

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will outline the research methodology on how the research was conducted. It will describe the research design, the population and sampling, the research location study, the research questionnaire instruments being used, how data is collected, the procedure of data collection, focus on the data analysis and the pilot study.

3.2 Research Design

The research design refers to the overall strategy utilized to carry out research that defines a succinct and logical plan to tackle established research question(s) through the collection, interpretation, analysis, and discussion of data. The design of a study defines the study type (descriptive, correlational, semi-experimental, experimental, review, meta-analytic) and sub-type (e.g., descriptive-longitudinal case study, research problem, hypotheses, independent and dependent variables, experimental design, and, if applicable, data collection methods and a statistical analysis plan (Creswell, 2014).

There are many ways to classify research designs. This study is a descriptive study using a survey method. According to Creswell (2014) and Johnson and Christensen (2013), questionnaires are the most commonly used method for collecting information in descriptive

research. According to Cohen, Manion, and Morrison (2013), this design enables the collection of a large amount of information at once, saves money, and is simple to use. To meet the study's objectives, quantitative and survey research designs were used. The purpose of using survey research was to investigate the relationship between a variable that was related to differences in another variable (Curtis et al., 2016).

The questionnaire was selected as the most appropriate design in the study to determine the extent of the relationship between the variables. The questionnaires involved in this study were the inventory of father involvement and the resilience scale. The survey was distributed to residents at rehabilitation centers in Selangor and Negeri Sembilan.

3.3 Population and Sampling

Population means a group of individuals or institutions that have the same characteristics Creswell (2014) and are targeted by researchers so that a research finding can be applied (Fraenkel & Wallen, 2018). The target population is the group that will be used to make generalizations about the phenomenon based on the selected sample (Creswell, 2014; Fraenkel & Wallen, 2018). The target group in this research comprised persons who have used substances such as methamphetamine, heroin, marijuana, and other drugs in their life.

In addition to the Krejchic and Morgan Table (1970), the determination of the sample size can also be done by referring to certain calculation procedures such as the sample size formula (Krejchic & Morgan, 1970) as shown below:

Sample Size Formula (Krejchie and Morgan, 1970)

$$s = \frac{X^2NP(1-P)}{d^2(N-1)+(x^2P(1-P))}$$

s = required sample size

N = the size of the identified population

P = the population proportion is assumed to be 0.5 because

this magnitude will produce the maximum sample size

d = maximum degree accuracy (0.05)

x^2 = chi-square values from the table on degree of freedom 1 that is 3.841

According to Portney and Walkins (2015), the sample is a subset of the population selected for the study. The use of sample size according to Mohd. Majid (1998) is encouraged to exceed thirty units based on the assumption that normal distribution is usually met when the sample size exceeds thirty units.

In this research, the population focuses on the residents at Pusat Pemulihan Penagihan Narkotik Serendah (PUSPEN Serendah) and Pusat Pemulihan Penagihan Narkotik Jelevu (PUSPEN Jelevu). The recent total population at each center was 150 residents and 130 residents. Based on the sample table of Krejcie and Morgan (1970), out of 150 and 130 residents, only 108 and 97 respondents need to be included and analyzed as a sampling in this research

The respondent was chosen by using simple random sampling(SRS). The ages for the respondent selected were between 20 to 50 years old with different family functioning and father's background. This study only determined the individuals who have a history of substance use. The individual who was not involved in any substance misuse was excluded from this research.

3.4 Research Location

The study took place at CCRC Dengkil, also known as *Pusat Pemulihan Penagihan Narkotik Serendah (PUSPEN Serendah)* and *Pusat Pemulihan Penagihan Narkotik Jelebu (PUSPEN Jelebu)*.

3.5 Research Instruments

In the data collection process, most researchers agree that a survey involving the use of a questionnaire as a research instrument can be conducted during the data collection process. Questionnaires can be used as a tool because it involves a large sample size (Creswell, 2014; Johnson & Christensen, 2013).

This study uses a set of questionnaires containing two instruments which are the Inventory of Father Involvement (IFI) and the Resilience Scale. The Inventory of Father Involvement (IFI) by Hawkins et al. (2002) examines the dimension of father involvement in child development. The Inventory of Father Involvement (IFI) questionnaire includes nine dimensions described by Hawkins et al. (2002) which are discipline and teaching responsibility, school encouragement,

mother support, providing, time and talking together, praise and affection, developing talent and future concerns, reading and homework, and attentiveness. There are five items for each subscale that measures father involvement. The Inventory of Father Involvement (IFI) also consists of five Likert scales for each item as follows: 1=Never get involved, 2=Rarely get involved, 3= Sometimes involve yourself, 4= Often involve and 5= Always involve yourself. The time taken for answering this set of questionnaires was about 5-10 minutes. This instrument has high reliability which is 0.95 (Hawkins et al., 2002). The Malay version of IFI 29-items was implemented and translated by three experienced senior lecturers from Faculty Leadership and Management USIM (Yusof, S. N. M., Yusof, M., Rashid, A., & Lim, A. (2021)).

