# Psycho-social Interventions in Behavioral Addiction

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# Treatment approaches

- Treatment can vary between
  - an “abstinence-based” model

    (Carnes, 2010; Carnes, Carnes & Bailey, 2011)
  - vs. harm reduction (Marlatt, 1998; Tatarsky, 2002).

- Defining abstinence is more complicated in behavioral addictions than in chemical addictions
- Each recovering patient may have own set of behaviors to be avoided

# Core activities Integral to Addiction Treatment

## Core Elements

- Intake processing and/or assessment
- Treatment plan
- Pharmacotherapy
- Behavioral therapy and counseling
- Substance use monitoring
- Self-help and peer support groups
- Clinical and case management
- Continuing care

## Associated Services

- Mental health services
- Medical services
- Educational services
- Acquired Immunodeficiency Syndrome (AIDS)
- & human immunodeficiency virus (HIV) services
- Legal services
- Financial services
- Housing and/or transportation services
- Family services
- Child care services
- Vocational services

# Guidelines to treatment in Behavioral Addiction

- Based on research on gambling Rx efficacy, effectiveness, efficiency & impact
- Evidence based practices in related substance use disorders & mental health

## Six primary principles to guide clinical interventions in Behavioral Addiction

1. RESPONSIBILITY: A therapeutic partnership between the individual and clinician that fosters shared responsibility is encouraged.

2. HARM REDUCTION: These interventions are directed towards minimizing or decreasing the adverse health, social, and economic consequences of gambling behavior on individuals, their family, and their community

3 PREVENTION: Professional awareness and early identification of gambling problems in a range of clinical and community settings broadens the base of treatment.

4. STAGES OF CHANGE: Stage change has emerged as a ubiquitous trans-theoretical model for understanding behavior change and recovery from a variety of addictive disorders

5 TREATMENT MATCHING: Individuals can be matched to stage of change, problem severity and associated comorbidity.

6. INFORMED AND SHARED DECISION-MAKING:

It requires engaging the treatment seeking person in the complex process of treatment planning.

# *Treatment Objectives*

For disordered gamblers,  goal means ceasing or reducing gambling.

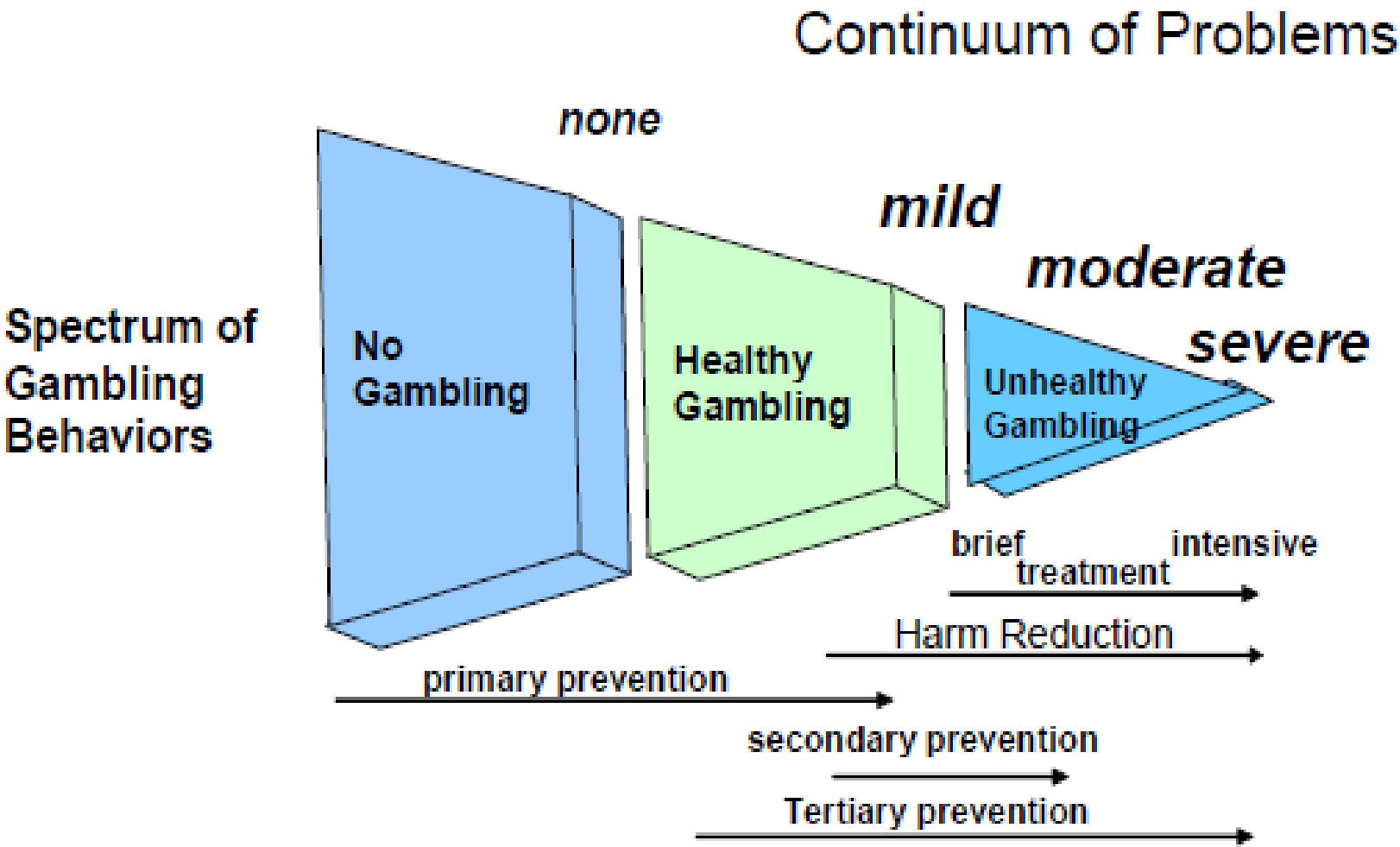
a) Minimize the harmful consequences of gambling to the gambler and others (e.g., family, friends, colleagues);

