation:

$$n = \frac{N}{1 + N(d)^2}$$

$$n = \frac{231}{1 + 231(0,05)^2}$$

$$n = \frac{231}{1 + 231(0,0025)}$$

$$n = \frac{231}{1 + 231(0,0025)}$$

$$n = \frac{231}{1,5775}$$

$$n = \frac{231}{1,5775}$$

$$n = 146,434231$$

Therefore, the sample obtained was rounded up by adding 5% to prevent the sample from being reduced to 154 respondents.

3.2.3 Sampling

Sampling is the process of selecting a portion of the existing population so that the population can be represented. This study uses a nonprobability sampling technique, with a total sampling technique, namely the number of samples determined according to the number of populations.

3.2.4 Inclusion and Exclusion Criteria

In this study, the sample was based on the criteria set by the researcher with inclusion and exclusion criteria so that it was in accordance with the researcher's criteria, as follows:

1. Inclusion criteria

Inclusion criteria are the targets of the research that researchers reach from the population based on general characteristics that are worthy of being studied. The inclusion criteria in this study are as follows:

- 1) Children aged 8-12 years who are in elementary school (grades 2-6) SDN Tasimadu 1 Malang City
- 2) The researcher has obtained written consent from parents/homeroom teachers.
- 3) Researchers have obtained consent from the child himself.
- 4) Children are in good physical and mental health
- 5) Be prepared to be a respondent

2. Exclusion criteria

Exclusion criteria are removing or eliminating subjects from the inclusion criteria of the study for various reasons such as diseases that interfere with the interpretation of measurement results. The inclusion criteria in this study are as follows:

- 1) Children who are unwilling to participate even though their parents have agreed
- 2) Children who are unable to attend due to illness or permission during data collection

3.3 Time and Place of Research

This research was conducted at Tasikmadu 1 Elementary School, Tasikmadu Village, Lowokwaru District, Malang City, East Java. It was conducted on May 7-9, 2025. On the first day, May 7, 2025, the researcher took care of the permits at the school, on the second day, May 8, 2025, the researcher selected randomly with a lottery and time contract, on the third day, May 9, 2025, the researcher distributed questionnaires and collected data.

3.4 Research Variables

3.4.1 Independent Variable (*Independent Variable*)

Independent variables are free variables that influence or determine the value of other variables. Independent variables are stimuli given to dependent variables so that they have an impact by being observed, manipulated and measured to determine their relationship. The independent variable in this study is physical activity in children.

3.4.2 Dependent Variable (*Dependent Variable*)

Dependent variable is a related variable whose value is affected or impacted by the independent variable. The dependent variable in this study is the risk of diabetes mellitus.

3.5 Operational Definition

Operational definition is a variable defined operationally based on the observed characteristics and parameters used as measurements in the research.

Table 3.1 Operational Definition of the Relationship between Physical Activity and the Risk of Diabetes Mellitus in Elementary School Children (8-12 Years)

No	Research Variables	Operational Definition	Parameter	Instrument	Scale	Score
1	Independent Variables Physical activity	A daily activity carried out by the respondent that requires energy during the last 7 days	1) Taking PJK lessons at school 2) Types of physical activity 3) Duration of physical activity 4) Physical activity done in the last 7 days 5) Physical activity done on weekends in the last 7 days 6) Physical activities done after school 7) Physical activities carried out during break time at school	PJOK Physical activity questionnaire <i>rephysical activity questionnaire for children (PAQ-C)</i>	Ordinal	The measurement consists of 9 questions and the average is taken and then classified: a. Low physical activity = score 1-2 b. Moderate physical activity = score 3-4 c. High physical activity = score 5 or more

No	Research Variables	Operational Definition	Parameter	Instrument	Scale	Score
			8) Physical activities done at home			
			9) Physical activities carried out indoors			
2	Dependent Variable Risk of diabetes mellitus in children	Something that triggers diabetes mellitus in children (8-12 years)	The diabetes mellitus risk factor screening sheet consists of several questions regarding the risk of diabetes mellitus in children, such as: <ol style="list-style-type: none"> 1) IMT 2) waist size 3) physical activity 4) fruit & vegetable consumption 5) family history of DM 6) Mother's history of DM 7) birth weight 8) screen time 	Diabetes mellitus risk factor screening sheet <i>finnish diabetes risk score (FINDRISC-kids)</i>	Ordinal	The measurement consists of 8 questions and is classified into 3: <ol style="list-style-type: none"> a. Low Risk = score <4 b. Moderate Risk = score 5-9 c. High Risk = score >10

