

Research Paper

## Effect of Multimodal Therapy on Internet Addiction, Altruism, and Time Management Competency of Students

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### ABSTRACT

Nowadays, the internet has become a crucial element of daily life, providing communication, education, and entertainment. Overuse of the internet is comparable to drug addiction in many aspects, such as withdrawal symptoms, intolerance, difficulty cutting down or stopping, and challenges with everyday tasks. The goal of this study is to assess how multimodal therapy affects students' internet addiction, altruism, and time management competency. Eighty students' data were collected using the Internet Addiction Scale, Altruism Scale, and Time Management Competency Scale. The results were statistically analyzed. The study's findings demonstrated the significant effects of multimodal intervention on internet addiction, altruism, and time management competency.

**Keywords:** *Internet addiction, Communication, Time management competency, Altruism*

Over the past ten years, youth's reliance on the internet has increased more quickly; they even use it to hunt up solutions to little problems. It has been ingrained in young people's lives; therefore, using it excessively harms their creativity and productivity. Although there isn't a consistent physiological change linked to excessive internet usage, as with substance abuse get compulsive internet users' brain imaging and other studies reveal biological alterations in the prefrontal cortex that resemble those observed in other addictions. Furthermore, structural changes in the brain's temporal cortex and ventral striatum decrease executive function in thinking and planning, increase the risk of impulsivity, and make it harder to limit internet use.

Internet addiction falls under an impulse control disorder. The word "addiction" should only be used in reference to drug intake (Rachlin, 1990, Walker 1998). Similar criteria are used to classify a wide range of behavioral illnesses, such as computer addiction (Keepers, 1990); Pathological gambling (Griffiths, 1991; Mobila, 1993), and eating disorders (Lacey, 1993; Leiseur & Blume, 1993). Social workers, psychologists, and occupational therapists now acknowledge addiction as a problem (Brenner, 1996; Egger, 1996; Thompson, 1996; Young, 1996; Griffiths, 1997; Morahan-Martin, 1997; Scherer, 1997). The term internet relates to all types of online activity. Addiction to the internet has a detrimental impact on users' lives.

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Young (1998) and Griffiths (2000) conducted extensive study and were the first to identify Internet addiction. Internet is may be defined as the when there is no need to out to seek information but information reaches at our hone on the computer screen (Akin & Iskender, 2012). According to some experts, it has become the 21st Century epidemic in the last ten years (Kuss & Griffith, 2015). Students need more internets for their educational purposes and their research needs (Soleymani et.al 2016). Although in the Diagnostic and Statistical Manual of Mental disorder, Fifth Edition or 11<sup>th</sup> Revision of International Classification Diseases has not been recognized internet addiction despite that since 2013 gaming addiction have been listed (Mokhtar & McGee, 2025). Some internet users develop attachments to their virtual pals and pastimes. Internet addiction is when the person is unable to control impulse or behavior related to internet use that becomes the reason of the distress.

The term altruism was coined by French philosopher and sociologist Auguste Comte (Encyclopedia and Britannica, 1967). Comte defines altruism as the disinterested regard of others' well-being. Altruism might be described as the willingness to act to help someone without expecting a return when there is anything that makes one feel as though they are doing a good deed (Schroeder et al., 1995). To act altruistically is putting another person's well-being first. When people see other people in terrible situations, they become empathetic and wish to help them. This social phenomenon is also known as "reciprocal altruism," a term created by scientists. In this situation, the individual makes a sacrifice for other person in the hope that they will treat him the same way reciprocally, or that they will support him unconditionally when he is in need in the future. The desire to help others to alleviate their suffering or bad feelings without anticipating anything in return is known as altruism. It is selfless aid that is provided without anticipating compensation or other rewards (Batson, 1991). Altruism has a positive effect on group productivity and has a positive link with fitness (Kerr et al., 2004). Altruism is positively correlated with longer life expectancy, better health, and greater well-being (Post, 2005). Altruistic behavior is advantageous to both the giver and the recipients (Irani, 2018). Altruistic activities can reduce stress, improve happiness and health, diminish feelings of loneliness, and reduce negative emotions, Mental Health Foundation in Scotland, (2023). Altruistic behavior has a positive effect on mood (Harris, 2010). Altruistic behavior helps with stress management and is beneficial for better stress management (Gans & Scott, 2019). One may argue that there is a positive correlation between altruism and the various facets of life. It was shown that obsessive internet use was negatively correlated with altruism and empathy (Mazuritsky, 2016). This suggests that encouraging more compassion and empathy might help reduce internet addiction.

Different people have come up with different definitions of what time is. Some think that, like money, time is valuable. Once it's gone, we can never get it back. Its soaring nature makes it unstoppable. Since time is something, we cannot create or recreate, we must manage it carefully. Time management competence, then, is the ability to effectively manage the time that is available.

