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REVIEW

Virtual Reality Technology in Cognitive Behavioral Therapy Across Multiple Psychiatric Conditions: A Narrative Literature Review

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Purpose: Modern psychotherapy increasingly incorporates technology to support patients with mental disorders. Virtual reality (VR) enables realistic, controlled simulations, offering structured, time-limited interventions focused on present problems, which are highly valuable in clinical practice. Cognitive-behavioral therapy (CBT), one of the most widely used psychotherapeutic approaches, can be effectively enhanced by VR. This review aims to summarize the potential of VR as a support tool for CBT and to evaluate its effectiveness across selected mental disorders.

Methods: A narrative review of the literature published over the last 15 years was conducted. Searches were performed in five major databases: PubMed/MEDLINE, PsycINFO, Scopus, Web of Science, and the Cochrane Library. Peer-reviewed studies involving VR as an integral component of CBT were included. The review focused on anxiety disorders, depression, eating disorders, addictions, and autism spectrum disorders (ASD).

Results: Immersive VR appears to enhance the effectiveness of CBT across multiple mental disorders. In anxiety disorders, VR-based exposure closely replicates real-life situations and represents the most extensively studied application; meta-analytic evidence (eg, Wu et al, 11 studies, 626 participants) indicates that VR-assisted CBT is effective and comparable to traditional CBT. In depression, VR facilitates behavioral activation and positive experiential learning. In eating disorders, VR supports body image modification, including realistic correction in bulimia and anorexia and altered gratification processes in obesity. VR also enables controlled exposure to substance-related cues in addiction treatment and supports training in emotional regulation and social skills in individuals with ASD.

Conclusion: The available literature indicates that the strongest and most consistent evidence for VR-assisted cognitive-behavioral therapy concerns anxiety disorders, which represent the primary focus of existing research. In contrast, evidence for the use of VR in other mental disorders remains more limited, heterogeneous, and often based on smaller or more individualized interventions. This imbalance in the evidence base constitutes a key limitation of the current field and should be considered when interpreting the overall effectiveness and generalizability of VR-assisted CBT. Further high-quality research and continued technological development are required to strengthen the evidence for VR applications across a broader range of mental disorders.

Keywords: virtual reality, VR, cognitive-behavioral therapy, CBT, VRCBT, psychotherapy, literature review

Introduction

VR Technology in Psychology

In search of more effective, engaging, and patient-tailored forms of support, psychotherapists are increasingly turning to modern technologies.[1,2] One of the tools that can be used for therapeutic purposes is virtual reality (VR). The earliest clinical applications of virtual reality in psychology date back to the 1990s, when VR-based exposure therapy was successfully used in the treatment of specific phobias, such as fear of heights and fear of flying.[3,4] This technology involves creating images that simulate realistic situations or places. This gives the user the impression of actually being in a virtually created space. What is particularly important in exposure therapy is that the environment is safe and can be controlled by the therapist.[5–7]

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Cognitive behavioral therapy (CBT) is one of the most commonly used approaches in psychotherapy.[8] CBT therapists are increasingly recognizing and utilizing the potential of VR. Due to the nature of CBT, it is possible to incorporate modern technological tools into the traditional structure of therapy.[9]

This paper aims to discuss the possibilities of using VR as a tool to support CBT and to analyze the effectiveness of VR in the treatment of selected mental disorders. Based on a review of the scientific literature, examples of the practical use of VR in CBT psychotherapy are presented. In addition, the benefits and challenges associated with the use of this technology are highlighted.

Characteristics of VR Technology

VR is a technology that creates images that are so realistic that they allow users to "immerse" themselves in a virtual world. The user not only has the impression of being there, but can also move around in the created world, manipulate objects, and interact with virtual characters. This effect is achieved through a combination of computer graphics, video, motion sensors, and interactive technology.[10] The three-dimensional environment is created by a screen placed on the user's head. The image displayed for each eye is different, as in binoculars, and is analogous to how we perceive the real world. The result is a convincing sense of immersion, which makes the virtual world appear real. Controllers are often held in the hands when the goal is to move objects.[11]

The origins of VR technology date back to the mid-20th century, when Morton Heilig built the first "Sensorama" machine, although the idea or desire to achieve the sensation of being transported to another reality appeared much earlier. Sensorama was designed to immerse the user in an unreal world. The inventor wanted to achieve this through a colorful and stereoscopic display, stereo speakers, a moving seat, fans to simulate the feeling of wind, and even a scent diffuser.[12] In the following years, the technology evolved towards more compact devices. Among the inventors who influenced the development of the technology, Ivan Sutherland and Jaron Lanier are also notable However, the real breakthrough came with Palmer Luckey, who developed the Oculus Rift goggles.[12]

VR introduces a computer-generated three-dimensional (3D) environment in real time. The development of this technology allows the perceived world to be experienced with almost all the senses, which stimulates the behavior and emotions of the audience.[13]

VR is used in education, entertainment, specialized training, medicine, and psychology. In education, the tool has been tested, among other things, for changing emotions and motivation and supporting user engagement. The results showed an increase in motivation and the intensity of emotions associated with it, as well as the exposure of emotions related to discouragement in students after a session using VR.[14]

Numerous studies have been conducted to test the use of VR in therapy. Research indicates, among other things, the effectiveness of VR in pain therapy,[15,16] in physiotherapy,[17] and rehabilitation after amputation.[18] VR technology is also increasingly being used as a tool to support CBT.

