

# Original Research Article

## **Assess the level of internet dependence and associated behavioral problems among the preschooler children**

### **ABSTRACT**

The Internet is acknowledged as among the world's most important technological platforms. Information, entertainment, brand promotion, commerce, education, and much more could all be found on the internet. In recent years, the usage of the internet on school campuses and in society has risen rapidly. **Aim:** To determine the level of internet dependence and associated behavioral problems among the preschooler children. **Material and Methods:** Descriptive correlation research design was used to conduct this study. Non probability Convenience sampling was the sampling method used to collect data from 100 preschooler children with the help of Young's Internet Addiction Test and behavioral scale. **Results:** 3% of the preschooler children were disagree had internet dependence 4% had not sure, 80% had agree and 13% of them had strongly agree. Minimum knowledge score was 28 and maximum knowledge score was 64. Mean knowledge score was  $54.70 \pm 6.84$  and mean percentage of knowledge score was  $72.93 \pm 9.12$ . 2% of the preschooler children were disagree had behavioral problem, 3% had not sure, 77% had agree and 18% of them had strongly agree. Minimum knowledge score was 37 and maximum knowledge score was 87. Mean knowledge score was  $75.26 \pm 8.07$  and mean percentage of knowledge score was  $75.26 \pm 8.7$  and the association between internet dependence and behavioral problem. Internet dependence and behavioral problem score are compared and Pearson's Correlation Coefficient is applied at 5% level of significance. It is statistically interpreted that the positive correlation was established

internet dependence in preschooler and internet dependence score is statistically associated with their age of child, gender, family monthly income and order of child is statistically significant with their demographical variable and the associated behavioral problems in preschooler children is also statistically significant with family income and order of child respectively.

**Conclusion:** Nurses get the unique opportunity to shape and develop healthy cognitions and positive self-regard among the adolescents. The problem is progressing towards the addictive state in future so earliest interventions are needed to limit the use of internet and can minimize the associated behavioral problems such as temper tantrum, aggression, poor concentration in the children.

**Keywords:** behavioral problems Internet dependence, Internet addiction scale, preschooler children.

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## **Introduction**

The Internet is acknowledged as among the world's most important technological platforms. Information, entertainment, brand promotion, commerce, education, and much more could all be found on the internet. In recent years, the usage of the internet on school campuses and in society has risen rapidly. While educational usage of the internet is largely for study and research, the internet has become an integral component of student life. On occasion, though, over-involvement with the internet is found on several campuses.<sup>1</sup> (1) COVID-19 extended to other places around the world during the course of three months, reaching over 100 000 reported cases in the first week of March 2020. India is facing a COVID-19 pandemic in conjunction with the whole world.<sup>2</sup> (2) the sole effective way is to arrest this communicable disease is to take care of and follow social distancing. During this way, this example made students susceptible to

psychological state problems, also because the internet was the sole source of accessibility and mode to contact the whole world. The number of hours using the web has been drastically increased but the rationale wasn't limited to educational purposes only.<sup>3</sup> (3)Children and preschoolers are increasingly using the Internet to learn, play online games, buy, watch movies, engage social media, and communicate. These exercises are frequently used to treat internet addiction and psychological issues.

### **Materials and Methods:**

Data will be collected from the preschooler children age group of 3- 6 years. Descriptive correlation study design was used to conduct this study the research approach is evaluative. The study will be conducted in selected areas of wardha district. Preschooler 3-8 years of age group students in selected areas of wardha district. The subjects will be selected by using on nonprobability convenient sampling technique. The sample consists of 100 subjects.

