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# THE EFFECT OF PSYCHOSOCIAL INTERVENTION ON PROBLEMATIC INTERNET USAGE AND ITS IMPACT ON PSYCHOLOGICAL DISTRESS AND QUALITY OF LIFE AMONG EMERGING ADULTS

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**Abstract:** The Internet is universal and pervasive in everyone's lives. For a medium that has fundamentally altered how individuals live their lives, its impact on the individual's psychology has been overlooked. The study helped shed light on the impact of psychosocial intervention on Problematic Internet Usage (PIU) among emerging adults from India and to assess its impact on Psychological Distress (PD) and Quality of Life (QoL). The intervention focused on areas including Systematic Desensitization, Mindfulness, CBT Techniques and aspects of Positive Psychology. Data was collected from a total sample of 168 emerging adults (43.5% male, 51.8% females and 4.8% of the participants preferred not to disclose their gender) through an online survey where Problematic Internet Usage Questionnaire by Demetrovics, Z. et al., Kessler Psychological Distress Scale and Quality of Life scale by B L Dubey et al. were used. Convenient sampling method was used to select participants for the intervention group (N=27). An independent sample t test was carried to understand the gender differences, results indicate the absence of the influence of gender in all three variables. Pearson correlation coefficient was used to analyse the relationship between variables. The results denote a significant correlation between PIU and PD and a significant negative correlation between PD and QoL. The results of paired sample t test denote that there's a significant difference in the pre-test and post-test of PIU and QOL. The study contributes to the understanding of how digitization has impacted one's life and mental health and offers suggestions on how to take a different perspective on problematic internet use in the future.

Keywords - Problematic Internet Usage, Psychological Distress, Quality of Life, Emerging Adults

#### I. INTRODUCTION

## 1.1 Introduction

"Technology improves the lives of people who can avoid being dominated by it and forced into debilitating addictions to it." - Frank Kaufmann

Living in a fast-paced world backed up by a powerful creation such as the internet, individuals tend to busy themselves with the endless amounts of things on their to-do lists and schedules. People don't deem spending time with their families and themselves as necessary. The internet has completely transformed the world, the world is so smitten by it. The internet can be found in every field, including education, healthcare, and business. It has altered and simplified the way everyone works.

The number of individuals who use smartphones grew to 5.34 billion by the start of the third quarter of 2022. Almost 67% of the world's total population now use some form of mobile phone, with the global mobile population growing by 93 million since last year. Teenagers between the ages of 13 and 18 spend 3 hours per day on average. However, some teenagers spend up to 9 hours per day on social media, which is a lot longer than they do in class. In India, where internet usage is widespread, Joseph J., et al. (2021) discovered that 40.7% of college students overall had internet addiction.

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The most popular website in the entire world is YouTube. According to their monthly search traffic in 2022, YouTube received over 8.1 billion visits, with each visit lasting an average of 40 minutes. Twitter (1.97 billion), Instagram (1.69 billion), Pinterest (834 million), and Facebook are the other social media platforms on the list that made it to the top 10 on their monthly search traffic (551 million).

In recent times there has been a decrease in one's mental well-being due to the pandemic, and one of the major contributing factors is the increase in screen time. The world's view of the internet has had a dynamic shift since the pandemic, the internet has become a part of people's lives rather than just a tool for communication. Especially with emerging adults, individuals between the ages of 18-25, excessive internet usage may have a negative impact on various aspects of their life including relationships, daily life functions, emotional stability and overall mental health. Continual exposure to information through various sources alters one's capacity to prioritize information. The existence of misinformation adds to the increase in psychological distress in an individual thereby decreasing one's quality of life.

The popularity of the internet doesn't need to be explained, the recent expansion of the availability of the Internet has made it invaluable to the world where one probably can't imagine a world without it. With the rise of the Internet there's also been a massive rise in reports of individuals utilizing the Internet in problematic ways. Regardless of the invaluable services the Internet provides us, it also deprives the world of opportunities to be helpful and to feel useful. This period of time for emerging adults is crucial, combining adolescence and early adulthood these individuals undergo transitions in all aspects of their internal environment including biological and psychological as well as external environment including relationships with peers and authorities, transitioning from students and entering the workforce, coupled with the fact that this is the time for emerging adults to, as the name suggests emerge into adults, developing a strong sense of identity is momentous. Nationally representative data suggest that about 20% to 40% of college students in India are at risk for Internet addiction (Joseph J, et al, 2021).

The need for timely information and guidance further increases one's dependence on the internet. The idea was that people need information or guidance when they are in a crisis, like when their child is ill or when they are deciding whether to change their treatment or behaviour. The constant access the Internet offered was considered advantageous in these circumstances. Due to the isolation protocols during the pandemic there's a rise in people relying on smartphones to gain recent developments regarding the pandemic, to connect with people and for entertainment. Lee, Z. H., & Chen, I. H. (2021).

As mentioned above, the prevalence of the Internet is seemingly everywhere. The pandemic has bought a new definition of the learning environment. Individuals use the internet for seemingly everything these days. Students use them for academics, working professionals use them for networking and making work effective.

## 1.2 Emerging adults

The term 'emerging adults' starts from the age range of 18 to 25 years. It is not to be confused with early adulthood as the age range is 18-40 years. Emerging adulthood is typically the transition period from adolescence to young adulthood. Characteristics of these individuals during this period include autonomy and independence. In American culture, which upholds individualistic values, the individual prepares to move out of their childhood home. Whereas in Indian culture, where values are closely attached to family and community it is very normal for individuals older than 18 to live together with their parents. This period causes immense bouts of stress for the individual as they face the challenge of striving for autonomy while at the same time, getting used to living with parents (Condinata, et al., 2021).

Late adolescence is the time when both physical and psychological effects are significant for their optimal growth and development. Settling with and getting comfortable with the rapid and important physical developments that occur, the individual undergoes rapid mental developments as well. These give rise to the need for establishing new attitudes, values and interests. Due to spending excessive time surfing on the internet, the individual gets swept up by the various contents which ironically acts against the purpose for which the individual started spending time on the internet in the first place. There's a rapid decrease in one's attention span, an increase in their expectation of quick replies which if not attained causes distress and in some cases issues of aggression. Adolescence being a vital transitional period, what has happened before leaves a mark on what happens in the present and in the future. The physical and mental changes that have taken place led to re-evaluations of value judgements and moral codes.

There exists a state of confusion about their roles as the individual at this time is not taken seriously as an adult and admonished if behaved like a child. There is a rapid change in attitudes and behaviors in the individual that is parallel to the rate of physical changes. Role confusion doesn't end there, due to the rapid sexual maturing, emerging adults aren't sure about themself, their capacities and of their interests. Also, the roles that social systems demand them to play lead to new issues.

This is a period of heightened emotionality, meaning there is an increase in the frequency and intensity of emotional experiences. There are shifts in one's interests and behavior patterns as well along with their values. They eventually stop being content to be exactly like their peers and start to desire autonomy regarding their identity.

Social changes during this period is one of the most difficult developmental tasks, adjusting with members of the opposite sex, to adults besides family members and school environments. To achieve the goal of adult socialization patterns, the adolescent must make many new adjustments, the most important—and, in many ways, the most difficult—of which are those to increased peer group influence, changes in social behaviour, new social groupings, new values in friendship selection, and new values in social acceptance as well as rejection. Teenagers' primary recreational outlet is their peer group. Ultimately, the social environment in which that young adult is growing can alter the course of their outcomes - for better or worse.

Emerging adults undergo physical growth and development at its maximum, as physical strength is more in this period due to mature physical structures, speed, strength, coordination, endurance for activities is greatest during this period. When individuals transition from being dependent to independent autonomous adults, new patterns of lifestyle are established. They assume new responsibilities and make new commitments. Altering patterns of lifestyle has an impact on one's growth and development. Psychosocio development is significant during this stage as well. Relationships become intimate, happiness is tied to having satisfactory

relationships and achieving other major milestones such as being self-reliant in terms of emotions and finances. Despite gaining independence, emerging adults are partially or sometimes totally dependent on others for gaining scholarships, funds for furthering their lives such as loans from banks, emotional support from close kin.

Emerging adults, especially in recent times, don't ponder too much about their expected responsibilities. The society holds conventional values regarding milestones one must achieve. Acceptance by adults is only gained when emerging adults accept the values of the adult group. Wealth and fortune earned in monetary terms is considered success, creating a family according to societal expectations is considered as success. Concentrating and working through challenges by employing superior problem-solving skills, having confidence to try new things etc., are not considered as achievements rather attainment of material things, getting promoted etc. are seen as successes. Adjustments are made to egalitarian rather than traditional sex roles, new family-life patterns, such as divorce and one-parent families, and new occupational patterns, particularly huge and impersonal work units in business and industry. These are some among the many lifestyles changes that young adults must adapt to along with dealing with societal pressures to have accomplished and attained certain milestones by a certain age.

On college campuses and at the workplace, emerging adults have easy access to information and communication technology (ICT), which they use extensively for study, work, and recreation. Emerging adulthood is also a period of loneliness i.e., social isolation. It's known as the "isolation crisis" termed by Erikson. To combat this loneliness due to the immense increase of responsibilities at home and at work, individuals rely on the internet to make up for this lost connection.

Adolescents and young adults who suffer from depression, anxiety, have been diagnosed with neurodevelopmental disorders such as Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder, emerging adults who lack social support are identified to be 'at risk' for developing problems related to excessive internet use. Emerging adults who often feel bored or stressed use the Internet as an escape mechanism to divert themselves from that unpleasant feeling. Individuals who are at a higher risk of social isolation due to physical disability or due to juvenile detention or any factor that is considered 'non typical' are more vulnerable to developing problems with excessive internet use. It is evident that one of the most prominent challenges that emerging adults face in this day and age is coping with the advent of the Internet and its pervasive effects on all aspects of their life.

## 1.3 Problematic Internet Usage

Ever since the advent of the Internet it has, along with popularity, garnered widespread presence of problematic internet use among Asia and Europe. Various studies have reported the ill-effects of spending more time than necessary on the Internet. Researchers have proven that excessive Internet use strongly impacts different somatic, interpersonal and mental problems. Globally, problematic internet use is acknowledged as a significant behavioural problem in adolescents and youth (Singh S, et al, 2022). When an individual cannot control their urge and increasing tension to access the Internet, which finally causes feelings of pain or dismay and negative life consequences, (Shapira et al 2000). It can be further explained by the indi<mark>vidual</mark>'s lack of stren<mark>gth to curb their</mark> Internet use in spite of severe adverse consequences in everyday life. They face immense feelings of distress which leads to functional impairment of daily activities. Sadness and depression, boredom, and stress were common triggers of Problematic Internet Usage (Wong. T. Y., et al, 2015). Problematic Internet Usage is not an effective coping strategy but can be understood as maladaptive behaviour involving escapism (Singh. S, et al, 2022).

Beyond the description of the phenomenon and the investigation of the traits of individuals with problematic use, these observati<mark>ons spurred an increasing amount of research aimed at the identification of potential causal factors and background dynamics</mark> of problematic use from the perspectives of various theoretical approaches.