Table 3.1: Items for the 9 dimensions of Instrument Father Involvement

Type of subscales	Items
Discipline and teaching responsibility	12, 20, and 25
School Encouragement	21, 28, and 29
Mother support	5, 7, and 17
Providing	3, and 11
Time and talking together	10, 16, 18, 23, and 24
Praise and affection	4, 8, and 13
Developing Talents and Future Concern	19, 22, 26, and 27
Reading and homework	2, and 9
Attentiveness	1, 6, 14, and 15

The subscale of discipline and teaching responsibility refers to disciplining the children, encouraging them to do their chores and setting the rules and limiting children's behavior. The items that measure the discipline and teaching responsibility subscale are items 12, 20 and 25. The next subscale for school encouragement refers to encouraging to succeed at school, do their

homework and follow the rules at school. The items that measure the school encouragement are 21,28 and 29. The next subscale for mother support refers to giving encouragement and emotional support let the children know their mother is special and cooperating with the mother in rearing. The items that measure mother's support are items 5,7, and 17. The subscale under providing refers to provide basic needs such as food, clothing, shelter and health care and accepting the responsibility for financial support. The items measure the providing are 3 and 11.

Meanwhile, the items measure the time and talking together are being a friend to the children, spending time talking when the children want to talk something and doing what they like. The items under the time and talking together are 10,16,18,23 and 24. The next subscale for praise and affection refers to praising children to be good, doing the right thing and the father tell the children that he loves them. The items under praise and affection are 4,8 and 13. Besides, the items measure developing talents and future concerns are encouraged to develop their talents, continue their schooling beyond high school and plan for future education, training and etc. The items under developing talents and future concerns are 19,22,26 and 27.

The subscale of reading and homework support refers to encouraging children to read, reading to younger children and helping other children with their homework. This item refers to 2 and 9. Meanwhile, the last subscale under attentiveness refers to attending events such as sports, school, and church events, being involved in daily or regular routines such as feeding, driving to the place they want to go and knowing where the children go and what they do with their friends. This item refers to 1,6,14 and 15.

In order to get the dimension score for father involvement, the respondent's subscale scores are added together. Each subscale needs to be summed up according to subscale as provided in the table 3.1. For example, the total score for discipline and teaching responsibility is $12+20+25 =$ Total score, while school encouragement is $21+28+29 =$ Total score, mother support is $5+7+17 =$ Total score, providing is $3+11 =$ Total score, Time and talking together is $10+16+18+23+24 =$ Total score, praise and affection is $4+8+13 =$ Total score, developing talents and future concern is $19+22+26+27 =$ Total score, reading and homework is $2+9 =$ Total score, whereby attentiveness is $1+6+14+15 =$ Total score.

The Resilience Scale by Wagnild and Young (1993) examine the level of resilience among residents in rehabilitation centers. This instrument has high reliability which is 0.91 (Wagnild and Young, 1993; Wagnild, 2003, 2009, Ngui & Lay, 2017). The 25-item Malay version of the Resilience Scale questionnaire (RS) translated by Amalia et al. (2011) was used in this study. There are five dimensions of resilience which are self-reliance, purpose, equanimity, perseverance, and existential aloneness. It has seven items for each dimension. RS consists of seven Likert scales for each item as follows: 1=Strongly disagree, 2=Mildly disagree, 3= Do not agree, 4= Neutral, 5= Agreed 6= Mildly agreed and 7=Strongly Agree. The time taken to answer this set of questionnaires was about 5-10 minutes.

Table 3.2: Items and number of items for the Instrument Resilience Scale

Types of subscales	Items
Self-resilience	2,9,13,18, and 23
Purpose	4,6,11,15, and 21
Equanimity	7,12,16,19, and 22
Perseverance	1,10,14,20, and 24
Existential Aloneness	3,5,8,17, and 25

Table 3.3: Scoring for resilience subscale

Level of resilience	Total score
Very Low	25-100
Low	101-115
Quite Low	116-130
Moderate	131-145
Moderate high	146-160
High	161-175

The amount of resilience is determined by adding all of the subscale scores selected by the respondent. In this study, the respondent's selected responses must be counted by column based on their subscale (Table 3.2). For example, the total score for self-reliance is $2+9+13+18+23 =$ Total score, while the total score for purpose is $4+6+11+15+21 =$ Total score, whereby the total score for equanimity is $7+12+16+19+22 =$ Total score, wherein the total score for perseverance is $1+10+14+20+24 =$ Total score, moreover, the total score for existential aloneness is $3+5+8+17+25 =$ Total score. The scoring for RS is explained in table 3.3.

