

## Original Research Article

# Prevalence of internet addiction amongst the IT professionals of Bangalore city and its effect on their lifestyle and dietary habits

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### ABSTRACT

**Background:** Internet is being widely used all around the world, had both positive and negative influence in human life. The number of users is increasing day by day. Recent reports indicated that some on-line users, particularly IT Professionals, were becoming addicted to the Internet in much the same way that others became addicted to drugs, alcohol, or gambling, which resulted in; reduced work performance, and even marital discord and separation. The objectives of the study were the pattern of Internet addiction on young's internet addiction diagnostic questionnaire and the effects of Internet addiction on the lifestyle and dietary behaviour.

**Methods:** Cross-sectional online survey was conducted amongst the IT Professionals of 4 different companies. Data was collected on a pre-designed questionnaire. The questionnaire consisted of 1. Socio-demographic information, 2. Young's Internet Addiction Test (IAT) 3. Dietary pattern. The questionnaire was sent to 400 people through e-mail, out of which 353 subjects mailed back the questionnaire with complete response.

**Results:** Majority of the participants were in the age group of 30 to 34, males and were educated up to post-graduate level. When the scores were tabulated on Young's Internet Addiction Scale, 30.8% of the subjects were found to be mildly addicted to internet, where as 48.4% and 20.8% were moderately and severely addicted.

**Conclusions:** People who are high in internet addiction are more likely to vulnerability to depression, anxiety, and stress. Psychological approach is essential to tackle this problem.

**Keywords:** IT professionals, Addiction, Lifestyle

### INTRODUCTION

Internet is being widely used all around the world, has both positive and negative influence in human life.<sup>1</sup> The number of users is increasing day by day. Internet addiction commonly refers to an individual's inability to control their use of the Internet (including any online-related, compulsive behaviour), which eventually causes one's marked distress and functional impairment in daily life.<sup>2</sup>

India is not an exception to this global trend of increase in Internet use. In our country total number of Internet users in India is estimated to be 354 million (i.e., 27% of

the total population) in the year 2015. The profile of a typical Internet user in India is as follows: youths (82%), accessing Internet through cyber cafes (97%), with the purpose of checking mail (93%), and for general information search (89%).<sup>3</sup>

In 2009, the task force on substance use disorders of the American Psychiatric Association (ASA) recommended inclusion of a topic on Internet Addiction in its forthcoming DSM-V, but only as an 'Appendix' but not in the main body discussing the addictive disorders. But as of 2013, internet addiction is identified in Section III of fifth edition of the diagnostic and statistical manual of mental disorders (DSM-5), as a condition warranting more clinical research and experience before it might be

considered for inclusion in the main book as a formal disorder.<sup>4</sup>

Internet use to the point of addiction, however, can have wide-ranging consequences that can affect personal, occupational, social, physical and psychological domains of the individual's life. Serious relationship problems including conflicts in marriage and high rate of divorce due to 'cyber affairs' have been reported by various studies<sup>5</sup>.

Recent reports indicated that some users, particularly IT Professionals, were in high risk category to the addiction of Internet in the same way those others become addicted to drugs, alcohol, or gambling, which resulted in reduced work performance and tardiness. Many studies have showed associations between Internet addiction with mental health issues, such as depression and psychiatric symptoms, among IT sector working people.<sup>6</sup> However, information on the effects of Internet addiction on the dietary behaviour of working professionals is limited. Therefore, in this study, we examined the dietary behaviour according to their level of Internet addiction.

### Objectives

- 1) To study the pattern of Internet addiction on Young's Internet Addiction Diagnostic Questionnaire
- 2) The effects of Internet addiction on the lifestyle and dietary behaviour.

## METHODS

### Subjects

This cross-sectional study included 400 IT Professionals working in four different software companies in Bangalore. Out of 400 participants, 100 participants were selected from each company. The study was conducted from September 2016 to November 2016 through online survey. Of the 400 surveys administered and collected, 47 were excluded due to incomplete responses and difficulty in assessing the level of Internet addiction, thus a total of 353 samples were analyzed in this study. Data was collected on a pre-designed questionnaire. The questionnaire consisted of socio-demographic information, details regarding patterns of internet using young's internet addiction test (IAT) and responses on dietary behaviour.