b) Avoid or reduce the risks associated with gambling environments (e.g., opportunities, associates and venues);

c) Cope effectively with negative mental states (e.g., anxiety, depression, loneliness, stress) through new strategies and life skills; and

d) Satisfy needs for entertainment, social connectedness and excitement through less destructive and more balanced leisure activities.

# Public Health Framework for Gambling and Gambling-related Problems (Shaffer & Korn, 2002)



# Assessment

Clinicians assessment: Clinical interview

Screening for levels & Co-occuring comorbidity: South Oaks Gambling Screen (SOGS) for adults, The Massachusetts Gambling Screen (MAGS), Gamblers Anonymous (GA), Composite International Diagnostic Interview (CIDI)

Assessing Motivation and Readiness for Change: Motivational assessment gives the clinician conceptual and practical tools to identify the person's *readiness for change* (e.g., not ready, unsure or ready).

Assessing the Severity of Disordered Gambling: Shaffer and Hall (2002) system suggests-

Level 0= the prevalence of non-gamblers

Level 1= represents respondents who do not report any gambling-related symptoms (i.e., not experiencing any gambling problems).

Level 2= represents respondents who are experiencing sub-clinical levels of gambling problems

Level 3=represents respondents who meet diagnostic criteria for having a gambling disorder.

# Types of Psychological interventions

Cognitive-behavior therapy (CBT)

- CBT focuses upon identify and change "cognitive distortions and errors" that are associated with intemperate gambling and its adverse sequelae eg., Gambler fallacy
- *The "**illusion of control**" over gambling outcomes is a core cognition that influences disordered gamblers.*
- This sense that *one has the "**omnipotent skill**" necessary to beat the odds* is an enduring characteristic of pathological gamblers.
- CBT attends to the effect of gambling on others and attempts to minimize the negative impact on family, work and personal finance.

# Behavioral Therapy

- ✓ Aversion (e.g., Barker & Miller, 1968; Koller, 1972; Seager, 1970),
- ✓ Individual stimulus control and cue exposure with response prevention (Echeburua et al., 1996),
- ✓ Systematic imaginal desensitization strategies incorporating both imaginal relaxation (IR) and imaginal desensitization (ID) techniques (McConaghy, Armstrong, Blaszczynski, & Allcock, 1983; McConaghy et al., 1988; McConaghy et al., 1991),
- ✓ Self-exclusion or avoidance strategies (Ladouceur, Jacques, Giroux, Ferland, & Lebond, 2000).

## Relapse Prevention and Recovery Training

Relapse prevention and recovery training are modalities designed to increase a person's ability to identify and cope with **high-risk situations** that commonly create problems and precipitate relapse.