3.6 Operational Framework

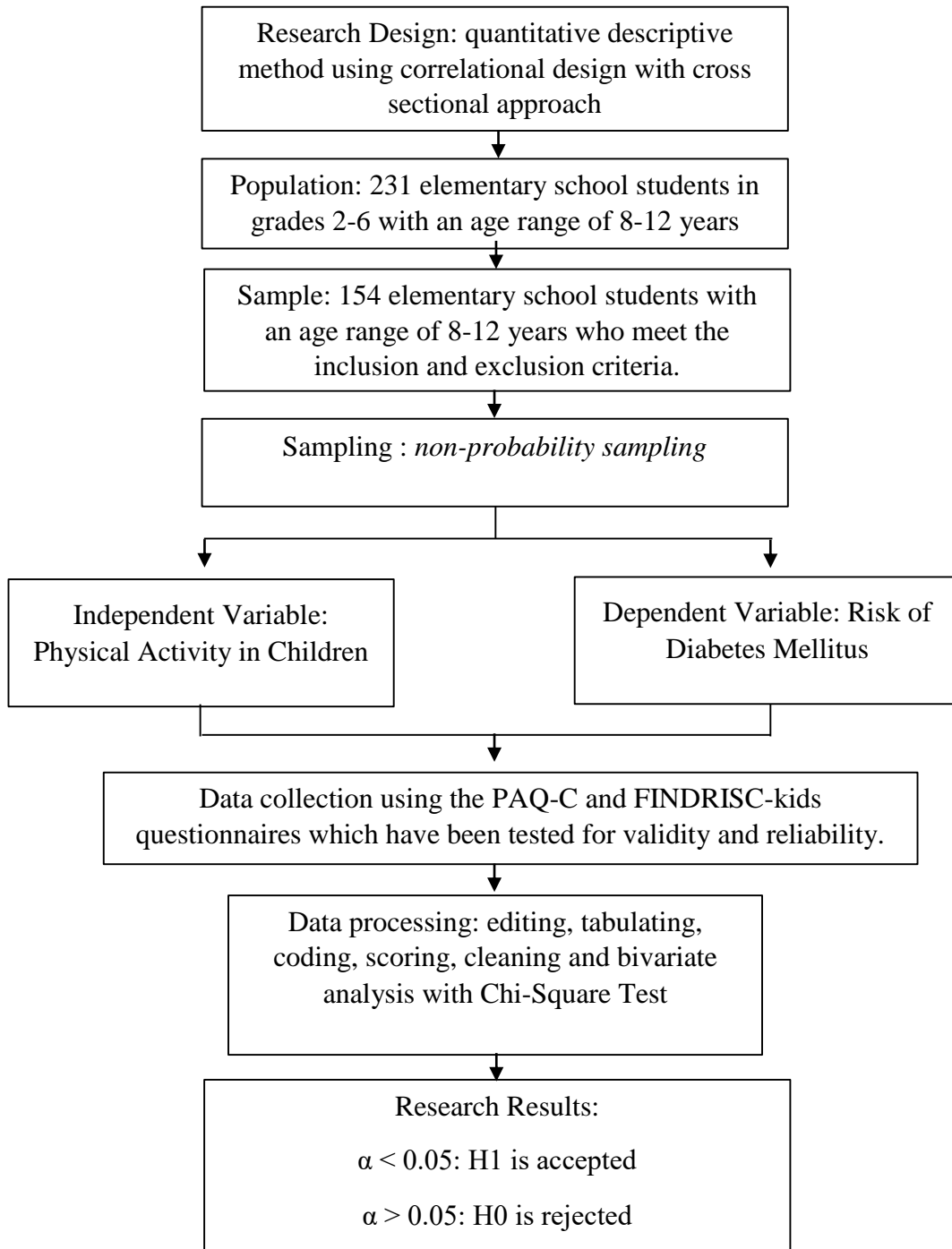


Figure 3.1 Operational Framework of the Relationship between Physical Activity and the Risk of Diabetes Mellitus in Elementary School Children (8-12 Years)

