4.1 INTRODUCTION

Behavioural addiction is a new emerging concept. Newly emerging knowledge about the human brain suggests that the reward system operates not only in response to chemical stimulation, but also to the experiential behaviour. Thus the human beings are also liable to develop addiction to certain behaviours as well as daily activities. Such behaviours may include shopping, exercise, sex, gambling, internet and many more.

The World Health Organization discourages the use of term addiction and has substituted it with dependence. Dependence refers to repeated use of a psychoactive substance or substances, to the extent that the user (referred to as an addict) is periodically or chronically intoxicated, shows a compulsion to take the preferred substance (or substances), has great difficulty in voluntarily ceasing or modifying substance use, and exhibits determination to obtain psychoactive substances by almost any means. Typically, tolerance is prominent and a withdrawal syndrome frequently occurs when substance use is interrupted. The life of the addict may be dominated by substance use to the virtual exclusion of all other activities and responsibilities. A person may develop dependence to a wide variety of psychoactive substances like alcohol, barbiturates, opioids, cannabis, benzodiazepines, stimulants, and so on. The topic has been discussed in Unit 2 in detail. In line with drug dependence, behavioural addiction, also called process addiction or “non-substance-related addiction” may be defined as a repeated tendency by an individual to engage in some specific activity, despite harmful consequences, as deemed by the user himself to his individual health, mental state, or social life. It includes usages of internet, mobile, social networking sites, pornography, gambling etc. The rationale for the existence of this category is that compulsive behaviours
follow the same clinical pattern, and may even derive from the same neural network as compulsive substance use.

In this Unit, you will learn about the behavioural addictions such as gambling, internet etc.

4.2 OBJECTIVES

After studying this Unit, you will be able to:

- describe the characteristic features of behavioural addiction;
- describe types of behavioural addictions;
- know the important characteristics of gambling and internet addictions;
- know the prevalence of various behavioural addictions;
- discuss the factors causing behavioural addictions; and
- know the intervention strategies for dealing with behaviour addictions.

4.3 CHARACTERISTIC FEATURES OF BEHAVIOURAL ADDICTION

Essential feature of behavioural addiction is the failure to resist an impulse, drive, or temptation to perform an act that is harmful to the person or to others. Characteristic features of the behavioural addictions are described as below:

- **Salience** – Salience occurs when a particular activity becomes the most important activity in a person’s life and dominates thinking (preoccupations), feelings (cravings), and behaviour (deterioration of socialized behaviour).
- **Mood modification** – Behaviour modifies the mood and provides pleasure, comfort and may be relaxing.
- **Tolerance** – Increasing the use or engagement in a particular activity is required to achieve the same effect.
- **Withdrawal symptoms** – Experiencing unpleasant feeling states and/or physical symptoms subsequent to discontinuation.
- **Conflict** – Behaviour may lead to conflicts between the users and those around them (interpersonal conflict), conflicts with other activities (job, social life, hobbies and interests) or within the individual themselves (intrapsychic conflict).
- **Relapse** – There is a tendency for repeated reversion to earlier patterns of the particular activity after a period of abstinence.

Salient features of the behavioural addictions may be described by 4 Cs as follows:

**Craving**: User often thinks about the particular activity (e.g., internet), while s/he is engaged in other activities.

**Control**: Addicted users feel difficulty in controlling/ stopping the use/ engagement in the particular activity.

**Compulsion**: Person keeps himself/ herself engaged in the particular activity though there are other things to do.
**Consequences:** Person experiences problems in academic, interpersonal, and occupational area, and suffers psychological distress due to excessive engagement in the particular activity.

Behavioural addiction has certain similarities to substance addiction, as depicted in Table 1.

**Table 1. Similarities between Substance Dependence and Behavioural Addiction**

<table>
<thead>
<tr>
<th>Category</th>
<th>Substance Dependence</th>
<th>Behavioural addiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craving</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Tolerance/loss of control</td>
<td>Yes, increased amount to achieve the same effects</td>
<td>Yes, loss of control</td>
</tr>
<tr>
<td>Withdrawals</td>
<td>Physical and psychological</td>
<td>Psychological: restlessness/irritability on discontinuation or on being asked to stop</td>
</tr>
<tr>
<td>Consequences</td>
<td>Dysfunctions in physical and psychosocial areas</td>
<td>Dysfunction in psychosocial areas</td>
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</table>

Thus symptoms common to behaviour addictions includes mood swings, gaining feeling of euphoria from the activity, compulsive need to act out the behaviour, obsessive thinking about and planning the behaviour and allowing the behaviour to take precedence over work, health, and family.

