

## CHAPTER 5: RESULTS

The data was collected from 2124 participants and it was analyzed. The factors of internet overuse are positively correlated with loneliness and negatively correlated with self-esteem which proves the validity of internet overuse scale developed through this research.

The following table shows the correlation between Internet overuse scale, Loneliness scale and self-esteem scale.

*Table 11: Correlation of internet overuse scale with loneliness scale and self-esteem scale, N: 2124*

Table 12: Correlation of internet overuse scale with loneliness scale and self-esteem scale, N: 2124

	W	FI	SI	O_RC	CB	OwI	I-R	ES	PCoflou	SE	L
W	1										
FI	.568**	1									
SI	.491**	.582**	1								
O_RC	.540**	.436**	.435**	1							
CB	.527**	.632**	.519**	.401**	1						
OwI	.428**	.520**	.468**	.363**	.490**	1					
I- R	.504**	.513**	.447**	.360**	.461**	.380**	1				
ES	.499**	.366**	.265**	.338**	.393**	.287**	.384**	1			
PCoflou	.325**	.329**	.256**	.298**	.235**	.192**	.160**	.274**	1		
SE	-.187**	-.251**	-.194**	-.177**	-.155**	-.239**	-.182**	-.085**	-.137**	1	
L	.280**	.318**	.260**	.241**	.207**	.279**	.185**	.137**	.143**	-.653**	1

## Understanding the nature of internet overuse.....

Correlation is significant at the 0.01 level (1-tailed).

W – Withdrawal, FI – Functional Impairment, SI – Social Impairment, O \_RC–Occupational & Relationship Consequences, CB – Compulsive Behaviour, OwI – Obsession with Internet, I- R – Internet as a Source of Recreation, ES – Enhanced socialization, PCofIou – Perceived Control of Internet overuse, SE – Self-esteem, L – Loneliness

The above table shows significant positive correlation between all the dimensions of internet overuse and loneliness. Research suggests that loneliness is a factor in problematic internet use. Individuals who expressed feelings of loneliness, isolation and/or boredom, can facilitate heavy internet use as these individuals use virtual relationships to seek out feelings of comfort and community. However, the direction of the relationship between loneliness and internet use is hard to determine (Morahan-Martin & Schumacher, 2003). After extensively reviewing the related literature, Morahan-Martin (1999) concluded that research has not ascertained whether loneliness is the symptom of excessive internet use, or heavy internet use is the symptom of loneliness. However, she suggests that excessive internet use is the cause of loneliness. She also asserts that once the internet is used as an alternative for real-life social interaction, users may be trapped in a vicious cycle and turning to the internet to escape the discomfort of everyday life can sometimes lead to internet addiction (Whitty & McLaughlin, 2007). There is negative correlation between internet overuse and self-esteem. It could be said that individuals who have low self-esteem tend to use internet more. The findings from this research support the correlation between loneliness, internet overuse and self-esteem.

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### 5.1 Analysis of variance

*Table 12: Mean difference in the scores of internet overuse factors between Male and Female groups*

Variables	Male (n = 919)		Female (n =1204)		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
W	29.62	16.97	27.86	15.82	2.45**	.014
FI	13.53	6.50	12.06	5.51	5.63	.000
SI	4.31	2.17	3.73	2.01	6.27	.000
O_RC	7.94	5.30	6.70	4.60	5.74	.000
CB	6.62	3.39	5.87	2.95	5.49	.000
Owl	7.06	2.91	6.75	2.89	2.44**	.015
I-R	7.18	2.74	6.30	2.65	7.42	.000
ES	6.49	3.09	5.86	2.82	4.92	.000
PCoflou	5.65	2.14	5.61	2.15	0.43	.669

\*\*p<.05

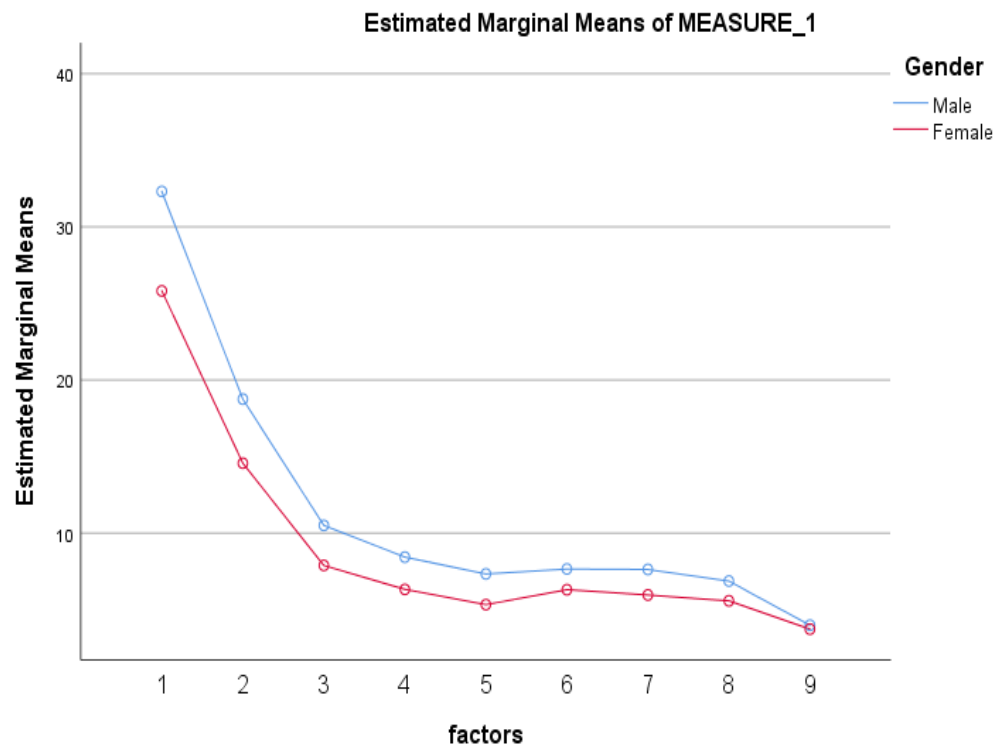


Figure 11: Profile Plot for Male and Female groups

Table 12 shows males and females are significantly different on all factors except perceived control of internet use. Mean value of male group is higher for all factors of internet overuse than the female group. Males and females do not differ significantly on perceived control of internet use which suggests both genders try to control their internet use irrespective of the intensity of the consequences of internet overuse they suffer with.