3.6 Data Collection and Procedures

Before researcher start conducted the survey, a formal permission was sent to Rumah Sahabat Hulu Langat, Selangor, and Malaysia's National Anti-Drug Agency (NADA), specifying the study location at Cure & Care Clinic Serendah or PUSPEN Serendah, Cure & Care Clinic Dengkil or PUSPEN Dengkil and Cure & Care Jelebu or PUSPEN Jelebu. An approval letter from NADA was granted prior to data collection (Refer to Appendix A).

After receiving an approval letter from NADA, the researcher contacted the person in charge and set an appointment. Throughout the process, the researcher adhered to all rules and avoided anything that was prohibited at the research locations.

Before distributing the surveys, the researcher provided an explanation of their contents. There were several respondents with reading impairments in this target group. Therefore, the researcher assisted the respondents by reading each question aloud along with each response. Those respondents who had no difficulty answering the question independently were permitted to do so.

Prior to the actual data collection in the field, the researcher conducted a pilot test at Rumah Sahabat residents. The purpose of the pilot test was to assess the instrument's validity and reliability, as well as to identify any problems that might arise during the administration of actual research.

3.7 Pilot study

Prior to the actual data collection in the field, the researcher conducted a pilot test at Rumah Sahabat. The purpose of the pilot test was to assess the instrument's validity and reliability, as well as to identify any problems that might be faced arise during the administration of actual research. before the real research project was conducted. Table 3.4 below shows the reliability score for IFI and RS. Cronbach's alpha reliability score was 0.962 for the instrument father involvement (IFI) and 0.941 for the instrument resilience scale (RS). The finding shows that both the father involvement and resilience scale in this study has high reliability.

Table 3.4: Cronbach's Alpha value for the instrument IFI and RS

Variables	Item No	Number of items	Cronbach's Alpha
Instrument Father Involvement (IFI)	B1-B29	29	0.962
Resilience Scale (RS)	C1-C25	25	0.910

According to Tuckman in Sidek Noah (2003), test reliability means the test is consistent. Meanwhile, Mohd Majid Konting (1998) explained that reliability is the degree of consistency of a measuring instrument in changing variables or ideas. A measuring instrument with a high-reliability value indicates a consistent measuring instrument, on the other hand, if the reliability value is low, it indicates an inconsistent measuring instrument.

Validation refers to the process of gathering validity evidence to assess the appropriateness of assessment-based interpretations, uses, and conclusions. (Cook & Hatala,

2016). The validity analysis is performed and conducted in this study to test the variables studied in this research to identify whether the variable is measurable or not. A validity test helps ensure that a test is following certain professional standards to ensure that its measures are supposed to be measured.

In other words, the validity test evaluates the difference or gap between what is measured and what is expected to be assessed. To guarantee that the variables are both valid and measurable, face and concept validity tests are undertaken and completed. If the measurement incorporates face validity, it measures what it is intended to measure. The supervisor evaluated the study's significance and the questionnaire relevancy items, and construct validity was established using factor analysis.

3.8 Data Analysis

No	Research Objective	Research Question	Analysis
1	To examine the dimensions of father involvement among residents at the rehabilitation centers in PUSPEN Serendah and Jelebu.	What is the dimensions of father involvement among residents at the rehabilitation centers in PUSPEN Serendah and Jelebu?	Descriptive
2	To identify the level of resilience among residents at rehabilitation centers in PUSPEN Serendah and Jelebu.	What is the level of resilience among residents at rehabilitation centers in PUSPEN Serendah and Jelebu?	Descriptive
3	To identify the relationship between	Is there any relationship between father involvement	Correlation

father involvement and resilience among residents at rehabilitation centers in PUSPEN Serendah and Jelebu.	and resilience among residents at the rehabilitation in PUSPEN Serendah and Jelebu?	
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Statistic Package for the Social Sciences (SPSS) version 25.0 was used to examine the data. SPSS is a well-known statistical analysis program used by market researchers, data miners, government officials, education researchers, and others in the social sciences. The SPSS was applied for the first three research objectives of this study. Accordingly, the researcher entered all the data collected into this system. The data were analyzed based on the frequency, percentage, mean and standard deviation and this allowed the researcher to answer the first and second research objectives of this study. Meanwhile, the correlation was observed for the third research objective to determine the correlation between father involvement and resilience among the respondents.

3.9 Conclusion

In this chapter, we discussed about the methodology of research, the two instruments, which are the Involvement Father Scale and Resilience Scale. The method chosen for this research was a quantitative method. The location for this research was *Pusat Pemulihan Penagihan Narkotik Serendah* (PUSPEN Serendah) and *Pusat Pemulihan Penagihan Narkotik Jelebu* (PUSPEN Jelebu). Methods of data collection and analysis were also described in this chapter.