**Self Assessment Questions 1**

1. What is behavioural addiction?

2. What are the 4 C’s of behavioural addiction?

**4.4 TYPES OF BEHAVIOURAL ADDICTION**

Different types of behavioural addictions include gambling, internet addiction, cellphone addiction, eating addiction, shopping addiction, exercise addiction, sex addiction, work addiction, etc. Out of these, only gambling disorder finds a place in DSM-5 and ICD 10. DSM-5 has included internet gaming disorder as a condition needing further study. Important characteristics of these behavioural addictions are briefly discussed as below.

**Gambling disorder or problem gambling**

Problem gambling refers to an urge to gamble despite harmful negative consequences or a desire to stop. It can be defined as placing something of value at risk with the belief of gaining something.
It can occur on different levels and goes through different phases. Level of gambling are: Level 0 person who did not gamble; Level 1 refers to social or recreational gambling and does not leads to any significant problem; Level 2 referred as at-risk gambling or problem gambling; Level 3 associated with significant psychosocial dysfunctions. It meets the DSMIV-TR criteria of pathological gambling (Hollander 2008).

The different phases of gambling are as follow:

Winning Phase: The individual uses gambling as a way to get excitement or to manage the stressor. The person wins lots of game during this phase or makes money by winning.

Losing Phase: The person remains preoccupied with gambling or to bet more to reduce the loss.

Desperation phase: The person start experiencing health and relationship problems as well as hopelessness & desperation due to gambling. H/she keeps fantasizing about the winning and indulges in crimes to support the gambling.

Hopeless phase: The person starts entertaining the depressive ideas about future, his or her abilities to overcome the current problems and leads to psychological problems.

Thus pathological gambling is characterized by persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress. The person has a pathological need to gamble with increasing amounts of money in order to achieve the desired excitement. Gambling disorder has been included in DSM-5 under non substance related disorders.

Attempts to reduce or stop gambling lead to irritability or restlessness. The person might have made multiple unsuccessful attempts to control, cut back or stop the behaviour. There is a preoccupation with gambling, persistent thoughts of reliving past gambling experiences, planning the next venture, and thinking of ways to get money with which to gamble. The person often gambles, whenever distressed. After losing money in gambling, the person returns another day to chase one’s losses. Lying to conceal the extent of involvement in gambling is common. The behaviour may affect adversely different aspects of life like education, employment or relationships. The person often relies on others to provide money to relieve desperate financial situation caused by gambling.

**Internet Addiction or Internet Gaming Disorder**

In the last two decades, internet has rapidly become a way of life. One of its effects has been excessive use of internet to the extent of neglect of all other interests and responsibilities. One may become addicted to internet. Though internet addiction is not recognized as a formal psychiatric disorder, recently, the American Psychiatric Association has included internet gaming disorder as condition needing further study in the 5th edition of its Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5), before it is recognized as a disorder. It is important to mention here that internet gaming has gradually become a booming market.

DSM-5 has defined internet gaming disorder as persistent and recurrent use of internet to engage in games, often with other players, leading to clinically significant impairment or distress. Important characteristic of the disorder include preoccupation with internet games with previous gaming activity or anticipating playing the next game. This is distinct from internet gambling which comes under gambling disorder. The person gets withdrawal symptoms in form of anxiety, irritability or sadness, when internet gaming is not available. Tolerance is often present with a need to spend increasing amounts of time in internet
gaming. Unsuccessful attempts at controlling the activity may be present. The person loses interests in the hobbies and entertainment activities enjoyed earlier. Use of internet continues despite knowledge of associated psychosocial problems. The person may deceive his/her family members, therapists and others regarding the amount of internet gaming. The activity is indulged in to escape or relieve a negative mood. The behaviour has often resulted in relationship problems and affected education or career adversely. DSM-5 does not include use of internet activities in business or profession, recreation or sexual internet sites as indicative of internet gaming disorder.

Thus internet addiction can be described as a maladaptive pattern of internet use, characterised by psychological dependence, withdrawal symptoms when off-line for prolonged periods, loss of control, compulsive behaviour, and clinically significant impairment of normal social interactions or distress.

