CHAPTER IV : FINDINGS

4.1 Introduction

This chapter discusses the findings and interpretation of the result. It consists of instrument validity and reliability, final sample size, detail of participant demographic characteristics and statistical analysis. Finally, this chapter provides a detailed explanation of the data collection, analysis, and interpretation based on a statistical approach.

4.2 Data Collection

In terms of the nature of the data, the data in this study are categorized into several types. All variables, both independent and dependent variables, are categorized as continuous data. Conversely, demographic data such as marital status, gender, cohort generation, and others has been categorized as nominal data. In addition, the Recovery capital and Treatment Motivation are categorized as ordinal data.

Not only the nature of data but also sample size, some scholars recommend 15 respondents per predictor as a minimum sample size for regression tests in social science research (Pituch & Stevens, 2016). Besides, Tabachnick and Fidel (2013) made formula as guided to calculate sample size requirements. They are mentioned that minimal sample size can be decided using the formula: N> 50 + 8m (where m refers to the number of independent variables). For this reason, the minimum sample for this research is in the range of 45 to 74. This number was parallel with the G*Power requirement sample (Faul,

Erdfelder, Lang, & Buchner, 2007), as mentioned in chapter three. The total sample of 270 is more than sufficient to meet the minimum requirements.

4.1. Participant General Demographics Characteristic

Demographics is part of the essential aspect for the researcher to identify and examine the quantifiable statistics characteristic of the sample from the population (Vogt & Johnson, 2011). Age, sex, race, ethnicity, education level, and occupational are common demographic questions to explore participant profiles. Moreover, the question can include any background characteristics that are related and essential to the research project. In this research, several demographic aspects are collected as related data.

According to AADK statistics, Malays have a higher rate of substance abuse than other races. As a result, the sample was distributed randomly, and the results show that most drug users are Malays and Muslims, accounting for 98.89 % of respondents. 3.33 % were Indian, while 1.11% chose another race. Nevertheless, concerning respondents' marital status, a majority (80%) were single, 13.33% were married. Less of them (6.67%) were divorced and chose other marital statuses. Overall, most of the respondents were balanced regarding the counseling session because half of them had been referred to go through a counseling session and the other half had never.

Presently, substance abuse patients come from diverse education. Based on education classification, most of them (48.889%) mention their education is secondary school. Besides, 8.8% were from certificate level, 15.56% from college and 2.22% were undergraduate. Few of them choose the other level of education. In addition, based on the occupation of respondents, 55.56% were working in various sectors such as administration management, financial sector, multimedia sector, automotive,

development, business, fishery, and agriculture sector. 28.89% of them worked as self-employed and merely 15.56% are not working. Most working respondents have income between RM1001 to RM1500 (26.67%) followed by 21.11% income between RM1501 to RM2000 and 16.67% income above RM3000. A complete representation of respondent's demographic data can be found in Table 4.1.

4.2. Respondent Demographics information related to the addiction period.

Respondents were asked some key questions to elicit information about the addiction period. Most respondents (62.22 %) used polydrug throughout their addiction period, compared to 37.78 % who used non-polydrugs. In terms of drug type, they use Syabu/Ice 27.78 %, Heroine, Ecstasy, 'Pill Kuda' (2.22 % each), and Marijuana 1.11 %. When compared to those who only use one type of drug, those who use multiple types of drugs have a much higher rate of addiction. In terms of the amount of time spent addicted to drugs, as many as 65.56 % reported being addicted to drugs for three years or more. After using drugs for two years or more, there is a 15.56 % of becoming addicted, compared to an 11.11 % for those who have used drugs for one to two years. The remaining 2.22 % is applicable for a period of 0 to 6 months.

The selected respondents are those in the process of recovery. Therefore, the recovery period is one of the criteria that each respondent must answer to determine the actual recovery period. 40 % of respondents had a recovery period between 0 to 6 months, while 17.78 % had a recovery period between 6 to 12 months. It is the second highest for respondents with 1 to 2 years of recovery (30%) and 12.22 % have had more than 2 years of recovery. A complete representation of information related to the addiction period can be found in Table 4.2.