3.7 Types and Techniques of Data Collection

In data collection, questionnaires will be given to respondents. Respondents who have met the inclusion and exclusion criteria set by the researcher will then conduct the research with the following instructions:

- a. observation to the school to be studied
- b. coordination and requesting an ethical permit from the campus to conduct research
- c. permission from the school to be studied (principal and sports teacher)
- d. Researchers distributed questionnaires to students aged 8-12 years.
- e. The researcher will provide an explanation regarding filling out the questionnaire and will ask you to fill it out as honestly as possible.
- f. Researchers collect completed questionnaires and transcribe the results of completing the questionnaires.
- g. After obtaining research data, the data is processed using statistical analysis, then the researcher draws conclusions and suggestions.

3.8 Research Instruments

Research instruments are tools selected and used by researchers in carrying out activities to collect data so that the activities become systematic and easier. The instruments in this study were questionnaires and weight scales, as follows:

1. PAQ-C questionnaire

A questionnaire is a formal data collection method consisting of a list of written questions addressed to the subject. In the last seven days, this research instrument used a questionnaire. *Physical Activity Questionnaire for Children (PAQ-C)* to measure the activities carried out by respondents every day. The PAQ-C is a questionnaire used to measure how active children are. Method for filling out the PAQC questionnaire:

1. Recalling the physical activities that the child has done in the last 7 days.
2. The physical activity questionnaire consists of 9 questions; which discuss the physical activity that students have done during the last 7 days.

How to calculate the physical activity score of the PAQ-C questionnaire on question no. 1, namely participants will get a score of 1 if they answer "never", a score of 2 if they answer "1-2", a score of 3 if they answer "3-4", a score of 4 if they answer "5-6" and a score of 5 if they answer "7 times or more". Then calculate the average value of the questions to get the combined score of the questions. The calculation on questions 2 to 4 is done by giving a score of 1 to the participant's choice at the lowest activity level, and so on up to a score of 5 at the highest activity level. Furthermore, for questions 5-7, give a score of 1 if the respondent answers "never" and so on up to the highest score of

5 if the respondent answers "often". Likewise, for question number 8, score 1 if the answer is "never", score 2 if the answer is "1-2", score 3 if the answer is "3-4", score 4 if the answer is "5-6" and score 5 if the answer is "7 times or more", then question number 9 gives a score of 1 if the respondent answers "never" and so on up to the highest score of 5 if the respondent answers "often".

2. FINDRISC Questionnaire

The Finnish Diabetes Risk Score (FINDRISC) is a simple and practical tool to identify people at high risk of developing diabetes. The FINDRISC questionnaire was modified from the adult FINDRISC to the FINDRISC-*kids* which consists of eight parameters that have been tested for validity and reliability (BMI, waist circumference, physical activity, fruit and vegetable consumption, family history of DM, maternal history of DM, birth weight, screen time).

3. Scales

Body weight is measured using a scale with a unit of kilograms (kg) with an accuracy of 0.01 kg that has been calibrated. The results of the weight scale are processed and converted into standard values for child anthropometry.

4. Meter

Waist circumference is measured using a cloth meter with units *centimeter* (cm) with an accuracy of 0.01 cm that has been

calibrated. The results of this abdominal circumference measurement will determine the standard value of children's anthropometry.

5. Microtoise

Height is measured using a microtoise with units *centimeter* (cm) with an accuracy of 0.01 cm that has been calibrated. This tool is a height measuring tool that is hung on the wall and can be pulled down. The results of this height measurement will later determine the growth and development of the child into the standard values of child anthropometry.