### Young's internet addiction test

Internet addiction test (IAT) is a reliable and valid measure of addictive use of Internet, developed by Dr. Kimberly Young. It consists of 20 items that measures mild, moderate and severe level of Internet Addiction. Response to each question is on 5-point Likert scale where 0 corresponds to "does not apply", 1 corresponds to "rarely", 2 corresponds to "occasionally", 3 corresponds to "frequently", 4 corresponds to "often" and

5 corresponds to "always". Subjects were classified as high-risk Internet users if their total score was the same or greater than 80. Subjects were classified as potential-risk Internet users if their total score was greater than or equal to 50 and less than 79 and were classified as average Internet users if their total score was less than 49.

## RESULTS

**Table 1: Socio Demographic profile of the subjects (n= 353).**

		Number	Percentage
Age	20- 24	47	13.3%
	25-29	102	28.8%
	30-34	133	37.6%
	≥35	71	20.3%
Sex	Male	211	59.7%
	Female	142	40.3%
Education	Graduate	189	53.5%
	Post graduate	164	46.5%
Years of working	< 5 years	96	27.1%
	5 years	134	37.9%
	>5years	123	35%

The socio demographic details of the participants were described in Table 1. Majority of the participants were in the age group of 30 to 34, males and were educated up to post-graduate level. 37.9% of the participants revealed that they were working for nearly 5 years in the IT industry

**Table 2: Prevalence of internet addiction.**

	IAT Score	Number	Percentage
Mild	Score 31-49	109	30.8%
Moderate	Score 50-79	171	48.4%
Severe	Score >80	73	20.8%

Table 2 represents the level of internet addiction. When the scores were tabulated on Young's Internet Addiction Scale, 30.8% of the subjects were found to be mildly addicted to internet, where as 48.4% and 20.8% were moderately and severely addicted.

The above table represents the lifestyle patterns of the subjects under study. Lifestyle patterns, including bedtime, sleep disturbance, alcohol use, and tobacco use according to the level of Internet addiction are shown in Table 3. 56 (32%) of the subjects who were moderately addicted and 17 (9%) of the subjects who were severely addicted to internet, told that they go to bed at the right time often regular. Whereas, 74 (43%) of the subjects who were moderately addicted and 27 (37%) of the subjects who were severely addicted to internet, complained of going to bed often irregular.

Similarly, 104 (61%) of the moderately addicted subjects and 52 (71%) of the severely addicted subjects complained of sleep disturbance. 78 (45%) of moderately addicted users and 29 (40%) severely addicted Internet

users had used alcohol. 71 (41%) of moderately addicted users had used tobacco while, 28 (38%) of severely addicted Internet users had used tobacco.

**Table 3: Lifestyle patterns of the subjects.**

		Moderate addiction	Severe addiction	Total (244)	p- value
<b>Bed time</b>	Always regular	10	9	19	p = <0.05 x <sup>2</sup> = 6.88
	Often regular	56	17	73	
	Often irregular	74	27	101	
	Always irregular	31	20	51	
<b>Sleep disturbance</b>	Yes	104	52	156	p = >0.05 x <sup>2</sup> = 2.41
	No	67	21	88	
<b>Alcohol use</b>	Yes	93	44	107	p = >0.05 x <sup>2</sup> = 0.720
	No	78	29	137	
<b>Tobacco use</b>	Yes	100	45	99	p = <0.05 x <sup>2</sup> = 0.212
	No	71	28	145	

