

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.1. Analysis and Interpretation of Data

The third chapter explores the method and procedure adopted to conduct the present research. In this chapter the researcher has tried to analyse the data in order to present the results. After the collection of the data. It is essential for a researcher to follow certain steps such as the organisation, analysis and interpretation of the collected data. Further, the researcher needs to formulate conclusions and generalisation in order to get a meaningful result out of the raw information collected so far. The mass of data collected needs to be systematized and organized, i.e., edited, classified and tabulated before it can serve the purpose. In this context, editing means checking of the gathered data for accuracy, utility and completeness; classes or heads for use; and tabulating means recording of the classified material in accurate mathematical terms, i.e., making and counting frequency tallies for different items on which information is gathered. Analysis of the data implies studying the tabulated material for the purpose of determining inherent facts or meanings. It involves splitting down the existing complex factors into simpler parts and putting the parts together in new arrangements for the purpose of interpretation.

Table 4.1: Mean and S.D. (Parentheses) of Various Groups for Neuroticism

Level of Internet Addiction Type of courses	Internet Addiction			Main Means
	Mild	Moderate	Severe	
Non-Professional	21.43 (6.5)	23.89 (6.15)	25.76 (6.6)	23.14 (6.6)
Professional	20.81 (6.2)	24.86 (5.9)	24.76 (5.1)	23.68 (6.03)
Main Means of Internet Addiction	21.22 (6.4)	24.35 (6.06)	25.18 (5.8)	23.38 (6.3)

Table 4.1 indicates the means and standard deviation for main effect of type of courses and level of internet addiction on neuroticism. To find out the significant effect of type of course (Professional and Non-Professional) and level of internet addiction (Mild, Moderate and Severe) as well as their interactive effect (Type of course*Level of internet addiction) on neuroticism, two-way ANOVA was carried out.

Objective:- 1.1. To study the effect of internet addiction on personality factor neuroticism.

Hypothesis: -1.1. There will be no significant effect of internet addiction on personality factor neuroticism.

Table 4.2: Summary of ANOVA for Level of Internet Addiction on Personality Factor: Neuroticism

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction	831.00	2	22.04	.001
Error	37.69	544	-	-

The results contained in Table 4.2 revealed that the main effect of the severity of Internet Addiction was found significant ($F = 22.04$, $df = 2$ at $p \leq .001$). The results indicate that level of Internet Addiction significantly influences neuroticism personality factor. Hence the hypothesis “There will be no significant effect of internet addiction on personality factor neuroticism” is **rejected**.

The means contained in Table 4.1 on neuroticism of mild internet addiction group was 21.22, whereas for severe level of internet addiction group was 25.18. It shows that the neuroticism score increases with the severity of internet addiction.

Table 4.3: Mean and S.D. (Parentheses) of Various Groups for Extraversion

Level of Internet Addiction Type of Courses	Internet Addiction			Main Means
	Mild	Moderate	Severe	
Non-Professional	27.32 (5.5)	27.80 (4.8)	26.76 (5.1)	27.36 (5.2)
Professional	29.11 (5.1)	26.78 (5.2)	25.1 (5.3)	26.85 (5.4)
Main Means of Internet Addiction	27.91 (5.5)	27.32 (5.05)	25.82 (5.2)	27.13 (5.3)

Table 4.3 shows the means and standard deviation for main effect of type of courses and level of internet addiction on extraversion. To find out the significance effect of type of course (Professional and Non-Professional) and level of internet addiction (Mild, Moderate and Severe) as well as their interactive effect (Type of course*Level of internet addiction) on extraversion, two-way ANOVA was carried out.

Objective: - 1.2 To study the effect of internet addiction on personality factor extraversion.

Hypothesis: -1.2. There will be no significant effect of internet addiction on personality factor extraversion.