*Table 13: Mean difference in the scores of internet overuse factors between different groups of age*

Variables	Group1(15-25) N = 1270		Group 2 (26-35) N = 401		Group3 (36-50) N = 453		F Value
	Mean	SD	Mean	SD	Mean	SD	
W	31.81 <sup>a</sup>	16.77	25.10 <sup>b</sup>	10.01	22.80 <sup>b</sup>	17.44	65.96 <sup>**</sup>
FI	14.09 <sup>a</sup>	5.96	12.12 <sup>b</sup>	6.82	9.30 <sup>c</sup>	3.28	120.71 <sup>**</sup>
SI	4.45 <sup>a</sup>	3.00	3.53 <sup>b</sup>	2.12	3.06 <sup>c</sup>	1.65	92.61 <sup>**</sup>
O_RC	7.87 <sup>a</sup>	4.63	7.08 <sup>b</sup>	6.23	5.60 <sup>c</sup>	4.09	36.59 <sup>**</sup>
CB	7.00 <sup>a</sup>	2.89	5.81 <sup>b</sup>	4.21	4.28 <sup>c</sup>	1.55	143.29 <sup>**</sup>
OwI	7.49 <sup>a</sup>	2.85	6.20 <sup>b</sup>	2.68	5.81 <sup>b</sup>	2.81	74.11 <sup>**</sup>
I-R	7.40 <sup>a</sup>	2.81	6.24 <sup>b</sup>	2.23	5.04 <sup>c</sup>	1.99	150.15 <sup>**</sup>
ES	6.68 <sup>a</sup>	3.29	5.43 <sup>b</sup>	2.05	5.23 <sup>b</sup>	2.15	57.53 <sup>**</sup>
PCoflou	5.23 <sup>a</sup>	2.03	6.01 <sup>b</sup>	2.30	5.58 <sup>a</sup>	2.27	8.14 <sup>**</sup>

<sup>\*\*</sup>p<.05

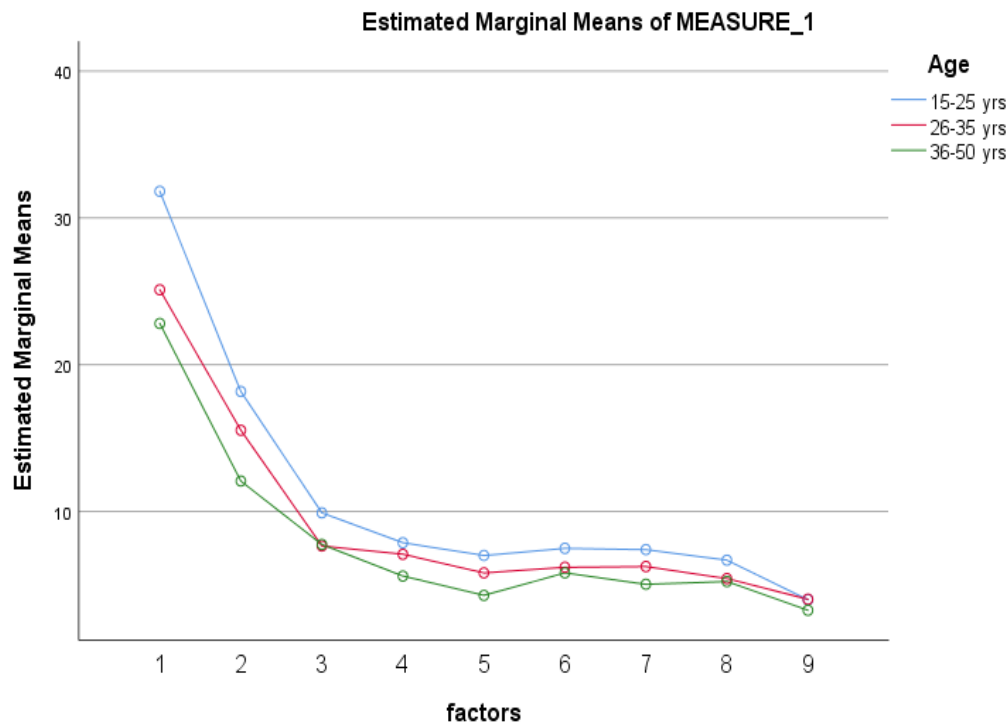


Figure 12: Profile Plot for different age groups

Table 13 shows the significant difference in the factors of internet overuse among three age groups. The youngest group differs significantly from rest of the groups on the factor withdrawal. The mean value of the youngest group is higher than other two groups. Participants from 15 to 25 years are experiencing withdrawal the most compare to other two groups. For the factor functional impairment, all three groups differ significantly from each other. The mean value of first group is higher than group 2 and 3. This means the youngest participants are suffering with functional impairment the most. The mean values of group 1 (15-25 years) for the factors obsession with internet and enhanced socialization, are again higher than the mean values of group 2 and 3. Again the youngest group is experiencing these two factors of internet overuse more than middle group and the oldest group. All three groups are significantly different on social impairment, occupational and relationship consequences, compulsive behaviour and internet as a source of recreation. Mean value of group 1 higher than group 2 and 3 for all four factors which means with social and functional impairment, group 1 is also experiencing occupational and relationship impairment and compulsive behaviour more than group 2 and 3. Group 1 is also using internet for recreation and socialization more than other groups. The mean value of group 2 for the factor perceived

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control of internet overuse is higher than group 1 and 3. Group 2 is significantly different from group 1 and 3. The highest mean value is of group 1 suggests that group 1 is facing the consequences of internet overuse more than group 2 and 3.



*Table 14: Mean difference in the scores of internet overuse factors between different groups of occupation*

Variables	Group1 (student) N = 1175		Group2 (job) N =816		Group3 (business) N = 104		F
	Mean	SD	Mean	SD	Mean	SD	
W	31.36 <sup>a</sup>	17.08	25.69 <sup>b</sup>	15.18	20.63 <sup>c</sup>	7.95	23.00 <sup>**</sup>
FI	13.74 <sup>a</sup>	5.85	11.48 <sup>b</sup>	6.01	9.91 <sup>c</sup>	4.02	27.52 <sup>**</sup>
SI	4.35 <sup>a</sup>	2.08	3.64 <sup>b</sup>	2.10	2.63 <sup>c</sup>	1.25	28.28 <sup>**</sup>
O_RC	7.71 <sup>a</sup>	4.26	6.74 <sup>b</sup>	5.88	5.48 <sup>b</sup>	2.98	9.89 <sup>**</sup>
CB	6.96 <sup>a</sup>	2.89	5.33 <sup>b</sup>	3.39	4.41 <sup>c</sup>	1.99	44.82 <sup>**</sup>
OwI	7.52 <sup>a</sup>	2.85	5.98 <sup>b</sup>	2.70	6.54 <sup>b</sup>	3.11	37.74 <sup>**</sup>
I-R	7.33 <sup>a</sup>	2.86	6.00 <sup>b</sup>	2.27	4.76 <sup>c</sup>	2.13	49.53 <sup>**</sup>
ES	6.59 <sup>a</sup>	3.32	5.53 <sup>b</sup>	2.18	5.49 <sup>b</sup>	2.99	20.00 <sup>**</sup>
PCoflou	5.50 <sup>a</sup>	2.06	5.83 <sup>b</sup>	2.27	5.44	2.21	4.79 <sup>**</sup>

