

CHAPTER 4

RESULT MODELING AND ANALYSIS

This particular section provides the actual strategy utilized to conduct the research. This talks about the study environment, populace, sample as well as sample determination, sampling technique, investigation style, research instruments, procedure for data collection and data analysis. The procedure for data collection and data analysis has been discussed.

4.1 Population

The population of a research is the study of a large group of interest for which a research is relevant and applicable. The special students' mentors and family members is the target population for this research.

4.2 Sample and Sample Determination

The sample population is a subset of the entire population, and inferential statistics is to generalize from the sample to the population. A sample size of 400 respondents was used for the study. The sample size was determined using Yamane's simplified formula corrected to proportion to determine the sample size for the study. It is defined as;

According to data tabulated by the Ministry of Health, India the total number of special students mentors and family member population is 55,000 and so the sample size was 400.

$$n = N / (1 + (N \times e \times e))$$

n = Sample size for N population

N = Population

e = Variance of sample (0.05)

$$n = 55000 / (1 + (55000 \times 0.05 \times 0.05))$$

$$n = 397.0075$$

$$n \cong 400$$

Table 4.1: Sample size drawn from both non-academic and academic

Respondent	Population	Sample
Teachers and family members working with special schools	55000	400

4.3 Sampling Technique

The systematic sampling method was used to select participants for the study. The systematic sampling technique is a way of selecting respondents which determines how to select members of a population that will be studied. By this method, every " n^{th} " member is selected from the total population for inclusion in the sample population. The respondents were selected from a starting member of a group example non academic and then the means was repeated in other groups to select the other respondents. This technique is more efficient because it improves accuracy of estimates.

4.4 Procedure of Data Collection

The register of staff members and family members was obtained from the health resource department. The first fourth name was selected and then the difference of four was used an interval to select the rest of the respondents. Copies of the questionnaire were personally handed to respondents at their offices. After some minutes the researcher went back and collected the answered questionnaires because the respondents may forget to fill in the questionnaire or misplace them entirely.

The questions were thoroughly explained to the respondents after copies of the questionnaire were handed to them. The purpose was to help the respondents understand the relevance of the research and provide their independent views on the questionnaire items given them. To have a valid and a reliable data, the researcher ensured that the questionnaires were well prepared which allowed error minimization.

The questionnaire had close-ended questions which respondents were asked to tick the appropriate answer. Some of the questions were open-ended which offered respondents the opportunity to express their views freely.

4.5 Research Instruments

Open and closed-ended questionnaires were designed for the respondents. The questionnaires were divided into various sections to capture the critical areas spelt out in the objectives for the study.

The questionnaires were administered personally and the contents explained to some staff who requested to be guided. A total of four hundred (400) questionnaires were sent out and were distributed to both administrative and academic staff of the hospitals and societies. In addition, interviews were conducted to help clarify and gain a deeper understanding of some of the responses of respondents. The response rate was 70% of the total questionnaires administered. Structured interview guides were used to gather further information from respondents. The researcher also undertook direct observation of work processes and procedures within the institution.

4.6 Research Design

Research design according to Creswell(2013) is a plan that promotes systematic management of data collection. Design and methodology dictate what is needed to answer your research questions. The study adopts the cross-sectional survey method as its research strategy. As noted by Creswell survey is a systematic method for gathering information from a sample of individuals for the purposes of describing the attributes of the larger population of which the individuals are members.

The cross-sectional was chosen because it studied the research problem at a point in time and not within a longer time frame (longitudinal). This method is considered useful because the problem

of study cannot be directly observed. Thus, the effect of mental sluggishness on daily performance among mentally retarded students cannot be directly analyzed.

4.7 Descriptive statistics

This part represents the data of respondents' (mentally retarded student's teachers and family members) demographic profile and their overall opinion about psychology level of mentally retarded students.

Demographic profile of respondents (mentally retarded student's teachers and family members) includes age, gender, marital status, personal monthly income and education level. Frequency and percentage value were the statistical methods described the results in the table of each demographic item.

❖ AGE:

Table 4.2: Age Analysis

Age	Frequency	Percentage (%)
18 – 25	90	23
25 - 34	196	48.25
35 - 44	98	24.75
45 - 55	16	4
Total	400	100

The table of age shows that from 400 respondents who participated in this survey, the other group of respondents equal to 90 respondents which means 22% , majority group was age between 25 and 34 years old which equal to 196 respondents or 49.25% while the next group which equal to 98 respondents were age between 35 and 44 years old. The further groups were respondents whose age between 45 and 55 years old which equal to 16.

The most of respondents were pretty young people between 18 and 34 years old (both bachelor's and Higher than Bachelor's degree), it can be a consequence of using social-media for survey distribution. Young people are more attracted by salary elevation and work flexibility. Also among respondents might be people who are looking for better job opportunities where stress level of work is less.

