



Web Based Interventions in Psychiatry: An Overview

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Abstract

Internet has unlocked new avenues for mental health professionals. In the 21st century, its growing use and popularity has had a huge impact on the masses. From the point of view of treatment delivery, it is being increasingly used by mental health professionals to deliver effective and affordable care to people suffering from various mental health problems. We present an overview of such available interventions and their shortcomings.

Keywords: Web based intervention; Cognitive behaviour therapy

Introduction

Internet and its utilization by all sectors of the society, has unlocked new avenues for mental health professions. It has helped in to reach out the masses to provide services with innovations. It has set a new trend for interventions that are web based, giving birth to various terminologies like web based therapy, cyber-therapy, computer mediated intervention, e-therapy, online therapy etc. From all these terms, 'web-based intervention' comes across as a term which includes almost all aspects of services provided by mental health professionals.

What Constitutes a Web Based Intervention?

A web-based intervention can be defined as a primarily self-guided intervention program that is executed by means of a prescriptive online program operated through a website and used by consumers seeking health and mental-health related assistance [1]. The definition provides a basis for categorizing web based intervention into:

Web-based education interventions: These programs give access information about a particular problem area (e.g., diagnosis of a disorder/condition, the meaning of specific symptoms, its causes, effects, and treatment) and increase awareness among masses in general.

Self-guided web-based therapeutic interventions: They endeavour to create positive cognitive, behavioral and emotional change. The design of the content is comprehensive, presented in a systematic module based format and some programs may also provide an automated feedback support through text, graphics, automated e-mails/SMS etc. The sophistication of the software and the algorithms developed determines the degree to which feedback can be specifically tailored.

Human-supported web-based therapeutic interventions: These interventions incorporate a human usually a health/mental health professional or, in some cases; peer supporters to provide support, guidance, and feedback. The feedback may be delayed when given through E-mails and forum postings whereas chat room/instant messaging sessions provide more instant feedbacks. Skype/telephone calls, webcam, and face-to-face meetings all provide the patients with immediate feedback along with virtual or real human contact [1].

Face-to-Face Versus Web Based Intervention

The most important function of web based intervention is to address mental disorders and provide effective treatment for the same. The characteristics that distinguish web based intervention from face-to-face management for mental disorders are as follows [2]:

Non-availability of non-verbal cues

While communicating online, there is complete absence of opportunity to observe facial expressions, body language, voice intonations and emotions thereby limiting the communication.

Temporal fluidity

Synchronous and Asynchronous communication: Synchronous communication refers to communication that occurs at the same time between the client and therapist, giving the scope of scheduling time limited sessions on an appointment basis. It creates a sense of point-by-point connectedness, enhances feelings of intimacy, presence and interpersonal impact. In asynchronous communication, on the spot replies or interaction does not take place causing time lapses between correspondences. Though it controls and limits spontaneity; it also gives an opportunity to reflect before responding.

Disinhibition

In the cyberspace, people tend to be more open while sharing their feelings and conflicts, a phenomenon termed as 'Disinhibition effect'.

Anonymity and invisibility: The internet allows people have the opportunity to separate their actions from their real world and identity, control the level of disclosure as per their level of comfort and at times maintain anonymity. With no direct way of meeting or interacting on one to one basis gives people the courage to do things that they otherwise would not. Most individuals are able to effortlessly integrate the real and virtual aspects and are comfortable using computers and internet as a modality to network in social circles as well as seek solutions to their psychological conflicts.

Web Based Therapies for Various Disorders

A variety of intervention and management options for various psychiatric disorders are available across the web. The various disorders for which interventions have been developed are as follows:

Depression

The different means of providing interventions for depression currently being used in this digital era are internet-linked computers, PCs, palmtops, phone-interactive voice response systems, CD-ROMS, DVDs, cell phones, and Virtual Reality equipment's [3].