Possible Areas of Technological Support for CBT

CBT was developed in the early 1960s by Aaron Beck.[19] This therapy aims to change dysfunctional thinking and behavior in relation to current problems. Initially, CBT was used to work with people with depression, but its effectiveness has now been proven in the treatment of most mental disorders and illnesses.[19]

CBT is an approach that uses empirical and scientific data. It reveals the connection between the interpretation of a situation and a person's emotions, physiology, and behavior in a social context. Its goal is to change an individual's functioning to a more adaptive one while respecting their values.[20]

CBT is a structured, short-term, present-oriented therapy.[19] The structured nature of the therapy (models, protocols) suggests the use of technologies, which can be used to present psychoeducational texts, models of disorders, therapeutic techniques, and to conduct self-observation and monitor progress. In this respect, mobile applications will be most helpful. VR, on the other hand, will be particularly useful when implementing techniques aimed at "making real" situations in which, for various reasons, it is not possible (or difficult at a given moment) to participate in vivo. These will be behaviors that we practice using exposure and imagery techniques.

The use of VR also corresponds to other features of CBT – short-term nature and focus on the present. The possibility of conducting behavioral experiments and exposure at any time planned by the therapist significantly reduces the waiting time for the application of techniques, especially in the case of exposures that are not available on a daily basis or are expensive, such as flying. In addition, participation in a situation can be observed by the therapist in real time, which allows for greater precision in recording and discussing changes.

From a theoretical perspective, the use of virtual reality (VR) within cognitive-behavioral therapy (CBT) is strongly grounded in learning theories underlying exposure-based interventions. Repeated exposure to feared stimuli in a controlled virtual environment facilitates habituation and extinction processes, leading to a reduction in fear responses and maladaptive avoidance behaviors. A key factor contributing to the effectiveness of virtual reality–assisted cognitive-behavioral therapy (VRCBT) is the sense of presence, defined as the subjective experience of "being there," which enhances emotional engagement and fear activation necessary for effective exposure.

From a clinical perspective, integrating VR into CBT for the treatment of mental disorders requires appropriate therapist training, careful patient selection, and consideration of potential contraindications, such as cybersickness or certain medical conditions. Compared with traditional CBT, the use of VR may reduce practical barriers associated with in vivo exposure by increasing therapist control and the accessibility of therapeutic scenarios. Beyond exposure-based interventions, VR can also support other CBT techniques, including behavioral activation, cognitive restructuring through experiential learning, and social skills training. Ethical considerations, including informed consent specific to VR use and the preservation of the therapeutic alliance in technology-mediated interventions, remain essential for effective clinical implementation.

Materials and Methods

The review aimed to provide a synthetic overview of the current evidence on the use of VR as a component or extension of CBT in selected mental disorders (anxiety disorders, depression, eating disorders, addictions, and ASD), including clinical effectiveness, feasibility, and limitations. This is a narrative review, which does not aim to meta-analyze effects, but rather to map and critically interpret key findings and research gaps.

Reporting Standards

We followed good practices for narrative reviews (including a transparent search path, explicit selection criteria, and a description of the synthesis method).[21]

Search Strategy

Systematic searches were conducted in the following databases: PubMed/MEDLINE, PsycINFO, Scopus, Web of Science, and Cochrane Library. In addition, the reference lists of review articles and meta-analyses were reviewed. The time frame covered January 1, 2010, to July 31, 2025. Full-text articles in Polish or English were included in the review.

Inclusion Criteria

(i) Studies involving humans; (ii) clinical populations (adults or adolescents ≥12 years of age) diagnosed according to DSM (Diagnostic and Statistical Manual of Mental Disorders)/ICD (International Statistical Classification of Diseases and Related Health Problems) or structured tools; (iii) intervention including VR as an integral part of CBT (eg, VR exposure, social skills training in VR, VR-assisted CBT); (iv) original peer-reviewed studies (randomized controlled trials – RCTs, controlled trials, cohorts, pilot studies) and meta-analyses/systematic reviews for the context; (v) results reporting at least one standardized clinical indicator (eg, Liebowitz Social Anxiety Scale for Adults – LSAS, Social Phobia Inventory – SPIN, Generalized Anxiety Disorder 7 – GAD-7, Patient Health Questionnaire 9 – PHQ-9, Eating Disorder Examination Questionnaire – EDE-Q).