- Obsession: Being obsessed with Internet activities. Obsessive thinking about the Internet and mental withdrawal symptoms caused by the lack of Internet use (Demetrovics, et al.)
- Neglect: Neglecting non-internet activities i.e., neglect of basic needs and everyday activities for the purpose of spending more time on the internet.
- **Control disorder:** Difficulties in and unable to stop using the internet.

Individuals who lack social skills, struggle with psychosocial issues like depression, social anxiety, or loneliness, or who may be excessively anxious about social interactions are drawn to the anonymity offered by the Internet and the cover it provides for building friendships in less risky situations than those that occur in real life i.e., face-to-face (Sharma & Palanichamy, 2018; Shin & Jang, 2016). Those who feel overburdened, who struggle with personal issues or go through severe life-altering events (such as divorce, emigration, death, and chronic disease), may prefer online social connections over in-person ones and establish a virtual identity. Previously, in a study done by Singh, S., et al. (2022) has stated that Problematic Internet Usage was also predicted by self-blaming, behavioural disengagement, substance use and self-distraction. This type of coping is described by escapism, in which the person uses problematic internet use to redirect themselves from stressful situations by playing video games or watching pornography.

The Internet seems to have an impact on many aspects of daily life, including work. This potent technology has the apparent power to affect users' motivation, mood, and concentration as well as dissociate and disinhibit them. Some people's usage behaviours can develop into abuse and develop a compulsive quality. Problematic internet use might involve obsessive or uncontrollable cravings, preoccupations, or behaviours related to computer use and internet access that cause impairment or distress. Individuals who are lonely or depressed may develop a preference for online social interaction, which can result in adverse consequences associated with their Internet use. Individuals' preference for online, rather than face-to-face, social interaction plays an important role in the development of negative consequences associated with problematic Internet use (Caplan. S E, 2002).

## 1.3.1 Ill-effects of overuse of the internet.

Users of the Internet often report these difficulties and unfortunate consequences they face due to overuse of the same:

- The individual loses their ability to relax and focus, they have higher difficulty in concentrating and sustaining concentration
- Individuals are often preoccupied with what they need to do next
- Many individuals report that they are getting aware of how exhausting constant access to digital forms of communication can
- Individuals lose focus on their priorities as it hangs over everything and it's always present, there is no way out
- Individuals find it harder to refocus their concentration on real life events and rather are swept up by technology, they find it harder to take their eyes off their screens
- Due to the ever-present nature of technology and digital devices, individuals find it harder to focus and pay close attention to work which in turn acts as a hindrance to function properly.
- Real-life relationships are more challenging to manage and there's a new perception that's growing where everyone seems less
- remarkable and entertaining as a result of technology. As a result of digital technologies, people's expectations for immediate responses have skyrocketed. This is not a good sign.

Emerging adulthood is a crucial stage of life that involves numerous changes in living situations, interpersonal interactions, educational opportunities, and employment. These changes can cause stress and psychological suffering in the individual. The link between stress and psychological distress is well established, but research on stress in emerging adulthood is still yet to be refined. This stage of life is marked by significant change, including the assumption of new social roles, all of which can be stressful. Emerging adulthood is a stage of life where diverse paths can still be taken, little about the future has been determined with certainty, and most people have more freedom to independently explore their options than at any other time in their lives. It can be concluded that the rise in the perception of problematic use is related to the use of online social networks given that the Internet applications most frequently used by university students are e-mail and messaging, participating in social networks, and listening to music. Problematic Internet Usage is linked to a variety of mental health problems in adolescents and young adults, including psychological distress. In a study conducted by Islam, M A Hossin, M Z. (2016) Problematic Internet Usage was linked with Psychological Distress. The mental and stress-related health among emerging adults is a major concern for global public health. It is vital to see the impact of Problematic Internet Usage on one's level of distress.

## 1.4 Psychological Distress

Psychological distress refers to non-specific symptoms of stress, anxiety and depression. When an individual is overwhelmed, they undergo unpleasant feelings or emotions such as fatigue, sadness, anxiety, anger, moodiness, which can hinder one's way of living their daily lives.

The unpleasant sensations or emotions that one experiences when they're feeling stressed or overwhelmed are referred to as psychological distress. These emotions and feelings might interfere with one's regular activities and have an impact on how one interacts with those around them. It is well known that there is a link between psychological distress (such as depression and anxiety symptoms) and attachment security (Imran S, Jackson S, et al, 2022).

Individuals who are transitioning into adulthood must deal with the difficulties of psychological distress. They may experience depression or anxiety if they are unable to resolve the circumstances. A sizable amount of people experience psychological distress, and the prevalence rate is rising. Student psychological distress has long been a problem and continues to be so now all around the

Anxiety and depression are two components or factors of psychological distress. Nervousness, an inability to relax, restlessness, and an inability to remain still are all symptoms of anxiety. Anhedonia, exhaustion, hopelessness, worthlessness, and the perception that everything they do requires a lot of effort are all symptoms of depression (Condinata, et al., 2021). A few indicators of psychological distress could be weariness, sorrow, worry, social anxiety, fear of anger, and moodiness. When the individual is exposed to pressures that they are unable to handle, it results in psychological distress. These stresses may include: traumatizing events, significant life events, regular stressors including problems in relationships, families, and the workplace. Identity development, interpersonal behaviours, and future mental health outcomes and behaviours are all significantly impacted by mental health during the emerging adulthood.

Emerging adulthood is marked by significant changes in social roles as well as high levels of stress, which may have longterm consequences for health (Matud, M. P et al. 2020). Young men and women who are transitioning into adulthood appear to deal with a variety of stressors and high demands related to these changes in relationships, careers, schools, and homes. Psychological distress is influenced by intrapersonal and environmental causes, respectively. Intrapersonal factors affect a person's level of discomfort and consist of personality qualities that are tied to an individual's emotional tendencies. Situational variables are typically impacted by an event or situation that might be harmful to a person's wellbeing, such an event or situation causes distress. Situational factors can further be divided into three parts

- **Physiological:** Distress reaction that people exhibit, which is influenced by several brain regions.
- b. Cognitive: Environmental stressors' psychological and physiological impact can be determined by cognitive factors such as beliefs and individual expectations.
- Social: It is the most likely to cause distress because it includes obstacles in individuals' social relationships such as grief, unemployment, and many others.

In some cases, psychological distress may indicate the beginning of depression, anxiety disorder, schizophrenia, somatization disorder, or a variety of other clinical conditions. It is thought to be what is assessed by many putative self-report measures of depression and anxiety (APA dictionary of psychology). Psychological Distress has its claws in various domains on the individual's life such as well-being, social adjustment, and increased vulnerability to mental health disorders. Being able to successfully combine both family life and work satisfaction are significant sources of well-being (Viertiö, S., et al. 2021). It is discernible that quality of life is also impacted by the same.

## 1.5 Quality of Life

Quality of Life is characterized as an individual's assessment of their position in life in relation to their aspirations, expectations, standards, and concerns in the context of the culture and value systems in which they live (World Health Organisation). It is a subjective assessment of how well one's reality aligns with their aspirations as seen through the prism of their culture and value system (Teoli D & Bhardwaj A. 2022). General health (physical, mental, and spiritual), interpersonal relationships, education level, working conditions, social status, wealth, a sense of security and safety, independence, autonomy in decision-making, social-belonging, and their physical surroundings are all the essential facets of Quality of Life, it is not an exhaustive list.

Three sub-dimensions are used to measure one's overall assessment of their life:

- Eudemonics (a sense of purpose and meaning in one's life),
- Affect (a person's positive and negative feelings or emotional states, often measured with reference to a certain point in time)
- Life Satisfaction (cognitive appreciation).

The primary facets that help indicate an individual's quality of life are one's job and income, education, work-life balance, relationships with peers and loved ones, access to leisure and entertainment. If one feels a dip in their quality of life it is vital for the individual to take stock of how they define a good Quality of Life. It is the first step towards improvement. As discussed earlier, Quality of Life involves a subjective component, it is their perception about their life. Despite individual differences there exists similarities, some universal markers that help in determining various aspects of Quality of Life. Specialists advise getting enough sleep (at least seven hours each night) to enhance life quality and to better manage mood and energy levels. Various studies have indicated that having access to quality healthcare, devoted relationships, fulfilling employment, making time for leisure activities, getting enough sleep, eating well, and being able to engage in enjoyable exercise contribute to a higher quality of life.

Governments may help raise the standard of living in their nations by giving access to affordable and quality healthcare, funding primary and secondary education, affordable housing, family-friendly policies, and implementing laws and regulations that allows workers to earn an adequate living wage. It is significant to differentiate Quality of Life from other ideas that are somewhat similar and could be confused with one another, such as standard of living and health-related quality of life. In contrast to the former, one's financial condition and income largely impact their quality of life. The "engaged theory," divides Quality of Life into four broad domains: economics, culture, politics, and ecology (Teoli D & Bhardwaj A. 2022).

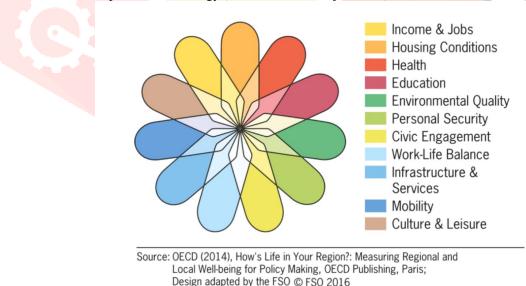


Figure 1.1 Dimensions of quality of life

As seen in figure 1.1, the factors of Quality of Life are interconnected and interdependent on each other. One's level of education may decide their level of income which would lead to better or worse housing conditions. Everyone aspires to a good quality of life but the individual realization varies greatly. The quality of life is also shaped by the structures and opportunities available in one's surroundings. A study done by Carbonell, X., et al. (2018) showed that long lengths of time spent using the internet can negatively impact quality of life.

## 1.5.1 Low Quality of Life among emerging adults due to:

- Emerging adults tend to broaden their range of interests to include things they previously couldn't buy as their financial situation improves. On the other hand, many interests must therefore be given up if their financial situation is unstable because of childcare costs or a lack of professional growth.
- A desire to work in a position that will help one feel more like they have an identity rather than one that makes them feel like a cog in a large machine.
- Due to the differences in their lifestyles, single adults tend to have different interests than married adults of the same age while transitioning from single to married status which leads to shifts in interpersonal relationships. Various relationships are formed due to this.
- Inability to see one's own abilities due to a lack of work experience, recognition at school/work.
- Young adults must reevaluate their previous interests in light of the time, effort, money, and company they require in order to determine whether they still provide the same level of fulfillment or fit into their current life patterns.
- The effect of increased isolation is something that emerging adults feel in their life; which leads to more screen time. The time they spend using digital technology, they feel could well be spent in other more creative and productive ways.

Keeping in mind the above-mentioned adversities that the advent of the internet has brought, psychosocial interventions could be implemented to improve health functioning and well-being among emerging adults.

