

CHAPTER 10

10.0 RESULTS of PHASE 1

10.1 The General Information Questionnaire

The necessary biographical details were used to gain information from the patient, important to this research. The questionnaire also provided an assessment of the patient's basic understanding of the English language and ability to answer questions.

10.2 MCMI -II (Millon Clinical Multiaxial Inventory - II)

The results of the MCMI-11 were as follows:

The given variables were subjected a test of normality. All the variables but DEBASEMENT were found to be not normally distributed (i.e. they did not fall into a bell shaped curve). The test of effect between these variables and COMPLIANT (compliant/non-compliant) was, therefore, done non-parametrically through the Kruskal-Wallis Chi-squared approximation test.

The following are the test results.

TABLE 4 Kruskal-Wallis Test (Chi-Square Approximation)

VARIABLE	DEGREES OF FREEDOM	CHI-SQUARED	PROBABILITY >CHI-SQUARED
Disclosure	1	6.2372	0.0125***
Desirability	1	0.2963	0.5862
Debasement	1	15.2840	0.0001***
Schizoid	1	3.2479	0.0715**
Avoidant	1	7.6615	0.0056***
Dependant	1	1.0876	0.2970
Histrionic	1	0.1042	0.7468
Narcissistic	1	0.8373	0.3602
Antisocial	1	1.4029	0.2362
Aggressive/Sadistic	1	2.3061	0.1289
Compulsive	1	0.2224	0.6372
Passive-Aggressive	1	6.9933	0.0082***
Self-Defeating	1	8.0973	0.0044***
Schizotypal	1	6.3264	0.0119***
Borderline	1	3.3570	0.0669**
Paranoid	1	0.6975	0.4036
Anxiety	1	8.0757	0.0045***
Somatoform	1	0.4758	0.4903
Bipolar Manic	1	1.4932	0.2217
Dysthymia	1	9.6671	0.0019***
Alcohol Dependence	1	6.0828	0.0137***
Drug Dependence	1	3.0189	0.0823**
Thought Disorder	1	1.9526	0.1623
Major Depression	1	14.8620	0.0001***
Delusional Disorder	1	0.28835	0.5913

Variables marked with *** are significant at the 5% level and those marked with ** are significant at the 10% level.

These that are mentioned (disclosure, debasement, avoidant, passive-aggressive, self

defeating, schizotypal, anxiety, dysthymia, alcohol dependence, major depression, schizoid, borderline, and drug dependence) are all significant issues: for instance, the probability that Major Depression and Debasement are significant at the 5% / 10% level is

$$X = 0.0001^*$$

A prediction model was also constructed and applying the stepwise procedure of the discriminant function analysis, only two variables:

1) DEBASEMENT and 2) SCHIZOTYPAL

were selected as the variables that linearly affected compliance significantly. The following is the linear discriminant model constructed from the two variables

$$y = 7.294512 - 0.40913 * \log_e(\text{DEBAS}) - 1.38641 * \log_e(\text{SZTYP})$$

To test the efficacy of the model, the equation was applied to the compliant and non compliant groups of patients in the study. This was to ascertain whether it could, in fact, 'sort' the whole sample again into compliant and non-compliant patients and to ascertain the degree of error in doing so.

The following table is the result of this procedure:

TABLE 5

EFFICACY OF THE MODEL

From	To		
Compliant	Compliant	Non Compliant	Total
	68 59.65%	46 40.35%	114 100.00%
Non Compliant	9 27.27%	24 72.73%	33 100.00%
Total Percent	77 52.38%	70 47.62%	147 100.00%

This table shows the model to be effective in predicting non compliance but is not effective in predicting compliance.

Only 59.65% compliant patients were correctly classified by the model but 72.73% non compliant patients were correctly classified by the model as non compliant. It is therefore noted that the model is usable and effective in predicting non-compliance in patients 72.73% of the time.

Remarks:

It is worth noting that the nonparametric procedure indicated that in addition to

DEBASEMENT and SCHIZOTYPAL the variables:

DISCLOSURE, SCHIZOID, AVOIDANCE, PASSIVE-AGGRESSIVE, SELF-DEFEATING, BORDERLINE, ANXIETY DYSTHYMIA, ALCOHOL DEPENDENCE, DRUG DEPENDENCE and MAJOR DEPRESSION

which were found significant at either 5% or 10% level were not selected by the discriminant function model. This could be due to high correlation among them as a result of item overlap (Choca et.al. 1991).

Hair, Anderson, Tatham and Black (1998 pg. 294) point this out this very clearly: "With stepwise procedures, this determination is made easier in one way because the criteria specified for the technique prevent non-significant variables from entering the function. However, multi-collinearity and other factors may preclude a variable from entering the equation, but that does not necessarily mean that it does not have a substantial effect. This can be determined by evaluating the discriminant loadings." (e.g. Major Depression in the present study). In understanding the factors that distinguish between two groups, the researcher should consider all of the variables.

In other words, because of inter-correlation which precluded many of the significant variables (at 5% and 10% levels) from being included in the model, this does not preclude the fact that they can have a substantial effect on non compliance. This is especially as another statistical

procedure (Kruskal Wallis) have made clear that they are significant.

Hair et.al.(1998, p.208), give an example where a significant factor, X1, does not enter the stepwise discriminant model. "Because X5 entered the regression variate first in the stepwise procedure, there is not enough unique variance in X1 to justify its inclusion, even though only X5 entered the regression variate. However, it would be substantially incorrect to interpret from these results that X1 has no impact on product usage when in fact it was the independent variable with the second highest bivariate correlation with the dependant variable.