<sup>\*\*</sup>p<.05

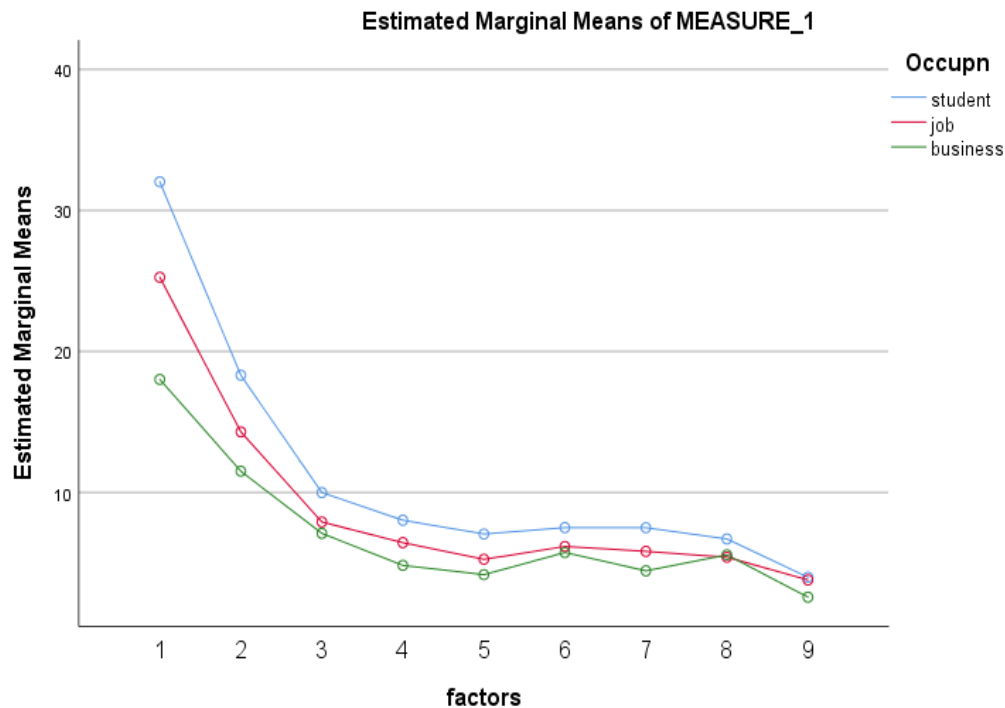


Figure 13: Profile Plot for different groups of occupation

Table 14 shows mean difference among three groups of occupation for different factors of internet overuse. All three groups significantly differ on withdrawal, functional impairment, social impairment, compulsive behaviour, and internet as a source of recreation. The mean value of group 1 (student) for these factors is higher than group 2 (job) and group 3 (business). It implies that students are more adversely affected by internet overuse than working and business class individuals. Group 1 is significantly different from group 2 and 3 on occupational and relationship consequences, obsession with internet and enhanced socialization. The mean value of group 1 on these three factors is higher than the other two groups, which indicates group 1 is experiencing these factors of internet overuse more than group 2 and group 3.

*Table 15: Mean difference in the scores of internet overuse factors between different groups of education*

Variables	Group1 (10th) N = 643		Group2 (12th) N = 54		Group3 (UG) N = 554		Group4 (PG) N = 873		F
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	
W	28.57 <sup>a</sup>	16.77	28.78	8.31	32.73 <sup>b</sup>	17.43	26.05 <sup>c</sup>	15.15	19.35 <sup>**</sup>
FI	11.80 <sup>ab</sup>	4.68	13.56 <sup>a</sup>	4.52	15.88 <sup>c</sup>	7.00	11.29 <sup>b</sup>	5.50	81.34 <sup>**</sup>
SI	4.18 <sup>a</sup>	2.07	3.89 <sup>ab</sup>	1.38	4.79 <sup>c</sup>	2.36	3.37 <sup>b</sup>	1.76	57.71 <sup>**</sup>
O_RC	6.92 <sup>a</sup>	3.87	7.06 <sup>ab</sup>	3.44	9.72 <sup>c</sup>	6.71	5.90 <sup>b</sup>	3.68	75.87 <sup>**</sup>
CB	6.39 <sup>a</sup>	2.71	7.44 <sup>ab</sup>	2.55	7.66 <sup>b</sup>	4.13	5.04 <sup>c</sup>	2.25	91.76 <sup>**</sup>
OwI	7.00 <sup>a</sup>	2.99	8.00 <sup>ab</sup>	2.40	7.72 <sup>b</sup>	2.86	6.21 <sup>c</sup>	2.72	35.62 <sup>**</sup>
I-R	7.25 <sup>ab</sup>	2.00	6.39 <sup>ac</sup>	1.82	7.55 <sup>b</sup>	2.69	5.72 <sup>c</sup>	2.25	70.71 <sup>**</sup>
ES	5.91 <sup>ac</sup>	3.68	6.89 <sup>ab</sup>	2.28	6.92 <sup>b</sup>	2.81	5.75 <sup>c</sup>	2.31	21.12 <sup>**</sup>
PCofIou	5.12 <sup>b</sup>	1.88	7.50 <sup>c</sup>	2.05	5.84 <sup>a</sup>	2.33	5.75 <sup>a</sup>	2.11	29.73 <sup>**</sup>