The criterion proposed for internet addiction disorder are as follows (Young 1999):

1) **Preoccupation**: a strong desire for the internet

2) **Withdrawal**: discontinuation leads to dysphoric mood, anxiety, irritability

3) **Tolerance**: marked increase in usages to achieve satisfaction

4) **Difficult to control**: persistent desire and/or unsuccessful attempts to control

5) **Disregard of harmful consequences**: continued excessive use despite harmful consequences

6) **Social communications and interests are lost**: loss of interests and previous hobbies

7) **Alleviation of negative emotions**: uses as a way of coping

8) **Hiding from friends and relatives**: deception of actual costs/time to maintain habit

**Cell Phone addiction**

Mobile or cell phone addiction has also attracted the attention of behaviour scientists, though it is not recognized as a formal disorder. Excessive use is likely to be associated with a loss of sense of time or a neglect of basic drives. A person apparently addicted to cell phone use may report feelings of anger, tension and/or depression on not being able to use it, especially when the phone or network is inaccessible. Tolerance to the use may be seen including the need for new and better cell instrument, more software or more hours of use. Other negative repercussions include lying, arguments, poor achievement, social isolation and fatigue.

Important characteristics of cellphone addiction include excessive use, manifested in both high economic cost and in numerous calls and messages; problems, especially with parents, associated with excessive use of mobile phones; interference with other school or personal activities; a gradual increase in use to obtain the same level of satisfaction as well as the need to replace functioning devices with new models; and emotional alterations when the use of the phone is impeded.

**Shopping Addiction/ Compulsive Buying**

Shopping addiction is characterised by excessive spending behaviour which is poorly controlled, markedly distressful, time-consuming, and results in familial, social, vocational, and/or financial difficulties.
Compulsive buying was included as an impulse control disorder in DSM-III-R, but was excluded from DSM-IV and DSM-5. The behaviour is characterized by maladaptive buying or shopping impulses or behaviour, as indicated by frequent preoccupation with buying or impulses to buy that is experienced as irresistible, intrusive, and/or senseless and frequent buying of more than can be afforded. The buying preoccupations, impulses, or behaviours cause marked distress. The behaviour does not occur exclusively during periods of hypomania or mania.

**Eating Addiction**

Eating disorders and eating pathology are characterized by maladaptive attitudes, behaviours, and intrapsychic experiences around eating, weight, and body image that cause significant distress or impairment. According to DSM-IV TR, eating disorders fall into three primary categories - anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified.

**Exercising or Obligatory Exercise or Anorexia Athletica**

It refers to a compulsion for exercise, with guilt and anxiety if the person doesn’t work out. Hausenblas and Downs (2000 a) identify exercise addiction based on the following criteria that are modifications of the DSM-IV TR criteria for substance dependence:

- **Tolerance**: increasing the amount of exercise in order to feel the desired effect, be it “a buzz” or sense of accomplishment;
- **Withdrawal**: in the absence of exercise the person experiences negative effects such as anxiety, irritability, restlessness, and sleep problems;
- **Lack of control**: unsuccessful attempts to reduce exercise level or cease exercising for a certain period of time;
- **Intention effects**: unable to stick to one’s intended routine as evidenced by exceeding the amount of time devoted to exercise or consistently going beyond the intended amount;
- **Time**: a great deal of time is spent preparing for, engaging in, and recovering from exercise;
- **Reduction in other activities**: as a direct result of exercise, social, occupational, and/or recreational activities occur less often or are stopped;
- **Continuance**: continuing to exercise despite knowing that this activity is creating or exacerbating physical, psychological, and/or interpersonal problems.

**Work Addiction**

It refers to working excessively hard and the existence of a strong, irresistible inner drive (McMillan, O’Driscoll, & Burke, 2003). The most widely empirically studied approach to workaholism assumes three underlying dimensions; the so-called workaholic triad consisting of work involvement (work involvement is a generalized attitude of psychological environment with work, i.e., being highly committed to work and devoting a good deal of time to it); drive (drive is the inner pressure to work which is maintained by internal fulfillment rather than external pressure, i.e., feeling compelled to work because of inner pressures); and work enjoyment (work enjoyment is the level of pleasure derived from work, i.e., experiencing work to be pleasant and fulfilling).

**Diagnosis:**

According to Porter (1996), like alcoholism, workaholism is an addiction which is characterised by
1) Excess work behaviour implying the neglect of family, personal relationships and other responsibilities;
2) Distorted self-concept (that is, striving through work for better feelings of self);
3) Rigidity in thinking (that is, perfectionist about work details, non-delegation of tasks);
4) Physical withdrawal into work and anxiety if away from work;
5) Progressive nature (that is, needs increasingly to work more to boost self-esteem and block other feelings)
6) Denial (that is, uses workplace affirmations to offset objections from others).

