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Role of Identity Status in Internet Addiction among Adolescents

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ABSTRACT

The internet is good for people's mental health and wellbeing when used moderately. However, Internet use is regarded problematic when it turns compulsive, interferes with everyday activities, and when the user has trouble controlling his usage. The current study examine the relationship between identity status and internet addiction among adolescents. 262 internet addicted (108 male and 154 female) school/college students out of total 604 adolescents were assessed. Their ages ranged from 11 to 19, and they were chosen at random to administer a battery of psychometrically recognised tests such as the Internet Addiction Test and the Extended Objective Measure of Ego Identity Status-2. Results of Pearson correlation coefficients found that internet addiction is significantly correlated to identity status. The internet addiction is negatively correlated with Achievement status and positively with Foreclosed and diffused status. The values of r were documented as -.26, .65 and .64 respectively. In addition, results of Regression analysis also showed that identity status as a predictor of internet addiction.

Keywords- *Identity Status, Internet Addiction, and Adolescents*

INTRODUCTION

Information and communication technologies advanced dramatically during the 20th century, but the 21st century is emerging as the Internet's boom era as massive amounts of information and communication platforms are available to us from across the globe. The Internet is an essential component and integral part of modern life, and as information technology (IT) progresses, it becomes a very much easier to use (Bozoglan, 2018). The prevalence of internet addiction among adolescents varies from country to country. In European countries, Wang et al. (2016) found that the rate is between 1.9% and 2.8%, while in Asian countries it is between 2.3% and 20.7%. A study of medical students found that 98.8% of them use the internet daily, and 47.3% of them use instant messaging applications as their main reason for accessing the internet (Moromizato et al., 2017). In Arab societies, the rates of internet addiction are even higher. In Kuwait, for example, 29% of University of Al-Huvith students exhibit at least a low level of internet addiction, and 13% of them are severely addicted (Hamade 2018). A sample of nursing students from Palestine who had their internet use patterns examined found that 30.1% of them had severe internet addiction (Alhajjar 2014). However, there hasn't been much research on internet addiction in Arab nations, which calls for more attention.

India has the second-highest usage rate in the entire world. Additionally, the country's internet penetration is growing rapidly. This is particularly true in urban India, where the majority of family members have multiple devices that they use to access the internet. The internet is therefore more likely to be used at a young age by students who live in country's urban areas (Balhara et al., 2018). Overuse of the Internet has been found to have an impact on a person's social, professional, and personal performance (Charlton and Danforth, 2007). Professionals in mental health treatment have been interested in Internet Addiction (IA), a relatively new and rapidly expanding clinical phenomenon (Saville et al., 2011). Compulsive browsing the internet, online gambling, addiction to pornography, cyber-relationships (online relationships), cyber-bullying, and addiction to online gambling are just a few behaviours that fall under this broad category. (Mihajlov and Vejmelka, 2017; Young, 1998a).

Internet Addiction

By Young (2004), addiction is described as follows: Every addiction is typically characterised by a insatiable need that is frequently followed by a loss of control, obsession with the use, and persistence in the behaviour despite the problems it causes. The results of the study by (Missaoui & Brahim, 2015) indicate that the effects of cyber-addiction include sleep disorders, disregard for household responsibilities, academic challenges, social isolation, and changes in mood and behaviour (violence, irritability). Discovered in 2017 by Bakarman. An increase in internet use is linked to several psychological effects, such as lack of motivation, rejection anxiety, and low self-esteem.

Internet addiction exhibits a wide range of symptoms, just like other addictions fulfil (Kuss et al. 2013a). Signs of internet addiction include changes in mood, increased salience of the internet in one's life, withdrawal symptoms, tolerance, relapse, and conflict. Three core types of characteristics associated with internet addiction are personal characteristics (Impulsivity, low self-efficacy and poor communication skills), other society based characteristics like poor family and social supports and internet-oriented characteristics like increased internet using time, accessibility, and proficiency).