Table 4.2

Distribution of Respondents by General Demographic Characteristics (n=270)

Characteristics		N	%
Race	*Malay*	258	95.56
	Indian	9	3.33
	Others	3	1.11
Status	*Single*	216	80
	Married	36	13.33
	Widowed	18	6.67
Age	*Under 18*	2	0.74
	18 to 28	106	39.26
	29 to 39	120	44.44
	40 to 50	36	13.33
	51 to 60	6	2.22
Religion	*Islam*	267	98.89
	Christian	3	1.11
Experience of Counselling Session			
	Referred	123	45.56
	Never attended a Session	147	54.44
Education:	*Primary school*	6	2.22
	PMR	54	20
	SPM	132	48.89
	Certificate	24	8.89
	Diploma	42	15.56
	Undergraduate	6	2.22
	Master	6	2.22
Job Status :	*Working*	150	55.56
	Not working	42	15.56
	Self-employed	78	28.89
Types of Job :			
	Administrative Management sector	15	6.25
	Financial Sector	9	3.75
	Multimedia Sector	3	1.25
	Automotive Sector	30	12.5
	Development Sector	45	18.75
	Business Sector	42	17.5
	Fishery Sector	9	3.75
	Agricultural Sector	15	6.25
	Others	72	30
Income	*No income*	33	12.22
	Under RM1000	15	5.56
	RM1001 to RM1500	72	26.67
	RM1501 to RM2000	57	21.11
	RM2001 to RM 2500	33	12.22
	RM2501 to RM 3000	15	5.56
	RM 3001 and above	45	16.67

Table 4.2

Respondent Demographics information related to the addiction period.

Characteristics	***n***	*%*
Type of Drug Users		
Polydrug	168	62.22
Non-Polydrug	102	37.78
Type of Drugs used		
Polydrugs	168	62.22
Heroine	6	2.22
Marijuana	3	1.11
Syabu/Ice	75	27.78
Ecstasy	6	2.22
'Pill Kuda'	6	2.22
Others	6	2.22
Addiction Period		
0- 6 Months	6	2.22
6 Months to 1 Year	15	5.56
1 Year to 2 Years	30	11.11
2 Years to 3 Years	42	15.56
3 Years and above	177	65.56
Recovery Period		
0- 6 Months	106	40
6 Months to 1 Year	48	17.78
1 Year to 2 Years	81	30
2 Years to 3 Years	18	6.67
3 Years to 4 Years	3	1.11
4 Years and above	12	4.44

4.4 Instruments Validity and Reliability

As described in Chapter 3, two instruments were used in this research, namely Brief Assessment of Recovery Capital (BARC-10) established by Vilsaint et. Al. (2017) and The Treatment Motivation Scale (TCU-TMS 25) established by Simpson et. al (1993). The BARC-10 is a validated questionnaire that assesses an individual's recovery capital with 10 questions covering 10 different domains. The scales will be updated to incorporate a Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Meanwhile, TCU-TMS 25 uses 25 items to assess the respondent's motivation for treatment. TCU TMS 25 is an adaption from English that has been translated into Malay by Kamarudin et al. (2021) from Universiti Putra Malaysia.

The reliability scores of the instruments used in this study were within a range that was consistent with the initial reliability scores established by the instrument's authors. Firstly, for the instrument "Brief Assessment of Recovery Capital (BARC-10)", all the items were valid with significant at the level (2-tailed) and for Reliability, Cronbach's alpha was 0.96. Standardized items were 0.942. However, for the actual test, the score of reliability Cronbach's alpha was 0.822. For "The Treatment Motivation Scale (TCU-TMS 25)" most item was valid with significant at the 0.01 level (2-tailed) and 0.05 level (2-tailed) except for item number 8,15,18,20 and 23. This instrument was reliable with Cronbach's alpha 0.800. Moreover, for the actual test, the score of reliability Cronbach's alpha score was 0.891. Therefore, both the instruments were acceptable for use in this research because was passing validity are reliability testing.

4.5 Statistical Analysis

Before the statistical approach is applied, testing of statistical assumptions needs to be done. This ensures that the data are appropriately treated with a statistical method, especially to choose between parametric or nonparametric approaches (Verma & Abdel-Salam, 2019). The choice of the appropriate statistical test is based on three things, namely (1) the nature of data, (2) data distribution, and (3) what is the research questions needs (Rana, Singhal, & Dua, 2016). Consequently, the data will be checked to fulfill the assumption before deciding to use a parametric or non-parametric approach.

Four research questions guide the statistical analysis of the present study. In this research questions number one descriptive statistics and nonparametric correlation will be used to find the answer. Meanwhile research question number two and three were used T- test analysis. For the last research question, the Pearson Correlation Analysis needs to be conducted to fulfill the assumption of Pearson Correlation.