<sup>\*\*</sup>p<.05

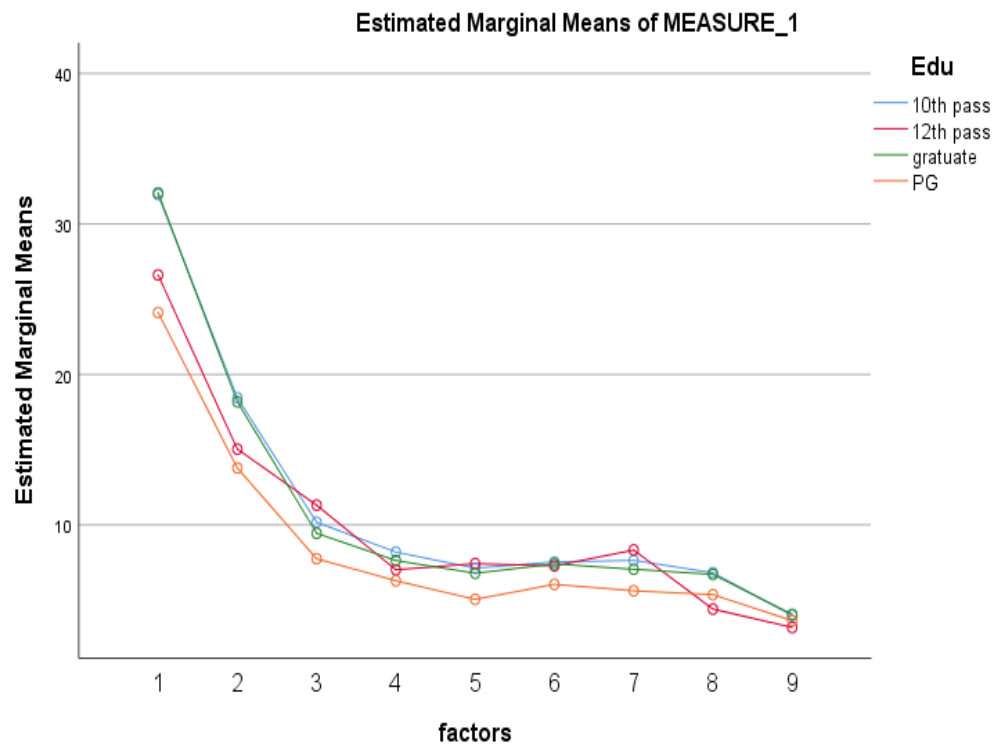


Figure 14: Profile Plot for different groups of education

Four groups of education, 10<sup>th</sup> pass, 12<sup>th</sup> pass, graduate and post-graduate, differ significantly on all factors of internet overuse. Group 3, graduate, has higher mean values on all factors of internet overuse than the other three groups. The mean values of group 4, post-graduate is the lowest among all four groups which shows that post-graduate participants are not much affected by the effects of internet overuse. Graduates are experiencing the effects of internet overuse the most.

*Table 16: Mean difference in the scores of internet overuse factors between different groups of marital status*

Variables	Group1 (single) N = 1386		Group2 (married) N = 679		Group3 (divorced/widow) N = 59		F
	Mean	SD	Mean	SD	Mean	SD	
W	31.02 <sup>a</sup>	16.37	23.96 <sup>b</sup>	15.49	26.14 <sup>ab</sup>	13.44	44.94 <sup>**</sup>
FI	13.88 <sup>a</sup>	6.29	10.46 <sup>b</sup>	4.66	10.78 <sup>b</sup>	5.03	56.60 <sup>**</sup>
SI	4.36 <sup>a</sup>	2.19	3.28 <sup>b</sup>	1.74	3.28 <sup>b</sup>	1.50	46.58 <sup>**</sup>
O_RC	7.68 <sup>a</sup>	4.55	6.54 <sup>b</sup>	5.70	4.66 <sup>b</sup>	2.43	20.60 <sup>**</sup>
CB	6.89 <sup>b</sup>	2.86	4.91 <sup>a</sup>	3.37	4.75 <sup>a</sup>	2.62	104.34 <sup>**</sup>
OwI	7.32 <sup>a</sup>	2.86	6.07 <sup>b</sup>	2.75	6.02 <sup>ab</sup>	3.54	46.79 <sup>**</sup>
I-R	7.29 <sup>a</sup>	2.80	5.48 <sup>bc</sup>	2.17	5.95 <sup>ab</sup>	1.72	113.39 <sup>**</sup>
ES	6.51 <sup>ab</sup>	3.20	5.30 <sup>c</sup>	2.11	6.80 <sup>a</sup>	3.09	41.87 <sup>**</sup>
PCofIou	5.50 <sup>a</sup>	2.03	5.89 <sup>b</sup>	2.37	5.51 <sup>ab</sup>	1.80	5.28 <sup>**</sup>

<sup>\*\*</sup>p<.05

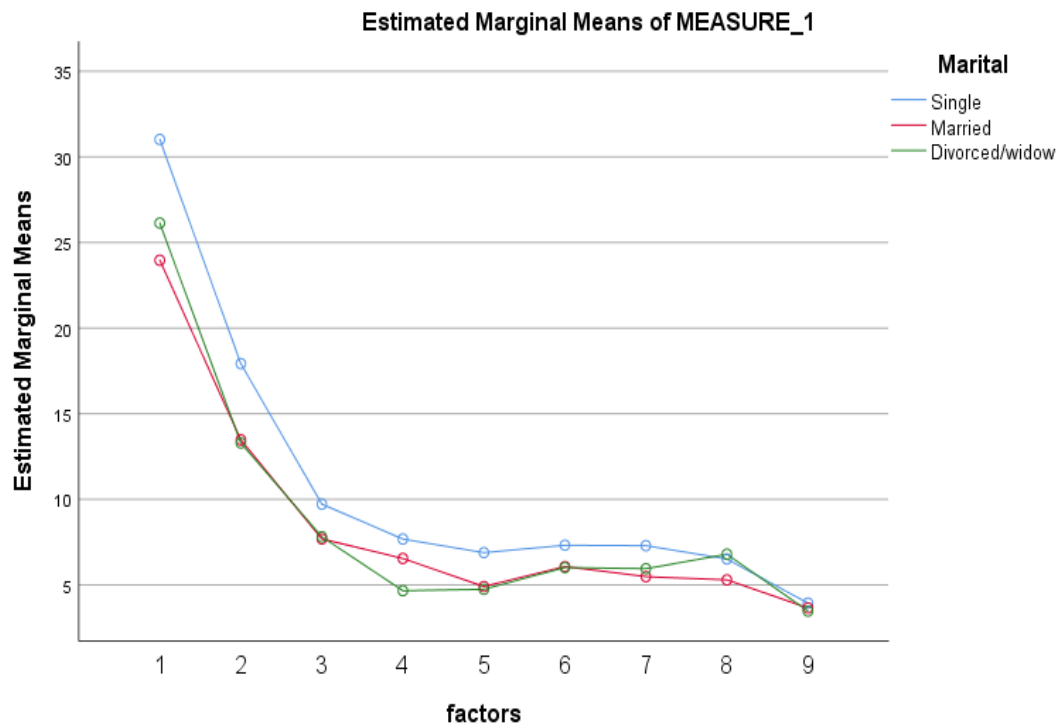


Figure 15: Profile Plot for different groups of marital status

Table 16 shows significant difference among three groups of different marital status: Single, married and divorced/widowed. Group 1 (single) is significantly different from group 2 (married) and 3 (divorced/widowed). The mean value of group 1 for withdrawal is higher than other 2 groups which implicates that participants who are single suffer from withdrawal more than married and divorced participants. Group 1 is significantly different from group 2 and 3 on functional impairment, social impairment, occupational and relationship consequences, and compulsive behaviour. The mean value of group 1 is higher in all these four factors. This indicates that unmarried individuals are facing the consequences of internet overuse more than married and divorced. For the factors obsession with internet, internet as a source of recreation, and perceived consequences of internet use, group 1 is significantly different from group 2. The mean value for group 1 for these factors is higher. Group 2 is significantly different from group 1 and 3 and the mean value of group 3 is higher than group 1 and 2 for only one factor, enhanced socialization. This implies that divorced participants use internet more for socialization than those who are single and married.