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Diagnostic and Statistical Manual -5 (2013) included new subtype i.e., internet addiction called "Internet Use Disorder." However, the decision to include this disorder was met with criticism, as there is no clear definition of what constitutes normal versus obsessive internet use. Additionally, the terminology used to describe internet addiction is heterogeneous, and there is debate about the clinical application of the construct. Nevertheless, it is clinically helpful to know how a number of studies mentioned the relationship between internet addiction and negative factors like depression (Zdemir et al. 2014) shyness and loneliness (Ainin et al, 2017) social isolation (Poon, 2018) poor mental health (Cardak, 2013). Cerniglia et al. (2017) found that individuals with internet addiction also display more distressing symptoms, such as social withdrawal and feelings of anger. Adolescents' mental and physical health may be particularly severely impacted by internet addiction because it can worsen issues with self-worth, happiness, despair, and apprehension (Bahrainian et at. 2014; Rehman et al. 2016). Additionally harmful to identity development, internet addiction can alter the way the young brain is wired.

Additionally, it may have a negative impact on cognitive functioning, which can result in reduced academic enactment or performance, participation frequently dangerous activities, unhealthy eating behaviours, poorer interpersonal relationships, and self-harming behaviour in teenagers (Kuss et al. 2013). Studies have looked at a variety of factors that may contribute to compulsive internet use, including personality traits, demographic characteristics, and mental health symptoms (Kuss and Griffiths 2012; Andreassen 2015; Andreassen et al. 2013; 2017; Wittek et al. 2016). However, it is still unclear what factors specifically increase adolescents' vulnerability to internet addiction in Asian countries.

Internet Addiction and Identity Status

Identity status may enhance risk of internet addiction among adolescents. Erikson (1968) reports that adolescents and emerging adults face hard challenges in forming their identity in a coherent way to develop self-representatios. While some studies have linked different identity styles to high-risk behaviours that could be considered internet addiction, there have not been many studies that specifically examined identity styles as predictors of internet addiction.

The identity statuses that were the focus of this study were defined by Marcia (1980), who argued that identity creation is the result of a person's commitment and exploration. While commitment relates to individuals's choices regarding the road they are now on and their subsequent allegiance to that path, and the amount that people explore different perspectives and directions is referred to as exploration. Marcia (1980) identity status model classifies individuals' identity formation into four categories based on their levels of exploration and commitment. Individuals who exhibit low levels of exploration and commitment are categorized as diffused, while those with low exploration but high commitment are categorized as foreclosed. Those who display high exploration but low commitment are classified as moratorium, and those with high levels of both exploration and commitment are classified as achieved.

Before deciding on various identity-defining domains, people who have attained identity have gone through a phase of considering many options. The identities of those on an identity moratorium are being explored, but their commitments are hazy. Those whose identities have been locked off are devoted but haven't done any independent research. Identity-diffused people aren't actively pursuing or devoted to any roles or ideals that define who they are (Rseth et, al. 2009)

According to Marcia's four categories of identity status from 1980, people with a strong sense of identity (identity achieved) are more likely to have stable personalities, while people with a weak sense of identity (identity diffused) are more likely to have unstable personalities. Social and psychological problems appear to be correlated with identity status. According to Megreya and Ahmed (2011), identity-diffused and foreclosed people are more likely to drink heavily, while identity-moratorium and achieved people are more likely to drink lightly. Additionally Dumas et al. 2012, found that adolescents with high levels of identity commitment (either achieved or in moratorium) are less likely to engage in risky behaviors than adolescents with low levels of identity commitment (either diffused or foreclosed). Furthermore, also examined that first-year college students with high levels of identity status drank less alcohol (Bishop et al. 2005). Stefanescu et al. (2007) looked into characteristics, particularly those related to identity development that affected adolescents' participation in risky internet behaviour. The findings revealed a strong positive link between low identity status and online usage metrics associated to internet addiction.

According to a separate study conducted by Soltanifar in 2004, it was found that spending more time on the internet was linked to a reduced probability of attaining a specific identity status. Other studies have shown that low identity commitment and social communication were significantly impacted by internet addiction (Rahimirad 2004). Studies by Bagheri 2011; Fathi at al. 2013 found that non-addicted students are more likely to have achieved a sense of identity than addicted students. Addicted students, on the other hand, are more likely to have a foreclosed or diffused identity.