3.9 Validity and Reliability Test

1. Validity Test

Validity is a measurement and observation which means the principle of instrument reliability in collecting data (Nursalam, 2015). Validity testing with the SPSS version 25 program uses *bivariate pearson* namely how to correlate each item score with the total score of the existing instrument. Two-tailed testing with a significance level of 0.05 has test criteria, namely if (Sig. 2-tailed) < 0.05 then the item is declared correlated and valid, and if (Sig. 2-tailed) > 0.05 then the question items are not correlated and are not valid (Hidayat, 2018)

Validity test was conducted on 50 respondents, namely 5th grade elementary school children with the validity criteria being the significance value (Sig. 2-tailed) < 0.05 . Based on the validity test on the PAQ-C questionnaire, 9 valid questions were obtained from 9

questions, and the validity test on the diabetes risk screening sheet with FINDRISC-*kids* which has been adjusted to the criteria of elementary school children, from 8 questions 8 valid questions were obtained.

Table 3.2 Validity Test of the Physical Activity Questionnaire (PAQ-C)

	Question items	Pearson correlation	Nilai sig.tailed	Information
1	A1	0.501	0	Valid
	A2	0.06	0.461	Invalid
	A3	0.06	0.461	Invalid
	A4	0.493	0	Valid
	A5	0.392	0	Valid
	A6	0.505	0	Valid
	A7	0.387	0	Valid
	A8	0.422	0	Valid
	A9	0.281	0	Valid
	A10	0.362	0	Valid
	A11	0.401	0	Valid
	A12	0.459	0	Valid
	A13	0.427	0	Valid
2	Types of Physical Activity	0.380	0	Valid
3	Duration of physical activity	0.307	0	Valid
4	Last 7 days activity	0.218	0.007	Valid
5	Weekend activities	0.487	0	Valid

6	After school activities	0.409	0	Valid
7	Activities during break	0.452	0	Valid
8	Activities at home	0.372	0	Valid
9	H1	0.541	0	Valid
	H2	0.519	0	Valid
	H3	0.551	0	Valid
	H4	0.544	0	Valid
	H5	0.456	0	Valid
	H6	0.573	0	Valid
	H7	0.552	0	Valid

Source: Data processed by researchers, SPSS 25.00

Table 3.3 Validity Test of Diabetes Mellitus Risk Screening Sheet (FINDRISC-kids)

	Question items	Pearson correlation	Nilai sig.tailed	Information
1	Waist circumference	0.193	0.016	Valid
2	IMT	0.177	0.028	Valid
3	Consume Vegetables Every Day	0.228	0.038	Valid
4	Physical Activity	0.401	0	Valid
5	Family History	0.216	0.007	Valid
6	Mother's history of DM	0.136	0.048	Valid

7	Birth Weight	0.533	0	Valid
8	Screen Time	0.534	0	Valid

Source: Data processed by researchers, SPSS 25.00

2. Reliability Test

Reliability is the extent to which a measurement instrument can provide consistent and stable results over time. An instrument is said to be reliable if the measuring instrument provides the same results under the same conditions even though it is used at different times. According to Sugiyono (2017), reliability is the level of consistency of an instrument in measuring what should be measured. A reliable instrument will produce consistent data if retested under the same conditions.

The results of the reliability test using Cronbach's Alpha showed a value of $\alpha = 0.825$ for 37 items, which is in the high category ($\alpha > 0.7$). This means that the instruments used in this study are consistent and reliable.

Table 3.4 Reliability Test of the Questionnaire on the Relationship between Physical Activity and the Risk of Diabetes Mellitus in Elementary School Children (8-12 years)

Cronbach's alpha	N of items
825	37

Source: Data processed by researchers, SPSS 25.00

3.10 Research Procedures

1. Preparation

- 1) The location of the research was selected at Tasikmadu 1 Public Elementary School, Tasikmadu Village, Lowokwaru District, Malang City, East Java.
- 2) Conducting initial observations of the research location and submitting a request for a research permit to Tasikmadu 1 Public Elementary School
- 3) Submitting a research permit letter to the Nursing Department of Malang Polytechnic of Health
- 4) Providing a letter of permission to the principal of Tasikmadu 1 Elementary School
- 5) Carrying out ethical clearance, namely approval of ethical feasibility information to the ethics committee of the Malang Ministry of Health Polytechnic campus

2. Implementation

- 1) The researcher determined the population that was the subject of the research, namely children in grades 2-6 with an age range of 8-12 years.
- 2) Determining samples that are in accordance with the inclusion and exclusion criteria that have been created *non-probability sampling*
- 3) Researchers coordinate with student charts and homeroom teachers for grades 2-6.