Sex Addiction

Sexual addictions include **arousal addictions** that stimulate and thrill; **satiation addictions** that ease tension and discomfort; and **fantasy addictions** that escape mundane reality.

Sexual addicts progress through a four-step addiction cycle, which intensifies each time it is repeated.

**Preoccupation stage:** In stage one, the preoccupation stage; the sexual addict’s mind is completely consumed with thoughts about sex. An obsessive search for sexual stimulation is created by this mental state that the addict is in.

**Ritualization stage:** The second stage, ritualization, is the sex addict’s routine or routines that lead up to the sexual behaviour. The preoccupation of the addict is intensified during this stage, which adds arousal and excitement.

**Compulsive sexual behaviour:** During the third stage, compulsive sexual behaviour, the addict participates in the actual sexual behaviour, which he or she is unable to control or stop. Compulsive sexual behaviour is the end goal of preoccupation and ritualization.

**Despair:** In the final stage, despair, the addict experiences a feeling of utter hopelessness because of his or her behaviour and the powerlessness that he or she has over this behaviour. In order to numb the pain that the addict feels after going through this cycle, the addict begins to engage in the preoccupation stage again, which starts the addiction cycle over again (Carnes, 2001).

**Case Vignette:** A 17 year old boy has excessive use of mobile, internet and laptop for three and a half years. Initially the family was not much concerned about it and thought it as a part of growing up. The boy was watching YouTube for hours, seeing gadgets, new launches about computer hardwares, FaceBook and playing internet games. He started spending 8-10 hours on device (control). He would finish his work to save time for the above activities (craving). At one time he developed dry eyes because excessive watching of YouTube on his small mobile phone screen. Because of his habit of excessive internet use he started doing badly in studies. He became very irritable and started losing his appetite. Teachers started complaining about his lack of interest in class. His friends also complained about his lack of energy (consequences). He started using it even if he is in company of relatives, friend or while watching TV (compulsion).
4.5 EPIDEMIOLOGY

Symptoms of internet gaming disorder and internet addiction can be observed with similar frequency in both men and women (Akman & Mishra, 2010). Male youth are over represented in a lot of behavioural addictions, particularly problem gambling (Vitaro et al, 2001). Gambling is more common in older females (McCormack et al., 2003) or those who have disabilities, or too much idle time (McNeilly & Burke, 2000; Southwell et al., 2008). However, they are less likely to encounter practical difficulties as a result of their gambling such as arrests, indebtedness, family problems etc. (Petry, 2002). It is hard to establish the extent of sex addiction although estimates range from 3-6% of the population (Carnes, 1999).

Prevalence of internet gaming disorder is unclear because of varying criteria used by different investigators. Higher rates have been reported from Asian countries and in male adolescents 12-20 years of age. There are a large number of reports from Asian countries, especially China and South Korea, but fewer from Europe and North America. Point prevalence in adolescents has been reported up to 8.4% in males and 4.5% in females.

Lifetime prevalence of gambling has been reported to be 0.4-1.0% rates are 0.6% in males and 0.25 in females. Lifetime prevalence in African-Americans is reported to be higher than the White population in USA.

Indian scenario: In India, other than lottery, legal gambling is limited to betting on horse racing. Even though the exact statistics are not known, there is potential for newer behavioural addiction. As of 2010, there were 52 million active users of internet: the usage has gone up from 9.3hrs/week to 15.7hrs/week and around 4% browse through mobiles (Sinha, 2010). Five percent of the youth in the age group 18-25 years have addictive use of social networking sites and 24% have problematic usage of internet (Menon & Sharma, 2013; Barathkar & Sharma, 2011).

A study by the Indian Council of Medical Research (Sharma, Benegal, Rao & Thennarasu, 2013) on 2755 subjects in age group of 18 to 65 years from low to higher socioeconomic status (interviewed using door to door survey methodology) from an urban locality in Bangalore revealed that addictive use was present in 1.3% (2% males & 0.6% females) for internet; 4.1% (5% males & 3.1% females) for mobile phones; 3.5% for social networking sites; 4% (male-3.2% & female-4.8%) for shopping; 0.2% for sex/online pornography, and 1.2% (offline & online) had gambling addiction. Statistically significant differences were observed in relation to family status for internet and Facebook addictions. It was more among singles, unmarried and lesser in joint families. The number of years of marriage had a negative correlation with shopping, sex, mobile, internet and Facebook addiction. Physical (eye strain)/Psychological distress (decrease sleep, irritability and restlessness) were present in 6.8% subjects with mobile phone users, in 4.2% with internet use and in 3% of those with social networking sites.