❖ **GENDER**

Table 4.3: Gender Analysis

Gender	Frequency	Percentage (%)
Male	250	61.25
Female	150	37.75
Total	400	100

The table of gender shows from overall respondents who participated in this survey were more male respondents than female which equal to 250 male respondents or 62.25% while only 150 of female respondents or 37.75%.

❖ **MARITAL STATUS OF TEACHER**

Table 4.4: marital status analysis

Marital Status	Frequency	Percentage (%)
Single	146	36.75
Married	254	63.25
Total	400	100

The table of the marital status shows that from 400 respondents, 36.75% were single which is equal 146 respondents, while 63.25% or 254 respondents were married.

❖ **PERSONAL MONTHLY INCOME:**

Table 3.5: Personal monthly income Analysis

Income	Frequency	Percentage (%)
30,000 Rupees or below	139	34.5
30,001 - 60,000 Rupees	231	58
60,001 - 90,000 Rupees	21	5.25
Above 90,000 Rupees	9	2.25
Total	400	100

The table of Personal monthly income shows that from 400 respondents who participated in this survey, majority of respondents has income between 30,001 - 60,000 Rupees, which is equal to 231 respondents or 58%. The second group of respondents earns 30,000 Rupees or below, which is equal to 139 respondents or 34.5%. The third group carried income between 60,001 - 90,000 Rupees, which is 21 respondents. In addition, there were 9 respondents who earn above 90,000 Rupees.

❖ **EDUCATION LEVEL**

Table 4.6: highest education analysis

Degree	Frequency	Percentage (%)
Lower than Bachelor's degree	30	7.5
Bachelor's degree	224	56.25
Higher than Bachelor's degree	146	36.25
Total	400	100

The table of education level shows that from 400 respondents the majority had a bachelor's degree which is equal to 56.25% or 224 respondents. The second group of respondents had a higher than bachelor's degree which is equal to 36.25% or 146 respondents. About 7.5% or 30 respondents had a lower degree than bachelor's degree.

4.8. Inferential Statistics

- *Reliability testing* result of the questionnaire.

This part represents the result of reliability testing based on Cronbach's Alpha value in order to measure whether or not the questionnaire used for collecting data in this research was reliable enough to present the result. The questionnaire from 40 respondents which was equal to 10% of total respondents was selected to test the reliability. The result is shown in the table below.

Table 4.7: reliability tests results

Factor/Purpose	Cronbach's Alpha	N
Knowledge about special education technics	.787	40
Need of family support to cope with special student's activities	.834	40
Desire to work in social welfare department to support special students	.861	40
Passion of social work	.829	40
Family environment – social and cultural factors	.749	40
Household expenditure and other financial support facilities	.856	40
Impact of Uncertainty	.711	40
Impact of student expenditure	.720	40
Impact of Lowering of savings	.710	
Impact of overall mental condition over school teacher and family member performance	.816	
Special school management's positive support to cope-up with student stress	.812	
Role shifting for better teacher performance and family member training to understand special student's mentality.	.732	
Relaxation will give more opportunities/power to think about further steps for progress of special students	.707	

The results as described from Myers et al. (2010) should be between 0 (meaning no consistency) and 1 (meaning complete consistency) and recommended value should be more than 0.70.

As shown in the table the Cronbach's Alpha calculated on the all eight items (factors and purposes) is higher than 0.7, it is considered as very good reliability.

The results indicate that the questionnaire used in this research was reliable enough to collect the data for analyzing in this research.

4.9 One-way ANOVA

This statistical tool was utilized to test hypotheses and determine the significant of key-success factors, purposes and intention of decision to work as a special child teacher in the hospital/social societies/schools under India. The statistical used was based on the statement of the problem and the entire research hypotheses were tested with 0.05 level of significance. If the significant (2-tailed) level is less than 0.05, the null hypothesis is to be rejected. If the significant (2-tailed) level is more than 0.05, the null hypothesis is to be accepted.

This significant level is used for rejecting or accepting the null hypothesis. For this particular research was used the most commonly used significant level at 0.05 (5%).

4.10 Hypothesis Testing

4.1 H1: This hypothesis seeks to identify whether or not there is a relationship between special student activities and stress experienced by the teachers and family members working with special schools.

H1.1: The **age** of teachers and family members working with special schools has a significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

H0: The **age** of teachers and family members working with special schools has no significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

ANOVA

Table 4.8: ANOVA test age

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7.488	2	3.741	15.664	.015
Within Groups	95.034	397	0.235		
Total	102.520	399			

The result of the significant level is .015 which is less than .05 means that the null hypothesis is rejected.