A researcher uses a tool, which is a writing instrument, to collect data. Following a thorough study of the literature, the researcher devised a structured interview schedule, as well as Young's addiction test and Behavior measures. Prior to the pilot research, the tool's reliability was assessed. There were three components to the tool: section-A demographic characteristics, section-B Preschooler Behavior Scale, and section-C Internet Addiction Test. The behavior Scale to assess the level of child behavior problems. It consists of 15 questionnaires. Numerical values 0, 1,2,3,4 are assigned to each questionnaire to indicate the severity of child behavior problems, scoring key includes -0-Strongly disagree, 1-Disagree, 2- Not sure, 3- Agree, 4- Strongly agree .To determine the severity of online addiction, use the Internet Addiction Scale. There are 20 questions in all. Each questionnaire is given a numerical score of 0, 1, 2, 3, and 4 to reflect the

degree of internet addiction. The highest score is 100, while the lowest score is 0, scoring key includes strongly disagree, 1-Disagree, 2- Not sure, 3- Agree, 4- Strongly agree.

**Method of data collection:** The data gathering process began from November 2020 to May 2021. The investigation visited the selected area in advance and obtained the necessary permission from the concerned authorities. The investigator introduced them and informed them about the study so as to ensure better cooperation during the data collection. The investigation approached the mother of preschooler children and explained the purpose of the study and how the study will be conducted. They enquired the willingness of the mother of preschooler children's to participate in the study. Consent was taken from the samples. The collection of data was performed within the stipulated time.

**Result:**

53% of the age of 3-4 years were in age group, 47% were in age 5-6 years of age group. The gender of the preschooler children 69% is were male and 31% is were female. The education of the mother was 54% of the mother were primary school education, 18% of the mother were secondary school education, 9% of mothers completed diploma, 13% of mothers were completed degree education and 6% of mothers are posting graduate degree. Occupation of mothers were 61% of mothers doing the private job, 19% of mothers were government job, 3% of mothers doing their own business and 17% of mothers were doing others type of job. Occupation of fathers 51% of fathers are doing the private job, 36% were doing government job, 6% were children father doing own business and remain 7% are doing others type of jobs. Family monthly income was 25% of the family having 5000-10000 per month income, 42% were 10001-20000, 23% of the family were 20001-30000 and 10% of the family were 30001 above family income

per month. A number of children in home 21% of the home were having 1 child, 45% of the family were 2 children, 24% of the family were 3 children and 10% of the family were 4 children in a home. Order of child, 38% were 1<sup>st</sup> order, 42% of were 2<sup>nd</sup> order and 20% of were 3<sup>rd</sup> orders of children. Internet connection at home, 96% of the home were having an internet connection and remaining 4% of the home were not connected to the internet. Numbers of smartphones at home, 20% of the home had 1 smartphone, 52% of the home were 2 smartphones, 12% of the home were 3 smartphones and 16% of the home were having more than 4 smartphones.

3% of the preschooler children were disagree had internet dependence 4% had not sure, 80% had agree and 13% of them had strongly agree. Minimum knowledge score was 28 and maximum knowledge score was 64. Mean knowledge score was  $54.70 \pm 6.84$  and mean percentage of knowledge score was  $72.93 \pm 9.12$ .

2% of the preschooler children were disagree had behavioural problem, 3% had not sure, 77% had agree and 18% of them had strongly agree. Minimum knowledge score was 37 and maximum knowledge score was 87. Mean knowledge score was  $75.26 \pm 8.07$  and mean percentage of knowledge score was  $75.26 \pm 8.7$ . Correlation between internet dependence and behavioral problem among the preschooler children in wardha district. The hypothesis is tested statistically with association between internet dependence and behavioral problem. The internet dependence and behavioral problem are compared to find association between them. Significance of association at 5% level of significance is tested with Pearson's Correlation Coefficient and tabulated 't' value is compared with calculated 't' value. Also, the calculated 'p' values are compared with acceptable 'p' value i.e., 0.05.