Humans are complicated multifaceted entities. Our concerns are also almost always complex. When additional therapies are considered, psychotherapy has a better likelihood of success and long- term effectiveness. We cannot claim that treatments that focus just on one aspect of human nature – interpersonal interactions, thinking, or behavior for example – cannot be effective. Every therapy session is designed to alleviate the client's psychological anguish and accelerate his personal growth. In 1976, the term "multimodal therapy" (MMT) was coined by behavior therapist Arnold Lazarus, one of the most accomplished

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psychologists of the twentieth century. We are biological beings who can think, feel, smell, touch, and relate to others in addition to acting. Social and cognitive learning theories serve as the foundation of MMT. It is used for behavioral and psychological issues. It is believed that MMT addresses every aspect of a person's psyche.

Nothing is beyond the scope of MMT which cannot be understood and attained, with reference to the cognitive, affective, and conative aspects of individuals. MMT divides human personality into different but interconnected components by assessing a person using each of these unique modalities or dimensions and then examining the essential relationships between them. Multimodal elaboration identifies the problem's sustaining factors—who and what they are—investigates its interaction features, and selects logical therapeutic solutions. According to the multimodal perspective, the following events produce emotional disturbance: interpersonal, behavioral, imagery, cognition, sensation, and biochemical neurophysiological. When we talk about our experiences, we employ our senses—the eyes and ears for sight, the skin for touch, the nose for smell, and the tongue for taste. We also participate in cognitive appraisal, which implies that when we see danger or injury, a distinct and vivid series of pictures in our thoughts initiates an overt response, such as flight or fight, which has extra interpersonal consequences (avoidance and control). The second biological process to consider is the influence of certain hormones and neurotransmitters on human behavior. Our cognitive elements, such as how we interpret things, have the potential to either increase or decrease stress. There is no fixed order for this, and each person's firing modality sequence is unique, such as sensory-cognitive-interpersonal-behavioral. Orders for fire can start in any modality. Anxiety attacks can occasionally be triggered by hostile thoughts and images in the mind, which can result in unpleasant emotions such as palpitations, changes in heart rate, and impulsive emotional reactions caused by social interactions. Another example may be someone at a party making a foolish joke. The assembly is awkward, and he understands the disappointment. He blushes, sweats, and considers what others are saying and muttering behind his back. He exits the space. The firing order was behavioral, interpersonal, cognitive, sensory, and visual. To identify and comprehend the parts of a person's BASIC ID, it is important to first properly understand their sensory responses, affective reactions, salient behavior, images, cognitions, interpersonal connections, and physiological prosperities. This theory states that every human emotion and psychological state—such as joy, love, faith, hope, optimism, greed, ambition, disappointment, sexual drive, assertiveness, anger, fear, disgust, anticipation, ecstasy, grief, future surprise, awe, acceptance, boredom, or any other action, sensation, feeling, mental image, idea, physical factor, or personal bond—is represented in that person's BASIC ID. It is vital to remember that each modality is present in every other modality, to varying degrees. Faith and spirituality, for example, are the result of a deep cognitive and emotional connection. This personality theory is very dynamic. Alternate and popular shorthand for human personality is BASIC ID.

### ***Objective of the study***

- To study the effect of Multimodal Therapy on internet addiction in students.
- To study the effect of Multimodal Therapy on Altruism in students.
- To study the effect of Multimodal Therapy on Time management competency in students.

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### *Hypotheses*

- There will be significant effect of Multimodal Therapy on internet addiction in students
- There will be significant effect of Multimodal Therapy on Altruism in students
- There will be significant effect of Multimodal Therapy on Time management competency in students

## **MATERIALS AND METHODS**

### *Sample*

Eighty school students from various educational institutes were included in the current study. The students' age ranged between 16 to 22 years old. The socioeconomic status of the sample was homogenous.

### *Measurement Tools*

1. Internet Addiction Test (IAT) (Young, 1998): Adolescents and adults are evaluated for internet addiction using the 20-item Internet Addiction Test (IAT; Young, 1998). It evaluates adults' and adolescents' self-reported levels of obsessive internet use. The term "internet" refers to all online activities and the IAT views Internet addiction as an impulse-control disorder. The IAT takes five to ten minutes to finish on its own. Every item has a 5-point rating ranging from 0 to 5. A higher number on the IAT total score indicates a higher level of online compulsion and addiction. The score goes from 0 to 100. Using Cronbach's alpha coefficient, the scale's internal reliability was 0.91. The item-total correlations were also calculated, and the results for the 20 items varied from 0.37 to 0.63 (Samaha et. al.2018)
2. Self-Report Altruism Scale (SRA) (Rusthton et al., 1981): The Self-Report Altruism (SRA) Scale consists of 20 self-reporting questions that are simple to administer. A scale of "Never," "Once," "More than once," and "Very Often" is used to ask respondents to assess the frequency of their altruistic activity. SRA has strong validity and reliability. The validity of the test is .86 and split-half reliability is .78.
3. Time Management Competency Scale (TMCS) (Sansanwal & Parashar, 2007): TMCS contains 36 statements related to different aspects of Time Management. There is a five-point rating system for each statement: Always (A), Frequently (F), Sometimes (ST), Rare (R), and Never (N). In contrast to the test-half reliability value of 0.96, the test-rest reliability coefficient was determined to be 0.72. The dependability coefficients exhibit a very high value.