H1.2: The **gender** of teachers and family members working with special schools has a significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

H0: The **gender** of teachers and family members working with special schools has no significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

ANOVA

Table 4.9: ANOVA test gender

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.451	1	9.454	40.556	.014
Within Groups	93.071	398	0.234		
Total	102.520	399			

The result of the significant level is .014 which is less than .05 means that the null hypothesis is rejected.

H1.3: The **marital status** of teachers and family members working with special schools has a significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

H0: The **marital status** of teachers and family members working with special schools has no significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

ANOVA

Table 4.10: ANOVA test marital status

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.446	3	1.141	4.587	.004
Within Groups	99.089	396	.251		
Total	102.520	399			

The result of the significant level is .004 which is less than .05 means that the null hypothesis is rejected.

H1.4: The **income** of teachers and family members working with special schools has a significant positive relationship with their special student activities and stress experienced by the teachers and family members working with special schools.

H0: The **income** of teachers and family members working with special schools has no significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

ANOVA

Table 4.11: ANOVA test income

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.732	3	1.910	7.830	.022
Within Groups	96.790	396	0.245		
Total	102.520	399			

The result of the significant level is .022 which is less than .05 means that the null hypothesis is rejected.

H1.5: The **education** of teachers and family members working with special schools has a significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

H0: The **education** of teachers and family members working with special schools has no significant positive relationship with special student activities and stress experienced by the teachers and family members working with special schools.

ANOVA

Table 4.12: ANOVA test education

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.502	3	2.161	8.952	.019
Within Groups	96.014	396	.243		
Total	102.520	399			

The result of the significant level is .019 which is less than .05 means that the null hypothesis is rejected.

4.2 H2: This hypothesis seeks to identify whether there is a relationship between key push-pull motivation factors for managing special students and stress experienced by the teachers and family members working with special schools.

H2.1: The **Knowledge about special education techniques** as a key motivation factor has a significant positive relationship with the decision of the teachers and family members working with special schools.

H0: The **Knowledge about special education techniques** as a key motivation factor has no significant positive relationship with the decision of the teachers and family members working with special schools.

ANOVA

Table 4.13: ANOVA test Knowledge about special education techniques

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.731	2	2.362	9.611	.002
Within Groups	97.783	397	0.244		
Total	102.520	399			

The result of the significant level is .002 which is less than .05 means that the null hypothesis is rejected.

H2.2: The **Role shifting** as a key motivation factor has a significant positive relationship with the decision of the teachers and family members working with special schools.

H0: The **Role shifting** as a key motivation factor has no significant positive relationship with the decision of the teachers and family members working with special schools.

ANOVA

Table 4.14: ANOVA test Role shifting

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.534	2	1.761	7.091	.027
Within Groups	98.981	397	0.247		
Total	102.520	399			

The result of the significant level is .027 which is less than .05 means that the null hypothesis is rejected.

H2.3: The **Special school management's positive support** as a key motivation factor has a significant positive relationship with the decision of the teachers and family members working with special schools.

H0: The **Special school management's positive support** as a key motivation factor has no significant positive relationship with the decision of the teachers and family members working with special schools.

ANOVA

Table 4.15: ANOVA test Special school management's positive support

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.256	2	1.121	4.461	.028
Within Groups	100.272	397	0.256		
Total	102.520	399			

The result of the significant level is .028 which is less than .05 means that the null hypothesis is rejected.

H2.4: The **Social and cultural Environment** as a key motivation factor has a significant positive relationship with the decision of the teachers and family members working with special schools.

H0: The **Social and cultural Environment** as a key motivation factor has no significant positive relationship with the decision of the teachers and family members working with special schools.

ANOVA

Table 4.16: ANOVA test Social and cultural Environment

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.025	3	1.002	4.011	.002

Within Groups	99.507	396	0.258		
Total	102.520	399			

The result of the significant level is .002 which is less than .05 means that the null hypothesis is rejected.

H2.5: The **financial support facilities** as a key motivation factor has a significant positive relationship with the decision of the teachers and family members working with special schools.

H0: The **financial support facilities** as a key motivation factor has no significant positive relationship with the decision of the teachers and family members working with special schools.

ANOVA

Table 4.17: ANOVA test financial support facilities

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.053	4	.763	3.046	.018
Within Groups	99.462	395	0.257		
Total	102.520	399			

The result of the significant level is .018 which is less than .05 means that the null hypothesis is rejected.

4.3 H3: This hypothesis focuses over the overview of studies inspecting the success rate of handling mentally retarded students and teachers / family member's stress level noticed during year 2013- 2014.

H3.1: Impact of Uncertainty as a de-motivation factor has a significant negative relationship with the decision of the teachers and family members working with special schools during period 2013-2014.

H0: Impact of Uncertainty as a de-motivation factor has no significant negative relationship with the decision of the teachers and family members working with special schools during period 2013-2014.