## 1.6 Psychosocial Intervention

Psychosocial interventions that target behavioural, cognitive, emotional, interpersonal, social and environmental factors through interpersonal or informational activities, can be provided for reducing Problematic Internet Usage. The outcome of the psychosocial intervention include the desired changes in the following three areas:

- a. Symptoms, including physical and mental health symptoms;
- Activities including physical activity, regular daily activities, assigned school and work responsibilities, sustaining peer relationships, family and parenting and communication activities; and
- c. Well-being, including spirituality, life satisfaction, quality of life, and the ability to cope with stress.

Several behavioural and psychological explanations have been proposed to explain Internet addiction (Sharma & Palanichamy, 2018). This research aimed to decrease the ill effects of Problematic Internet Usage among emerging adults (aged 18-25) by providing psychosocial intervention in areas of internet detoxification, CBT, positive psychology, reinforcements and mindfulness-based techniques. The first area being self-regulation, as individuals find it hard to stop using the Internet once they begin to use it.

### 1.6.1 Self-Regulation

The ability to be consistent with one's deepest values and act consistently on one's long-term best interest is defined as Self-Regulation (Stosny, 2011). Emotional self-regulation, on the other hand, entails having some level of control, if not influence, over one's emotions. Self-regulation is the ability to understand and control one's own behaviour as well as one's reactions to one's feelings and the world around them. It implies being able to control one's reactions to strong emotions such as annoyance, excitement, rage, and embarrassment. One of the easiest ways to keep track of oneself with respect to behaviors they want to regulate is to keep a log of it in order to monitor progress, or in worst case scenarios figure out the obstacles of progress. Ironically, with the advent of technology it's made it even more effective with apps specifically created for journaling and to help keep track of one's internet-related behaviors. Some smartphones these days have built-in software to show statistics of phone usage. Findings suggest that therapies aimed at improving adolescents' emotional regulation skills may reduce problematic and even addictive Internet use in adolescents (Yu J J, Kim H, Hay I., 2013). The researcher hypothesizes that self-regulation when paired with systematic desensitization could work in identifying and curbing the urges pertaining to Problematic Internet Usage.

## 1.6.2 Gradual decrease of Internet use through Systematic Desensitization

Systematic desensitization is a behavioural treatment strategy in which the patient does a relaxation exercise before being gradually exposed to anxiety-inducing stimuli. Imbibing this into gradual decrease of Problematic Internet Usage, the individual would have to make a tier list in the form of a triangle where the bottom would be their current number of usage and from the bottom to the top, they would jot down the numbers of hours they want to reduce and the top with be the ultimate goal of theirs. Box breathing and mindful breathing are some of the relaxation techniques that the individuals could easily implement when they're feeling distress from abstaining from using the Internet. Internet detoxification is essentially taking a break from using electronic devices or certain media for a period of time that lasts from a few days to several months. This leads to sharper focus, less stress, better social interactions and more control of one's time. Gradually spending less and less time on the Internet, or ensuring that the time spent on the Internet is productive was the aim.

Productive time spent on the internet is obtained from satisfaction of the users. The individuals would have to see to it that the tier list made by them is enmeshed with SMART goals where the targets they've set are specific, measurable, attainable, relevant, and time-bound. Individuals are bound to falter when trying out new techniques to improve healthy behaviors, a technique that could help them alter their behaviors could be in the form of CBT strategies.

## 1.6.3 Cognitive Behavioral Therapy

Cognitive-behavioral therapy is used for a wide array of mental health and substance use disorders. It integrates behavioural approaches with cognitive psychology, the scientific study of mental processes, such as perception, memory, reasoning, decision making, and problem solving. The "here and now" is the primary emphasis of treatment, which also gives the therapist a directorial or guiding role, provides a structure to the psychotherapy sessions, and reduces symptoms and clients' vulnerabilities. For instance, substitute a pessimistic expectation like "I can't do anything right" with a positive expectation like "I can do this right."

Although there is no evidence supporting a specific treatment modality to treat problematic Internet use, CBT is suggested by Young (2011) as the most efficacious treatment for problematic online behaviors. Cognitive restructuring, behavioural activation, relaxation training, self-monitoring, and relapse prevention are a few of the components of CBT.

#### 1.6.4 Mindfulness

Mindfulness was discovered to be a protective factor that reduced the negative impact of social media exposure on psychological distress (Hong. W et al., 2021). Mindful eating, mindful exercise, mindful savoring, mindful relaxation exercises were all employed to promote relaxation and to keep the individual motivated as they practice positive engagement activities outside the internet. The researcher aimed to make the individuals understand the significance of using the internet at sufficient necessary levels and in a way that contributes to their productivity. Inducing the concept of being mindful about internet usage, and using the internet for productive use, a healthy pattern of internet use is brought to the individuals. While being mindful about spending time on the internet for productive use, the individual is able to recognize the benefit of the same.

## 1.6.5 Reinforcements

By usage of concepts of Operant conditioning and related techniques the individual could develop a healthy pattern of behavior. By associating excessive usage of the Internet to any of the reinforcement or punishment modalities that the individual chose on their own, an attempt was made to reduce excessive internet usage. To put it simply, the individual can have a set of desired rewards on achieving their targets or the individual has to face an unpleasant situation. Reinforcements could be in the form of affirmations from the rest of the group. Young (2011) also suggests maintaining a daily log to keep track of Internet usage time.

## 1.6.6 Positive Psychology

Positive psychology not only reduces the intensity of Internet use, but it also promotes social harmony and individual adaptation as they are prompted to engage in activities outside of using the Internet. The focus of positive psychology is on the good things that happen in life, such as positive experiences, states, and traits. The goal is to make a positive difference in the individual's life. It aids in increasing exposure to joyful feelings; this is done by assisting the individual in recognizing and honing their special talents and strengths. It also focuses on improving people's capacity for setting and achieving goals. Some positive psychology techniques such as journaling, gratitude, affirmations were employed to the individuals to help individuals build and maintain healthy, positive relationships with others, and also encourage them maintain an optimistic outlook.

### 1.7 Need of the study

For a medium that has fundamentally altered how individuals live their lives, the Internet's impact on the individual's psychology has been overlooked. Especially in the context of workable interventions, there's not enough studies that aid in understanding the impact of interventions on reducing Problematic Internet Usage especially in Asian countries. There exists, at least some semblance of a relationship between Problematic Internet Usage, depression and anxiety symptoms (Ko et al. 2019) which was one of the major reasons why dependence on the Internet was considered problematic. In the era of hyper-connectedness individuals find it easy to build stronger relationships, attain more information as it's available in abundance and just a click away. Internet usage, at this point, cannot exist without comorbidity considering the living conditions of emerging adults.

The Internet plays a major role in health and economic outcomes, it is remarkable that a well-established factor such as the Internet is largely neglected, especially with respect to workable interventions in the field of research. There's also a lack of research studies that try to understand the strong prevalence of the Internet despite its numerous negative effects.

The pandemic wasn't the only thing that increased one's reliance on the internet, the convenience it provides acted as a major factor. This convenience was highlighted during the pandemic. It is vital to see if this convenience is adding to adverse effects or is it really helpful. Connectivity between people is a global phenomenon that is becoming more prevalent, and it is crucial to study this intricate social interaction in order to evaluate how technology is affecting people's psychological and social well-being.

In the light of such events, by this study, the researcher aimed to explore the relationship between Problematic internet Usage, Quality of Life and Psychological Distress among emerging adults. By providing psychosocial intervention based on mindfulness, positive psychology, systematic desensitization, goal setting, CBT techniques, the researcher aimed to reduce the effect of Problematic Internet Usage among emerging adults to see its impact on Quality of Life and Psychological Distress.

#### II. REVIEW OF RELATED LITERATURE

## 2.1 Studies on variables, sample and related variables

Mari E, et al, (2023). The majority of research on internet addiction and its related characteristics, such as internet gaming addiction, social media addiction, FOMO, and phubbing, has focused on the general population without taking into account any gender disparities. The current study set out to look into the unique traits of men and women in the potential emergence of pathological behaviours associated with internet addiction. 276 individuals, who ranged in age from 18 to 30 years old, who were enrolled in the study responded to online questionnaires about factors associated with psychological traits and internet addiction. The findings demonstrated that gender has a significant role in elucidating the variety of ways in which people become addicted to the internet. Stepwise linear regression analyses revealed that there were separate factors for each gender but that social media addiction was the main predictor of internet addiction for both genders. Understanding the factors that contribute to the emergence of internet addiction can help with its prevention, treatment, and intervention planning.

Singh S, et al, (2022). It is critical to investigate Problematic Internet Usage predictors in order to comprehend the high-risk psychosocial indicators of problematic internet use, especially in light of the pandemic in India. The current study sought to investigate the role of age, gender, mental health, coping strategies, and lifestyle indicators in the development of Problematic Internet Usage in adolescents, young adults, and middle-aged adults. A sample of 1,027 adolescents between the ages of 13 to 60 years were taken, data was collected using questionnaires including Perceived Stress Scale, Internet Gaming Disorders-9, DSM-5 Self-Rated Level-1, and Brief-COPE scales. Cross-sectional design and regression analysis were carried out. Age, perceived stress, maladaptive coping strategies (substance use, self-blaming, self-distraction, behavioural disengagement), repetitive thoughts and actions were found to be significant independent predictors of Problematic Internet Usage. Furthermore, differences in independent predictors were discovered in different age subgroups. Results indicated that adolescents and youth are more vulnerable to Problematic Internet Usage. Furthermore, maladaptive coping strategies significantly predicted Problematic Internet Usage, indicating that Problematic Internet Usage is not an effective coping strategy but can be understood as maladaptive behaviour involving escapism.

Alrasheed M (2022) The way information is shared through social media shapes people's risk perceptions, which in turn affects their mental health and behaviours. The authors aimed to assess social media's impact on the public's risk perceptions, mental health, and preventive behaviours during the peak of the COVID-19 pandemic. A Web-based survey was developed to assess social media exposure, risk perceptions, mental health, and COVID-19-related preventive behaviours among adults in Saudi Arabia. Among 1,500 participants, 93.2% of them were using social media for pandemic related information. Twitter followed by Snapchat were the most used platforms. Around 44.4% of the participants were constantly exposed to social media. High social media exposure was significantly associated with higher risks of anxiety and depression and higher levels of COVID-19 risk perception. However, social media has no significant impact on the adoption of preventive behaviours.

Atikuzzaman & Akter. S (2022) social media (SM) is a new communication tool that substantially contributes to facilitating online hate speech (OHS). The authors of the study aimed to understand the personal experiences and opinions of Online Hate Speech related to social media among Bangladeshi university students. To them, hate speech wasn't a new term. The most targeted instruments for OHS was, in their opinion, religion, politics and gender. Facebook was one of the most used social network sites to spread hate speech in Bangladesh. The findings showed that 45.6% of the students fell victim to online hate speech, but a majority of the students tended to avoid Online Hate Speech as a coping mechanism. Results also indicated the real-life effects OHS had on students, it resulted in personal and psychological distress.