## Psychodynamic Psychotherapy

It frames disordered gambling as a repetitive activity that is functional. For example, it exists to satisfy some need that typically remains unconscious or poorly understood.

# Self-Help: Gamblers Anonymous

- GamAnon is a related fellowship for family members affected by compulsive / pathological gamblers.

- Based on 12-Step principles.

# Promising Intervention

## Brief Therapy

Solution-focused brief therapy (SFBT) was developed for use with substance abusers and has been adapted to gambling. This treatment rests upon cognitive behavioral principles

## Motivational interviewing therapy

Motivational interviewing therapies are often brief An adaptation of motivational interviewing is called motivational enhancement therapy (MET), which combines motivational interviewing with a standardized assessment of problematic behavior and personal feedback on results (Hettema 2005).

- **RCT assessing MI vs CBT carried among 150 patients found no difference between MI & CBT**

  **(Carlbring et al. 2010)**

- **Imaginal desensitization plus motivational interviewing caused significantly greater reduction in pathological gambling symptoms as compared to control group**

  **(Grant et al 2009)**

- **Some benefits from motivational interviewing therapy in terms of reduced gambling behaviour**

  **(lishaw et al. Cochrane Database Syst Rev. 2012)**

# INTEGRATIVE-SYSTEMIC MODEL

- **Primarily represents an integration of family and cognitive-behavioral therapy, with traces of psychodynamic, existential and pharmacotherapy**

- **This is a flexible model and the length of treatment depends primarily on the set of therapists targets**

- **Conducted in a group or individual (family) setting**

- **Up to 90 % Abstinence from gambling within period of one year after completion of the intensive phase of treatment**

**(Mladenovic et al.2015)**

# Other treatment approaches

- Hedman et al. compared internet-based CBT to conventional CBT, and reported that internet-based CBT involved lower costs and showed equivalent efficacy

(Hedman et al.2012)

- Eight-week stress management program was found to be effective in decreasing gambling behaviour

(Linardatou et al. 2014)

- Combined group CBT and medication showed significantly longer treatment maintenance duration than pharmacotherapy or group CBT alone

(Choi et al 2016)

| Study | Intervention | Study Design | No. of patients | Result |
|---|---|---|---|---|
| Pertry et al 2006 | CBT | RCT | 231 | Individual CBT evidenced most gains as compared to Gamblers anonymous |
| Toneatto & Gunaratne , 2009 | CBT vs motivational interviewing | | 99 | Both groups Equally effective |
| Larimer et al 2012 | CBT & Brief Motivational Feedback | RCT | 147 | Reductions in perceived gambling frequency |
| Wong et al 2014 | CBT | RCT | 38 | Significant decreases in severity and frequencies of gambling in CBT group |

| *Strength of Evidence* | *Interventions* |
| --- | --- |
| **Strong Evidence** | • Cognitive Behavioral Therapy<br>• Behavioral Therapy |
| **Moderate Evidence** | • Relapse Prevention |
| **Weak Evidence** | • Psychodynamic Psychotherapy<br>• Aversion Therapy<br>• 12-step (e.g., Gamblers Anonymous; self-help)<br>• Self-Exclusion (self-help) |

# IPS Recommendations

In depth motivational intervention (MI) or short term (~4 sessions) motivation enhancement therapy could be first line treatment options as a sole form of treatment or brief motivational intervention could be used in conjunction with other forms of intensive interventions (especially CBT) to improve treatment retention

More intensive intervention especially CBT could be considered for long term engagement . Number of sessions could range from 10-30 (mean 20) [A]. CBT could be delivered in both individual and group format .

Second line therapy options could be: twelve step facilitation (TSF), Exposure based therapy , and family therapy

Brief telephonic MI could be an option for those not willing to commit for long term engagement or not willing to come to treatment facilities [B].

Combination of N-acetyl-cysteine with exposure based therapy might have some additive effect.

GA referral unlikely to be effective alone, if not coupled with other professionally led interventions .