**Table No.1: Distribution of preschooler children with regards to demographic variables**

<b>Demographic Variable</b>	<b>Number of children</b>	<b>Percentage</b>
<b>Age of child</b>		
3-4 yrs	53	53%
5-6 yrs	47	47%
<b>Gender of child</b>		
Male child	69	69%
Female child	31	31%
Transgender child	0	0%
<b>Education of mother</b>		
Primary school	54	54%
Secondary school	18	18%
Diploma	9	9%
Degree	13	13%
Post-Degree	6	6%
<b>Occupation of mother</b>		
Private job	61	61%
Government job	19	19%
Own business	3	3%
Other	17	17%
<b>Occupation of Father</b>		

Private job	51	51%
Government job	36	36%
Own business	6	6%
Other	7	7%
<b>Family monthly income</b>		
5000-10000	25	25%
10001-20000	42	42%
20001-30000	23	23%
30001-above	10	10%
<b>Type of family</b>		
Joint family	37	37%
Nuclear family	56	56%
Extended family	7	7%
<b>Number of children at home</b>		
1	21	21%
2	45	45%
3	24	24%
4	10	10%
<b>Order of Child</b>		
1st	38	38%

2nd	42	42%
3rd	20	20%
4th	0	0%
<b>Is internet connection at home</b>		
Yes	96	96%
No	4	4%
<b>Number of smartphones at home</b>		
1	20	20%
2	52	52%
3	12	12%
4 and more than 4	16	16%

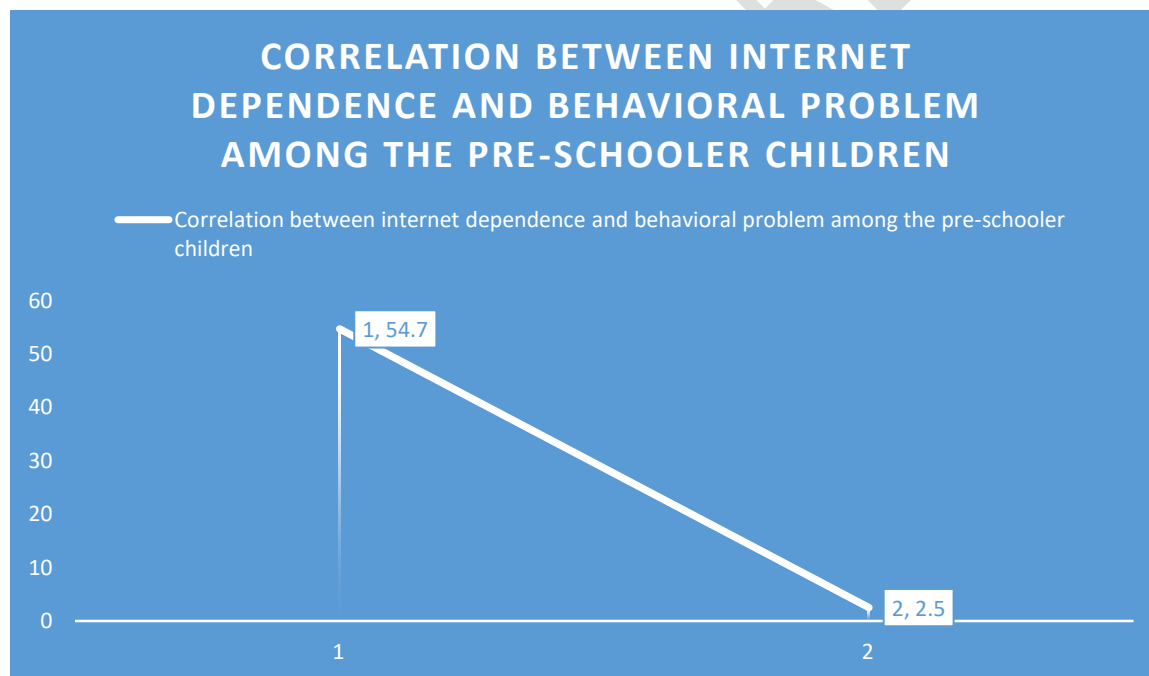
**Table No. 2: Correlation between Internet Dependence and Behavioral Problem among the Pre-Schooler Children.**

**n=100**

<b>Overall</b>	<b>Mean</b>	<b>SD</b>	<b>Correlation 'r'</b>	<b>p-value</b>
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<b>Internet dependence</b>	54.70	6.84	0.314	<b>0.0001</b>
<b>Behavioral problem</b>	75.26	8.07		<b>S, p&lt;0.05</b>