Augner C, et al. (2022) This study aims to investigate the effectiveness of psychological intervention on Problematic Internet Usage and problematic smartphone use. A systematic review and meta-analysis was conducted through searching experimental and quasi-experimental research papers between 2008 and 2021 in various domains such as PubMed, PsyArticles, PsycInfo, Medline and Google Scholar. 10 studies and 14 effect sizes were chosen for the meta-analyses for Problematic Internet Usage, 3 studies and 4 effect sizes were chosen of problematic smartphone use. The sample size was 1439 with a mean age of 20.34 years. The study shows that psychological interventions can be effective in reducing Problematic Internet Usage and problematic smartphone use, but due to the unavailability of studies in the respective fields results are considered primary, further studies need to be done.

Chen, C. Y., (2022) Due to the pandemic there's been an increase in the negative effects on psychological well-being worldwide including school children. Due to the lockdown policies, avoidance of school and social settings has impacted one's well-being given rise to problematic smartphone use and Problematic Internet Usage. The authors aimed to establish whether the pandemic has impacted school children on the domains of problematic smartphone use (PSU), problematic gaming (PG), and psychological distress. A sample of 575 children from primary schools were taken for the study, a longitudinal study was undertaken across the 3 waves of the pandemic. To examine the relationship between factors, cross-lagged panel models were used. Results indicated the following; higher levels of problematic smartphone use were not related to psychological distress before the pandemic but became significant during the pandemic. Problematic Gaming's association with psychological distress was the vice-versa, the association was non-significant during the pandemic but was significant before the pandemic. The pandemic has changed prospective relationships between problematic smartphone use, problematic gaming with relation to psychological distress. Further studies must be conducted to see if there's a probable positive impact that can be observed if restrictions are implemented and information about the ill-effects are provided to school children.

Andrade A L M, et, al. (2021). The purpose of this study was to assess the prevalence of problem internet use (Problematic Internet Usage) among adolescents (N = 466) and any potential relationships between it and emotional issues and general quality of life. Students from five public schools in a city in the State of Sao Paulo participated in this study and completed four instruments: a sociodemographic questionnaire; the Internet Addiction Test (IAT); the Depression Anxiety Stress Scale (DASS-21); and the Pediatric Quality of Life Inventory. The students' ages were 12.8 years on average and 1.9 years on the standard deviation (PedsQL). In terms of the frequency and severity of symptoms of depression, anxiety, and stress compared to people who did not have Internet use issues,

no significant changes were found. Regarding quality of life, no differences between the groups were seen either. Furthermore, those individuals who thought that their internet use impacted their everyday tasks reported higher average IAT scores and higher levels of stress. These results suggested that the primary variable associated with emotional symptoms was perception of internet use.

Cañas E, Estévez E. (2021). Addiction and/or problematic use of the Internet have increased due to adolescents' frequent usage. The inventive developments of technology may have detrimental impacts on its peoples' physical and mental health, where adolescents are particularly vulnerable. The goal of this study was to analyse the various intervention and preventative programs for this problem in adolescents because it is contributing to a public health issue. The criteria for inclusion were met by a total of 14 programs. The analysis of the programs enables the discovery of efficient intervention strategies for both prevention and treatment of the present issues resulting from adolescent users' use of the Internet and technological devices.

Chen, et al. (2021) During the school suspension caused by the COVID-19 outbreak, this study examined the mediating roles of problematic gaming, problematic social media usage, and problematic smartphone use in the relationships between psychological distress and screen time use among primary school students. A cross-sectional online survey was completed by 2,026 students in Sichuan, China. Problematic gaming, social media use, and smartphone use were evaluated using the Internet Gaming Disorder Scale-Short Form, Bergen Social Media Addiction Scale, and Smartphone Application-Based Addiction Scale. To measure distress, the Depression, Anxiety, Stress Scale-21 was applied. Increasing time spent playing video games, using social media, and using smartphones was linked to problematic social media use and psychological discomfort, but not to fear of contracting COVID-19. Because of the closure of schools during the COVID-19 outbreak, children who experienced psychological distress may have spent more time online on internet-related activities and problematic use of internet-related activities.

Chen I H. et al (2021) In order to examine the impact of school suspensions and online learning among school children, the aims of the present study were to assess changes in the level of engagement in three internet-related activities before and during the COVID-19 outbreak, including prolonged and problematic engagement in these activities; investigate the differences of psychological distress before and after COVID-19 outbreak. Internet-related activities and psychological distress were measured using self-report measures. School children spent significantly more time on the smartphone and social media but not gaming during the school suspension compared to the baseline. Schoolchildren who spent 15 or 30 minutes more per day engaging in internet-related activities displayed higher levels of psychological distress. The relationship between problematic social media use and psychological distress was stronger during school suspension; the more problematic internet-related activities students engaged in, the more psychological distress they experienced.

Fischer-Grote, L., Kothgassner, O.D. and Felnhofer, A. (2021). The authors conducted a systematic review on studies which examined problematic phone usage in children and adolescents, its impact on life satisfaction, well-being and quality of life. Studies were taken from Scopus, Pubmed and Google Scholar. A total of 9 articles were included in which 5 studies examined overall quality of life, 2 assessed life satisfaction and 2 assessed the impact of PSU on well-being. Results indicated that there exists negative associations between the above chosen outcome variables. One study revealed the existence of negative correlation between life satisfaction and PSU, and one study found no significant correlation regarding quality of life. Comparability was difficult to achieve due to the scarcity of studies and the use of different measures. The authors conclude that since there's no consistent and distinct theoretical conceptualization of PSU it is difficult to enhance comparability between studies and to replicate findings. Customized interventions for children and adolescents at risk of PSU must be developed to tackle the rise of negative consequences of PSU.

Hong. W et al., (2021) The study was conducted to understand the role of mindfulness in relation to exposure to social media to COVID-19 information and psychological distress. It also aimed to examine the role of rumination. The results indicated that the presence of rumination mediated the relationship between social media exposure and psychological distress. Also, it was discovered that mindfulness was a protective factor that decreased the negative impact of SME on psychological distress caused by rumination. The findings shed light on how to develop efficient interventions for the pandemic's psychological symptoms' negative effects on college students' mental health.

Lee, Z. H., & Chen, I. H. (2021) The study aimed to examine the association between Problematic Internet Usage [problematic smartphone use (PSU) and problematic social media use (PSMU)], psychological distress, and sleep problems. In both the groups, PSU and PSMU were associated with psychological distress. A total of 11,014 participants were sampled through an online survey; they were divided into two groups according to the severity of their sleep problems. A comparison between Problematic Internet Usage and psychological distress was conducted, results indicated that the high sleep problem group indicated greater psychological distress than the low sleep problem group. PSMU was more harmful to psychological distress in the high sleep problem group, and the effect of PSU on psychological distress was not significantly different between the two groups.

Majareh S A, Moghtader L, Mousavi S M., (2021) Extreme usage of digital tools is an influential factor in academic achievement, the study aims to examine the effectiveness of systematic desensitization and self-regulation on the students' dependence on the Internet. A quasi-experimental design was adopted with a Pretest-posttest design along with a control group. Convenient sampling method was used to select 45 students from Rashit city; they were randomly assigned to a control group and 2 experimental groups. 12 sessions of systematic desensitization and self-regulation interventions were provided and the Internet addiction questionnaire was administered at the end. Univariate analysis of covariance was used to analyse the data. Results indicate that self-regulation training and systematic desensitization was effective in reducing students' dependance on the Internet. Behavioral changes due to systematic desensitization, cognitive changes due to self-regulation reduces internet dependence.

Wang, Q., Mati, K. & Cai, Y. (2021) The study examined the mediating role of Problematic Internet Usage and sleep quality and problematic gaming with psychological distress. A sample of 1040 full-time students from multiple colleges in China were taken for this study. The impact of sleep quality on Problematic Internet Usage and problematic gaming-psychological distress link was analyzed. Sleep quality had more impact on Problematic Internet Usage-psychological distress link than on problematic gaming-psychological distress link. The study concludes that by promoting healthy internet usage, employing strategies that help mitigate the negative effect of internet use on physical and mental health, sleep quality can be improved.

Dahl D & Bergmark K H (2020) Individuals find it difficult to limit their use of the internet to a point where there are negative consequences. To understand the trajectory of the problem, a comprehensive research synthesis was conducted. The research objective was to explore whether there is evidence for the view of problematic internet use as a persistent condition. The study aimed to create a pooled estimate of the persistence of Problematic Internet Usage. A longitudinal panel data design was adopted, follow-up once a year. Studies were taken from Web of Science, ProQuest, and Scopus. 9 studies that fit the criteria were taken, samples were from Asian and Western countries. To estimate the persistence, inverse-variance, random-effect meta-analysis was used. Selection bias was examined as well as the heterogeneity which was assessed in subgroup analysis. In the scales used, three criteria were part of all scales: trouble limiting use, withdrawal, external problems/conflict. Results indicated that in Asian countries, prevalence and persistence were higher. Future research should aim to understand not only personal motivations and psychosocial correlates behind problematic internet use, but also cultural differences that may explain the different outcomes for Western countries and Asia. All of the included research discovered people with ongoing issues, however there is a significant amount of heterogeneity between investigations.

Gao L, Gan Y, Whittal A, Lippke S (2020). It's more crucial than ever to avoid the potential consequences of poor internet use. This study looked into the relationship between problematic internet use and perceived quality of life among college students and highly educated individuals in order to better understand public health and addiction. 446 participants from Germany were assessed through an online cross-sectional survey. To forecast problematic internet use, linear regression analyses were utilized. For the purpose of forecasting perceived quality of life, ordinal regression analyses were used. The findings showed that problematic internet use was strongly correlated with internet use during leisure time but not during work time. Participants in this study who used the internet for work between 5 and 28 hours per week had a greater subjective quality of life than those who used the internet for work less or more. Even after accounting for negative emotions, perceived stress, smoking status, and alcohol use, the results persisted. It is suggested to use the internet moderately rather than excessively because both work and leisure internet use can pose risks to mental health in terms of problematic internet use and perceived quality of life. When addressing the pandemic and its aftermath, this should be kept in mind.

Kalkan, B. & Bhat, C. S. (2020). The authors aimed to study the prevalence and extent of problematic internet use, dysfunctional online behaviors (online gaming and online gambling behavior), its relationship with quality of life and depression. The instruments used in this study include Beck Depression Inventory-II, Quality of Life Scale-BREF, the Internet Addiction Test, Problematic Online Gaming Questionnaire and the Online Gambling Symptom Assessment Scale. One descriptive and two research questions were addressed using a non-experimental study design. According to the studies' findings, dysfunctional online activities were associated with both a lower quality of life (R2 = .20, p .05) and a higher level of depression. The results of this study provide guidance for therapeutic practice and the management of college students' dysfunctional online activities.

Maia B R. (2020) Pattern of internet use, generalized Problematic Internet Usage and its relation to psychological distress was studied, a sample of 503 university students were taken. The authors availed the use of internet use patterns, the Generalized Problematic Internet Use Scale 2, and the Depression, Anxiety and Stress Scales questionnaires. The results showed that the higher the Problematic Internet Usage risk levels among the participants the higher they were at risk for depression, anxiety and stress. It can be concluded that university students are a vulnerable group in terms of Problematic Internet Usage as there's a relation between generalized Problematic Internet Usage and psychological distress.