Addictive use of video game/Facebook is reported in 7% of the subjects in age group of 13-17. It was also associated with psychological distress as well as unawareness to handle the online sexual content. This leads to dysfunctions in area of academic, social life and losing out recreational activities. Parent shown lack of awareness about teenagers online behaviours (Sharma & Shyam, 2014).
Self Assessment Questions 2

1) What is pathological gambling?

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2) Describe briefly important features of internet gaming disorder?

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4.6 FACTORS CAUSING BEHAVIOURAL ADDICTIONS

Let us now see the various factors responsible for causing behavioural addictions.

- **Substance dependence:** One of the strongest correlates of problem gambling, and of other process addictions like sex addiction, is substance abuse (Bourget et al., 2003). People who abuse substances (especially those who use heroin, methadone or cocaine) are 4 to 10 times more likely than the general population to have a gambling problem (Ledgerwood & Downey, 2002). Most commonly the substance abuse predates the process addiction, but sometimes the process addiction begins first, or both concerns arise simultaneously (Kausch, 2003).

- **Other behavioural addictions:** Some theorists believe that tolerance for one kind of behavioural addiction breeds increased tolerance for other kinds, i.e., cross-tolerance (Carnes et al., 2005). Problem gambling, for example, frequently occurs along with other process addictions, particularly an involvement with risky sexual practices. Process addictions go together, substitute for one another and reinforce one another (Vitaro et al., 2001).

- **Poor impulse control ("impulsivity" or "impulsiveness") and risk-taking:** Poor impulse control has been linked to abuse of most substances as well as most of the process addictions. By giving comparatively free rein to their urges, people who are impulsive may expose themselves to multiple risks, including substance abuse, unsafe sexual practices and problem gambling. The particular risky behaviours can become so interchangeable that some theorists prefer to think in terms of a "problem behaviour syndrome" rather than focusing on a particular behaviour in isolation (Barnes et al., 2005). Such a concept seems especially apt with regard to youth.

- **Childhood neglect, trauma, physical or sexual abuse:** Grossly pathological incidents or ongoing conditions in childhood are linked to commensurately negative outcomes later in life, including problem gambling (Moore & Jadlos, 2002).

- **Psychiatric issues:** Process addictions such as problem gambling tend to coexist
with other psychiatric disorders like depression, personality disorders and substance use disorders (Petry, 2005).

- **Social deprivation (poverty, marginalization):** Social and economic marginalization may increase the risk of behavioural addictions.

- **Age and gender:** Males are overrepresented in a number of problem behaviours, particularly problem gambling and substance abuse. Youth who experience problem gambling typically begin gambling quite early in life (Pagani et al., 2009). The older adults who experience problem gambling are more likely to be females who lack a life partner, have too much idle time, and have disabilities (McNeilly & Burke, 2000). However, they are less likely to encounter practical difficulties as a result of their gambling (arrests, indebtedness, family problems, etc.).

**Case vignette**

*A 16 year old boy who dropped out of school sought treatment for irritability, anger outbreaks and sleep disturbance. On case evaluation, it was found that the boy was involved in excessive use of internet/YouTube and gaming for the last three years. However, irritability, anger outbreak and sleep disturbance preceded the excessive use of internet/YouTube and gaming. He had also initiated the use of alcohol and cigarette in company of friends. This would increase, whenever he was restrained or advised not to use internet/YouTube and gaming. His personality was characterized by low frustration tolerance and oppositional behaviour. Significant family disturbance was present secondary to his excessive use of internet/YouTube and gaming.*

**4.7 ASSESSMENT OF BEHAVIOURAL ADDICTION**

Assessment includes three important steps:

1) Take a detailed history

2) Assess for associated psychiatric illnesses, substance use and risk factors

3) Assess motivation for treatment

One should look specifically into the following issues (Littman-Sharp, 2004):

- Precipitating factors
- Current level of functioning
- Relationships and work situation
- Legal situation, especially if there is history of gambling
- Physical and mental health, both history and current problems
- Past treatment
- Crisis issues (particularly potential for harm to self or others)
- Motivation level and treatment goals

One can inquire along the following lines.