Problem- Solving Techniques (PST): Warmerdam et al. [4] designed a web based program to improve problem solving skills and alleviate depressive symptoms. The program was spread over 5 weeks with one session per week. The correspondence between the therapist and clients was via e-mails. The clients were asked to write down their problems which were then divided into three categories of unimportant problems, solvable problems and problems which cannot be solved. For each of these three types of problems, different strategies were proposed to solve the problems or be able to cope with the unimportant and unsolvable ones.

Cognitive Behaviour Therapy (CBT): Cognitive Behaviour Therapy (CBT) being a structured treatment approach is very suitable for adaptation to a computer format. Stubbing et al. [5] formulated an individualized CBT using video conferencing as a medium for intervention. It was given for 6 weeks and manualized interventions were used as a guide for planning and implementing treatment which included the basic component of CBT such as psychoeducation, symptom monitoring & cognitive restructuring. The mode of video conferencing was found to be equally effective when compared with the control group receiving face to face intervention.

Behavioural activation and acceptance-based treatment: A commercially available program called "Depressionshjälpen" was used by Carlbring [6] as a self-help intervention with minimal therapist contact. The focus was on behavioural activation with influences from ACT. The components added on from ACT were defusion, through the practice of acceptance and mindfulness, and values work to enhance the activation. The modules consisted of text, videos & narrated animations. In addition to the online content the participant was also provided with a workbook (on paper) and a CD with mindfulness and acceptance instructions.

Mindfulness-based therapy: Glück & Maercker [7] delivered mindfulness based training through the internet over a period of 13 days and consisted of two modules. Each module lasted for 6 days with 20 minute-units per day. The modes used were audio files, a flash animated exercise and written text for training.

Anxiety disorders

Cognitive Behaviour Therapy: Web based Cognitive Behavioural Therapy has increasingly become the most popularly used empirical evidenced therapy for various anxiety disorders [8]. There is now evidence to suggest that Internet delivered CBT works for panic disorder [9,10], social anxiety disorder [11], generalized anxiety disorder [12], post-traumatic stress disorder [13], and specific phobia [8]. Web based treatment is based on CBT models and uses e-mails for the required therapist-client interactions. Sixteen different modules are available to be delivered over a period of 10 weeks. Specific modules are used for specific anxiety disorder; however the first module (introduction) and the last (relapse prevention) are kept fixed. The 16 modules are:

- Introduction
- Cognitive restructuring (2 modules)
- Social anxiety (2 modules)
- Generalized anxiety (3 modules)
- Panic disorder (2 modules)
- Agoraphobia
- Behavioural activation (2 modules)
- Applied relaxation

- Sleep
- Relapse prevention

Prescribed modules are made available for download in PDF format and clients are motivated to keep printed copies for use when they are not near a computer and they are advised to spend 1 week per module. Reminders are sent via e-mail to deal with delays in response. Individual feedback is provided within 24 hours. On the basis of these e-mails, an assessment is made to judge whether the participants are ready to continue in which case the password to the next module is sent else clients are provided with details regarding what needs to be completed to be able to get to the next step.

Cognitive Behaviour Therapy (CBT)

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Smoking Cessation

Various exploratory analyses suggested that tailored, interactive web-sites might help smokers who do not report the indicator of depression at baseline to quit and maintain cessation [18]. Internet interventions for smoking cessation are provided in conjunction with other modalities such as individual or group counseling, nicotine replacement therapy or pharmacotherapy. The interventions include immediate production of information and feedback of practical counseling for skills training and problem solving, social support from experts and peers in online communities, guidance for medication selection and dosing of medicines. Various studies have shown quit rates of 7% to 26% within the period of six months [19,20] and its usefulness has been supported by recent meta-analyses [21].