*Table 17: Mean difference in the scores of internet overuse factors between the use of different equipment*

Variables	Group 1 (mo,lp,tb) N = 2027		Group 2 (mo,lp,tb,c) N = 68		Group 3 (NR) N = 29		F
	Mean	SD	Mean	SD	Mean	SD	
W	28.63	16.34	29.75	14.77	26.97	20.78	.303
FI	12.69	6.01	13.39	5.76	11.59	6.16	.42
SI	3.00	2.10	4.15	2.04	3.17	1.83	.09
O_RC	7.22	4.95	8.15	5.30	6.21	3.99	1.75
CB	6.21	3.20	6.00	2.43	5.76	2.60	.42
OwI	6.88	2.90	7.37	2.91	6.69	2.84	.98
I-R	6.67 <sup>a</sup>	2.72	7.38 <sup>a</sup>	2.57	5.34 <sup>b</sup>	2.72	5.68 <sup>**</sup>
ES	6.11	2.94	6.57	2.59	6.62	4.30	.31
PCofIou	5.63	2.16	5.40	1.78	5.83	1.87	.61

<sup>\*\*</sup>p<.05

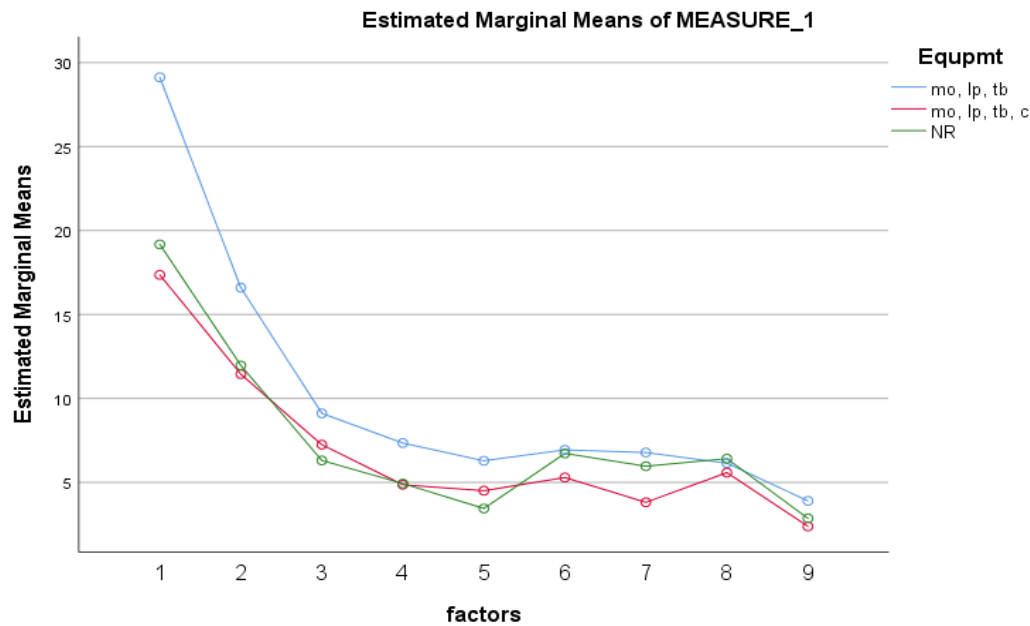


Figure 16: Profile Plot for use of different equipment

Table 17 shows that three groups; group 1 uses mobile, laptop and tablet to get access to the internet, group 2 uses mobile, laptop, tablet and computer to access internet and group 3 which has not responded for this variable. There is no significant difference among these three groups on the factors of internet overuse on the basis of equipment they used. The groups differ significantly on only one factor, internet as a source of recreation. Group 1 and 3 are significantly different from group 2 on this factor. The mean value of group 2 is higher which means when all four equipment are available, internet is used more for recreation.



*Table 18: Mean difference in the scores of internet overuse factors between different groups spending time on internet in terms of hours/day*

Variables	Group1 (2-3 hrs) N = 802		Group2 (4-5 hrs) N = 307		Group3 (+5 hrs) N = 445		F
	Mean	SD	Mean	SD	Mean	SD	
W	25.77 <sup>a</sup>	14.20	29.73 <sup>b</sup>	11.74	35.32 <sup>c</sup>	19.03	38.75 <sup>**</sup>
FI	11.90 <sup>b</sup>	5.26	14.31 <sup>a</sup>	5.46	14.97 <sup>a</sup>	7.66	48.60 <sup>**</sup>
SI	3.57 <sup>b</sup>	1.66	4.20 <sup>a</sup>	2.02	4.49 <sup>a</sup>	2.51	21.20 <sup>**</sup>
O_RC	6.78 <sup>b</sup>	4.91	7.27 <sup>ab</sup>	3.79	8.15 <sup>a</sup>	5.30	7.54 <sup>**</sup>
CB	5.86 <sup>b</sup>	2.85	6.61 <sup>a</sup>	2.54	6.87 <sup>a</sup>	2.94	13.24 <sup>**</sup>
OwI	7.01 <sup>a</sup>	2.92	7.31 <sup>a</sup>	2.43	7.34 <sup>a</sup>	2.84	20.02 <sup>**</sup>
I-R	6.39 <sup>b</sup>	2.97	6.88 <sup>ac</sup>	2.71	7.35 <sup>a</sup>	2.74	14.40 <sup>**</sup>
ES	5.82 <sup>a</sup>	2.33	6.67 <sup>a</sup>	2.62	7.42 <sup>a</sup>	3.87	57.81 <sup>**</sup>
PCofIou	5.51 <sup>b</sup>	2.15	6.02 <sup>a</sup>	1.62	6.27 <sup>a</sup>	1.93	31.45 <sup>**</sup>