# Limitations

- Small sample, are of limited duration & involve non-representative clinical groups(those without co-occuring psychiatric disorders)
- Heterogenity of treatment samples complicate identification of effective treatment
- At present, which medication to use, or the duration of length of CBT cannot be addressed with the available data

# Internet Addiction

# TREATMENT FOR INTERNET ADDICTION (IA)

- Absolute therapeutic regime of IA is not available due to its unclear etiology.
- Treatment for IA is currently largely based on interventions and strategies used in substance use disorders.
- However, antidepressants, mood stabilizers, and psychotherapies such as cognitive behaviour therapy (CBT), motivational interview, family therapy have been introduced to symptomatically treat IA

  *(King et al., 2011)*
- There is a general consensus that total abstinence from the Internet should not be the goal of the interventions and that instead, an abstinence from problematic applications and a controlled and balanced Internet usage should be achieved

  *(Cash et al., 2012)*

# REALITY THERAPY

- Reality therapy encourage clients to explore behaviour and evaluate how effectively they are getting what they want

- It includes sessions to show clients that
  - Addiction is a choice
  - Training in time management
  - Introduces alternative activities to the problematic behaviour

- Clients make some plans that will lead to change and commit to plans

*(Cash et al. 2012; Kim 2008)*


**WDEP model in Reality Therapy**

## Core questions asked in reality or choice therapy

1. What are you doing now?
2. What did you actually do this past week or month?
3. What stopped you from doing what you want to do?
4. What will you do tomorrow or in the future?

*(Kim 2008)*

# The Effect of a R/T Group Counseling Program on The Internet Addiction Level and Self-Esteem of Internet Addiction University Students

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**ABSTRACT**

The present study examined the effect of a R/T group counseling program derived from choice theory and control theory of reality therapy theory for group counseling on the Internet addiction level and self-esteem of Internet addiction University students. Participants in the treatment group attended the R/T group counseling program that was held 2 sessions per week for 5 consecutive weeks, whereas participants in the control group received no treatment. The findings indicated that the treatment program effectively reduced addiction level and self-esteem of Internet addiction University students. At the same time, the results revealed the significant effects of the R/T group counseling program on the dependent variables.

information overload (compulsive web surfing or database searches), and computer addiction (obsessive computer game including Doom, Myst, Solitaire etc.).

Internet addiction is a more common problem in our society as Internet users are increasing. The Internet has positive aspects including informative, convenient, resourceful and fun, but for the addicts, these benefits become detriments. There are various opinions on Internet addiction. A common saying is that if someone is addicted to anything and it is knowledge, this case is not addiction (Mental Health Net, 1997). Others such as Young and other psychologists, however, think that the excessive Internet use can become hazardous to one's mental and physical health. An addiction may interfere

- The R/T group counselling program is a plan for 10 group sessions dealing with Internet addiction University students
- Each session lasts 60 to 90 minutes in length
- Procedure of each session includes an introduction of session goal, teaching, activities, homework assignment, and sharing

# Description of R/T group counselling program

| SESSION | OBJECTIVE | PROCEDURE |
|---|---|---|
| 1. | **Introduce group leader, group members, group rules and set goal** | • Ice-breaking: introduce themselves and one reason they are in the group<br>• Discuss purpose of the group<br>• Make a contract on group norms such as confidentiality, commitment, treat each other with respect members, and so on.<br>• Play matching game |
| 2. | **Introduce five basic needs to the group and help the group members understand more about Internet addiction** | • Briefly restate the purpose and rules of the group<br>• Explain five basic needs and explore what needs have been missed<br>• Complete the Internet Addiction Checklist<br>• Explore the factors of the Internet addiction in terms of basic needs |
| 3. | **Introduce choice theory and time management techniques** | • Explain choice theory<br>• Teach the group to use time management techniques<br>• Homework assignment: Apply time management techniques |
| 4. | **Introduce 'Total Behaviors' and explore alternative activities** | • Review confidentiality and follow up on the homework assignment<br>• Explain 'Total Behaviors' with toy cars or copies of car picture<br>• Encourage the group to establish an alternative acting<br>• Present clients' alternative acting to the group |
| 5. | **Explain WDEP to the group and practice the process of WDEP** | • Introduce WDEP and practice the process of WDEP<br>• Encourage the group members to use WDEP in the situation of Internet abuse<br>• Homework assignment: Apply WDEP to the real world |
| 6. | **Recognize Internet usage pattern and their addiction triggers** | • Follow up on the homework assignment<br>• Identify your usage pattern with some question: What days of the week do you typically log online?; What time of day do you usually begin?; How long do you stay on during a typical session?; Where do you usually use the computer?<br>• Ponder your own feeling when you head for the computer and share Internet addiction triggers<br>• Homework assignment and review the session |
| 7. | **Help the group make a concrete plan to do better** | • Review the group rules and follow up on the homework assignment<br>• Complete time plan form<br>• Present it to the whole group |
| 8. | **Help the group make a verbal or written contract** | • Make an oral or written contract with group members<br>• Encourage the group to commit to plans<br>• Homework assignment and remind the group of only two more session |
| 9. | **Help the group make positive reminder cards and use these cards in real world** | • Review the purpose of group and follow up on the homework assignment<br>• Make positive reminder cards and encourage the group to use in their real life<br>• Discuss examples of Internet excessive use and major benefit of reducing online time<br>• Homework assignment: Apply positive reminder cards<br>• Remind the group that the next session will be the last meeting |
| 10. | **Discuss the goals and extent to which they have been achieved and have a group celebration** | • Follow up on the homework assignment<br>• Review significant accomplishments of the group and circle whip<br>• Thank the group for the hard they did and its cooperation<br>• Complete a group evaluation sheet<br>• Remind the group that even though the group experience has ended, confidentiality is still expected and important<br>• A light, healthy refreshment can be offered the end the group session |