Parris L et al, (2020) Social media usage is linked to an increase in individual's vulnerability to peer victimization and psychosocial difficulties. When individuals ruminate when they're sad or stressed, it has been linked to elevated distress for individuals undergoing peer aggression. Participants were 169 high school students, largely identifying as Black/African American and females. The results depicted that social media rumination mediated the relationship between perceptions of bullying at school and feelings of distress, but mediation was not supported when examining student perceptions of cyberbullying frequency and youth distress. When individuals who are victims of bullying ruminate, it disrupts their other forms of coping (such as positive cognitive distractions) that would aid in alleviating the symptoms of bullying. Further, social media rumination when experienced by youth has different influences on them. This gives a rise for the need for differentiated intervention and prevention efforts regarding peer aggression.

Eraslan, Levent & Ahmet K, (2019) With the advent of technology, social communication patterns and social relations are shifted to virtual environments which has also transferred many negative elements experienced in social life to the virtual environment. The authors examined the real-life implications of Social Media Aggression on social relationships in the context of various variables. Results indicate that participants demonstrate aggressive tendencies when the interaction heads towards their values. In other notable findings, participants reported that they are aware of their rights 33% against negative SMA, while 67% of participants do not know them.

Machimbarrena J M, et al. (2019). The authors' major goal is to examine problematic internet usage profiles and how they connect to life quality in terms of health (HRQoL). An analytical and cross-sectional study was carried out in a region of northern Spain. The sampling was representative and random. Standard deviation was 1.73 and the average age was 14.69. (11–18 years). Both the Health-Related Quality of Life (KIDSCREEN-27) and the Problematic and Generalized Internet Usage Scale (Problematic Internet Usage 2) Spanish versions were utilized. There were four profiles found (non-problematic use, mood regulator, problematic internet use, and severe problematic use). These final two profiles were more common than average by 18.5% and 4.9%, respectively. Problematic internet use is strongly and negatively linked with HRQoL. All HRQoL parameters showed a significant decline in the severely problematic use profile. A cut-off point for Problematic Internet Usage 2 was extracted through analysis (52 points).

Malinauskas R, Malinauskiene V (2019). Although researchers have previously examined the characteristics of problematic Internet usage and Internet addiction, there is still disagreement in the literature about the efficacy of psychological therapies for Internet addiction used with teenagers. This study used a meta-analysis to look into the outcomes of programs to treat teen Internet and smartphone addiction. The studies found through MEDLINE (PubMed), EbscoHost Academic Search Complete, ProQuest, and PsycARTICLES were evaluated in accordance with the criteria, and six papers published between 2000 and 2019 were chosen for a meta-analysis. Only studies that contained a control or comparison group and pre and post intervention evaluations were included. Included research suggested that intervention may have a positive impact on how severe Internet addictions are. The meta-analysis

concluded that all included randomized controlled trials (RCTs) and related educational initiatives had significant benefits. Psychological therapies may lessen the severity of addiction, however additional RCTs are required to determine the effectiveness of cognitive behavioural therapy. This study serves as a foundation for creating programs that will deal with adolescent addiction issues in the future

Vadher SB, Panchal BN, Vala AU, et al. (2019). The authors aimed to assess the frequency and predictors of Problematic Internet Usage, including Quality of Sleep, Quality of Life and Social Anxiety Disorder (SAD) among school going adolescents. Internet-related demographic information was also collected from them. Data was collected from 1,312 adolescents from grades 10th to 12th in Bhavnagar, India. It was an observational, single-centered, cross-sectional, questionnaire-based study where Internet Addiction Test (IAT), Social Phobia Inventory (SPIN), Pittsburgh Sleep Quality Index (PSQI) and Satisfaction with Life Scale (SWLS) questionnaires were used. Chi-square test, t test and Spearman's correlation along with Multiple linear regression analysis was applied to find the predictors of Problematic Internet Usage. Results indicated that there was positive correlation between severity of Problematic Internet Usage and SAD, Problematic Internet Usage can be predicted by SAD, sleep quality, quality of life was the results of Linear regression analysis. It can be concluded that individuals with Problematic Internet Usage are more susceptible to suffering from SAD, poor sleep quality, and a low quality of life.

Balhara, Y. P. S., et al. (2018) The goals of the study was to conduct reviews on Problematic Internet Usage from Southeast Asian Region, prevalence of Problematic Internet Usage among students and assess the psychosocial impact of Problematic Internet Usage. Out of 549 articles (searched from PubMed and Google Scholar), 295 were eligible for screening and 38 met the inclusion criteria. The results concluded that there was prevalence of severe Problematic Internet Usage and possible Internet addiction from Southeast Asian students. Impairments in the form of insomnia, daytime sleepiness, eye strain were found. The authors concluded that there's a need for further research in these areas to explore the risk factors associated with it and also conduct longitudinal studies to assess the trajectories of the outcome.

Carbonell, X., et al. (2018). The authors investigated the prevalence of internet addiction and its possible addition to the list of mental disorders. The authors employed a questionnaire based on Internet use habits, 2 on negative consequences of internet and smartphone to 729 university students. Over the last decade, perception of problematic smartphone and Internet use has increased, females are more affected than males. Participants in 2017 report more negative effects from using the Internet and mobile phones than participants in 2006, but long-term observations show a decline in problematic use after a sharp increase in 2013. The authors draw the conclusion that societal and cultural changes as well as time have an impact on the diagnosis of technological addictions.

Islam, M A Hossin, M Z. (2016) The study's main objectives were to investigate Problematic Internet Usage's sociodemographic and behavioural correlates of Problematic Internet Usage and its links to psychological distress. An internet addiction test (IAT), 12-item General Health Questionnaire, and a set of sociodemographic and behavioural characteristics were administered to a sample of 573 students from Dhaka University in Bangladesh. According to the findings, the prevalence of Problematic Internet Usage varied according to factors like gender, socioeconomic status, smoking behaviour, and physical activity. In spite of all other explanatory variables, multiple regression analysis demonstrated that Problematic Internet Usage is highly linked with psychological discomfort.

Lam LT, Lam MK. (2016). Clinicians and researchers view heavy Internet usage as a problematic behaviour. Since quite some time, cognitive behaviour therapy (CBT) has been promoted as a therapeutic strategy, and in more recent years, it has been expanded to include family therapy. It is prudent to investigate the present state of the eHealth approach as an intervention option for this problem given that eTherapy (eHealth) has grown to be a significant part of the treatment of many mental health problems. The purpose of this systematic review is to investigate the progress being made in online therapeutic programs for this specific ailment. The search for literature was carried out using a systematic and organized method using the PRISMA standards for systematic reviews and meta-analysis. 3 of the 182 articles that were screened met the criterion for selection. The study used meta-analysis and PRISMA guidelines for systematic reviews. All the studies were pilot studies, information taken from them were analyzed and tabulated systematically. One of the three studies focused on the designing and development of an app to tackle smartphone addiction, the other 2 studies developed intervention programs for internet addiction and gaming addiction. This study concludes by shedding light onto the on-going development of online interventions and approaches that offer a practical and possible solution to tackle this ever-growing issue.

Cheng, C., Sun, P., & Mak, K. K. (2015). The multivariate models that advanced the understanding of the psychological processes underlying Internet addiction and psychosocial maladjustment were systematically tested in this six-month prospective study. Previous theories suggested that avoidant coping and rigid coping were the underlying mechanisms. In both phases of this study, 271 Chinese undergraduates participated. For both the cross-sectional and the prospective data, structural equation modeling was used to find the models that fit the data the best. The cross-sectional model testing found that both avoidant coping and coping flexibility had statistically significant mediating effects. According to the findings of the prospective model testing, avoidant coping mediated the relationship between Internet addiction and Time 2 psychosocial maladjustment as well as the relationship between coping flexibility and Time 2 psychosocial maladjustment. This study established theory-driven models for the first time, revealing an unyielding, avoidant coping style as the psychological mechanism underlying the association between Internet addiction and psychosocial maladjustment.

Ofir T, et al. (2015) This study suggested, with the health belief model as its base, that short by consuming videos that provide information on internet addiction acts as an effective means towards preventing problematic use of the Internet as their perspective shifts. It relies on the viewpoint of the heuristic-systematic model of information processing. 223 participants were exposed to one of two video interventions. With the aid of partial least-square analyses it was found that the videos were efficacious in improving viewers' attitudes towards reducing their Internet use, after accounting for viewers' preexisting attitudes, levels of Internet 'addiction', demographics and social desirability bias, this effect was mobilized simultaneously through the information and surprise induced by the videos.

Wong T Y., Yuen S. L., Li W O. (2015) Over-reliance on the instrument that creates an easily accessible way to meet certain needs may lead to problematic use which can be predicted by psychological distress. The theory of Self-determination states that the individual has the basic need for autonomy, competency, and relatedness which shows the motivation behind Problematic Internet Usage. This study aimed to prove that individuals whose basic needs aren't met are vulnerable to becoming more reliant on the Internet as they derive satisfaction from it. With a sample of 229 Hong Kong University students, Problematic Internet Usage, psychological distress, and basic needs satisfaction were measured. A structural equation modeling was used to test the hypothesized model. Statistical testing indicated a mediation effect for distress between need satisfaction and Problematic Internet Usage. It was concluded that prevention and treatment of Problematic Internet Usage must focus on fulfillment of unmet needs.

Yu J J, Kim H, Hay I., (2013). Problematic Internet use has increased in frequency among young people as Internet use has overall. Minimal research has examined these connections with regard to problematic and addictive Internet use for adolescents, despite the importance of emotion regulation in the development of adolescents' behaviours and the influence of parental relationships on their children's behaviours. Based on a sample of 525 high school students (368 boys; from a predominately middle and lower-middle socioeconomic population in Seoul, Korea, the primary objective of this study was to investigate these connections. According to the findings of structural equation modeling, students' problems regulating their emotions were a mediating factor between their perceptions of their parents' parenting styles and their usage of the Internet. The results support the need for a social/cognitive theoretical framework to conceptualize addiction as well as the idea that many addictive behaviours start during adolescence, suggesting more proactive efforts to curb these early negative behaviours. These findings suggest that therapies aimed at improving adolescents' emotional regulation skills may reduce problematic and even addictive Internet use in adolescents.

## 2.2 Critical analysis of reviews collected

The above studies shed light on how significant the internet has become in our lives; it aids in reducing cost thereby increasing convenience. It satisfies the need for timely information, aids as a major factor in reducing stigma providing a platform for stigmatized and marginalized groups. But like anything else, excessive use of this tool leads to less mobility and more isolation. It takes away the quality of face-to-face time one spends in their interpersonal relationships.

There are studies that have highlighted how problematic internet usage is linked to symptoms of depression, anxiety, psychological distress and more. The intervention studies put forward have mostly been online strategies and other e-health based interventions, there's a lack of in person intervention studies that encompasses techniques from various domains of psychology.