- 4) Researchers distributed questionnaires to children assisted by their respective homeroom teachers for grades 2-6.
- 5) Researchers provide and explain informed consent regarding the intent, purpose, implementation techniques, data confidentiality risks, and losses that will arise from the research to potential respondents.
- 6) Researchers ask for potential respondents' willingness to become participants by signing an informed consent if they are willing, and if they are not willing, researchers will not force them to become respondents.
- 7) The researcher asked the respondents to fill out the questionnaire provided (accompanied by the researcher)
- 8) Respondents returned the questionnaire to the researcher and processed the data.

3.11 Data Management

Data processing is done to get conclusions and interpreted into information. Data analysis is done after the data is processed with the following steps:

3.11.1 Data processing

1. Data validation (*editing*)

Data validation or editing is an effort made to re-check the data that has been obtained and collected. In the editing stage, ensure the accuracy of the data obtained from respondents, so that if there is a lack of data, it can

be completed (Notoadmojo, 2018). Editing can be done at the data collection stage or after the data has been collected. Data is obtained through respondents directly and from parents of students. The data that has been obtained is re-checked by:

- a. Check the completeness of data from the physical activity questionnaire (PAQ-C), FINDRISC- questionnairekids, anthropometric measurement results, and family history.
- b. Eliminate invalid data (e.g., missed responses).

2. Coding

Coding is an activity of giving numeric codes in the form of numbers to data consisting of several categories. Coding is very important when processing and analyzing data using a computer. The coding process creates a list of codes and their meanings in one book to facilitate the location and meaning of a code from a variable. The data obtained is entered into *software computer* to be processed (Notoadmojo, 2018).

Here is the interpretation of the scores and *coding* from the PAQ-C and FINDRISC questionnaires-*kids* which has been adjusted to the calculation points.

- a. Interpretation of scores & *coding* PAQ-C questionnaire

Question no 1	never = 1 point
	1-2x = 2 poin

	3-4x = 3 poin
	5-6x = 4 poin
	> 7x = 5 points
Questions 2-4	lowest activity = 1 point and so on highest activity = 5 points
Questions 5-7	never = 1 point little = 2 points quite good = 3 points often = 4 points very often = 5 points
question no 8	never = 1 point 1-2x = 2 poin 3-4x = 3 poin 5-6x = 4 poin > 7x = 5 points
question no 9	never = 1 point little = 2 points quite good = 3 points often = 4 points very often = 5 points
gender	male = 1 point female = 2 points

b. Interpretation of the FINDRISC questionnaire screening sheet-*kids*

Waist circumference	<60 = 0 points
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	60-65 = 3 points
	>65 = 4 points
IMT	underweight = 0 poin
	normal = 1 point
	overweight = 3 poin
Consumption of vegetables	every day = 0 points
	not every day = 1 point
Mother's history of DM	yes = 2 points
	no = 1 point
	don't know = 0 points
Birth Weight	<2.500 gr = 0 poin
	2.500 gr - 4.000 gr = 1 poin
	4.000 gr = 2 poin
Family history	no = 0 points
	yes (grandfather, aunt, cousin) = 3 points
	yes (parents, siblings) = 5 points
Physical Activity	low = 2 points
	medium = 1 point
	height = 0 points
Screen time	< 2 hours = 0 points
	> 2 hours = 1 point

3. Tabulating (data entry)

Data entry is the activity of entering data that has been collected into a computer table or database, then creating a simple frequency distribution

or creating a contingency table. Here is how to tabulate data used in this study:

- a. Entering data into SPSS 25.00 statistical software
- b. Using distribution tables to examine the initial distribution and identify missing data or outliers.
- c. Using interpretation of the scores and coding of each question

4. Grouping (*scoring*)

Scoring is a data processing stage by giving a score for each variable based on the respondent's answers (Notoadmojo, 2018).