The research on the connection between identity status and internet addiction has shown inconsistent findings. Several studies (Ceyhan 2010; Arabzadeh et al. 2012; Tabaraei et al. 2014; Monacis et al. 2017) have indicated a significant negative correlation between achieved identity status and online addiction. This suggests that students who have achieved a stable sense of identity tend to exhibit lower levels of internet addiction. However, studies have produced varying conclusions regarding the association between moratorium identity status and internet addiction. While some studies have discovered a relationship between internet addiction and identity status, one study conducted by Ceyhan (2010) observed that first-year Turkish students in a state of moratorium were more prone to internet addiction. On the other hand, other studies (Ceyhan 2010; Arabzadeh et al. 2012; Tabaraei et al. 2014; Monacis et al. 2017) have identified a negative correlation between moratorium and internet addiction. Furthermore, conflicting evidence exists regarding the connection between low identity status (foreclosed and diffused status) and internet addiction. Several studies (Ceyhan 2010; Arabzadeh et al. 2012; Tabaraei et al. 2014; Monacis et al. 2017) have found that individuals with these identity statuses are more likely to be addicted to the internet, whereas other studies (Morsunbul 2014; Ceyhan 2010; Sinatra et al. 2016) have found no association.

In summary, the research on the relationship between internet addiction and identity status is inconclusive. Some studies have found a link, while others have not. More research is needed to determine the true nature of this relationship. The diversity of the study methods and other factors that can be related to the distinctive ethnic traits of the populations studied are potential explanations for this discrepancy in the results. Research with more homogeneous populations is therefore required to determine who these connections are most pertinent to.

Objectives:

1. To study the connection between adolescents' Identity status and internet addiction.
2. To explore whether measures of Identity status significantly predict internet addiction among adolescents.

Hypotheses:

1. Internet addiction would be negatively related with identity achievement and moratorium.
2. Internet addiction would be positively related with foreclosure and identity diffusion.
3. Measure of identity status would predict internet addiction among adolescents.

METHODS

Participants:

The sample for the study includes the students who are studying in the schools and colleges in the Kurukshetra and Karnal Districts of Haryana. After the school and college principals had granted the permission to participate in the study, participants were provided the questionnaires. Only those participants who gave consent to participate in the study were included. All participants gave their responses voluntarily. Participants were selected through purposive and convenient sampling. Sample of the study consisted of 260 internet addicted (108 male and 152 female) school/college students out of total 604 adolescents. Their age ranged 11 to 19 years.

Criteria of sample Selection for Participants

Inclusion criteria: In the present study the subjects with score less than 50 (N=344) are classified as Internet non-addiction group and those subjects with score over 50 (N=260) are classified as Internet addiction group. The collected data from the internet addiction group (260) which was the focus group of the present study were considered to verify the study results.

Exclusion criteria: Adolescents with mental retardation, psychotic disorder, bipolar disorder, autism spectrum disorder, accompanying neurological or chronic medical illness were excluded from the study. Among the 604 adolescents, those who scored less than 50 on Young's IAT and did not meet Young's IA diagnostic criteria were used to create the control group of 344 adolescents who matched the study group with respect to age, gender and socio-economic level.

Tools

Identity Status Questionnaire

The developers of this scale are Bennion and Adams (1986). It was created to assess the four various ways people respond to the late-adolescent identity crisis that James Marcia (1980) described. The questionnaire has 64 items and uses a five-point scale (1 being strongly disagree and 5 being strongly agree) to show how much respondents agree or disagree with each item. It consists of four sub-scales: "the identity-achievement score, which is the average of items 8, 13, 15, 18, 20, 22, 33, 35, 40, 42, 45, 46, 49, 51, 55, and 60; the identity-moratorium score, which is the average of items 5, 9, 11, 12, 14, 26, 31, 32, 34, 36, 43, 47, 48, 54, 57, and 61; the identity-foreclosed score, which is the average of items 3, 17, 21, 24, 27, 28, 37, 38, 39, 41, 44, 50, 58, 62, 63, and 64; and the identity-diffused score, which is the average of items 1, 2, 4, 6, 7, 10, 16, 19, 23, 25, 29, 30, 52, 53, 56, and 59". The diffused status (Cronbach's alpha =.84), foreclosed status (Cronbach's alpha =.86),

moratorium status (Cronbach's alpha =.80), and achieved status (Cronbach's alpha =.83) values in this study. Each item had a load level of at least 0.4.