Table 4.4: Summary of ANOVA for Level of Internet Addiction on Personality Factor: Extraversion

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction	213.315	2	7.72	.001
Error	27.62	544	-	-

The results contained in Table 4.4 revealed that the severity of Internet Addiction was found significant ($F = 7.72$, $df = 2$ at $p \leq .001$). The results indicate that

level of Internet Addiction significantly influences extraversion personality factor. So, the hypothesis “There will be no significant effect of internet addiction on personality factor extraversion” is **rejected**.

The mean contained in Table 4.3 on Extraversion of Mild Internet Addiction level group was 27.91, whereas severe level of internet addiction was 25.82. It shows that the extraversion score decreases with the severity of internet addiction.

Table 4.5: Mean and S.D. (Parentheses) of Various Groups for Openness

Level of Internet Addiction Type of Courses	Internet Addiction			Main Means
	Mild	Moderate	Severe	
Non-Professional	25.60 (4.5)	25.76 (4.1)	25.34 (4.3)	25.60 (4.3)
Professional	24.91 (4.8)	24.37 (4.3)	24.57 (4.6)	24.59 (4.6)
Main Means of Internet Addiction	25.37 (4.6)	25.10 (4.2)	24.90 (4.5)	25.15 (4.5)

Table 4.5 shows the means and standard deviation for main effect of type of course and level of internet addiction on Openness. To find out the significant effect of type of course (Professional and Non-Professional) and “level of internet addiction (Mild, Moderate and Severe)” as well as their interactive effect (Type of course*Level of internet addiction) on openness, two-way ANOVA was carried out.

Objective: - 1.3. To study the effect of internet addiction on personality factor openness.

Hypothesis: -1.3. There will be no significant effect of internet addiction on personality factor openness.

Table 4.6: Summary of ANOVA for Level of Internet Addiction on Personality Factor: Openness

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction	3.85	2	.191	Not Significant
Error	20.20	544	-	-

The result contained in Table 4.6 revealed that the severity of Internet Addiction was found non-significant ($F=.191$, $df=2$ at $p \leq .05$). Thus, the hypothesis “There will be no significant effect of internet addiction on personality factor openness” is **not rejected**.

Table 4.7: Mean and S.D. (Parentheses) of Various Groups for Agreeableness

Level of Internet Addiction Type of courses	Internet Addiction			Main Means
	Mild	Moderate	Severe	
Non-Professional	27.82 (3.6)	26.62 (4.3)	24.56 (5.1)	26.74 (4.4)
Professional	26.87 (4.8)	24.66 (4.6)	24.19 (4.7)	25.12 (4.8)
Main Means of Internet Addiction	27.51 (4.1)	25.68 (4.6)	24.34 (4.9)	26.01 (4.6)

Table 4.7 shows the means and standard deviation for main effect of type of courses and level of internet addiction on Openness. To find out the significant effect of type of course (Professional and Non-Professional) and “level of internet addiction (Mild, Moderate and Severe)” as well as their interactive effect (Type of course*Level of internet addiction) on agreeableness, two-way ANOVA was carried out.

Objective: - 1.4 To study the effect of internet addiction on personality factor agreeableness.

Hypothesis: -1.4. There will be no significant effect of internet addiction on personality factor agreeableness.

Table 4.8: Summary of ANOVA for Level of Internet Addiction on personality factor: Agreeableness

Source	Mean Square	Df	F-Value	p<
Level of internet Addiction	374.73	2	18.64	.001
Error	20.90	544	-	-

The results contained in Table 4.8 revealed that the severity of Internet Addiction is found significant ($F=18.64$, $df=2$ at $p \leq .001$). The mean given in the Table 4.7 shows that the mean agreeableness of mild internet addicted students is 27.51, whereas for the severe internet addicted students is 24.34. The results indicate that level of Internet Addiction significantly influences agreeableness. Hence the hypothesis “There will be no significant effect of internet addiction on personality factor agreeableness” is **rejected**.