1) Physical Activity:

The total score of the physical activity questionnaire is used to group children into low, medium, or high categories. Based on the physical activity questionnaire score, it is categorized:

- a. Low (average score": 1 point): <60 minutes/day.
- b. Moderate (average score": 2-3 points): 60-90 minutes/day.
- c. High (average score" : 4-5 points) : >90 minutes/day.

2) RiskDiabetes:

Grouping will be done by combining BMI, waist circumference, and family history data to determine the diabetes risk category:

- a. Low (score: <4): Underweight BMI, Waist Circumference <60, no family history, daily vegetable consumption, no history of maternal DM, birth weight 2,500-4,000 gr, screen time >2 hours, moderate physical activity
- b. Moderate (score: 5-9): Normal BMI, Waist circumference 60-65, family history (grandfather, aunt, cousin), daily vegetable consumption, no history of DM in mother, birth weight 2,500-4,000 gr, screen time >2 hours, moderate physical activity
- c. Height (score: >10): Overweight BMI, Waist circumference >65, family history (parents, siblings), daily vegetable consumption, mother's history of DM, birth weight 4,000 gr, screen time >2 hours, moderate physical activity

3.11.2 Data analysis

1. Univariate Analysis

Univariate analysis is a type of statistical analysis that involves only one variable to be analyzed. Its main purpose is to describe or summarize data from the variable, so that researchers can understand the characteristics of the data distribution, such as measures of central tendency, measures of dispersion, and the shape of the data distribution (Hair et al., 2014).

Univariate analysis in this study aims to describe the characteristics of elementary school-age children (8–12 years) based on the frequency

distribution of each variable, both independent variables (physical activity) and dependent variables (risk of diabetes mellitus). Through this analysis, researchers can obtain a general picture of children's physical activity profiles, the frequency and types of activities carried out, both at school and at home, and the level of DM risk they have.

2. Bivariate Analysis

Bivariate analysis is a stage of data analysis carried out to determine the relationship or association between two research variables, namely the independent variable and the dependent variable (Sugiyono, 2019; Notoatmodjo, 2012). In this study, the independent variable studied was children's physical activity, while the dependent variable was the risk of Diabetes Mellitus (DM) in elementary school children (8–12 years).

In this study, both variables analyzed are in the form of categorical data, so the statistical analysis technique used is the Chi-Square test (χ^2 test of independence). The Chi-Square test is used to test whether there is a significant relationship between two categorical variables (Dahlan, 2016; Setiawan, 2020). The Chi-Square test formula is as follows:

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

Information:

- χ^2 = Chi-Square value
- O = Observed Frequency (observed frequency / actual research data)
- E = Expected Frequency (expected frequency / expected frequency if there is no relationship between the variables)
- Σ = total number of cells in the contingency table

The Chi-Square test is performed by calculating the difference between the observed frequency (O) and the expected frequency (E), then squared, divided by E, and summed for all categories (Dahlan, 2016). The greater the difference between O and E, the greater the Chi-Square value obtained, which indicates a relationship between the two variables (Setiawan, 2020).

The data processing and analysis process in this study was carried out using IBM SPSS Statistics software version 25.00. SPSS 25.00 was chosen because it is a statistical software commonly used in health and social science research, and has a Chi-Square test feature that makes it easier for researchers to conduct bivariate analysis accurately and efficiently (Priyatno, 2015). After the Chi-Square test is carried out using the SPSS 25.00 program, the output results obtained will display the Chi-Square value (χ^2), degrees of freedom (df), and significance value (*Asymp. Sig.*). The main component that is the basis for decision making is the significance value *orp-value*. If the p-value < 0.05, then the results of the Chi-Square test indicate that there is a significant relationship between the two variables.

3.12 Research Ethics

When conducting this research, the researcher previously determined the research ethics for potential respondents, including the following:

1. This research has fulfilled ethical requirements as evidenced by the ethical certificate issued by Poltekkes Malang.

No. DP. 04.03/F.XXI.30/00480/2025 which has met 7 ethical eligibility standards with protocol no.: 005822357311122025052300073

1. Social/Clinical Value This research meets the Social/Clinical Value standards, with at least one of the following 7 (seven) values:

- 1.2 As an effort to disseminate the results

- 1.3 Its relevance is useful for health issues

2. Scientific Value This research meets the standards of scientific value, fulfilling several parameters of point 2.1, including:

- 2.1 The research design follows scientific principles, which explain in detail including:

- a. Research design; There is a detailed description of the research design, for various types of research.