ANOVA

Table 4.18: ANOVA test Impact of Uncertainty

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.563	2	1.288	5.123	.003
Within Groups	99.951	397	0.255		
Total	102.520	399			

The result of the significant level is .003 which is less than .05 means that the null hypothesis is rejected.

H3.2: The student expenditure as a key de-motivation factor has a significant negative relationship with the decision of the teachers and family members working with special schools during period 2013-2014.

H0: The student expenditure as a key de-motivation factor has no significant negative relationship with the decision of the teachers and family members working with special schools during period 2013-2014.

ANOVA

Table 4.19: ANOVA test student expenditure

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.994	5	0.798	3.196	.003
Within Groups	98.520	394	0.251		
Total	102.520	399			

The result of the significant level is .003 which is less than .05 means that the null hypothesis is rejected.

H3.3: The **Less Savings** as a de-motivation factor has a significant negative relationship with the decision of the teachers and family members working with special schools during period 2013-2014.

H0: The **Less Savings** as a de-motivation factor has no significant negative relationship with the decision of the teachers and family members working with special schools during period 2013-2014.

ANOVA

Table 4.20: ANOVA test Less Savings

Intention of decision

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.012	4	0.501	1.993	.003
Within Groups	100.517	395	0.243		
Total	101.521	399			

The result of the significant level is .003 which is less than .05 means that the null hypothesis is rejected.

4.11. One-Sample T-Test

- Measurement Values

There are several types of rating scales that have been made to measure attitude/behaviors directly. Direct measurement means that the subject knows his/her attitude is under study. The Likert scale is the most popular and is used mostly compared to others. The Likert principle was coined by asking peoples opinion about a couple of statements relating to a topic. The Likert scale /frequency scale uses “fixed choice response” to measure people’s opinions in terms of their levels of disagreement or agreement. In a Likert type scale, the respondents are given choices that range up to five. Sometimes the choices go up to sever or nine. These pre-codes choices/responses have a neutral point that lets the respondent select “neither disagree nor agree”. In conclusion, the Likert scale can be defined as a numerical point scale (five, seven, or nine depending on choice) that permits people to show agreement or disagreement concerning a specific statement.

This research used measurement values by **Likert scaling technique** as follows;

Interval (I) = Rang (R) / Class (C)

R = Highest score – Lowest score = 7 – 1 = 6

C = Interval Scale = 7

Interval (I) = (7 – 1) / 7 = 0.85

The formals of seven-point numerical scale of question with measurement’ interpretation:

1 – 1.85 – Strong negative relationship

1.85 – 2.7 – Moderate negative relationship

2.7 – 3.55 – Weak negative relationships

3.55 – 4.4 – Neutral relationship

4.4 – 5.25 – Weak positive relationships

5.25 - 6.15 - Moderate positive relationship

6.15 – 7.0 – Strong positive relationship

Table 4.21: One-sample t-test of factors

	N	Mean	Std. Deviation	Std. Error Mean
Impact of Uncertainty	400	6.1421	0.8559	.07411
Impact of student expenditure	400	5.5211	0.9334	.07340
Impact of fewer savings	400	6.2522	0.8256	.07527
Impact of overall mental condition over school teacher and family member performance	400	5.7441	0.8835	.07615

The table of One-sample T-test of key-success factors indicates that all five factors have positive relationship with the decision of the teachers and family members working with special schools period 2013-2014.

According to the One-sample T-test of key-success factors, the Impact of Uncertainty is 6.1421 considered as moderate positive relationship. The Impact of student expenditure has mean 5.5211 and considered as moderate positive relationship too. Impact of fewer saving considered as significant positive relationship with the mean of 6.2522 and Impact of overall mental condition over school teacher and family member performance has moderate positive relationship with meaning of 5.7441.

Table 4.22: One-sample t-test of purposes

	N	Mean	Std. Deviation	Std. Error Mean
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Knowledge about special education techniques	400	6.3312	.7610	.0651
Role shifting	400	6.2462	.7251	.0621
Family environment – social and cultural factors	400	6.1253	.8238	.0736
Special school management’s positive support to cope-up with student stress	400	6.1531	.6512	.6679
Relaxation will give more opportunities/power to think about further steps	400	6.1425	.6639	.6498

The table of One-sample T-test of purpose of decision of the teachers and family members indicates that all five factors have positive relationship with the decision.

According to the table of One-sample T-test of purpose of working with special students school as a teacher/family member, the purpose of Knowledge about special education techniques, Role shifting, Family environment – social and cultural factors, Relaxation will give more opportunities/power to think about further steps has a significant positive relationship with means of 6.3312, 6.2462, 6.1253, 6.1425 respectively. Special school management’s positive support to cope-up with student stress has mean of 6.1531 and considered as moderate positive relationship.