Internet Addiction Test (IAT)

The Internet Addiction Test (IAT) was created by Kimberly Young and David Rogers in 1998. It is a questionnaire consisting of 20 items designed to assess the level of internet addiction. These items are categorized into six groups: salience, excessive use, neglect of work, anticipation, self-control, and neglect of social relationships. On a Likert scale of 1 (rarely) to 5 (always), each response is scored. The scores range from 20 to 100 (A Score between 20-49 reflects average use of the internet; a score between 50-79 would be interpreted as having occasional or ongoing problems when using the Internet; a score between 80-100 reflects Internet usage has a significant impact on problems) (Ghamari et al. 2011). More Internet dependence is evident from the higher score. Additionally, this questionnaire has been employed by other IA researchers, and its psychometric characteristics in regard to the component structure have been good but vary (Widyanto and McMurran 2004; Khazaal et al. 2008;). Each subscale's items had high to moderate dependability based on Cronbach's alpha values.

RESULTS AND DISCUSSION

Table 1: Relationship among internet addiction and identity status

Variables	Internet addiction	Ach	Mort	Forc	Diff
Internet addiction	1	**-.26****	.06	**.65****	**.64****
Achievement		1	.32**	-.24**	-.28**
Moratorium			1	.08	.06
Foreclosure				1	.69**
Diffusion					1

**. Sig at the 0.01 level (2-tailed).
*. Sig at the 0.05 level (2-tailed).

According to table 1st findings, there is a substantial negative link between adolescent internet addiction (IA) and Identity achievement and positive with Moratorium and diffusion status. The estimated "r" values for IA and achievement (r=-.26, p<0.01), IA and foreclosure (r=.65, p<0.01), and IA and diffusion (r=0.64, p<0.01). So the results confirms Hypothesis 1st that Internet addiction would be negatively related with identity achievement and moratorium. It might mean that students who have a high identity status have clearly defined goals for themselves and society. These goals might result from traumatic, real-world experiences and a sense of continuity. People with a well-organized ego are able to identify their strengths and weaknesses and use effective decision-making and problem-solving skills. They are also less impulsive and more likely to behave in a controlled and deliberate manner. This is because they are open to learning about the world from a realistic perspective.

These findings Ceyhan (2010), Arabzadeh et al. (2012), Tabaraei et al. (2014), Monacis et al. (2017), and Agbaria and Bdier (2019) are consistent with previous studies that have shown a link between identity status and internet use. People with a high identity status are curious to use the internet for practical and useful purposes, rather than for impulsive or recreational activities. In other words, people with a well-organized ego are more likely to use the internet in a controlled and deliberate manner, similar to other behaviors. Overall, people with a well-organized ego are more likely to use the internet in a productive and meaningful way.

The second hypothesis also came true as well. Table 1 shows that Internet addiction have statistically significant positive correlated with identity diffusion, and foreclosure. The finding that people with low identity statuses (diffused and foreclosed) are more likely to be internet addicts provides further support for the hypothesis that internet addiction is linked to identity issues. People with low identity statuses are less established in their sense of self, which can lead to a range of risky behaviors and psychological problems (Megreya and Ahmed 2011; Gavriel-Fried et al. 2018). The current findings are consistent with earlier research that found a link between internet addiction and low identity status (Arabzadeh et al. 2012; Tabaraei et al. 2014; Monacis et al. 2017; Agbaria and Bdier 2019).

Students who possess low identity statuses, characterized by a lack of clarity regarding their roles and values, are likely to exhibit a higher tendency to utilize the internet as a substitute for genuine social interactions. This inclination can be attributed to the challenges and anxiety they face in effectively coping with daily stressors. These people might have the opportunity to safely travel the world thanks to the internet, free from the identity-defining fear of rejection (Marcia, 1980). Several studies (Gross 2004; Valkenburg et al. 2005; Kennedy 2006; Valkenburg and Peter 2008) have shown that people with a weak sense of identity may use the internet to explore different identities and find one that feels right for them. They may do this by hiding their real identity, presenting themselves as someone else, or experimenting with different personas. This can be a helpful way to learn more about themselves and what they want in life. (Gross 2004; Valkenburg et al. 2005; Kennedy 2006; Valkenburg and Peter 2008).