- On what days do you typically get connected to the internet? What time of the day do you usually sign in to the internet?
● How long do you usually stay connected in a typical login?
● Where do you usually use the computer?
● What functions of the internet/social networking sites are you using?
● How many hours on average do you allocate for each function in a week?
● Can you list the functions you use from the most important one to the least important one?
● What aspects of each function do you like the most?
● What do you think your problem exactly is, how do you interpret it?
● What are the effects of social networking sites on your living environments?
● What made you decide to take treatment now? (at his/her own will, directed by his/her relatives, changed social roles, coincidence)
● How long can you keep away from getting connected to the social networking sites when you feel the desire/urge to get connected to it?
● How long you can tolerate boredom?
● How did your social networking sites start and continue? (may have started after a loss).
● What are the factors affecting the continuity of your usage of social networking sites? (alcohol, substance use, presence of others).

One needs to find out whether the users are dependent on a specific function of the internet, because constant and frequent use of a particular function may trigger internet addiction. This also helps in planning suitable interventions (is it a specific internet addiction or a general one?).

The following case vignette describes the details one needs to elicit while assessing a client with internet addiction.

**Case Vignette**

A 19 year old male, educated up to 12th standard, presented with complaints of increased use of social networking sites for the last four years. Further history revealed normal developmental milestones, average academic record and absence of high risk behaviours. There was an increasing use of video games for the last four years. He was spending 6-7 hours per day on video games and neglecting his academics. Initially, he would use internet at home on mobile phone or computer and later in the internet cafes, when his parents starting objecting. He also started stealing and lying to support his habit. The enjoyment rewards earned on winning a game, using free time and fighting boredom were the maintaining factors for the behaviour.

There are various questionnaires and scales that can be used to assess the behavioural addictions. These are,

**Readiness to change Questionnaire** (Rollinck 1992).

**Internet addiction test**: It is a 20 /7item questionnaire based on 5-point Likert scale to assess addiction to internet (Young, 1995; Widyanto, McMurran, 2004).

**The Lie-Bet Tool**: It is two items questions tool, used to rule pathological gambling behaviours (Johnson et al 1988).
Sex addiction screening test: It is designed to indicate the presence of sex addiction (Carnes, 1992).

Eating Addiction test: The EAT-26 can be used in a non-clinical as well as a clinical setting not specifically focused on eating disorders (Garner et al 1982).

Work Addiction Test: It is a 25 items self report questionnaire based on work habit description which measures five functional indicators of work addiction: compulsive tendencies, control, impaired communication, inability to delegate and self worth. It is rated on 4 point Likert scale (Robinson, 1999).

Facebook Intensity Questionnaire: It measures Facebook usage beyond simple measures of frequency and duration, incorporating emotional connectedness to the site and its integration into individuals’ daily activities (Ellison 2007).

<table>
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<th>Self Assessment Questions 3</th>
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<tbody>
<tr>
<td>1. What are common psychiatric comorbidities with behavioural addiction?</td>
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<td>2. Write the important steps in the assessment of behavioural addiction.</td>
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4.8 INTERVENTIONS FOR BEHAVIOUR ADDICTIONS

Interventions include psychoeducation, psychotherapeutic interventions and motivation enhancement, cognitive therapy, behaviour therapy and family oriented therapy.

Psychoeducation

The person needs to be educated about the nature of problem, giving information about maintaining factors and negative consequences resulting from it. Self-help material in form of pamphlets can also be given.

Psychotherapeutic intervention

Psychotherapeutic intervention includes two approaches: total abstinence or controlled use. Given the internet’s numerous advantages and positive uses in day-to-day life, it is impractical to try the total abstinence model (as in treatment of substance use disorders), even in those who are addicted to the internet. The guiding principle should primarily be ‘moderate and controlled use’. In the abstinence model, the individual abstains from a particular internet application (e.g. using chat rooms or playing games) and uses other applications in moderation. This model of abstinence is recommended for those who have tried and failed to limit their use of a particular application. The intervention starts with collecting information about the initiating factor as well as the maintaining factors.
Motivational enhancement therapy

The subjects are often not much motivated for treatment and motivation needs to be enhanced. Motivational enhancement therapy (MET) is a systematic intervention approach for evoking change in internet addicts. It is based on principles of motivational psychology and is designed to produce rapid, internally motivated change. This treatment strategy does not attempt to guide and train the client, step by step, through recovery, but instead employs motivational strategies to mobilize the client’s own change resources.