<sup>\*\*</sup>p<.05

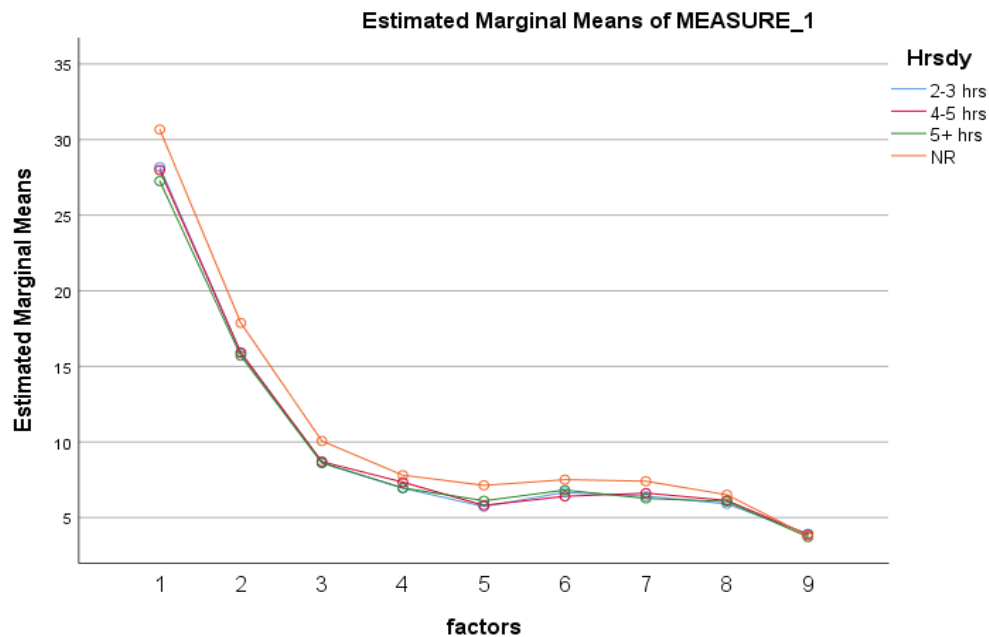


Figure 17: profile plot of different groups spending time on internet

Table 18 shows the mean difference in the scores of internet overuse factors between different groups spending time on internet in terms of hours. There are four groups, group 1 is of 2-3 hours, group 2 is spending 4-5 hours, group 3 is spending more than 5 hours on internet and group 4 comprises participants who have not responded for this variable. Comparison between the mean values of group 1, 2 and 3 shows that the mean value of group 3 is higher than group 1 and 3 on all variables. This shows that individuals who are using internet for more than 5 hours are experiencing the effects of internet overuse more than the individuals who are using internet for 2 to 4 hours. All three groups are significantly different from each other on withdrawal. Group 1 is significantly different from group 2 and 3 on functional impairment, social impairment, compulsive behaviour, internet as a source of recreation and satisfaction, and perceived consequences of internet overuse. All three groups differ significantly from each other on two factors; obsession with internet and enhanced socialization.

*Table 19: Mean difference in the scores of internet overuse factors between different groups using internet for different purposes*

Variables	Group 1 (Prof) N = 706		Group 2 (rec) N = 193		Group 3 (1,2) N = 1155		F
	Mean	SD	Mean	SD	Mean	SD	
W	29.92 <sup>a</sup>	22.58	30.43 <sup>a</sup>	13.36	27.24 <sup>b</sup>	11.55	6.99 <sup>**</sup>
FI	12.41	6.41	12.60	5.87	12.63	5.65	12.74 <sup>**</sup>
SI	4.34 <sup>a</sup>	2.45	4.50 <sup>a</sup>	2.32	3.63 <sup>b</sup>	1.76	25.58 <sup>**</sup>
O_RC	8.06 <sup>a</sup>	6.70	8.90 <sup>a</sup>	4.18	6.45 <sup>b</sup>	3.48	24.21 <sup>**</sup>
CB	6.35 <sup>a</sup>	3.96	6.83 <sup>a</sup>	3.27	5.89 <sup>b</sup>	2.49	13.32 <sup>**</sup>
OwI	6.52 <sup>a</sup>	2.92	6.93 <sup>ab</sup>	3.22	7.13 <sup>b</sup>	2.80	6.88 <sup>**</sup>
I-R	6.81 <sup>a</sup>	2.61	7.12 <sup>a</sup>	2.66	6.46 <sup>b</sup>	2.82	7.69 <sup>**</sup>
ES	6.01 <sup>a</sup>	3.59	6.97 <sup>b</sup>	3.20	5.93 <sup>a</sup>	2.32	21.45 <sup>**</sup>
PCofIou	5.16 <sup>a</sup>	1.99	6.66 <sup>b</sup>	2.89	5.84 <sup>c</sup>	2.01	47.91 <sup>**</sup>

<sup>\*\*</sup>p<.05

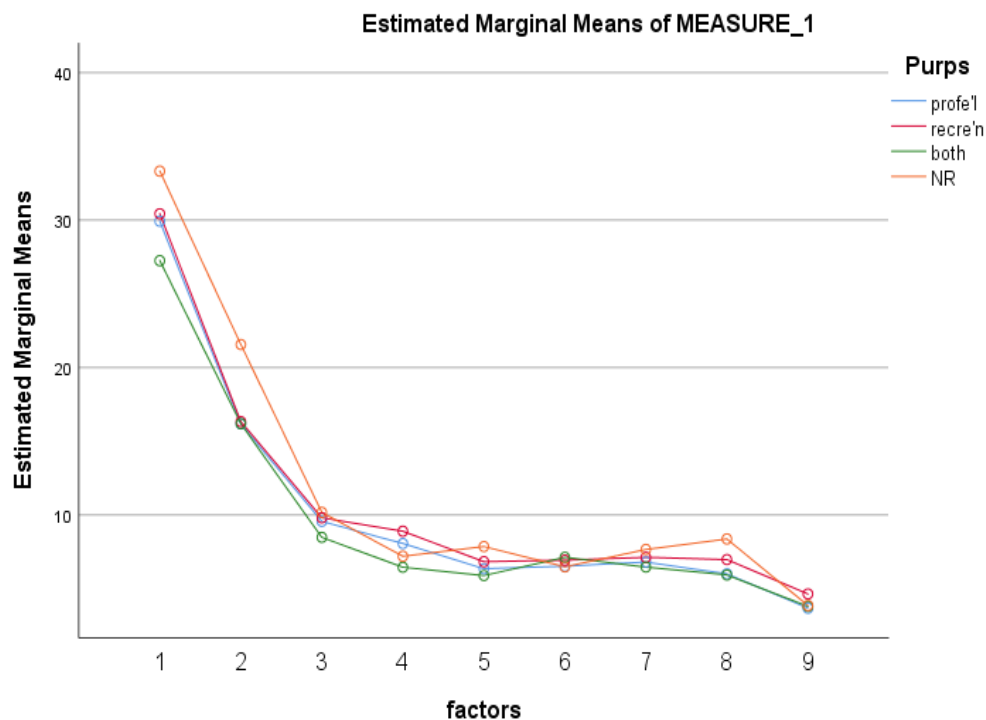


Figure 18: Profile Plot of groups using internet for different purposes

Table 19 shows the mean difference in the scores of internet overuse factors among three groups using internet for different purposes. Group 1 and 2 which are using internet for professional purpose and recreation are significantly different from group 3 on withdrawal. The mean value of group 2 is higher than the other groups, which means participants who are using internet for recreation are experiencing withdrawal symptoms more than those who use internet for professional purpose or for both. There is no significant difference among three groups for functional impairment while for social impairment, occupational and relationship consequences, internet as a source of recreation and satisfaction, and compulsive behaviour, group 3 is significantly different from group 1 and 2. The mean value for group 2 is higher than group 1 and 3. This shows that when people use internet for recreation, they face social, occupational, and relationship impairment, and they use internet compulsively. The mean value for group 3 is higher than group 1 and 2 for the factor obsession with internet which implies that when people use internet for professional as well as recreational purposes, they get obsessed with internet. Group 2 is significantly different from group 1 and 3 on enhanced socialization. All three groups are significantly different on the factor perceived control of

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internet overuse. The mean values of group 2 are higher on both factors which mean group 2 is using internet for socialization more than other groups and they try to control their internet use more than group 1 and 3.