### *Procedure*

The sample comprised 80 students from various educational institutes. The sample was divided into two groups. Viz: The intervention Group (Group I) and the Control Group (Group II). Participants consent was taken and were assured about the confidentiality. Their basic demographic information was collected followed by the instructions related to respective tests. The subjects were required to mark answer to each question in the questionnaires. Internet addiction test, self-report altruism scale, and time management competency scale were provided to them. After completion of the tests scoring was done and results were statistically analyzed.

**RESULTS AND DISCUSSION**

**Table 1 Significance of difference between means on the variable of internet addiction of the intervention group (N=80)**

	<b>Mean</b>	<b>SD</b>	<b>Mean Differences</b>	<b>df</b>	<b>t</b>	<b>p value</b>
Pre-test	63.81	19.36	23.78	79	10.98	0.01
Post test	40.02					

As shown in table 1 pre test mean score of intervention group on the variable of internet addiction is 63.81 and post test mean score is 40.02. The difference between pre test and post test score on the variable of internet addiction is significant at 0.01 level. It implies that Multimodal intervention has significantly resulted in the decrease level of internet addiction in Group 1 i.e. intervention group. Some researches conducted earlier have lend support to the obtained findings. A research by Sharma et al. (2022) examined 40 participants who suffered from internet gaming problem. The participants received a ten-session multimodal psychotherapy intervention program. The IAT and IGD-20 scores for the conditions immediately before treatment (M = 56.88, SD = 19.25) and immediately after treatment (M = 47.87, SD = 15.31; t (32) = 6.94, p = 0.000) were significantly different from each other. Du et al. (2010) in their study to examine the time management, internet addiction, emotional, cognitive and behavioral measures on 56 adolescents in Shanghai the application of eight session of multimodal group CBT on treatment group. Although the results of the study revealed that internet addiction decreased in both the group yet in active treatment group there was reported improvement in time management skills as well as improved emotional cognitive behavioral symptoms. Ksiksou et al. (2023) did study on sixty participants. Result in this study to revealed reduced internet addiction in intervention group after following CBGT.

**Table 2 Significance of difference between means on the variable of internet addiction of the control group (N=80)**

	<b>Mean</b>	<b>SD</b>	<b>Mean Differences</b>	<b>df</b>	<b>t</b>	<b>p value</b>
Pre-test	64.18	18.75	2.26	79	.912	.365
Post test						

Table 2 represents pre test mean score on the variable of internet addiction control group 64.18 and post test mean score is 66.10. The difference between pre test score and post test score on the variable of internet addiction is not significant. It implies that internet addiction did not decrease of the participants of control group.

**Table 3 Significance of difference between means on variable of Altruism of intervention group (N=80)**

	<b>Mean</b>	<b>SD</b>	<b>Mean Differences</b>	<b>df</b>	<b>t</b>	<b>p value</b>
Pre-test	20.09	11.05	23.30	79	18.85	0.01
Post test	43.38					

Table 3 indicates that pre test mean score of intervention group on the variable of Altruism 20.09 and post test mean score is 43.387. The difference between pre test score and post test on the variable of Altruism is significant at 0.01 level. It implies that Multimodal intervention has significantly resulted in the increased level of Altruism in intervention group.

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**Table 4 Significance of difference between means on variable of Altruism of control group (N=80)**

	Mean	SD	Mean Differences	df	t	p value
Pre-test	98.187	42.95	5.50	79	1.699	0.95
Post test	90.75					

As shown in above table 4 pretest mean score of the Altruism of control group is 20.22 mean of the post test score of the Altruism 25.72. The difference between pretest score and post test score on the variable Altruism is not significant. It can be concluded that Altruism of the control group did not been increase.

**Table 5 Significance of difference between means on the variable of Time Management Competency of intervention group (N=80)**

	Mean	SD	Mean Differences	df	t	p value
Pre-test	53.53	33.50	60.825	79	16.23	0.01
Post test	114.35					

Table 5 displays pre test mean score of intervention group on the variable of Time Management Competency 53.53 and post test mean score 114.35. The difference between pre test and post test mean score is significant at 0.01 level. It implies that Multimodal intervention has significantly resulted in improvement in the level of Time Management Competency in intervention group.

**Table 6 Significance of difference between means on the variable of Time Management Competency of control group (N=80)**

	Mean	SD	Mean Differences	df	t	p value
Pre-test	50.95	36.27	9.28	79	2.29	0.25
Post test	41.66					

Above Table 6 represents pre test mean score of control group on the variable of Time Management Competency 50.95 and post test mean score 41.66. The difference between the pre test and post test score on the variable of Time Management Competency is not significant. It means that the time management competency of the control group has not improvised.

## **CONCLUSION**

Significant effect of multimodal intervention was there on the variable of internet addiction, Altruism as well as Time management Competency. It implies decreased level of internet addiction in the students and increased level of Altruism and Time Management Competency.

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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