### III. METHOD OF INVESTIGATION

## 3.1 Statement of the Problem

Is there an increase in psychological distress and decrease in quality of life due to problematic internet usage? Can psychosocial intervention improve the quality of life and decrease the psychological distress in emerging adults?

### 3.2 Aim

To explore the relationship among problematic internet usage, psychological distress and quality of life among emerging adults and to assess the effectiveness of psychosocial intervention on problematic internet usage.

## 3.3 Objectives

- To assess the level of problematic internet usage, psychological distress and quality of life in emerging adults.
- To explore the gender differences in problematic internet usage, psychological distress and quality of life in emerging adults.
- To find out the relationship between problematic internet usage and psychological distress and quality of life in emerging
- To analyse the effectiveness of psychosocial intervention on problematic internet usage in emerging adults.

## 3.4 Hypotheses

- H1: There will be a significant positive relationship between problematic internet usage and psychological distress among emerging adults
- H2: There will be significant negative relationship between problematic internet usage and quality of life among emerging adults
- H3: There will be a significant negative relationship between psychological distress and quality of life among emerging adults
- H4: There will be no significant gender difference on problematic internet usage, psychological distress and quality of life among emerging adults.
- H5: There will be a significant difference between pre-test and post-test of the experimental group on problematic internet usage as a result of psychosocial intervention.
- H6: There will be a significant difference between pre-test and post-test of the experimental group on psychological distress as a result of psychosocial intervention.

H7: There will be a significant difference between pre-test and post-test of the experimental group on quality of life as a result of psychosocial intervention.

## 3.5 Research Design

The current study adopted a quasi-experimental research design with pre-post assessment without control group to see the effect of psychosocial intervention on problematic internet usage to decrease psychological distress and increase quality of life.

## 3.6 Sampling Description and Technique

The sample consists of 168 emerging adults (73 males, 87 females, and 8 prefer not to disclose) falling under the age group of 18-25. Referral sampling technique was used for the descriptive study. For the experimental group, convenience sampling was adopted and there existed an inclusion and exclusion criteria. Data was obtained through Google Form surveys. After the screening, Convenience sampling technique was adopted to assign the samples (N=27) in the experimental group for the intervention.

#### Inclusion Criteria:

For the purpose of the psychosocial intervention, there exists an inclusion criterion where each sample must satisfy the following conditions:

- Those who secure higher than the cut off score (22) in problematic internet usage
- Those who secure mild or moderate in psychological distress
- Their ages lie between 18 and 25

### **Exclusion Criteria:**

- Those who don't meet the age criteria i.e., younger than 18, older than 25
- Those who don't have access to the internet and mobile devices
- Non-English speakers
- Those with no formal education

#### 3.7 Variables

The independent variable in this study is the Problematic internet usage among emerging adults. Psychosocial intervention is provided to reduce problematic internet usage behaviours to measure its impact on the quality of life of the individual and level of psychological distress among emerging adults, thus the dependent variables for this study are Quality of life and psychological distress. Problematic Internet Usage is inability to control one's use of the internet which leads to negative consequences in daily life. Psychological Distress is a set of painful mental and physical symptoms that are associated with normal fluctuations of mood in most people. Quality of Life is an individual's view of their life position with respect to their culture and value systems in which they live and in relation to their goals, expectations and standards.

## 3.8 Operational Definitions

Emerging Adults: For the purpose of this study, individuals aged between 18 to 25 are considered as emerging adults. This is the age of exploring one's identity, the age of instability of relationships and/or career, the age of endless possibilities and selfexploration.

Problematic Internet Usage: PIU has been defined as a lack of the strength to limit Internet use despite severe negative outcomes in daily life. When an individual cannot control their urge and increasing tension to access the Internet, which finally causes feelings of pain or dismay and negative life consequences, (Shapira et al 2000).

Psychological Distress: Psychological distress refers to non-specific symptoms of stress, anxiety and depression. High levels of psychological distress are indicative of impaired mental health and may reflect common mental disorders, like depressive and anxiety disorders.

Quality of Life: An individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. Quality of life is a broad multidimensional concept that usually includes subjective evaluations of both positive and negative aspects of life.

## 3.9 Tools

## 3.9.1 Problematic Internet Usage Questionnaire

The Problematic Internet Use Questionnaire (Problematic Internet UsageQ) was first created by Demetrovics, Z., Szeredi, B., & Rózsa, S. It was first published in 2006 and its psychometric properties were checked in a study by Kelly & Gruber (2010). The Problematic Internet UsageQ comprises three factors (i.e., Obsession, Neglect, Control disorder) with three items per each factor.

The nine-item scale is designed to assess addictive behaviour, which includes excessive or poorly controlled preoccupations, urges, or behaviours related to computer use and internet access that cause impairment or distress.

- Obsession: It relates to mental withdrawal symptoms caused by the lack of Internet use.
- Neglect: It relates to the neglect of everyday activities and essential needs.
- Control disorder: It contains items relating to difficulties in controlling Internet use.

The questionnaire follows a five-point Likert scale ranging from Never to Always. The scores for each subscale is calculated by summarizing the items belonging to the specific subscale. The cut-off to determine whether the individual falls under problematic internet usage for the 9-item scale is set as 22. The internal consistency of the different forms of the Problematic Internet UsageQ has been high in all validating studies, with Cronbach's alphas ranging between 0.77 and 0.91. Test-retest reliability coefficient was found to be 0.81 and split half reliability coefficient was found to be 0.83. Validity was found to be satisfactory with regards to depression (rs ranged from 0.20 to 0.43) time spent online per day (r = 0.47), and anxiety (r = 0.73) (Laconi, S et al., 2019).

## 3.9.2 Kessler Psychological Distress Scale (K10)

The Kessler Psychological Distress Scale (K10) is a tool for assessing psychological distress. The Psychological Distress Scale consists of ten questions about emotional states, each with a five-point response scale. The measure can be used as a quick screening tool to determine levels of distress. Each item is scored from one to five, from "none of the time." to "all of the time".

The scores of the ten items are then added up, yielding a minimum of 10 and a maximum of 50. Low scores indicate low psychological distress, while high scores indicate high psychological distress. A set of cut off scores was established by the 2001 Victorian Population Health Survey which can be used as a basis for screening for psychological distress. The interpretation is as follows:

- 10 19 Likely to be well
- 20 24 Likely to have a mild disorder
- 25 29 Likely to have a moderate disorder
- 30 50 Likely to have a severe disorder

The tool has good construct validity and reliability where the value of 0.84 in Cronbach's alpha and in omega a total of 0.88

## 3.9.3 Quality of Life Scale

The Quality of Life Scale was constructed by B L Dubey, Padma Dwivedi and S K Verma in 2009. It is a 20 item 5-point Likert scale tool ranging from strongly agree to strongly disagree. The scale is a valid instrument for measuring quality of life across patient groups and cultures, and it differs conceptually from one's health status or other causal indicators of quality of life.

There are positive and negative items where positive items are scored as follows: Strongly Agree: 5, Agree: 4, Undecided: 3, Disagree: 2, and Strongly Disagree: 1. Negative items (items 2 and 5) are scored in the vice-versa way.

The range of possible scores lies between 20 and 100 where higher scores indicate better quality of life. The scale was standardi<mark>zed by means</mark> of satisfying both the reliability and validity. The reliability of the scale was found to be 0.72. The validity of the scales was established using face validity.

## 3.10 Statistical techniques

Pearson correlation was used to analyse the relationship between problematic internet usage and quality of life, and to analyse the relationship between problematic internet usage and psychological distress. The t test statistical analysis was used to determine the gender differences in Problematic internet usage, psychological distress and quality of life. The paired sample t-test was used to assess the difference between pre-test and post-test of the experimental group with respect to all the three above-mentioned variables.

#### 3.11 Data Collection Process

The sample consisted of emerging adults between the ages of 18 and 25. Prior consent from the sample was obtained through an online consent form. After that, the participants were provided with the Problematic Internet Usage Psychological Distress and Quality of Life along with Demographic details such as their name/initial, gender, age, family's annual income, current education level, hobbies and extracurricular activities. Data for descriptive analysis was collected through online survey with the use of Google Forms through a referral sampling method. Data for the intervention study was collected by approaching a university for conducting the study. Before the data was collected from the participants clear and precise instructions were provided. It included the significance of confidentiality, procedures and instructions for each of the assessments. Any doubts and clarifications that the participants had were encouraged to be clarified right that moment. The data collection proceeded in three phases, first was the collection of the pre-test data, second was the psychological intervention, the last being the collection of post-test data.

The first phase was conducted on 31st of January, data was collected from 40 participants after getting their consent. Among the 40 participants, 35 had scored high in problematic internet usage. Among the 35, 30 participants volunteered for the intervention. Later on, 3 participants dropped out. Phase 2 was conducted from 3rd of February to 15th of February, where psychological intervention was administered. After the intervention, phase 3 was administered, post-test data was collected after a week, this phase being the final stage of data collection.

## 3.12 Intervention Plan

Table 3.1 Intervention Plan and Outcomes

S No	Topic	Outcome				
1	Introduction & Apps	Building rapport, setting up apps for monitoring internet use, significance of confidentiality				
2	Paper Boats	Goal setting in accordance to one's capability				
3	Tier List and Psycho- education	Goal setting for progressive, decrease of internet use. Identifying obstacles, pitfalls anticipated struggles as well as support, possible positive engagement activities				
4	Internet-less world	To draw attention to the ill effects of internet				
5	Reward 86,400	Time management and mindfulness				
6	Mindfulness	Significance of mindful eating, exercise, emotions				
7	Positive Psychology Techniques	Increase practice of gratitude Journaling and exchanging positive strokes to build intrapersonal and interpersonal relationships.				
8	Affirmations	To keep a positive mindset within the group, to encourage the same outside the group.				
9	Sufficient, Necessary, Contributory	To ensure and keep track of internet use so that it's contributing to productivity (self and work)				
10	Cognitive Behavior Therapy	Theoretical understanding of ABC Model, cognitive restructuring and relaxation exercises. Application of the same to identify Stressors and tackle negative thoughts				
11	Finding Support	Reinforcements, making new tier lists connect all the previous concepts to come up with a working plan				
12	Debrief	Psychoeducation of the concepts and the relevance of each topic for research				
IV. RESULTS AND DISCUSSION 4.1 Results		13CR				

## IV. RESULTS AND DISCUSSION

## 4.1 Results

## 4.1.1 Demographic

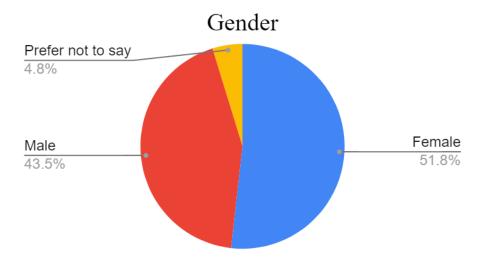


Figure 4.1 Represents the gender distribution of the sample

The above figures represent the demographic details of the population of the study. The study was conducted on a total of 168 participants of whom 43.5% of the sample was male and 51.8% were females and 4.8% of the participants preferred not to disclose their gender.