*Table 20: Mean difference in the scores of internet overuse factors between the groups using different websites*

		Group 1 (w,f,i) N = 355	Group 2 (y,t,g) N = 288	Group3 (others) N = 436	Group 4 (all) N = 306	Group 5 (1,2) N = 671	F
Variables							
W	Mean	31.14 <sup>a</sup>	25.78 <sup>b</sup>	32.21 <sup>a</sup>	27.20 <sup>c</sup>	26.96 <sup>b</sup>	9.74 <sup>**</sup>
	SD	<b>19.77</b>	<b>12.28</b>	<b>19.66</b>	<b>10.85</b>	<b>15.42</b>	
FI	Mean	12.83 <sup>a</sup>	11.68 <sup>a</sup>	14.38	12.20 <sup>a</sup>	11.91 <sup>a</sup>	14.69 <sup>**</sup>
	SD	<b>5.66</b>	<b>5.30</b>	<b>7.71</b>	<b>5.13</b>	<b>5.13</b>	
SI	Mean	4.08 <sup>a</sup>	3.64 <sup>ab</sup>	5.08	3.37 <sup>b</sup>	3.62 <sup>b</sup>	38.33 <sup>**</sup>
	SD	<b>1.89</b>	<b>1.69</b>	<b>2.65</b>	<b>1.61</b>	<b>1.83</b>	
O_RC	Mean	8.25 <sup>a</sup>	6.74 <sup>b</sup>	8.59 <sup>a</sup>	6.06 <sup>b</sup>	6.48 <sup>b</sup>	17.74 <sup>**</sup>
	SD	<b>6.50</b>	<b>3.96</b>	<b>6.54</b>	<b>3.15</b>	<b>3.46</b>	
CB	Mean	6.50 <sup>ab</sup>	6.08 <sup>c</sup>	6.87 <sup>a</sup>	5.71 <sup>c</sup>	5.92 <sup>bc</sup>	7.61 <sup>**</sup>
	SD	<b>3.02</b>	<b>2.92</b>	<b>4.33</b>	<b>2.32</b>	<b>2.77</b>	
OwI	Mean	6.65 <sup>a</sup>	7.03 <sup>a</sup>	7.01 <sup>a</sup>	7.03 <sup>a</sup>	6.84 <sup>a</sup>	1.25
	SD	<b>2.97</b>	<b>3.12</b>	<b>3.09</b>	<b>2.65</b>	<b>2.72</b>	
I-R	Mean	7.34 <sup>a</sup>	7.44 <sup>a</sup>	7.07 <sup>a</sup>	5.97 <sup>b</sup>	6.05 <sup>b</sup>	23.00 <sup>**</sup>
	SD	<b>3.01</b>	<b>2.94</b>	<b>2.25</b>	<b>2.39</b>	<b>2.69</b>	
ES	Mean	7.04 <sup>a</sup>	5.53 <sup>b</sup>	5.71 <sup>b</sup>	6.53 <sup>ac</sup>	6.00 <sup>bc</sup>	12.57 <sup>**</sup>
	SD	<b>4.77</b>	<b>2.01</b>	<b>2.58</b>	<b>2.44</b>	<b>2.40</b>	
PCoffIou	Mean	5.77 <sup>b</sup>	5.16 <sup>a</sup>	5.18 <sup>a</sup>	6.68 <sup>c</sup>	5.64 <sup>b</sup>	24.64 <sup>**</sup>
	SD	<b>2.32</b>	<b>2.04</b>	<b>2.00</b>	<b>1.78</b>	<b>2.15</b>	