Table 4.9: Mean and S.D. (Parentheses) of Various Groups for Conscientiousness

Level of Internet Addiction Type of Courses	Internet Addiction			Main Means
	Mild	Moderate	Severe	
Non-Professional	32.36 (5.8)	30.44 (5.2)	27.42 (5.8)	30.70 (5.9)
Professional	33.55 (5.4)	29.30 (5.6)	25.11 (5.66)	29 (6.5)
Main Means of Internet Addiction	32.76 (5.7)	29.90 (5.4)	26.08 (5.8)	29.94 (6.2)

Table 4.9 shows the means and standard deviation for main effect of type of courses and level of internet addiction on Openness. To find out the significant effect of type of course (Professional and Non-Professional) and level of internet addiction (Mild, Moderate and Severe) as well as their interactive effect (Type of course*Level of internet addiction) on conscientiousness, two-way ANOVA was carried out.

Objective: - 1.5 To study the effect of internet addiction on personality factor conscientiousness.

Hypothesis: -1.5. There will be no significant effect of internet addiction on personality factor conscientiousness.

Table 4.10: Summary of ANOVA for Level of Internet Addiction on Personality Factor: Conscientiousness

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction	1854.56	2	58.30	.001
Error	31.80	544	-	-

The results contained in Table 4.10 revealed that the severity of Internet Addiction is found significant ($F=58.30$, $df=2$ at $p \leq .001$). The mean given in the Table 4.9 shows that the mild internet addicted students have higher conscientiousness scores (32.76) in comparison to severe internet addicted students (26.08). The results indicate that level of Internet Addiction significantly influences the conscientiousness personality factor. So, the hypothesis “There will be no significant effect of internet addiction on personality factor conscientiousness” is **not rejected**.

Objective: - 2.1. To study the effect of type of courses on personality factor neuroticism.

Hypothesis: -2.1. There will be no significant effect of type of courses on personality factor neuroticism.

Table 4.11: Summary of ANOVA for Type of Courses on Personality Factor Neuroticism

Source	Mean Square	Df	F-Value	p <
Type of Courses	6.15	1	.163	Not Significant
Error	37.69	544	-	-

Table 4.11 shows the summary of ANOVA. It revealed that the type of course is not found significant source of variance ($F=.163$). It was observed that non-professional students show neuroticism score as 23.14 in comparison to professional student's 23.68. The difference observed was not significant. Thus, the hypothesis "There will be no significant effect of type of courses on personality factor neuroticism" is **not rejected**.

Objective: - 2.2 To study the effect of type of courses on personality factor extraversion.

Hypothesis: -2.2. There will be no significant effect of type of courses on personality factor extraversion.

Table 4.12: Summary of ANOVA for Type of Courses on Personality Factor: Extraversion

Source	Mean Square	Df	F-Value	p <
Type of Courses	10.615	1	.384	Not Significant
Error	27.62	544	-	-

The results contained in Table 4.12 revealed that the main effect of Type of Courses Study was non-significant ($F = .384$, $df = 1$ at $p \leq .05$). It was observed that non-professional students show extraversion score as 27.36 in comparison to

professional student's 26.85. The difference observed was not significant. So, the hypothesis "There will be no significant effect of type of courses on personality factor extraversion" is **not rejected**.

Objective: - 2.3 To study the effect of type of courses on personality factor openness.

Hypothesis: -2.3. There will be no significant effect of type of courses on personality factor openness.

Table 4.13: Summary of ANOVA for Type of Courses on Personality Factor: Openness

Source	Mean Square	Df	F-Value	p <
Type of Courses	116.13	1	5.74	.017
Error	20.20	544	-	-

The results contained in Table 4.13 proves that the major impact of Type of Courses was found significant ($F=5.74$, $df=1$ at $p \leq .017$). It is observed that non-professional students have higher scores on openness (25.60) in comparison to professional students (24.59). Thus, the hypothesis "There will be no significant effect of type of courses on personality factor openness" is **not rejected**.

Objective: - 2.4 To study the effect of type of courses on personality factor agreeableness.

Hypothesis: -2.4. There will be no significant effect of type of courses on personality factor agreeableness.