4.5.1 What is the most important factor driving the growth recovery capital?

As discussed in chapter three, Recovery Capital tested in BARC-10 has 10 questions representing 10 Recovery domains. The first question is "There are more important things to me in life than using substances" which represents the Substance Use & Sobriety domain. The second question is “in general I'm Happy with my life" representing the Global Psychological Health domain. To represent the Global Physical Health recovery factor is placed in question number three and the representation of all domains is shown in Table 4.3 below.

According to the responses provided by the respondents, every one of them thoughtfully responded to the questions and helped where necessary. Each of these areas provides respondents with the higher factor along their journey in recovery. According to the BARC-10 scale, respondents' will give their levels of agreement with each statement range from "strongly disagree" (with a value of 1) to "strongly agree" (with a value of 6). To calculate the respondents' overall score, the scores for each question are summed together.

Table 4.3
Brief Assessment of Recovery Capital-10 domains

Questions	Domain
1. There is more important thing to me in life than using substances	Substance Use & Sobriety (e.g., achieving abstinence, staying sober)
2. In general, I am happy with my life	Global Psychological Health (e.g., confidence, self-efficacy)
3. I have enough energy to complete the tasks I set for myself.	Global Physical Health (e.g., energy, sleep hygiene)
4. I am proud of the community I live in and feel a part of it.	Civic & Community Engagement (e.g., sense of belonging, social contribution)
5. I am happy dealing with a range of professional people.	Coping & Life Functioning (e.g., responsibility, self-care)
6. I regard my life as challenging and fulfilling without the need for using drugs or alcohol.	Meaningful Activities (e.g., recreation, self-improvement)
7. My living space has helped to drive my recovery journey	Housing and Safety (e.g., independent, feeling secure)
8. I take full responsibility for my actions.	Risk-Taking Behavior (e.g., prosocial, accountability)
9. I am making good progress on my recovery journey.	Recovery Experience (e.g., life purpose, optimism)
10. I get lots of support from friends.	Social Support (e.g., positive relationships, adequate assistance)

The survey's findings revealed that most respondents identified Substance Use & Sobriety as the primary domain that would enable them to maintain their recovery, with 55% of respondents “strongly agree”. With a frequency of 48.9%, "Housing & Safety" and "Risk-Taking Behavior" are the next two recovery capitals. With a frequency of

46.7%, "Meaningful Activities," "Coping and Life Functioning," and "Recovery Experience" rose to become the third-highest capital recovery component. Table 4.4 below provides a summary of the BARC-10 survey's overall findings.

Table 4.4

Frequency of Brief Assessment of Recovery Capital-10 (n= 270)

		Q1 (Answer %)	Q2 (Answer %)	Q3 (Answer %)	Q4 (Answer %)	Q5 (Answer %)	Q6 (Answer %)	Q7 (Answer %)	Q8 (Answer %)	Q9 (Answer %)	Q10 (Answer %)
Valid	Strongly disagree	3.3	2.2	2.2	3.3	4.4	2.2	3.3	3.3	3.3	4.4
	Disagree	7.8	11.1	3.3	2.2	4.4	4.4	0	0	3.3	0
	Somewhat disagree	1.1	5.6	2.2	5.6	2.2	2.2	2.2	2.2	4.4	1.1
	Somewhat agree	5.6	11.1	10	13.3	21.1	11.1	8.9	5.6	10	7.8
	Agree	26.7	32.2	45.6	36.7	31.1	33.3	36.7	40	32.2	40
	Strongly agree	55.6	37.8	36.7	38.9	36.7	46.7	48.9	48.9	46.7	46.7
	Total	100	100	100	100	100	100	100	100	100	100

4.5.2 Are there differences in recovery capital between Polydrug and Non Polydrug users?

Based on the Levene's Test Score F= 3.904 and p = 0.049 or less than 0.05. It assumes that equal variances are not assumed. Therefore, to interpret the t-test scores, we must choose the line Equal variances **not assumed.**

The 168 polydrug users respondents (M = 50.98, SD = 6.7) and 102 respondents non-polydrug users respondents (M = 49.50, SD = 8.748) **did not demonstrate significantly in recovery capital**, t (268) = 1.469, p = 0. 144 (p > .05), despite polydrug users attaining higher scores than non-polydrug users.