- 1) If it is a questionnaire, there is a description of the questionnaire procedures, diary cards and other relevant materials used to answer the research questions.

- 2) If clinical research and/or clinical trials, the description must include whether the intervention group was determined non-randomly, randomly (including the method), and whether it was blinded (single/double) or open-label.

- b. Place and time of research

- c. Type of sample, sample size, inclusion and exclusion criteria; sampling technique There is a description of the number of subjects needed according to the research objectives and how to determine it statistically (depending on relevance)
 - d. Research variables and operational definitions;
 - e. Research instruments/tools for collecting data/research materials;
 - i. Data analysis plan, quality assurance of data collection, storage and analysis
3. Equity of Burden and Benefits Equity of burden and benefits requires that participants/subjects be drawn from a qualifying population in a geographic area to which the results are applicable. A study protocol reflects attention to at least one of the following:
- 3.2 Subject recruitment is based on scientific considerations, and not on socio-economic status, or because of the ease of subjects being manipulated or influenced to facilitate the process or achievement of research objectives. If selection is based on socio-economics, it must be based on ethical and scientific considerations.
- There are details of the subject criteria and reasons for determining which groups do not meet the criteria based on age, sex, social or economic factors, or other reasons.

4. Potential Benefits and Risks Risks to subjects are minimal with an adequate/appropriate balance in relation to the potential benefits to individuals, the social and scientific value of a study. implies discomfort, or adverse burden ranging from very small to almost certain. potential for subjects to experience physical, psychological, social, material losses that are large and/or significant. risk of death is very high, there is no/no effective treatment

4.1 There is a description of the potential greater benefits of the research for the individual/subject.

5. Inducement/ Exploitation/ Inducement (undue)

5.1 There is an explanation of incentives for the subject, which can be in the form of material such as money, gifts, free services if needed, or others, in the form of non-material: a description of the compensation or replacement that will be given (in terms of time, travel, days lost from work, etc.)

6. Confidentiality and Privacy

6.4 Researchers maintain the confidentiality of these findings. If forced, researchers will reveal the secret after explaining to the subject about the necessity for researchers to maintain confidentiality and how much the researcher has violated this principle by revealing the secret.

a. There is an explanation of how researchers maintain the privacy and confidentiality of subjects from recruitment until the research is completed, even if there is a subject cancellation because the subject does not meet the requirements as a sample.

7. Informed Consent This research is equipped with Informed Consent (PSP/Informed Consent-IC), referring to the 35 complete IC points, including the following descriptions.

2. Informed Consent (Consent Sheet)

The researcher provides the research information sheet and informed consent form to the parents or guardians of the students, either through a face-to-face meeting (for example, during a parent-teacher meeting) or sent via the child. The parents or guardians will be asked to read the information carefully, then sign the consent form if they agree for their child to participate. This consent is voluntary and not coercive. After parental consent is obtained, the researcher will explain it directly to the children in simple, age-appropriate language (8–10 years). The children will be explained that they can participate in the questionnaire if they are willing, that there are no right or wrong answers, and that they can stop at any time without any problem. If the child agrees, they will provide consent (assent), either verbally or by checking/adding a check mark on a simple form.

3. Confidentiality

Researchers keep the identity of the research confidential by not including names (just with the respondent code) on each questionnaire.

Researchers also maintain the confidentiality of research data by storing it in personal files/computers that cannot be accessed by others.

4. Anonymity (Without Name)

In order to maintain respondent confidentiality, researchers will not include the names of respondents on the data collection sheets but in the form of a code on each sheet.

5. Beneficence and Maleficence

Research conducted must maximize happiness and minimize harm or harm to participating respondents.

6. Justice

In this research, respondents must be treated fairly. All respondents must receive the same treatment.