Table 4.14: Summary of ANOVA for Type of Courses on Personality Factor: Agreeableness

Source	Mean Square	Df	F-Value	p <
Type of Courses	154.80	1	7.70	.006
Error	20.09	544	-	-

The results contained in Table 4.14 proves that the major impact of Type of Courses was significant ($F = 7.70$, $df = 1$ at $p \leq .006$). Its shows that the non-professional students have highly agreeable scores (26.74) compared to professional students' scores (25.12). Hence the hypothesis "There will be no significant effect of type of courses on personality factor agreeableness" is **rejected**.

Objective: - 2.5 To study the effect of type of courses on personality factor conscientiousness.

Hypothesis: -2.5. There will be no significant effect of type of courses on personality factor conscientiousness.

Table 4.15: Summary of ANOVA for Type of Courses on Personality Factor: Conscientiousness

Source	Mean Square	Df	F-Value	p <
Type of Courses	73.52	1	2.31	Not Significant
Error	31.80	544	-	-

The results contained in Table 4.15 revealed that the major impact of Type of Courses was found not significant ($F = 2.31$, $df = 1$ at $p \leq .05$). So, the hypothesis "There will be no significant effect of type of courses on personality factor conscientiousness" is **not rejected**.

Objective: - 3.1 To study the interactive effect of internet addiction and type of courses on personality factor neuroticism.

Hypothesis: - 3.1. There will be no significant interactive effect of internet addiction and type of courses on personality factor neuroticism.

Table 4.16: Summary of ANOVA interaction between Level of “Internet Addiction” and Type of Courses on Neuroticism

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction x Type of Courses	47.75	2	1.26	Not Significant
Error	37.69	544	-	-

The interaction between Type of Courses and level of Internet Addiction was found non- significant ($F = 1.26$, $df = 2$ at $p \leq .05$). Thus, the hypothesis “There will be no significant interactive effect of internet addiction and type of courses on personality factor neuroticism” is **not rejected**.

Figure 4.1: The Interaction Between Type of Courses and Severity of Internet Addiction for Neuroticism

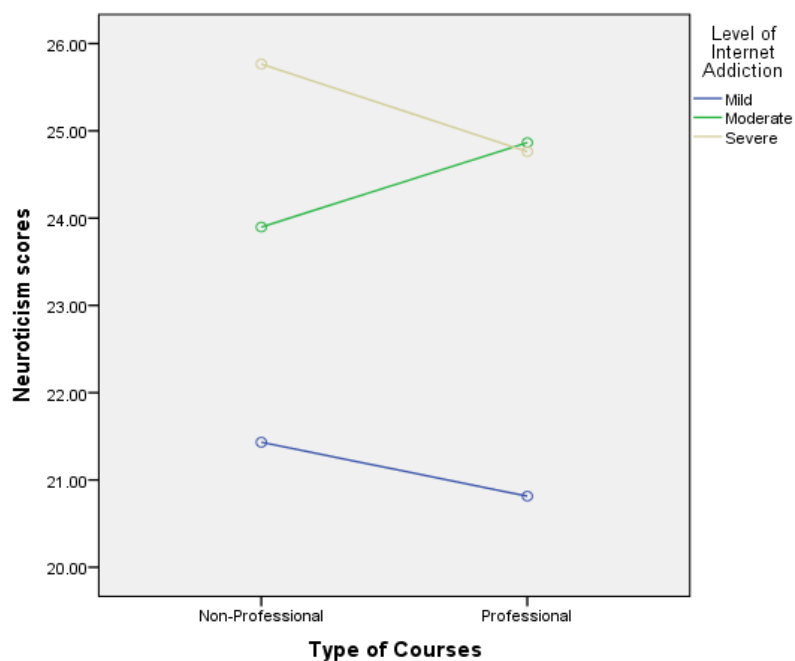


Table 4.17: Post Hoc for Level of “Internet Addiction” and Neuroticism

Level of “internet addiction”	N	Subset	
		1	2
Mild	211	21.22	-
Moderate	187	-	24.35
Severe	152	-	25.18
Significant	-	1.000	.202

The post hoc analysis by Duncan further shows that there was not any noticeable distinction between moderate and severe level of internet addiction where both significantly differed from the mild level of internet addiction.