# COGNITIVE BEHAVIOURAL THERAPY

- CBT is a psychotherapeutic approach that addresses dysfunctional emotions, maladaptive behaviours, and cognitive processes

- Modified CBT is the most commonly used intervention for IA and is also proved to be effective


*(Young 2009)*

# Data extraction

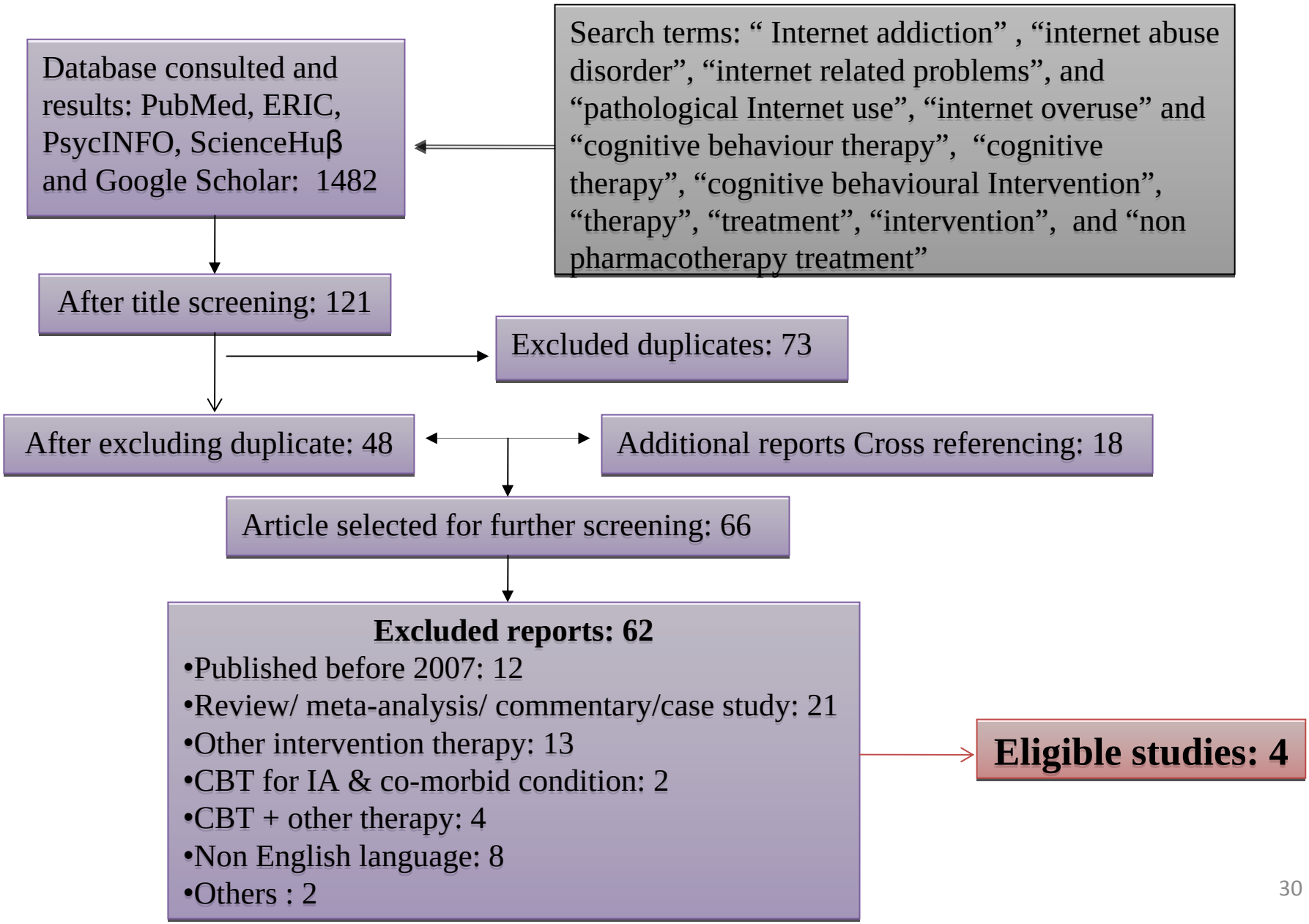

**Table 1: Cognitive behavioural therapy for internet addiction**

| Identifier | Country | Study design | Intervention Group or Individual | Techniques | Treatment Session/ Duration | Participants | | | Outcome Measures | Results |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | N | Age | Gender | | |
| Du et al, 2010 | China | RCT | Multimodal school-based group CBT | - How to recognize and control your feelings<br>- Healthy communication<br>- Dealing with relationships<br>- Controlling impulses<br>- Recognizing addictive behaviour<br>- How to stop addictive behaviour | 8 Session | 56<br>T=32<br>CC=<br>24 | Age range 12–17 Mean 15.92 | Female= 19.64% | IOSRS<br>TMDS<br>SCARED<br>SDQ | Intervention evinced improved time management skills and better emotional, cognitive and behavioural symptoms |
| Wölfling et al. 2014 | Germany | Pre-post | CBT *(STICA)* Group + individual | - Psycho-education<br>- Identification of triggers<br>- Cognitive restructuring<br>- Social skills training<br>- Exposure training and habituation training<br>- Relapse prevention | 15 group sessions 8 individual sessions | 42 | Age range 18–47 years Average age 26.1 | Male= 100% | AICA-S<br>SCL-90R | Results indicate that the treatment program has promising effects. Addiction treatment symptoms of IA had decreased significantly. |
| Young, 2007 | USA | Pre-post- | CBT Individual | - Monitoring dysfunctional thoughts<br>- Learning new Coping Skills<br>- Time Management | 12 weekly Sessions | 114 | Average Age- 41.04 | Male: 58% Female= 42% | COQ | the data suggested that clients were able to decrease thoughts and behaviours associated with compulsive Internet use and sustain their therapeutic gains six months after the completion of the program. |