This table shows the association between internet dependence and behavioral problem. internet dependence and behavioral problem score are compared and Pearson's Correlation Coefficient is applied at 5% level of significance. The tabulated value for n=100 i.e., 98 degrees of freedom was 1.98. The 'p' value i.e.,0.0001 are much higher than 5% level of significance. Hence it is statistically interpreted that the positive correlation was established internet dependence and behavioral problem in preschooler (r=0. p=0.0001)



**Figure No.1: Correlation between Internet Dependence and Behavioral Problem among the Pre-Schooler Children**

**Associate the level of internet dependence and behavioral problem score with their demographic variable.**

Internet dependence score of age of child is statistically associated with their internet dependence score. Gender, family monthly income, order of child of child is statistically significantly associated with their internet dependence score and family income and order of child is statistically significantly associated with their behavioral problem score.

## **DISCUSSION**

In this present study the Level of internet dependence in preschooler children 3% of the preschooler children were disagree had behavioral problem, 4% had not sure, 80% had agree and 13% of them had strongly agree. Minimum knowledge score was 28 and maximum knowledge score was 64. Mean knowledge score was  $54.70 \pm 6.84$  and mean percentage of knowledge score was  $72.93 \pm 9.12$ . Behavior problem of preschooler 2% of the preschooler children were disagree had behavioral problem, 3% had not sure, 77% had agree and 18% of them had strongly agree. Minimum knowledge score was 37 and maximum knowledge score was 87. Mean knowledge score was  $75.26 \pm 8.07$  and mean percentage of knowledge score was  $75.26 \pm 8.7$ .

Study is supported by a cross-sectional, anonymized, self-reported survey was conducted by Huixi Dong, Fangru Yang, et al among Chinese children and adolescents aged 6 to 18 years old. Participants completed questionnaires containing Young's Internet Addiction Test (IAT) and the Depression, Anxiety, and Stress Scale (DASS-21), and questions regarding demographic information and Internet use characteristics. A total of 2050 participants (mean age:  $12.34 \pm 4.67$  years old, female: 48.44%) were enrolled. Fifty-five (2.68%) participants met the criterion for addictive Internet use ( $IAT \geq 70$ ), while 684 (33.37%) participants were classified as problematic Internet users ( $69 \geq IAT \geq 40$ ). Internet usage had grown during the COVID-19 epidemic,

including the frequency and duration of recreational Internet use, and the frequency of stay-up Internet use. A linear regression analysis showed female gender ( $\beta=-0.091$ ,  $p<0.001$ ), age ( $\beta=0.066$ ,  $p=0.001$ ), depression ( $\beta=0.257$ ,  $p<0.001$ ), and stress ( $\beta=0.323$ ,  $p<0.001$ ) were significantly correlated with the IAT total scores ( $R=0.539$ ,  $R^2 = 0.291$ ,  $p<0.001$ ).<sup>4(4)</sup>

Another supported study done by, Shweta Singh, Deblina Roy, et al. Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations. The epidemic and lockdown have a bigger influence on emotional and social development in young children and adolescents than in adults. In one of the early studies conducted during the ongoing pandemic, it was shown that younger children (3-6 years old) were more prone than older children to exhibit signs of clinginess and anxiety of family members being sick (6-18 years old). The older children, on the other hand, were more likely to be inattentive and inquisitive about COVID-19. Despite this, all children, regardless of age group, had significant psychological problems such as increased irritability, inattention, and clinging behavior.<sup>5 (5)</sup>

**Conclusion:** The internet dependence and behavior problems are found in preschooler children more in pandemic situation, due to school classes at home only and other than this they find busier in games, gaming videos in the mobiles. It is recommended that all the parents who are taken care of children keep the time limitation for mobile using and to keep away from them.

**Consent:** Informed consent in the local language was obtained from the study participants before administering the questionnaire

**Ethical approval:** The study was approved by institutional ethics committee of Datta Meghe Institute of Medical Sciences Wardha 05/02/2021. (Reference No. DMIMS(DU)/IEC/2021-174

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