Objective: - 3.2. To study the interactive effect of internet addiction and type of courses on personality factor extraversion.

Hypothesis: - 3.2. There will be no significant interactive effect of internet addiction and type of courses on personality factor extraversion.

Table 4.18: Summary of ANOVA: Interaction Between Level of Internet Addiction and Type of Courses on Extraversion

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction x Type of Courses	145.93	2	5.2	.005
Error	27.62	544	-	-

The interaction between Type of Courses and level of Internet Addiction was found significant ($F = 5.2$, $df = 2$ at $\leq .005$). Hence, the hypothesis “There will be no significant interactive effect of internet addiction and type of courses on personality factor extraversion” is **rejected**.

Figure 4.2: The Interaction between Type of Courses and Severity of Internet Addiction for Extraversion

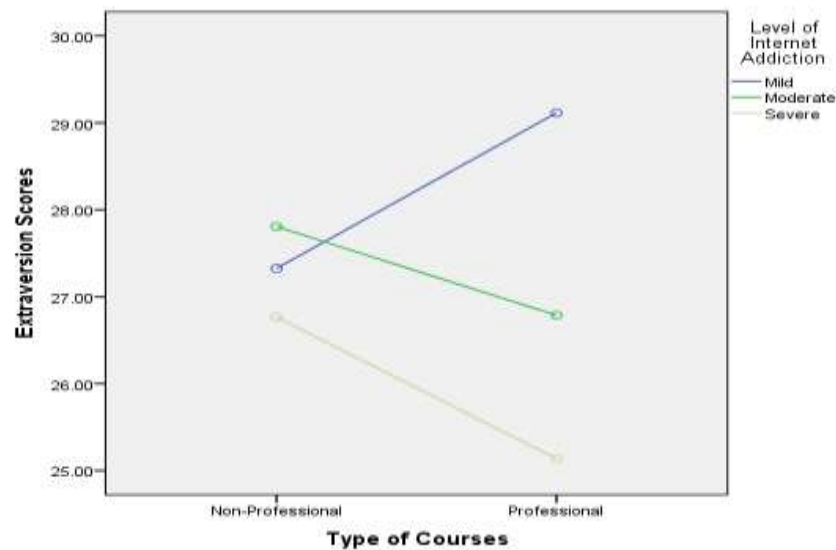


Table 4.19: Post Hoc for Level of “Internet Addiction” and Extroversion

Level of “Internet Addiction”	N	Subset	
		1	2
Sever	152	25.82	-
Moderate	187	-	27.32
Mild	211	-	27.91
Significant	-	1.000	.280

Post hoc analysis by Duncan further shows that there was not any noticeable distinction between mild and moderate “Internet Addiction” group whereas both differed significantly than the severe internet addiction.

Objective: - 3.3 To study the interactive effect of internet addiction and type of courses on personality factor openness.

Hypothesis: -3.3. There will be no significant interactive effect of internet addiction and type of courses on personality factor openness.

Table 4.20: Summary of ANOVA: Interaction Between Level of Internet Addiction and Type of Courses on Openness

Source	Mean Square	df	F-Value	p <
Level of Internet Addiction x Type of Courses	6.83	2	.338	Not Significant
Error	20.20	544	-	-

The interaction between Type of Courses and level of Internet Addiction was found non-significant ($F = .338$, $df = 2$ at $p \leq .05$). So, the hypothesis “There will be no significant interactive effect of internet addiction and type of courses on personality factor openness” is **not rejected**.