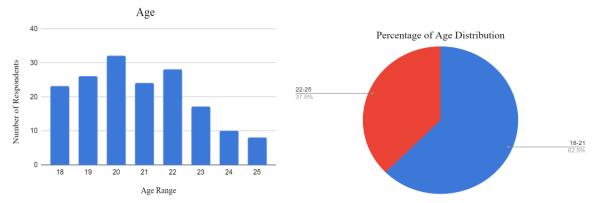


Figure 4.2 Represents the age distribution. Figure 4.3 Represents the age groups.

Figure 4.2 and 4.3 shows the number of participants in each age category and the age range of the participants. Around 62.5% of the population (N=168) come under the age range of 18-21 years of age and the rest of the population, 37.5% come under the age range of 22-25 years.

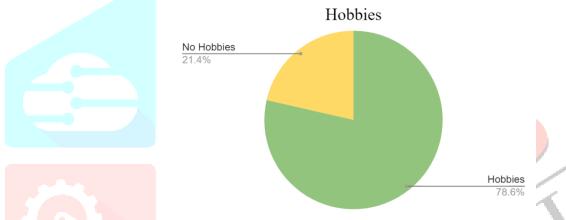


Figure 4.4 Represents participant's response regarding hobbies

Among the population it is evident from the above figure 4.4 that more than half the participants engage in at least one or more hobbies, around 78.6% of the individuals. Whereas around 21.4% of the participants have no hobbies they engage in.

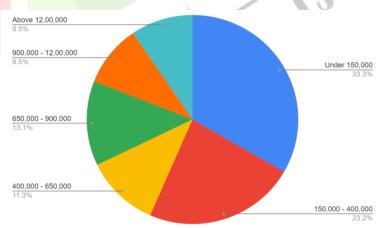


Figure 4.5 Represents the participant's annual income level

As displayed in figure 4.5, around 33.3% of the participant's annual income falls under 150,000. 23.2% of the participant's annual income falls in the range of 150,000-400,000. In the annual income ranges of 400,000-650,000 and 650,000-900,000 11.3% and 13.1% of the participants come under the ranges respectively. In annual income ranges 900,00-1200,000 and above 1200,000 9.5% of the participants fall under these ranges each.

### 4.1.2 Correlation

Table 4.1 Relationship between Problematic Internet Usage, Psychological Distress and Quality of Life among emerging adults

	PIU	PD	QOL	
PIU PD QOL	1.000 .397** .086 <sup>NS</sup>	1.000	.086 <sup>NS</sup> .407**	

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

The above table 4.1 shows the correlation between all the three variables, between Problematic Internet Usage, Psychological Distress and Quality of Life. From the table, it is inferred that Problematic Internet Usage and Psychological Distress are significantly positively correlated, with an increase or decrease of Problematic Internet Usage, Psychological Distress also increases or decreases respectively. The findings of this study reveal a significant positive relationship between Problematic Internet Usage and Psychological Distress among emerging adults, r(166) = .397, p<0.001. And thus, the hypothesis 1 "There will be a significant positive relationship between problematic internet usage and psychological distress among emerging adults" is accepted.

From the above table 4.1, it is inferred that Problematic Internet Usage and Quality of Life are not significantly correlated, there is no statistical significance proving that they're correlated, r(166) = .086, p = 0.265. And thus, the hypothesis 2 "There will be a significant negative relationship betwe<mark>en proble</mark>matic internet usage and quality of life among emerging adults" will not be accepted.

From the above table, it is inferred that Quality of Life and Psychological Distress are significantly negatively correlated, with an increase or decrease of Quality of Life, Psychological Distress also decreases or increases respectively. The findings of this study reveal a significant negative relationship between Quality of Life and Psychological Distress among emerging adults, r(166) = 0.407, p<0.001. And thus, the hypothesis 3 "There will be a significant negative relationship between psychological distress and quality of life among emerging adults" is accepted.

#### 4.1.3 Gender Difference

Table 4.2 Mean, Std. Deviation and Independent Sample Test for Male and Female Participants

Gender	N Mean	Std. Deviation	t	Sig (2 tailed)
PIU	Male	73 26.55	5.708	
				.343 .732 <sup>NS</sup>
	Female 87	26.23 5.955		
PD	Male	73 26.14	7.607	
				1.150 .252 <sup>NS</sup>
	Female 87	<b>2</b> 7.57 8.093		
QOL	Male	73 68.21	12.500	
•				$1.024$ $.308^{NS}$
	Female 87	<b>6</b> 6.14 12.91	0	1.02

Note: PIU: Problematic Internet Usage; PD: Psychological Distress; QOL: Quality of Life

An independent sample t-test was performed to compare gender differences with respect to Problematic Internet Usage, Psychological Distress and Quality of Life among emerging adults. With respect to Problematic Internet Usage, there was not a significant difference in males (M = 26.55, SD = 7.708) and females (M = 26.23, SD = 5.955); t(160) = .343, p = 0.732. With respect to Psychological Distress, there was not a significant difference in males (M = 26.14, SD = 7.607) and females (M = 27.57, SD = 1.007) 8.093); t(160) = 1.150, p = 0.252. With respect to Quality of Life, there was not a significant difference in males (M = 68.21, SD = 12.5) and females (M = 66.14, SD = 12.91); t(160) = 1.024, p = 0.308.

Hence it can be concluded that there is no gender difference upon the individual's Quality of Life, Psychological Distress and Problematic Internet Usage. Thus, the hypothesis 4 "There will be no significant gender difference on problematic internet usage, psychological distress and quality of life among emerging adults." is accepted.

NS Not significantly correlated

NS Not Significant

### **4.1.4** Effectiveness of Intervention

Table 4.3 Paired Samples t Test for Pre and Post Intervention Groups for Problematic Internet Usage, Psychological Distress and Quality of Life

		Mean	N	Std. Deviation	n t	Sig (2 ta	iled)
Pair 1	PIU Pre 27.20	27	4.598			4.618	<.001
	PIU Post23.42	27	5.507				
Pair 2	PD Pre	26.33	27	7.898		.871	.392 <sup>NS</sup>
	PD Post 25.37	27	7.986				
Pair 3	QOL Pre	66.67	27	9.996		4.542	<.001
	QOL Post	73.96	27	12.037		1.5 12	

Note: PIU: Problematic Internet Usage; PD: Psychological Distress; QOL: Quality of Life

A paired sample t-test was performed to compare the effect of psychosocial intervention on Problematic Internet Usage between pre-test and post-test intervention groups. With respect to Problematic Internet Usage, there was a significant difference in the pre-test group (M = 27.70, SD = 4.59) and post-test group (M = 23.41, SD = 5.51); t(27) = 4.618, p<0.001.

With respect to Psychological Distress, there was no significant difference in the pre-test group (M = 26.33, SD = 7.898) and post-test group (M = 25.37, SD = 7.986); t(27) = .871, p = 0.392.

With respect to Quality of Life, there was a significant difference in the pre-test group (M = 66.67, SD = 9.996) and post-test group (M = 73.96, SD = 12.037); t(27) = 4.542, p<0.001.

From the above statistics, it can be inferred that the intervention has had a significant impact on Problematic Internet Usage and Quality of Life where there is a significant decrease in levels of Problematic Internet Usage and thereby an increase in the individual's Quality of Life. Thus, the hypothesis 5 "There will be a significant difference between pre-test and post-test of the experimental group on problematic internet usage as a result of psychosocial intervention." and the hypothesis 7 "There will be a significant difference between pre-test and post-test of the experimental group on quality of life as a result of psychosocial intervention." are accepted.

Meanwhile the hypothesis 6 "There will be a significant difference between pre-test and post-test of the experimental group on psychological distress as a result of psychosocial intervention." is not accepted.

#### 4.2 Discussion

The advent of the Internet and new technological innovations has transformed and revolutionized interpersonal interactions, removing the temporal and spatial constraints of the "real world". The ability to reach many people with a single posting, store large amounts of information easily, update information quickly, give personalized feedback, and utilize broadband and video transmission capabilities are all the reasons why individuals use the Internet. Studies have specifically praised the Internet's capacity to reach the greatest number of people for the least amount of money. The need for timely information and guidance further increases one's dependence on the internet. But one must also be concerned about the high numbers of people who use this form of communication in their daily lives, particularly adolescents, given the negative and even addictive effects that have been linked to these devices.

In order to raise awareness of the harmful effects of using the Internet and new technologies and to encourage healthy lifestyle behaviours, it is crucial to implement interventions aimed at preventing and treating this problem. It's fair to predict that problematic internet use can be developed by a decrease in everyday activities. Lack of active localized peer social networks, which is more crucial for youth involvement, can lead to an increase in screen time and the displacement of other regular activities for young adults during the pandemic. The pandemic wasn't the only thing that increased one's reliance on the internet, the convenience it provides acted as a major factor. This convenience was highlighted during the pandemic.

Problematic Internet Usage is intertwined with the youth's perceived environment and social environment because it helps them deal with their initial identity problems by providing anonymity and identity fluidity, and it also gives them a sense of control online, which helps them cope with their lack of control over real-life situations.

In order to assess how technology is affecting people's psychological and social well-being, it is essential to study this complex social interaction because it helps understand the larger aspects involved that are mentioned above. The purpose of this study was to gain a better understanding of the impact of psychosocial intervention based on the principles of internet detoxification, CBT, positive psychology, reinforcements and mindfulness-based techniques for reducing Problematic Internet Usage thereby increasing one's Quality of Life and decreasing Psychological Distress.

There are a number key findings of the present study. First, there is no influence of gender with respect to the impact of the adverse effects of Problematic Internet Usage. This shows that irrespective of what an individual identifies themselves as, they face the issues that come with excessive internet usage. There were no gender differences found with respect to Psychological Distress as well as Quality of Life as well.

NS Not Significant

Second, Quality of Life did not significantly correlate with Problematic Internet Usage, but there exists a significant difference between pre and post tests of Quality of Life and Problematic Internet Usage. One interpretation of this finding could be that even if the number of hours on the internet hasn't reduced, the internet is being used productively, their perception has shifted. It has also been highlighted that the sole consideration of time spent online is questionable in determining problematic internet use (Billieux, J., et al. 2019). As the intervention also aimed at promoting positive engagement activities while using the internet as well as outside of it, this could've influenced one's well-being promoting their quality of life. According to Gao, L., et al. (2020), problematic internet use was more positively correlated with internet use during leisure time than with internet use during working hours.

Third, it is interesting to note that the intervention has helped reduce the individual's psychological distress levels to an extent. One of the major complaints that emerging adults face is that they spend too much time on gadgets. Mindlessly scrolling and feeling like they haven't done anything productive contributes to distress. Moreover, Viertio, S. (2021) stated that being able to successfully combine work/academic and family life are important sources of psychological well-being which helps reduce distress. The participants of the intervention group were undergoing a stressful time related to project submissions, exams and other academic work which could be one of the reasons why the intervention could not produce significant changes in the levels of psychological distress.