Table 2: Stepwise Multiple Regression Analysis Dependent Variable: Internet Addiction

Step	Variable	R	R^2	R^2-Change	β	F	Sig.
1	Diffusion	.649	.421	.421	.649	188.98	.001

2	Diffusion + Foreclosure	.700	.490	.069	.366	124.35	.001
3	Diffusion + Foreclosure + Achievement	.706	.498	.008	-.093	85.28	.001

Table 2 displays the findings of a stepwise regression analysis for the dependent variable internet addiction among adolescents. The predictor variable identity diffusion accounts for 42% of variance (R^2= .421) in internet addiction. Identity diffusion is emerged as the main predictor for internet addiction and entered at step one in the equation. The predictor variable identity diffusion has positive beta weight (β = .649). It shows that, students who have lack of stability or focus in the view of the self also have addicted to internet. Multiple R for identity diffusion variable equals to .649. The F value for this variable is 188.98 (df =260) which is significant at .001 level of significance.

The next potent predictor of internet addiction is emerged as identity foreclosure. Multiple R increased to .700 and R^2 increased to .490 with this identity foreclosure in the equation after identity diffusion. The F being 124.35, (df =259) it is significant at .001 probability level. Identity diffusion and identity foreclosure jointly account for 18% of variance (R^2 = .490) in internet addiction. The identity foreclosure has positive beta weight (β = .366) that indicates that excessive use of the internet is caused when someone accepts without question the values, abilities, objectives, and overall worth that someone else has given to them. The last predictor of internet addiction is identity achievement with R=.706, R^2 =.498 and individually explain approximately 1 % variance and F-ratio is 85.28 and beta value (β = -.093) which is significant at .001 probability level. Which means that students with achieved identity status or having one's true sense of self are involving in internet addict type of activity.

Thus the hypothesis No. 2 is accepted here that Measure of identity status (foreclosure, diffusion, moratorium and achievement) would predict internet addiction among adolescents. These findings suggested that students who are high on identity achievements are proper utilisation of internet as comparison identity diffused students.

CONCLUSIONS

The results of this investigation suggested that higher identity status and stronger identity development were protective factors against adolescent's internet addiction. These results are in consistency with earlier research among Western samples, which found that these characteristics contributed to a reduction in risky behaviour in general and addictive behaviour in particular. In the current, it is found that Indian adolescents behaviour more or less in similar fashion as in other Asian societies. Identity status show a common universal significance among eastern and western adolescents despite difference in socio-political characteristics. Consequently, in order to lessen the possibility of adolescents' internet addiction, present findings may influence intervention programmes like psych education-based initiatives that help young people build their own sense of self. Around the world, the covid-19 pandemic had an effect on the occurrence of internet addiction, particularly among students. Digital entertainment has become more expensive as a result of people engaging in too many digital activities and not enough face-to-face engagement. Therefore, it is urged that more oversight and control be used over how teenagers should use the Internet, and that they be made aware of the risks associated with inappropriate or excessive use of technology.

The findings of this study also highlight the significance of preventive interventions, such as student education initiatives and counselling on effective and responsible Internet use. By addressing the problems and challenges that communication technologies like Internet and by enticing parents and families to focus more on the safe and effective use of the Internet, the groundwork for proper education may also be laid.

LIMITATIONS AND SUGGESTIONS

Although the current study had significant limitations, it was new in several respects. Initially, participants were not selected at random from the population of interest; rather, they were gathered as a convenient sampling. Moreover, the fact that each participant came from one ethnic background may limit the generalization. To offer particular insight into the individual traits that might be especially significant for raising the risk of internet addiction among this particular group of adolescents, the current sample was purposefully kept homogeneous. Secondly, the information was obtained via self-report questionnaires, which could introduce bias in the manner in which it is reported. Thus, future research may consider integrating multiple sources of information, such as questionnaires administered to teachers, parents and peers. Although many background variables are included in the study, there are still some more background variables such as socio economic status, parents‟ education and parents working status, type of family, major of study, academic performance etc., which are not included in the study. Such variables should be considered for the further studies.

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