Alcohol use and related problems

It has been seen that harmful users can benefit from online alcohol interventions and that this approach could be specifically beneficial for women, young people and adult harmful users. A study using internet based intervention program [22], a 3-session, tailored program was given with the aim of to encourage the participants to lower their alcohol intake. The theoretical framework was based on the psychosocial model and combined the stages in Pre-motivational Phase, Motivational Phase & Post-motivational Phase

Schizophrenia

It has been established that psychiatric patients often have expectations and preferences for care but often fail to put them across their psychiatrist. This encouraged the development of internet-based interactive computer tool to educate patients with schizophrenia about evidence-based treatment guidelines [23]. One such interactive website which has been designed is 'YourSchizophreniaCare'. This web-based learning approach is patient-oriented and facilitates the patient to steer through the six areas of:

- Quality of care medication
- Side-effects
- Referrals
- Family support
- Employment
- Quality of life

The goals are to increase the likelihood of patients initiating the discussion of these topics with their therapist. For each area, the patients answer questions about their current status and treatment. On the basis of the pattern of their responses, individualized feedback recommendations appear on screen, which is enriched with video clips of an actor invigorating a patient as he or she executes a recommendation for discussing a specific topic with the doctor. The website includes 14 unique 30-seconds video clips designed to model the performance of communication strategies and skills

Children and adolescents

Web-based programs have improved symptom management and adherence to medical regimens for asthma, pain, encopresis, and obesity in children [24], as well as symptoms of anxiety and depression in children, and adolescents [25]. Following is a brief description of the programmes that have been used in children:

BRAVE for Children/ Teenagers – ONLINE: These are anxiety treatment programs designed to treat social phobia, generalized anxiety disorder, separation anxiety and specific phobia in children (8-12 years) and adolescents (13-17 years). It is based on cognitive behavior therapy (CBT). The programs present information on managing anxiety, recognizing the physiological symptoms of anxiety, graded exposure and problem-solving techniques. It also includes reading materials, question and answer exercises, games and quizzes [26,27].

Project CATCH-IT: It is a free, internet based training program based on behavioral activation, CBT and interpersonal psychotherapy. The program aims to teach adolescents on how to reduce behaviour that increases their vulnerability for depressive disorders (eg. rumination, negative appraisals) and increase protective behavior (eg. social support, behavioral scheduling) [25-27].

Mood GYM: It is a free, interactive, internet-based program designed to prevent and decrease symptoms of depression in young people. It is based on principles of CBT and the program aims to change dysfunctional thoughts and beliefs, improve self-esteem & interpersonal relationships, and teach important life skills, such as problem solving and relaxation [25,28].

Critical evaluation of web based Interventions

Presently the most frequent mode of online communication is through e-mail. Apart from that, free from fixing appointments, the ease of access, comfort and privacy in their homes is another advantage. The asynchronous quality of e-mail communication provides both client and therapist with the opportunity to devote greater thoughtfulness to their communication which may encourage greater clarity in their communication. However, it is not without its disadvantages:

- Lack of proper training in text based communication may affect the clinical competence of the therapists who attempt to deliver text-based interventions.

- Individuals who are in a crisis state or need immediate personal attention due to an urgent matter will probably not receive the help they need via e-therapy.
- Without the benefit of nonverbal communications, counselors may miss critical clues about their clients which can have a negative impact on counseling and psychological work. Closed body posture, diverted gazes, and tearful expressions may exist but are unable to be observed by professionals in typed communication.
- Writing thoughts and feelings is not appropriate for everyone, of course, and is limited to clients who are reasonably educated writers and readers.
- Services provided in electronic form can be iatrogenic in nature. Counselors or psychologists could unwittingly encourage dysfunctional behaviors. For instance, continuing to engage in services electronically with those who have underdeveloped social skills and report to be lonely does little to develop social skills in reality and encourage appropriate social involvement.

Conclusion

Web-based managements have opened entire new sets of possibilities for mental health. With each passing day, mental health professionals are experimenting with newer ways to provide therapy through the internet and its various modalities. Though primarily cognitive behavior therapy has been the main form of therapy that has been adapted into online modules, other therapies need to be used more frequently. The obvious advantages of web based interventions is in terms of easy and open access to professionals, facilitation of openness to discuss areas that may otherwise cause embarrassment or awkwardness, avoiding stigmatization and the freedom to discontinue as and when one wishes to project web based interventions as a promising mode of therapy. With add on characteristics of being economical in terms of time, money and the efforts invested, online therapy has the potential to become a popular help seeking system in the coming future.

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