Figure 4.3: The Interaction between Type of Courses and Severity of Internet Addiction for Openness

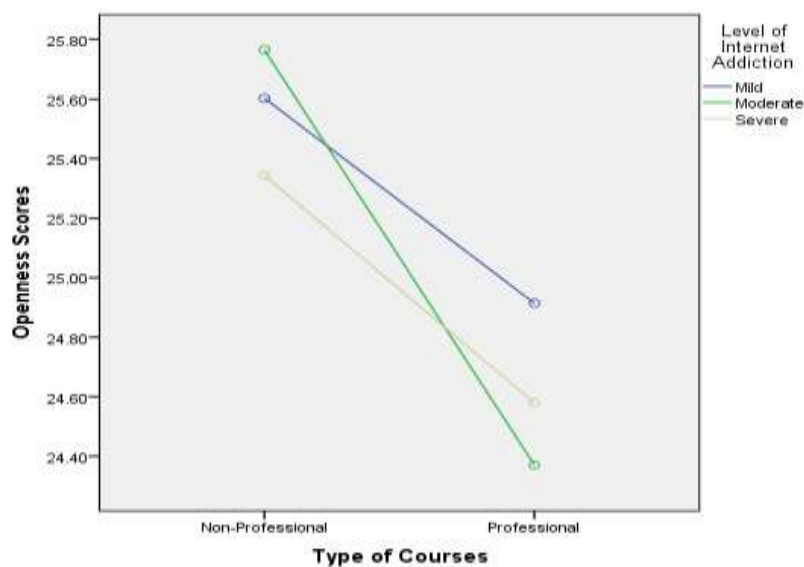


Table-4.21 Post Hoc for Level of “Internet Addiction” and Openness

Level of internet addiction	N	Subset
		1
Sever	152	24.90
Moderate	187	25.10
Mild	211	25.37
Significant	-	.350

Post hoc analysis by Duncan further shows that there was no significant difference among levels of internet addiction.

Objective: - 3.4 To study the interactive effect of internet addiction and type of courses on personality factor agreeableness.

Hypothesis: -3.4. There will be no significant interactive effect of internet addiction and type of courses on personality factor agreeableness.

Table 4.22: Summary of ANOVA: Interaction Between Level of Internet Addiction and Type of Courses on Agreeableness

Source	Mean Square	df	F-Value	p <
Level of Internet Addiction x Type of Courses	27.43	2	1.36	Not Significant
Error	20.09	544	-	-

The interaction between Type of Courses and level of Internet Addiction was found non-significant ($F = 1.36$, $df = 2$ at $p \leq .05$). Thus, the hypothesis “There will be no significant interactive effect of internet addiction and type of courses on personality factor agreeableness” is **not rejected**.

Figure 4.4: The Interaction Between Type of Courses and Severity of Internet Addiction for Agreeableness

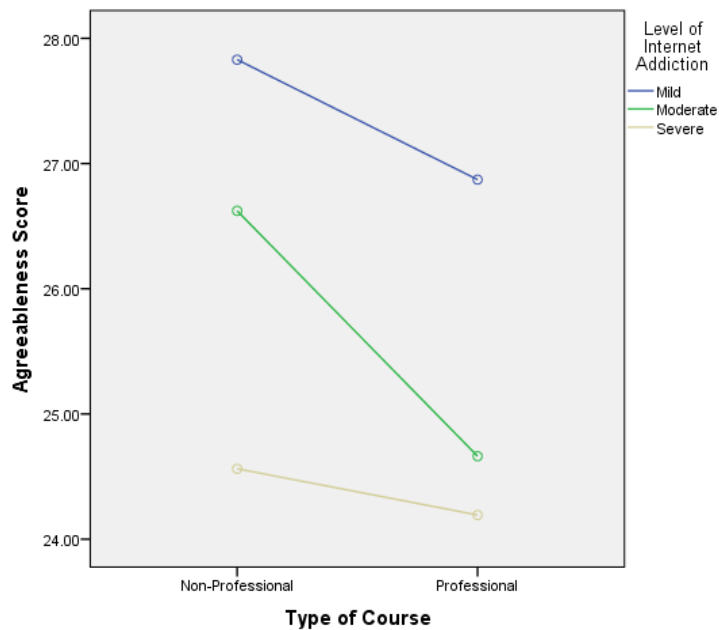


Table4.23: Post hoc for level of “Internet Addiction” and Agreeableness

Level of “Internet Addiction”	N	Subset		
		1	2	3
Sever	152	24.34	-	-
Moderate	187	-	25.68	-
Mild	211	-	-	27.51
Significant	-	1.000	1.000	1.000

Post hoc analysis by Duncan further shows that among three level of internet addiction is not significant but differs significantly to each other.