Fourth, the intervention aimed to reduce the number of hours spent on the internet, the participants weren't able to reduce it beyond a couple of hours as the participants were dependent on the internet for their school work as well as maintaining their meaningful social relationships. It wasn't problematic internet use anymore; it was productive internet use. It won't be ideal to focus on reducing their internet time, rather one could focus on making it as productive as possible. Internet use must be done at sufficient and necessary levels and ensure that it contributes to one's level of productivity.

These findings highlight the shift in paradigm of thought. Instead of feeling that they need to reduce their internet hours, one might feel good about spending productive hours on the device. This thought will automatically reduce the mild distress one might face if they cannot use the Internet for as long as they want to. Through the intervention, where the focus was shifted from using the Internet as a distraction tool to making productive use of the internet, a positive change was seen. Considering the developments in society it is about time, the world, as a collective look at the new dynamic shifts as something positive rather than condemning usage of the Internet as a whole.

In the view of the researcher, one shouldn't alter the current world functions to fit into an old mold, but rather modify the mold to accommodate the changes. The results of this present study add to this view point where we cannot function without the Internet in this day and age, this is the aftermath of excessive internet usage. Rather than taking this fact in its negative connotations, it makes more sense to shift the perception of what determines one's quality of life and what constitutes problematic usage of the internet. Since the world right now is a time in age where one's regular work, including both entertainment and academics heavily depends on browsing the Internet, it is hard for individuals to completely ostracize themselves from Internet-related activities. Definitions are made up, as the world shifts it's only fair that the arbitrary limits set by the society are expanded, obviously keeping in mind the negative consequences of doing so.

## V. SUMMARY AND CONCLUSION

### 5.1 Summary

The objective of the study was to examine the impact of psychosocial intervention on problematic internet usage among emerging adults which will thereby impact their psychological distress and quality of life. Further the relationship between Problematic Internet Usage, Psychological Distress and Quality of Life was examined as well as exploring the gender differences in Problematic Internet Usage, Psychological Distress and Quality of Life was undertaken. A quasi-experimental design was adopted for this study, with pre-post assessment without control group to see the effect of psychosocial intervention.

The sample consisted of 168 emerging adults (73 males, 87 females, and 8 prefer not to disclose) falling under the age group of 18-25. Referral sampling technique was used for the descriptive study, data was obtained through Google Form surveys. For the experimental group, convenience sampling was adopted.

The psychosocial intervention included components from mindfulness, positive psychology, systematic desensitization, goal setting, CBT techniques were employed to reduce the increased level of Problematic Internet Usage of the participants. The intervention was spread across 6 days, from 31st January 2023 to 13th of February, post-test data was collected a week after that on 20th February 2023.

The data was analyzed using Statistical Packages for Social Sciences (SPSS), the following statistical analyses were used to compute and analyse the obtained data: graphs, independent sample t test, paired sample t test, Pearson correlation. The results indicate that there were no gender differences with respect to problematic internet usage, psychological distress and quality of life among this population. While problematic internet usage and psychological distress were significantly correlated, problematic internet usage and quality of life wasn't. Checking the effectiveness of the intervention, there was a significant increase in the participant's quality of life and a significant decrease in problematic internet usage among the participants.

## 5.2 Conclusion

The results of this study conclude that there were no gender differences with respect to Problematic Internet Usage, Psychological Distress and Quality of Life. There exists a significant relationship between Problematic Internet Usage and Psychological Distress as well as Psychological Distress and Quality of Life. No significant relationship was found between Problematic Internet Usage and Quality of Life. There was a significant decrease in Problematic Internet Usage and a significant increase in Quality of Life among the participants due to the impact of psychosocial intervention.

### **5.3 Limitations**

Several limitations should be kept in mind when interpreting the study's findings. First off, the majority of the data were gathered in India, which restricts how broadly the results can be applied. Self-report measures were used in this study as well as a convenience sampling method was used for the intervention group. Furthermore, due to sampling procedures, the sample of respondents was a small percentage of the accessible population, limiting the generalizability of findings.

It might be beneficial to further investigate social purposes of internet use in order to thoroughly explore the facets of leisure internet use. It is also necessary to look into ways to stop problematic internet use and its ensuing effects on quality of life. Further, other than Quality of Life and Psychological Distress factors such as psychological well-being, subjective happiness, stress and quality of social interactions in real life may also impact the results.

Taking these limitations into account, the study still contributes to the understanding of how digitization has impacted one's life and one's mental health and offers suggestions on how to take a different perspective on problematic internet use in the future.

The researcher hopes that the current research will stimulate further investigation of this important area. Future researchers could perhaps think about carrying out an investigation similar to this one with college students in other parts of India.

## 5.4 Implications and Suggestions for Future Research

This study has helped lay down a base for how the Internet, if used productively could lead to having a better Quality of Life, rather than focusing on decreasing Problematic Internet Usage one should shift their focus on spending productive hours on the Internet. More research on the significance of intervention programs could contribute to increased awareness about the positive effects of the same

Future research should consider developing an updated assessment tool to better evaluate Internet use in order to facilitate research redefining what constitutes problematic Internet use and quality of life. The intervention could be carried out on broader age groups and more diverse cultures to capture the developmental and cultural aspects.

Further research can and should build on acquiring a strong knowledge base to build an understanding of how internet use can be applied for its benefits, rather than its drawbacks. Growth can only be fostered when there are dynamic shifts in perceptions. Current ways of working shouldn't be altered to fit an old mold that is no longer providing the effectiveness it once did. It is time that what constitutes as Problematic Internet Usage and Quality of Life are redefined.

### VI. ACKNOWLEDGEMENT

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#### Appendix

#### **Survey**

Informed Consent

Hey friends! Hope you and your loved ones are doing well!

I'm Raga Varsshini M S currently pursuing my master's in Counselling Psychology at Madras School of Social Work. I'm conducting a research study as a part of my curriculum. This survey hopes to understand more about your mental health. If you fall between the ages of 18-25, I hope you'll be willing to participate in this study. It'll be of great help to me. I appreciate your time and efforts!

- The responses will not be used for anything other than for research purposes
- Ensure to be in a distraction-free environment when you answer the questions
- Be as honest as possible while answering the questions, your responses are valuable to me and the study
- Your responses will be kept confidential and won't be used anywhere
- Do not spend too much time thinking about the questions, answer what comes to you first

If you've read the above information and if you're willing to participate please put a tick mark against the "I agree" option below to proceed.

below to proceed.	
<ul> <li>I agree</li> </ul>	
<ul> <li>I disagree</li> </ul>	
Name:	(Names are collected only to avoid repetition of initials, your names will not be used anywhere
in the final research.)	
Age (In number):	
Gender	
<ul> <li>Prefer not to say</li> </ul>	
o Male	
<ul> <li>Female</li> </ul>	
Current Education	
<ul> <li>High-school</li> </ul>	
<ul> <li>Undergraduate</li> </ul>	
<ul> <li>Post Graduation</li> </ul>	
<ul> <li>Professional</li> </ul>	
Family's Annual Income	
<ul> <li>Under 150,000</li> </ul>	
o 150,000 - 400,000	
o 400,000 - 650,000	
o 650,000 - 900,000	
0 900,000 - 12,00,000	

Above 12,00,000
 Parent's/Guardian's education level and occupation (any one):

Your extracurriculars (if any): \_\_\_

Your hobbies (if any):

#### Survev 1

Given below are some statements regarding your attitudes and behaviors, there are 9 statements and each of them has 5 options underneath ranging from Never to Always/ Almost Always. Read the questions carefully and pick one of the options given below that you think suits best for you, there are no right or wrong answers and your responses will be kept confidential.

1. How often do you neglect household chores to spend more time online?

Never Rarely Sometimes Often Always/ Almost always

2. How often do you feel that you should decrease the amount of time spent online?

Never Rarely Sometimes Often Always/ Almost always

3. How often do you spend time online when you'd rather sleep?

Never Rarely Sometimes Often Always/ Almost always

4. How often does it happen to you that you wish to decrease the amount of time spent online but you do not succeed?

Never Rarely Sometimes Often Always/ Almost always

5. How often do you feel tense, irritated, or stressed if you cannot use the Internet for as long as you want to?

Never Rarely Sometimes Often Always/ Almost always

6. How often do you try to conceal the amount of time spent online?

Never Rarely Sometimes Often Always/ Almost always

7. How often do you feel tense, irritated, or stressed if you cannot use the Internet for several days?

Never Rarely Sometimes Often Always/ Almost always

8. How often does it happen to you that you feel depressed, moody, or nervous when you are not on the Internet and these feelings stop once you are back online?

Rarely Sometimes Often Always/ Almost always Never

9. How often do people in your life complain about spending too much time online?

Never Rarely Sometimes Often Always/ Almost always

#### Survey 2

Given below are some statements regarding your attitudes and behaviours, there are 10 statements and each of them has 5 options underneath ranging from All of the time to None of the time. Read the questions carefully and pick one of the options given below that you think suits best for you, there are no right or wrong answers and your responses will be kept confidential.

In the past 4 weeks, how often did you feel tired out for no good reason?

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel nervous? 2.

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel so nervous that nothing could calm you down?

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel hopeless?

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel restless or fidgety?

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel so restless you could not sit still?

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel depressed? 7.

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel that everything was an effort?

All of the time Most of the time Some of the time A little of the time None of the time

In the past 4 weeks, how often did you feel so sad that nothing could cheer you up?

All of the time Most of the time Some of the time A little of the time None of the time

10. In the past 4 weeks, how often did you feel worthless?

All of the time Most of the time Some of the time A little of the time None of the time

#### Survey 3

Given below are some statements regarding your attitudes and behaviors, there are 20 statements and each of them has 5 options underneath ranging from Strongly agree to Strongly disagree where, 1: Strongly Agree; 2: Agree; 3: Undecided; 4: Disagree; 5: Strongly Disagree

Read the questions carefully and pick one of the options given below that you think suits best for you, there are no right or wrong answers and your responses will be kept confidential.

		1					
1.	I am happy with my present a	ssignment	1	2	3	4	5
2.	My needs are satisfied		1	2	3	4	5
3.	My social interactions are go	od	1	2	3	4	5
4.	I have great interest in life		1	2	3	4	5
5.	I am financially independent		1	2	3	4	5
6.	I am happy in my life		1	2	3	4	5
7.	I feel my existence is meanin	gf <mark>ul</mark>	1	2	3	4	5
8.	What I have is enough for me		1	2	3	4	5
9.	I have good relations with oth	ners	1	2	3	4	5
10.	My level of aspiration is high		1	2	3	4	5
11.	My social prestige is high		1	2	3	4	5
12.	As a whole my achievement is	in life is high	1	2	3	4	5
13.	I have peace of mind		1	2	3	4	5
14.	I have time for my hobbies		1	2	3	4	5
15.	I feel secure in life		1	2	3	4	5
16.	I have time to know new thin	gs	1	2	3	4	5
17.	I have been lucky in my life		1	2	3	4	5
18.	As a whole, I keep good heal	th	1	2	3	4	5
19.	I feel calm and relaxed		1	2	3	4	5
20.	As a whole I feel happy		1	2	3	4	5

Your response means a great deal to me!