| Young et al 2013 | USA | Pre-post- | CBT-IA Individual | - Time management<br>- To address the maladaptive cognitions<br>- Cognitive restructuring<br>- Harm Reduction Therapy | 12 weekly Sessions 3 months | 128 | Age range 22 to 56 | Male+65 % Female= 35% | IADQ | Results suggest that the majority of patients showed improvement after twelve weekly sessions of CBT-IA and achieved improved symptom maintenance upon six-month follow-up |

**Results suggested that clients were able to decrease thoughts and behaviours associated with compulsive Internet use and implemented time management skills**

# RESULTS

On the basis of geographical location, we observed that one study is carried out in China, one in Germany and two in USA

For the types of study, one study was random controlled trials whereas other three were pre-post design

All studies used CBT in individual, in group or in both individual and group format

Total number of sessions varied from 8-23 for 2-4 months duration

Main techniques used psycho-education, time management, monitoring dysfunctional thoughts, cognitive restructuring, social skills training and relapse prevention

The sample sizes ranged from 42 to 128 and subjects were predominantly young male or adults

Results suggested that clients were able to decrease thoughts and behaviours associated with compulsive Internet use and implemented time management skills

# MULTI-FAMILY GROUP THERAPY

- Family plays a central role in the socializing process for adolescents, and parents provide emotional connection, behavioural constraints and modelling

- Research also proved that a good relationship and communication with parents are protective factors for adolescents from Internet addiction

  *(Kim, Jeong, & Zhong, 2010; Van den Eijnden et al., 2010)*

- Family members involved in interventions facilitate the process of recovery and help the addict maintain a lasting effect of intervention after sessions