Motivational interviewing is assisted by motivational balance exercise. To help a person make the decision of change it would be a useful exercise to encourage him/her to consider the advantages and disadvantages of changing and continuing use of internet. This will help him/her understand the need for change after weighing the costs and benefits. To facilitate change from using to not using the internet, one has to tip the balance so that the positives of quitting outweigh the negatives of continuing internet use. This could, in turn, enhance the person’s commitment to change.

Healthy use does not happen in one step – people progress through five stages on the way to successful change:

- Pre contemplation: Not thinking about healthy use in the foreseeable future
- Contemplation: Thinking about changing but not ready to change
- Preparation: Committed to and getting ready to change
- Action: healthy use of technology
- Maintenance: maintaining healthy use

Movement through the stages occurs as people utilize distinct (virtually universal) processes of change. Progress through the early stages is dependent on particular shifts in the person’s decisional balance, i.e., how they see the pros and cons of quitting. Initiating and maintaining healthy use requires a sufficient sense of confidence – self-efficacy – in one’s ability to actually carry out the actions required to change. People change as they progress through five stages. Helping people change their addictive behaviour involves changing their excessive use of internet/other behavioural addiction as well as enhancing their motivation to maintain them.

Patients unwilling to make a quit attempt during a visit may lack information about the harmful effects of information technology/behavioural addiction. They may have fears or concerns about control use. Such patients may respond to a motivational intervention that provides the clinician an opportunity to educate, reassure, and motivate such as the motivational intervention built around “5 R’s”: relevance, risks, rewards, roadblocks, and repetition.

Relevance: Encourage the patient to indicate why quitting is personally relevant. One should be as specific as possible. Motivational information has the greatest impact if it is relevant to a patient’s disease status or risk, family or social situation (e.g., decrease communication), health concerns, age, gender, and other important patient characteristics (e.g., personal barriers to develop control use).

Risks: Ask the patient to identify potential negative consequences of excessive use of information technology addiction/indulgence in other behaviours (gambling, shopping, etc.).

Rewards: The clinician should ask the patient to identify potential benefits of controlled use of information technology/ change in engagement of other behaviours (gambling,
sex, shopping etc). The clinician may suggest and highlight the benefits that seem most relevant to the patient.

**Roadblocks**: The clinician should ask the patient to identify barriers or impediments to control use and note elements of treatment (problem solving, pharmacotherapy) that could address barriers.

**Repetition**: The motivational intervention should be repeated every time an unmotivated users visits the clinic setting.

**Brief Intervention**

Brief intervention essentially can be used with many types of behaviour problems. It takes only 5-15 minutes. Steps of brief intervention can be described as 5 A’s:

- **Ask** – about information technology use/other addictions and their pattern
- **Advice** – Advise to quit. Give a clear, strong, and personalized message
- **Assess** – Assess for commitment and barriers to change
- **Assist** – the client committed to change. Reinforce commitment to change. Help make a plan and develop strategies to manage triggers. Foresee possible weaknesses in plan and guide for developing and refining plans.

**Cognitive behaviour Therapy**

Cognitive behaviour therapy works on the principle that the addiction is formed once a person feels that he/she does not have any social and family support, thereby developing the so-called maladaptive cognitions and behaviours (which are the mental evaluations or screeners of interpretation) about themselves and the world.

It includes two components: functional analysis and skill training. **Functional analysis** includes triggers/reason for use (e.g. boredom) that lead to a subject’s maladaptive behaviours and the immediate beneficial consequences (e.g., feeling good) that maintained the maladaptive behaviours as well as the structured assessment on internet addiction test. **Skills training** include development of coping style and dealing with various triggers.

The internet user generally believes that the virtual world treats them (i.e., get more pleasure) well in comparison to real world. It manifests in form of all-or-nothing maladaptive cognitions such as “I am respected more in the virtual world”, “I always have to restrain myself or obey my parents/brother in the real world whereas in virtual world I can do anything”. These types of beliefs can be challenged in a therapeutic settings by dysfunctional method of fulfilling the unfulfilled need using virtual field as well as by imparting the skill training to develop alternative pleasurable activities in the real world. It can be done by helping the client to shift from the virtual world to reality. By understanding one’s virtual social link/world and the needs it fulfilled, it can provide insights and facilitate the process of enriching the real lives and reduce their indulgence in the virtual world.