"The correct interpretation would be that X1 or X5 demonstrates high impact but the similarity of the effect on product usage (high collinearity) dictates that only one of them is needed in the prediction process. (3 out of 7) They warn that the researcher must never allow an estimation procedure to dictate the interpretation of the results, but instead must understand the issues of interpretation accompanying each estimation procedure"

Therefore in the present study, in other variables, because of inter-correlation which precluded more of the highly significant variables (at 5% or 10% level) this does not preclude the fact that they can have a substantial effect especially as another statistical procedure, the Kruskal Wallis Test, has found them highly significant in this research.

In summary, Disclosure, Debasement, Avoidance, Passive Aggressive, Self Defeating, Schizotypal, Anxiety, Dysthymia, Alcohol Dependence and Major Depression were found to be significant at the 5% level. However, in applying the stepwise procedure of the

discriminant function analysis, only two variables:

1) Debasement and 2) Schizotypal were selected as the only two variables that linearly affected compliance significantly.

10.3 The Dysfunctional Attitudes Scale

There were no significant differences found between the compliant and non-compliant groups on the Dysfunctional Attitudes Scale (See Table 6), this held true on all aspects of the scale:

Approval Need;

Tentativeness;

Anaclitic Self Esteem;

External Self Esteem;

General Self Esteem.

Both groups of patients did not differ on general levels of self esteem, need for approval or support.

TABLE 6

The Dysfunctional Attitudes Scale

VARIABLE	DEGREES OF FREEDOM	CHI-SQUARED	PROBABILITY >CHI-SQUARED	
Approval Need	1	.0000293	0.9957	
Tentativeness	1	.4985161	0.4802	
Anaclitic Self Esteem	1	.0511397	0.8211	
External Self Esteem	1	.0000293	0.9957	
General Self Esteem	1	2.639556	0.1042	

Variables marked with *** are significant at the 5% level and those marked with ** are significant at the 10% level.

10.4 Beck Hopelessness Scale

There were no significant differences found between the Compliant and the Non-Compliant Groups on the Beck Hopelessness Scale (See Table Y).

TABLE 7

Beck Hopelessness Scale

VARIABLE	DEGREES OF FREEDOM	CHI-SQUARED	PROBABILITY >CHI-SQUARED
Hopelessness	1	1.1071609	0.3006

Variables marked with *** are significant at the 5% level and those marked with ** are significant at the 10% level.

10.5 Social Readjustment Rating Scale

This questionnaire did not distinguish between the two groups. Both groups of patients had experienced loss of health, serious illness, loss of employment as part of the cancer process. As mentioned previously, this questionnaire was given to access additional information about the patient.

10.6 Buss-Durkee Scale of Aggression

The results did not show any significant factors between the compliant and the non-compliant group.

This was true of all aspects of the test: (See Table 8)

Assault;

Indirect Aggression;

Irritability;

Negativity;

Resentment;

Suspicion;

Verbal Aggression;

Guilt.

TABLE 8

Buss-Durkee Scale of Aggression

VARIABLE	DEGREES OF FREEDOM	CHI- SQUARED	PROBABILIT Y >CHI- SQUARED
Assault	1	.0919783	0.7617
Indirect Aggression	1	.8638324	0.3527
Irritability	1	1.436427	0.2307
Negativity	1	.0014789	0.9693
Resentment	1	1.643701	0.1998
Suspicion	1	.5042763	0.4776
Verbal Aggression	1	.9833264	0.3214
Guilt	1	.4483306	0.5031

Variables marked with *** are significant at the 5% level and those marked with ** are significant at the 10% level.

10.7 The Rotter Internal-external Locus of Control

In the results no significant differences were found between the two groups. (See Table 9)

TABLE 9

The Rotter Internal-External Locus of Control

VARIABLE	DEGREES OF FREEDOM	CHI- SQUARED	PROBABILITY >CHI-SQUARED
Locus of Control	1	.6293107	0.4276

Variables marked with *** are significant at the 5% level and those marked with ** are significant at the 10% level.

10.8 Summary of Results

10.8.1 Results on the MCMI-11

Several traits on the MCMI-11 were found to significantly differentiate between the compliant and non compliant groups of patients:

Traits that were significant at the 5% level are as follows:

Disclosure, Debasement, Avoidant, Passive Aggressive, Self-Defeating
Schizotypal, Anxiety, Dysthymia, Alcohol Dependence and Major Depression.

Traits that were significant at the 10% level are as follows:

Schizoid, Borderline and Drug Dependence

Traits found not to distinguish between the two groups are as follows:

Desirability, Dependence, Histrionic, Narcissistic, Antisocial, Aggressive-Sadistic,
Compulsive, Paranoid, Somatoform, Bipolar Manic, Thought Disorder and Delusional
Disorder.

A prediction model was also constructed and

applying the stepwise procedure of the discriminant function analysis, only two variables:

1) Debasement and 2) Schizotypal

were selected as the only two variables that linearly affected compliance significantly

10.8.2 Results on the remaining tests

The Beck Hopelessness Scale, the Social Readjustment Rating Scale, the Buss-Durkee Scale of Aggression, the Rotter Internal-External Locus of Control Scale and the Dysfunctional Attitudes Scale did not significantly differentiate between the compliant and non compliant groups.