  *(Liddle, 2004; Zhong et al., 2011)*

# MULTI-FAMILY GROUP THERAPY

- MFGT emphasizes
  - To improve family cohesion and motivation to change within the family
  - To focus on the parent–adolescent interaction and also values the style and strength of attachment between family members

*(Dickerson & Crase, 2005)*

- MFGT tried to fulfil individuals' psychological needs through strengthening their communication and relationship with their parents

*(Liu et al 2015)*

Addictive Behaviors 42 (2015) 1–8

Contents lists available at ScienceDirect

Addictive Behaviors

# Multi-family group therapy for adolescent Internet addiction: Exploring the underlying mechanisms

Qin-Xue Liu [a,b], Xiao-Yi Fang [c,d,*], Ni Yan [e], Zong-Kui Zhou [a,b], Xiao-Jiao Yuan [f], Jing Lan [c], Chao-Ying Liu [c]

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- 46 adolescents with Internet addiction(aged 12–18 years) and their parents (aged 35–46 years) were assigned to the six-session MFGT intervention group (N=21) or a waiting-list control (N=25)
- The intervention was given every three days, with each session lasting 2 hours
- Structured questionnaires were administered at pre-intervention (T1), post-intervention (T2) and a three-month follow-up (T3).

# MULTI-LEVEL INTERNET ADDICTION TREATMENT PROGRAM

- A multi-level intervention model was developed on the basis of intervention strategies and techniques used in the fields of substance abuse, family counselling, and peer support groups
- Multi-level intervention model includes features of
  - *Emphasis on controlled and healthy use of Internet*
  - *Understanding the change process in adolescent with Internet addiction behaviour*
  - *Utilization of motivational interviewing model*
  - *Adoption of a family perspective*
  - *Multi-level counselling model*
  - *Utilization of case work and group work*

# Meta-analysis

- **Winkler and colleagues (2013) conducted a meta-analysis of IA treatment .**
- **Effective psychological interventions exist in targeting IA directly (effect size 1.61), as well as decreasing time spent online (effect size 0.94), depression (effect size 0.90), and anxiety (effect size 1.25).**
- **Cognitive–behavioral therapy (CBT) and other psychosocial interventions were effective at reducing time spent online and reducing depressive symptoms.**