**Table 4: Recent changes in dietary habits based on the level of internet addiction.**

		Moderate addiction	Severe addiction	Total (244)	
<b>Changes in meal size</b>	Increased	54	10	64	p = <0.05 x <sup>2</sup> = 20.5
	Decreased	106	45	151	
	No change	11	18	29	
<b>Change in appetite</b>	Increased	64	5	69	p = <0.05 x <sup>2</sup> = 24.3
	Decreased	88	59	147	
	No change	19	9	28	
<b>Skipping meals</b>	Yes	103	54	157	p = >0.05 x <sup>2</sup> = 0.995
	No	68	19	87	
<b>Daily consumption of junk food</b>	Yes	135	60	195	p = <0.05 x <sup>2</sup> = 8.47
	No	36	13	49	
<b>Frequency of consumption of junk food (n= 195)</b>	≥3 times/day	51	20	71	p = >0.05 x <sup>2</sup> = 0.164
	1-2/day	88	36	124	

Dietary habits of the subjects are displayed above, 106 (61.9%) of the moderately addicted subjects that they had experienced changes in the meal size. 103 (60.2%) of moderately addicted people and 54 (73%) of severely addicted subjects revealed that they were in the habit of skipping meals due to internet addiction. Also, 79% of the moderately addicted people and 82% of severely addicted subjects told that they consuming junk food on a daily basis.

**DISCUSSION**

This is a survey to evaluate the Internet addiction and impact of Internet use on the lifestyle and dietary behaviour of working professionals. In the present study, more male subjects were addicted to the Internet compared with their female counterparts. A study done in Finland showed that men had significantly higher mean score on the internet addiction test (IAT) than did women.<sup>7</sup> It is suggested that the gender distribution may be explained by the fact that men are more likely to express interest in games, pornography, and gambling

activities that have all been associated with problematic Internet use.<sup>7</sup>

The mean age of the study participants was (28.96±6.84 years), similar results was obtained in a study done by Black et al, where the mean age of the subjects were (26.88±5.41 years).<sup>8</sup> Considering the subjects who scored 50 and above as addicted to internet, the result came up to 69.2%. The majority of the responses on Young’s IAT were to staying on-line longer than intended (57.95%), checking e-mail before something else need to do (42.4%), losing sleep due to late night log ins (39.7%), eating while surfing (27%), physical activity going down since one has started using the Internet (21.3%), using Internet to escape from problems (18.3%), becoming upset on attempting to cut down Internet use (11.9%), surfing being responsible for spending less time with family members (6.2%). A study by Nalwa too reported that those who were dependent on Internet would delay their work to spend time online, lose sleep due to logging in till late night, feel lonelier, and feel life would be boring without the Internet as compared with nondependent subjects.<sup>9</sup>

Severely internet addicted users reported more irregular sleep patterns (64.2%) and more episodes of sleep disturbance than moderately addicted Internet users (61.1%). This is consistent with a previous study of Korean professionals that showed that Internet addiction was associated with insomnia, apnoea, and nightmare.<sup>10</sup> In addition, sleep disturbance could increase the risk of mental health problems as well as substance abuse. Hence, high-risk Internet users are more likely to experience physical and mental health problems.

It was also found internet addicted users drank and smoked more and had a poorer quality diet and higher frequency of meal skipping than moderately addicted internet users. Results two cross-sectional studies on professional students found a strong association between Internet addiction and high use of alcohol and tobacco.<sup>11</sup> Alcohol and tobacco companies use the Internet to promote and advertise their products by using themes and icons of youth popular culture, games and contests, and commercially-sponsored websites and homepages.<sup>12</sup> Therefore, because high-risk Internet users are more likely to be exposed to tobacco and alcohol advertisements, they are more likely to drink and smoke than other Internet users. Furthermore, high frequency of use of tobacco and alcohol can exacerbate diet-related problems, because smoking and drinking are negatively associated with diet quality and dietary behaviours such as meal regularity.<sup>13</sup>

The frequency of skipping dinner in severely addicted Internet users was significantly higher than that in moderately addicted internet users. This finding is consistent with a study by Kim and Chun that reported a high incidence of meal skipping in Internet addicts.<sup>14</sup> The high frequency of skipping dinner could be related to snacking (junk food); more frequent snacking was observed in severely addicted users compared to moderately addicted users.

In conclusion, the results of this study suggest that the subjects should be educated about the hazardous effects of internet addiction, poor dietary behaviour. Furthermore, the government should take an active role in designing and evaluating Internet addiction-related health intervention strategies.

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