Table 4.5
Group Statistics for Brief Assessment of Recovery Capital

	Type of Drugs Users	*n*	Mean	Std. Deviation	Std. Error Mean
Total Score Recovery Capital	Polydrug	168	50.98	6.7	0.517
	Non-Polydrug	102	49.5	8.748	0.866

Table 4.6
Independent sample T-test for Recovery Capital

		Levene's Test for Equality of Variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total Score Recovery Capital	Equal variances assumed	3.904	0.049	1.567	268	0.118	1.482	0.946	-0.381	3.345
	Equal variances not assumed			1.469	172.518	0.144	1.482	1.009	-0.509	3.473

4.5.3 What are the differences of Treatment Motivation between Polydrug and Non Polydrug users.?

Based on Levene's Test Score F= 1.488 and p =0.224 or higher than 0.05. It assumes that equal variances are assumed. Therefore, to interpret the t-test scores, we must choose the line with Equal variances assumed.

As can be seen in Tables 4.7 and 4.8, non-polydrug users have a higher treatment motivation score than polydrug users. Using this data, we can see that there is a significant difference between the two groups to answer research question number three, T (268) = -2.226, p -0.027.The scores shows the scores of the polydrug user group (N = 168; M = 100.27; SD = 12.397) are significantly higher than those of the non-polydrug group (N = 102; M = 103.56; SD = 10.683).

Table 4.7

Group Statistics for The Treatment Motivation Scale

	Type of Drugs Used	N	Mean	Std. Deviation	Std. Error Mean
Total Score Treatment Motivation	Polydrug	168	100.27	12.397	0.956
	Non-Polydrug	102	103.56	10.683	1.058

Table 4.8

Independent sample T-test for The Treatment Motivation

		Levene's Test for Equality of Variances		T-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Total Score Treatment Motivation	Equal variances assumed	1.488	0.224	-2.226	268	0.027	-3.291	1.479	-6.202	-0.38
	Equal variances not assumed			-2.308	237.604	0.022	-3.291	1.426	-6.1	-0.482

4.5.4 What is the relationship between Recovery Capital and Treatment Motivation to stay recover among Polydrug and non-polydrug users?

This section examined the correlation between the variables Recovery Capital and Treatment Motivation. Pearson regression analysis is used to test this correlation. Some classical assumptions such as sample size, normality, multicollinearity, singularity, homoscedasticity, linearity, and independence of residuals are required before using this analysis (Pallant, 2020). For this reason, before answer the research questions, the researcher will conduct a classical analysis of regression as pre-requirement.

The assumption of normality was tested using the Kolmogorov-Smirnov test of normality between independent and dependent variables. The data is categorized as normal if the residuals score is distributed normally about the predicted dependent variable scores (Pallant, 2020). The analysis indicated that the assumption would hold because p =.000. Moreover, a normal probability plot was analyzed between independent and dependent variables, and the plot indicated normal distribution—the result of the assumption normality illustrated in Table 4.9 and it is also supported by the histogram in Figure 1 and Figure 2 showing that most of the data is under the normal curve.

Table 4.9

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total Score TM TR	0.095	270	0	0.964	270	0
Total Score Recovery Capital	0.125	270	0	0.883	270	0

Lilliefors Significance Correction

Figure 1

Histogram of distribution data sample for Recovery Capital and Treatment Motivation