Objective: - 3.5 To study the interactive effect of internet addiction and type of courses on personality factor conscientiousness.

Hypothesis: -3.5. There will be no significant interactive effect of internet addiction and type of courses on personality factor conscientiousness.

Table 4.24: Summary of ANOVA: Interaction Between Level of “Internet Addiction” and Type of Courses on Conscientiousness

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction x Type of Courses	135.70	2	4.26	.015
Error	31.80	544	-	-

The interaction between Type of Course and level of Internet Addiction was found significant ($F = 4.26$, $df = 2$ at $p \leq .015$). So, the hypothesis “There will be no significant interactive effect of internet addiction and type of courses on personality factor conscientiousness” is **rejected**.

Figure 4.5: The Interaction between Type of Courses and Severity of Internet Addiction for Conscientiousness

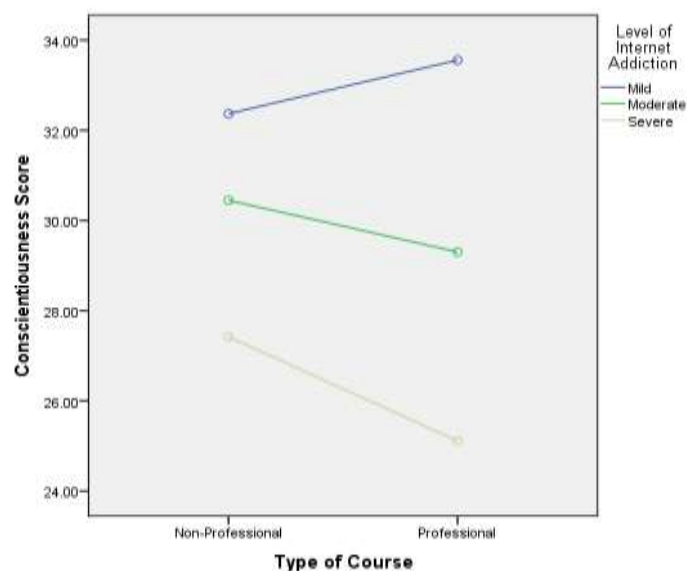


Table 4.25: Post Hoc for Level of “Internet Addiction” and Conscientiousness

Level of “Internet Addiction”	N	Subset		
		1	2	3
Sever	152	26.08	-	-
Mild	187	-	29.90	-
Moderate	211	-	-	32.76
Significant	-	1.000	1.000	1.000

Post hoc analysis by Duncan further proves that there is not any noticeable distinction among all level of Internet Addiction but they differed significantly to each other.

Mental Health

The data obtained on mental health variable were analysed using ANOVA technique to know the significant effect on different types of severity of internet addiction and their interaction.

Table 4.26: Main and Cell Means of Level of Internet Addiction and Type of Courses on Mental Health

Level of Internet Addiction Type of Courses	Internet Addiction			Main Means
	Mild	Moderate	Severe	
Non-Professional	21.14 (4.26)	19.68 (3.86)	17.65 (3.90)	19.93 (4.26)
Professional	20.88 (4.84)	19.24 (3.84)	18.50 (3.86)	19.44 (4.24)
Main Means of Internet Addiction	21.05 (4.45)	19.47 (3.84)	18.14 (3.88)	19.71 (4.26)

Objective: - 4. To study the effect of internet addiction on mental health.

Hypothesis: - 4. There will be no significant effect of internet addiction on mental health.

Table 4.27: Summary of ANOVA for Mental Health

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction	360.14	2	21.38	.001
Error	16.84	544	-	-

Objective: - 5 To study the effect of type of courses on mental health.