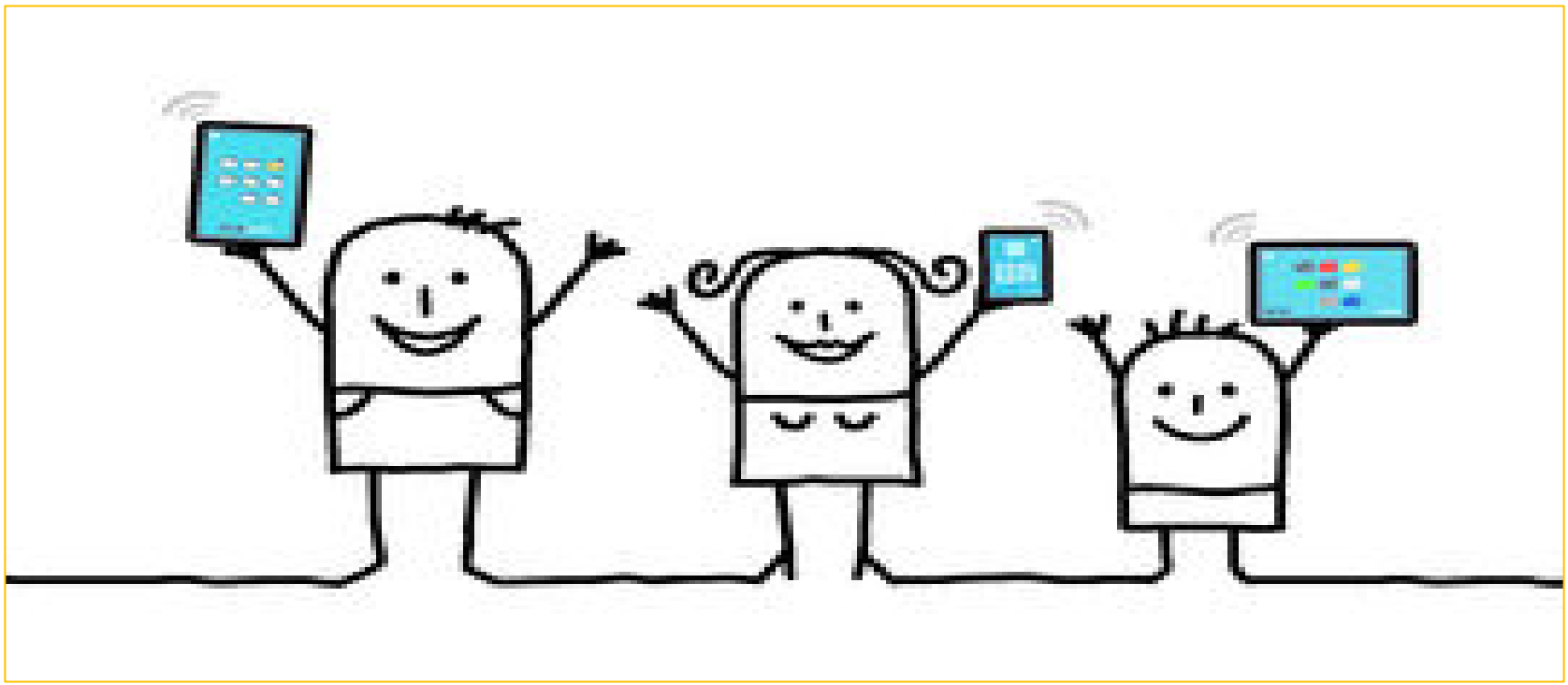
# Conclusions

- A targeted multimodal, multidisciplinary treatment that allows for
  - individual, group, family (or conjoint) therapy,
  - medication management (when necessary);
  - adjunct treatments such as self-help groups or mindfulness-based techniques such as meditation

  will be the most cohesive and effective way to follow a biopsychosocial model and help patients recover from behavioral addictions.

# Conclusions

- The systematic studies in treatment efficacy and tolerability are in infancy
- Its difficult to make recommendations due to lack of efficacy studies



# THANK YOU

# SEX ADDICTION

- Ongoing field of study with several promising options, although few controlled trials exist to provide evidence-based recommendations

- Best practices are based upon numerous uncontrolled studies, case reports, a consensus among practicing clinicians, and expert opinion

  (Kaplan & Krueger, 2010)

- CBT has been studied in Internet mediated sexual addiction, with clinically significant improvement

  (Young, 2007)

- 12-step based recovery groups, group and individual therapy, motivational interviewing and insight-oriented psychotherapy were also found to be effective

  (Carnes & Adams, 2002, Southern 2008)

# IA

- Other psychosocial treatments include 12-step self-help approaches and motivational enhancement.7 These interventions rely on a relapse prevention model to reduce IA, including avoiding or coping with high-risk situations.7,10,11
- Support groups are not well-defined for IA compared with other addictions, particularly not support groups found online.8
- Motivation to change addictive behaviors is often low in adolescents and parents may be the ones presenting with concerns. However, certain motivational enhancement strategies can be useful, for example, helping teens to recognize what important activities or values are being neglected because of time spent online and careful consideration of the pros and cons of online use.46
- A multilevel counseling center in Hong Kong (incorporating elements of motivational enhancement, CBT, and family interventions) was effective in reducing IA symptoms in a group of 59 individuals, mainly adolescents.82 Orzack and colleagues83 combined features of CBT and motivation enhancement in a 16 week group treatment of cybersex IA for adults, which resulted in reduced depressive symptoms and improved quality of life but no change in sexual behavior. A family-based approach makes sense in light of the familial risk factors associated with IA. Specifically, Ko and colleagues56 found that reducing interparental conflict and promoting family function and Internet regulation were helpful in preventing IA. Reducing family conflict and improving communication are natural targets of treatment.84 Furthermore, families play an important role in limiting access to excessive Internet usage.46

7. Medications are an important element of treatment for many patients, especially when combined with counseling and other behavioral therapies.
8. Addicted or drug-abusing individuals with coexisting mental Disorders should have both disorders treated in an integrated Way.
9. Medical detoxification is only the first stage of addiction Treatment and by itself does little to change long-term drug Use.
10. Treatment does not need to be voluntary to be effective
11. Possible drug use during treatment must be monitored continuously.
12. Treatment programs should provide assessment for hiv/aids, Hepatitis b and c, tuberculosis and other infectious diseases, And counseling to help patients modify or change behaviors That place them or others at risk of infection.
13. Recovery from drug addiction can be a long-term process and Frequently requires multiple episodes of treatment.

(National Institute on Drug Abuse, 1999)