Excessive internet users use avoidant coping/less problem solving styles. Clients can be helped to develop coping strategy based on their strengths and resources, which will help them to expand their offline activities. The clients should be counseled to work on developing alternative pleasurable activities or redevelop their old hobbies.

**Family Oriented therapies**

Family based interventions have also been found useful (Doug 2012). Family members
like parents or the spouse can be included in treatment. Objective is to enhance the understanding of negative consequences of excessive internet use/engagement in other behaviours, strengthen the coping skills and increase prosocial peer behaviours and enhancing parenting practices.

Individual sessions with adolescent focus on facilitating the engaging in treatment and enhancing motivation for alternative behaviours in coping with high risk situations. Individual sessions with parents focus on enhancing the healthy use of internet, increasing the parenting practices, observing the child internet use and other behaviours, explaining the rationale for developing healthy use of technology and setting rule in relation to internet use.

The joint session can focus on parental commitment to the adolescent as well as developing a positive parent-child relationship. It is an essential prerequisite for effective parental monitoring of child internet use.

**Implications**

Bearing in mind the comorbidity of the disorder with other psychiatric illnesses especially depression, anxiety disorders and sometimes even severe mental illnesses, a detailed psychiatric evaluation is necessary. Specific therapy for the behavioural addictions should only be started subsequently. Parents need to be watchful of their wards, since onset is often during adolescence. There is a need to understand the prevalence/pattern/longitudinal work to address the development of these addiction in Indian context & related burden associated with it. It will also help to use standardized tool to assess these addictions and help in developing the specific intervention modules.

**Self Assessment Questions 4**

1) What is psychoeducation?

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2) What is motivational enhancement therapy?

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3) Write the two components included in cognitive behaviour therapy?

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Gambling, Internet and other Addictions
4.9 LET US SUM UP

With the newer advances in the field of technology, the young generation becomes hooked onto the internet and cell phone, and develops addiction to these. In response to this recent developments include opening of internet deaddiction centres/ clinics in major cities such as in Bangalore and Delhi for dealing with this new generation disorder. In this Unit, you learned about various types of behavioural addictions, their assessment and intervention strategies. One’s own personality and motivational factors and one’s environmental factors play a crucial role in the causation and consequently, in the intervention of the behavioural addictions.

4.10 UNIT END QUESTIONS

1) What are different types of behavioural addictions?
2) How do we assess a person with internet gaming disorder?
3) What are the psychological causes of behavioural addiction?
4) What are risk factors for behavioural addictions?
5) Discuss the brief intervention method for gambling disorder.
6) Discuss principles of management of behavioural addictions.
7) How would you conduct motivation enhancement in a person with behavioural addiction?

4.11 ANSWERS TO SELF ASSESSMENT QUESTIONS

Self Assessment Questions 1

1) Behavioural addiction, also called process addiction or “non-substance-related addiction” refers to repeated tendency by an individual to engage in some specific activity, despite harmful consequences, as deemed by the user himself to his individual health, mental state, or social life.
2) The 4 C’s of behavioural addiction are Craving, Control, Compulsion and Consequences.

Self Assessment Questions 2

1) Pathological gambling is characterized by persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress. The person has a pathological need to gamble with increasing amounts of money in order to achieve the desired excitement.
2) Internet gaming disorder refers to persistent and recurrent use of internet to engage in games, often with other players, leading to clinically significant impairment or distress. Important characteristic of the disorder include preoccupation with internet games with previous gaming activity or anticipating playing the next game.

Self Assessment Questions 3

1) Psychiatric comorbidities with behavioural addiction are depression, personality disorders and substance use disorders.
2) The important steps in the assessment of behavioural addiction include:
   - Take a detailed history
   - Assess for associated psychiatric illnesses, substance use and risk factors
   - Assess motivation for treatment

Self Assessment Questions 4

1) Psychoeducation refers to providing information to the client about the nature of problem, giving information about maintaining factors and negative consequences resulting from it.

2) Motivational enhancement therapy (MET) is a systematic intervention approach based on principles of motivational psychology and is designed to produce rapid, internally motivated change. This treatment strategy does not attempt to guide and train the client, step by step, through recovery, but instead employs motivational strategies to mobilize the client’s own change resources.

3) The two components included in cognitive behaviour therapy are: functional analysis and skill training.

4.12 REFERENCES


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### 4.13 SUGGESTED READINGS