Hypothesis: -5 There will be no significant effect of type of courses on mental health.

Table 4.28: Summary of ANOVA for Type of Courses on Mental Health

Source	Mean Square	Df	F-Value	p <
Type of Courses	.327	1	.02	Not Significant
Error	16.84	544	-	-

Objective: - 6 To study the interactive effect of internet addiction and type of courses on mental health.

Hypothesis: - 6. There will be no significant interactive effect of internet addiction and type of courses on mental health.

Table 4.29: Summary of ANOVA for Interaction Between Level of Internet Addiction and Type of Courses

Source	Mean Square	Df	F-Value	p <
Level of Internet Addiction x Type of Courses	19.16	2	1.14	Not significant
Error	16.84	544	-	-

The results contained in Table 4.27 revealed that the severity of Internet Addiction was significant ($F = 21.38$, $df = 2$ at $p \leq .001$). So, the hypothesis “There will be no significant effect of internet addiction on mental health” is **rejected**.

The main effect of Type of Courses was found not significant ($F = .02$, $df = 1$ at $p \leq .05$). Thus, the hypothesis “There will be no significant effect of type of courses on mental health” is **not rejected**.

The interaction between Type of Courses and level of Internet Addiction was also non-significant ($F = 1.14$, $df = 2$ at $p \leq .05$). Hence, the hypothesis “There will be no significant interactive effect of internet addiction and type of courses on mental health” is **not rejected**.

The means contained in Table 4.26 on Mental Health of mild Internet Addiction level group was 21.05, whereas for severe level Internet Addiction group was 18.14. The increase in the severity of Internet Addiction shows a decrease in score on Mental Health.

Figure 4.6: The Interaction between Type of Courses and Severity of Internet Addiction for Mental Health

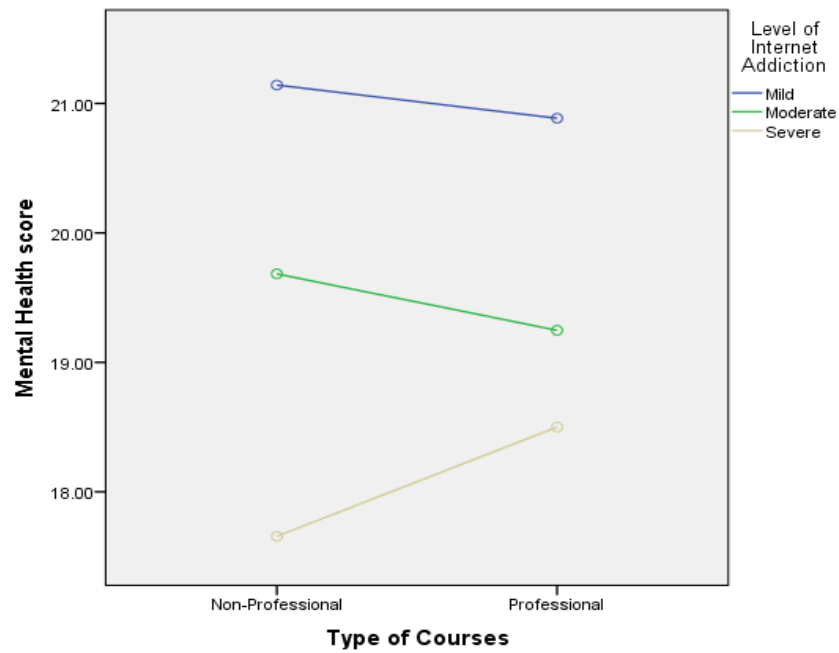


Table 4.30: Post Hoc for Level of “Internet Addiction” and Mental Health

Level of “Internet Addiction”	N	Subset		
		1	2	3
Sever	152	18.14	-	-
Moderate	187	-	19.47	-
Mild	211	-	-	21.05
Significant	-	1.000	1.000	1.000

The post hoc analysis by Duncan further shows that there is not any noticeable distinction among all levels of internet addiction but they differed significantly to each other.