<sup>\*\*</sup>p<.05

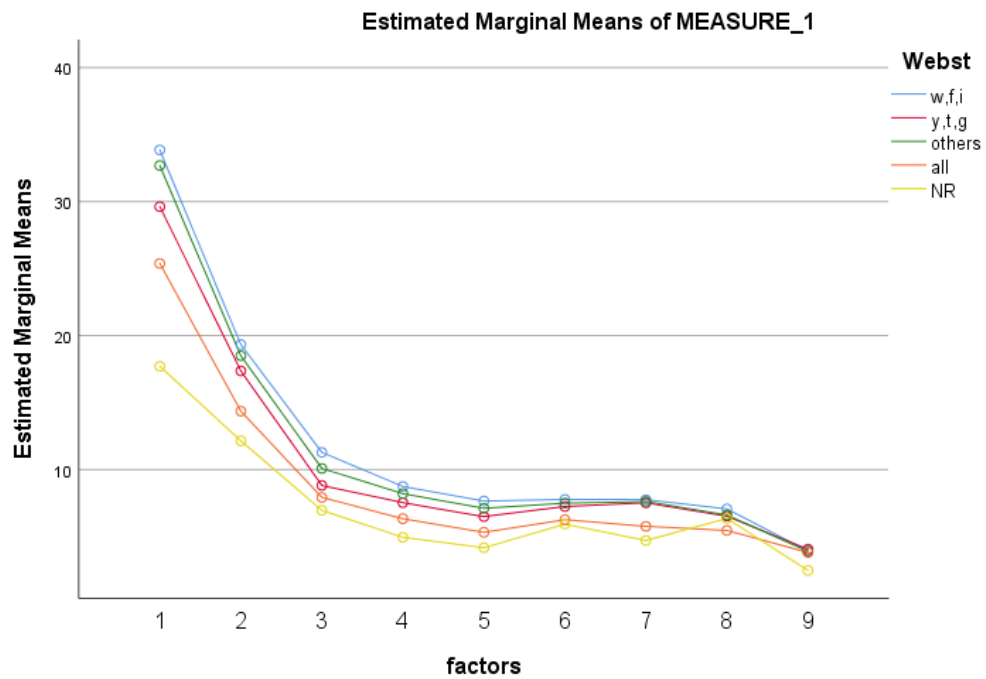


Figure 19: Profile Plot of the groups using different websites

Table 20 shows mean difference in the scores of internet overuse factors between the groups using different websites on internet. Group 1 is using Whatsapp, Facebook and Instagram. Group 2 is using YouTube, Twitter and Google. Group 3 is using other websites than group 1 and 2 which they have not mentioned. Group 4 is using all mentioned websites and group 5 is using websites which group 1 and 2 are using. These groups show significant difference on all factors except obsession with internet. Group 1 and 3 are significantly different from group 2, 4 and 5 on withdrawal and occupational and relationship consequences. The mean value of group 3 is higher than other groups which shows that participants who are using websites other than those mentioned in group 1 and 2 suffer from withdrawal symptoms and occupational and relationship consequences. Group 3 differs significantly from all other groups on social and functional impairment. The mean value of group 3 is higher than all other groups. Group 3 is suffering from social and functional impairment more than other groups. Group 3 is showing the highest mean value on the factor compulsive behaviour, and it is significantly different from group 2, 4 and 5. Group 3 is using internet more compulsively than other groups. There is no significant difference among the groups on obsession with internet factor. Groups 1, 2 and 3 differ significantly from groups 4 and 5 on internet as a source of recreation. The mean value of group 2 is higher than other groups on this factor. It implies that through YouTube, Twitter and Google participants are getting more recreation and satisfaction than other websites. Group 1 differs significantly from groups 2, 3 and 5 while group 5 differs significantly from group 1 on the factor enhanced socialization. The highest mean value is of group 1 which uses Whatsapp, Facebook and Instagram for socialization which could lead to internet overuse. Group 4 is significantly different from other groups on the factor of perceived control of internet overuse and the mean value of group 4 is the highest which implies that participants who use all websites to surf the net, also try to control their internet use the most. Group 1 and 5 differ significantly from other three groups. There is no significant difference between group 2 and 3.

## **5.2 Regression analysis**

Table 21 shows the result of linear regression which is done to assess the contribution of self-esteem and loneliness towards the manifested symptoms of internet overuse.



*Table 21: Results of Regression co-efficient for Self-esteem and Loneliness predicting all factors of Internet Overuse*

Independent variables			Self-esteem	Loneliness	F Ratio	R	R <sup>2</sup>	Adj. R <sup>2</sup>
<b>Dependent Variables</b>	W	$\beta$	-.09	-.03	4.99**	.07	.01	.04
		t	-2.97**	-1.11				
	O_RC	$\beta$	-.03	.22	65.94**	.24	.06	.06
		t	-1.23	7.85**				
	CB	$\beta$	-.04	.18	48.10**	.21	.04	.04
		t	-1.26	6.55**				
	OwI	$\beta$	-.10	.22	96.66**	.29	.08	.08
		t	-3.60**	7.82**				
	I_R	$\beta$	-1.1	.12	44.92**	.20	.04	.04
		t	-3.79**	4.11**				
	ES	$\beta$	.09	.14	20.38**	.14	.02	.02
		t	.29	5.02**				
	PCofIU	$\beta$	-.05	.02	4.50**	.07	.004	.04
		t	-1.89	.53				
	FI	$\beta$	-.07	.26	115.44**	.31	.10	.10
		t	-2.51**	9.72**				
	SI	$\beta$	-.02	.22	61.35**	.23	.06	.05
		t	-.71	7.91**				

\*\*p<.05

Above table shows the result of regression analysis, where self-esteem and loneliness as independent variables predict the factors of internet overuse. The table shows that self-esteem and loneliness together predict the factor withdrawal significantly. The adjusted R<sup>2</sup> shows 4% variance of withdrawal is explained by both the variables. However, looking at the individual contribution of self-esteem and loneliness tables, the individual contribution of self-esteem to explain withdrawal is significant by contributing 9% of the variance while that of loneliness individually fails significantly to contribute to the explanation of withdrawal. The correlate

ion between both variables suggests that individuals with low self-esteem will show higher withdrawal symptoms.

The table shows that self-esteem and loneliness together predict the factor occupational and relationship consequences significantly. The adjusted  $R^2$  shows 6% variance of occupational and relationship consequences explained by both the variables. However, looking at the individual contribution of self-esteem and loneliness, the individual contribution of self-esteem fails to explain occupational and relationship consequences significantly while loneliness individually significantly contributes to the explanation of occupational and relationship consequences. 22% of variance is explained by loneliness which means if an individual is suffering with loneliness, his chances of manifesting occupational and relationship consequences because of internet overuse are more. Lonely individuals will overuse internet to get socialized, make more friends and avoid boredom which will cost them their relationships in real life and they could be jeopardized or lose their job or career opportunities.

The F value shows that self-esteem and loneliness together predicts compulsive behaviour significantly. The adjusted  $R^2$  shows that 4% variance of compulsive behaviour is explained by both the variables. Individually self-esteem fails to contribute significantly to explain compulsive behaviour while loneliness individually contributes significantly to explain it. 18% of variance is explained by loneliness for this factor which indicates that if a person is suffering with loneliness he will overuse internet because he is more comfortable online than offline but this will affect his productivity at his workplace as he is unable to control his use of internet. He will frequently get back to internet which is the compulsive nature of internet overuse. Loneliness leads a person to use internet compulsively.

The factor obsession with internet is explained significantly by both self-esteem and loneliness and adjusted  $R^2$  shows 8% variance of obsession with internet is explained by both the variables. Individually also, both variables contribute to explain obsession with internet significantly. The same is true for the factors; internet as a source of recreation, and functional impairment. Both these factors of internet overuse are explained significantly by self-esteem and loneliness collectively as well as individually. The adjusted  $R^2$  of the factor internet as a source of recreation shows 4% variance is explained by both the variables while the adjusted  $R^2$  of functional impairment shows 10% variance is explained by both the

variables. Self-esteem and loneliness both are significantly predicting obsession with internet, internet as a source of recreation and functional impairment.

Enhanced socialization is another factor of internet overuse which is significantly predicted by both self-esteem and loneliness together. The adjusted  $R^2$  shows 2% variance of enhanced socialization is explained by both the variables. However looking at the individual contribution of self-esteem and loneliness, it seems that the individual contribution of loneliness to explain enhanced socialization is significant while that of self-esteem doesn't explain enhanced socialization significantly.

Perceived control of internet use is significantly predicted by self-esteem and loneliness together but individually both the variables fail to contribute significantly to explain this factor of internet overuse. This is the only factor which is not predicted significantly by any variable. It indicates that individuals, who try to control their internet use, do not have to face the consequences of internet overuse. They always try to use internet rather overuse it and they might not be suffering with loneliness and low self-esteem.

The factor social impairment is again predicted significantly by self-esteem and loneliness. The adjusted  $R^2$  shows 5% variance is explained by both the variables. However, individually self-esteem fails to contribute significantly to explain social impairment while loneliness is contributing significantly to explain the factor social impairment.