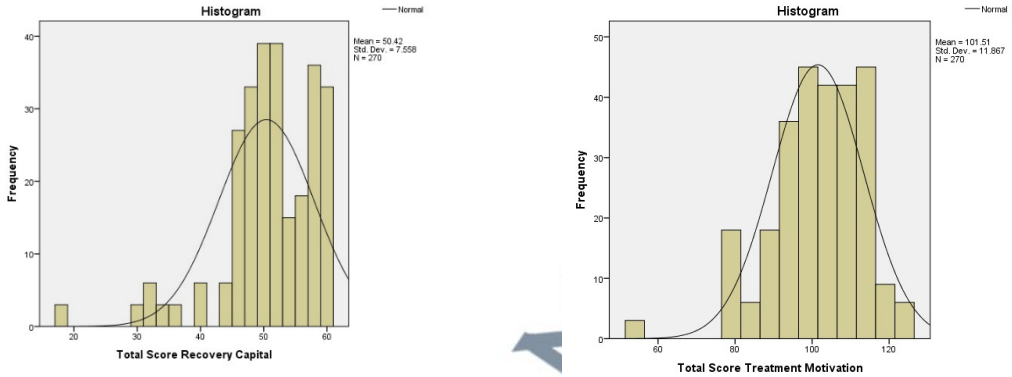

Figure 2

Plot of data score for Recovery Capital and Treatment Motivation

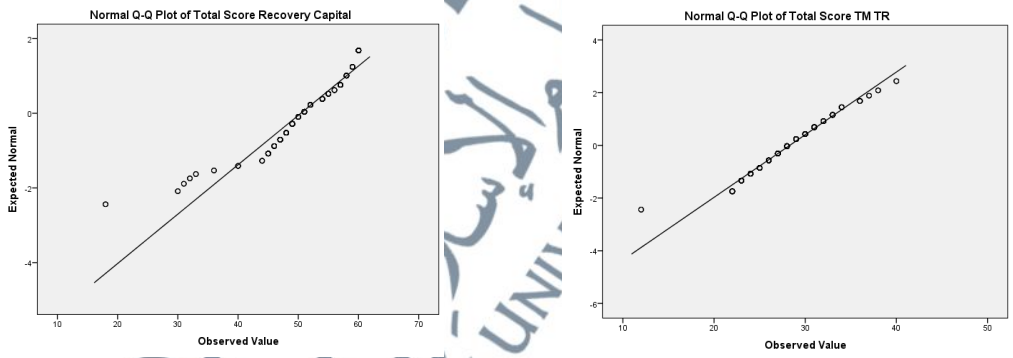

Table 5.0

Correlation between Recovery Capital dan Treatment Motivation for whole group

		Total Score Recovery Capital	Total Score Treatment Motivation
Total Score Recovery Capital	Pearson Correlation	1	.323**
	Sig. (2-tailed)		0
	N	270	270
Total Score Treatment Motivation	Pearson Correlation	.323**	1
	Sig. (2-tailed)	0	
	N	270	270

**. Correlation is significant at the 0.01 level (2-tailed).

The statistical findings for looking at these two instruments against substance abuse users are as follows where Recovery Capital and Treatment Motivation for whole group were found to be moderately positively correlated, r (268) = .323, p = .000 (Dancey et. al, 2007).

Another test was conducted to answer research question number four. The correlation of Recovery Capital and Treatment Motivation between polydrug and non-polydrug users. The finding shows that the correlation is a weak correlation, r (268) = 0.273, p=0.00 for non-polydrug user group while moderately positively correlated, r (268), = 0.400, p=0.00 for polydrug user group (Dancey et. et al., 2007). An analysis of all the correlation results is shown in tables 5.0, 5.1, and 5.2.

Table 5.1

Correlations between Recovery Capital and Treatment Motivation for non-Polydrug user

		Total Score Recovery Capital	**Total Score Treatment Motivation**
Total Score Recovery Capital	Pearson Correlation	1	.271**
	Sig. (2-tailed)		0.006
	N	102	102
Total Score Treatment Motivation	Pearson Correlation	.271**	1
	Sig. (2-tailed)	0.006	
	N	102	102

**. Correlation is significant at the 0.01 level (2-tailed).

Table 5.2

Correlations between Recovery Capital and Treatment Motivation for Polydrug user

		Total Score Recovery Capital	Total Score Treatment Motivation
Total Score Recovery Capital	Pearson Correlation	1	.400**
	Sig. (2-tailed)		.000
	N	168	168
Total Score Treatment Motivation	Pearson Correlation	.400**	1
	Sig. (2-tailed)	.000	
	N	168	168

**. Correlation is significant at the 0.01 level (2-tailed).

4.6 Conclusion

This chapter presents the results of the study obtained. Research findings include reporting of results and following by answering the research questions. Demographic data of respondents has been presented from gender, race, marital status, educational level, and occupation. In addition, respondent demographics information related to the addiction period also has been presented.

From the results of the analysis that has been done, it shows that most of the respondents are Malays who have monthly and daily income. Most of them have an income of more than RM 1000 per month. The percentage of respondents who use polydrug is higher compared to non-polydrug. Most of them have been using drugs for more than 3 years and are undergoing a rehabilitation process within 6 months. Both instruments used are valid to be used to see the Recovery Capital and the Respondent's Motivational Treatment. From the results of the study, respondents chose Substance Use & Sobriety as the most important Recovery Capital in their recovery process.

To see the significance between the polydrug and non-polydrug groups, a T-test was performed. The results show that there is no significant difference between the polydrug and non-polydrug groups for Recovery Capital while for the Motivational Treatment there is a significant difference between the two group. An explanation of the results of this analysis will be explained in the next chapter. For the analysis of the relationship between Recovery Capital and Motivational Treatment for both groups, the correlation results show that the non-polydrug group has a weak relationship compared to the polydrug group. The implications and recommendations based on the findings and discussion presented in this chapter are discussed in chapter five.