Exclusion Criteria

Works without a CBT component (eg, VR relaxation alone), non-clinical studies (simulators without clinical outcome assessment), case series ≤5 and case reports, conference reports without full review, opinion articles/essays without data, purely technical works (eg, equipment validation), and publications not available in full text.

Selection Procedure

Two independent authors reviewed the titles and abstracts, followed by the full texts of publications that met the criteria. Disagreements were resolved by consensus; a third reviewer was consulted if necessary. Duplicate records were eliminated before the full-text review stage.

The study selection process was managed using Microsoft Excel, which was used to record search results, remove duplicates, and document decisions at the title/abstract and full-text screening stages.

Data Extraction

Population characteristics (n, age, diagnosis), study design and comparison groups, intervention description (type of VR—immersive HMD vs non-immersive; session format and dose, CBT components), outcome measures (tools, time points, follow-up), effects (size/significance), feasibility/acceptability indicators (retention, simulator sickness symptoms), as well as information on equipment and environment (clinic vs home).

Evidence Reliability

Since a narrative review method was used, a formal, uniform assessment of bias risk was not required. However, for key studies, we noted the main risk factors for bias (randomization/blinding, data completeness, reporting selectivity) and the hierarchy of evidence (RCT > non-RCT > pilot studies). For the included meta-analyses, their quality assessments were taken into account.

Method of Synthesis

The thematic narrative synthesis followed established guidance for narrative reviews involving structured grouping of findings by disorder category, VR function within CBT, and clinical outcomes.[22]

A thematic-narrative synthesis was used: (a) by disease entity, (b) by VR function within CBT (exposure, cognitive modification, skills training), and (c) by clinical outcome (short-term efficacy, maintenance of effects, feasibility/safety). Where possible, consistency of results, differences between populations and protocols, and clinical implications were highlighted.

Results

Depressive and Anxiety Disorders

A literature review conducted by Jinlong Wu et al[23] evaluated the effectiveness of VR-assisted CBT (VRCBT) in treating anxiety and depression and compared its therapeutic effects with those of traditional CBT. The long-term effectiveness of VRCBT was also assessed. The analysis studied 11 studies with 626 participants. The main results concerned anxiety and depression. The meta-analysis showed that VRCBT was effective in treating anxiety and that its effectiveness was comparable to traditional CBT. In the case of depression, the therapeutic effect of VRCBT was also similar to standard CBT. However, the researchers point to the need for further research on the long-term effectiveness of this therapy.[23]

Anxiety Disorders

In CBT therapy for anxiety disorders, behavioral strategies are the most effective means of cognitive change.[24] Exposure to anxiety and habituation, which occurs as a result of repeated exposure, causes a change in the perception of threat. Two types of exposure are used in CBT. The first is exposure to external stimuli that cause fear, and the second is exposure to internal stimuli.[24] VR allows for the modification of beliefs about both types. Through exposure, the person can learn that they can withstand both external threats and that they can cope with internal symptoms of anxiety.

The use of VR in anxiety disorders seems to be most common. The use of VRCBT, as indicated by Gonçalves et al,[25] may be effective in the treatment of post-traumatic stress disorder (PTSD). Similarly, Difede et al[26] indicate that VRCBT may be a promising alternative for individuals who do not respond to traditional exposure therapy in the treatment of post-traumatic stress disorder. While VR-assisted CBT has shown potential benefits in the treatment of post-traumatic stress disorder, the evidence in this area remains evolving. Some patients continue to prefer in vivo exposure, and current

findings suggest that VR may be most beneficial as an adjunct rather than a replacement for established PTSD treatments. Further research is required to clarify patient preferences, optimal protocols, and long-term outcomes in this population.

VR allows events to be recreated for people who have difficulty imagining them, and also allows for exposure to be used as often as desired. A similar difficulty may arise when using imagery techniques in the treatment of various anxiety disorders. Polish authors, Ambroży and Serafin[10] note that, in addition to the fact that patients are not always able to recreate anxiety-provoking situations from the past during imagery techniques, another difficulty is that the therapist has no control over what patients are thinking. By using VR, the therapist can be more confident that the patient is exposed to aversive stimuli at any given moment and can monitor Subjective Units of Distress Scale (SUDS) on an ongoing basis. VR technology can also be used in PTSD prevention. Rizzo et al[27] describe the use of VR in training soldiers before they go to war. Soldiers were exposed to battlefield situations in order to prepare them for stressful situations in reality.

Research shows that VR has also proven to be an effective support for the treatment of social anxiety disorders, especially in the treatment of public speaking anxiety.[28]

The effectiveness of VR exposure in the treatment of social phobias is also confirmed by research by Berkhof et al[29] These results correspond with other studies aimed at creating a program for people who experience stress at work due to social situations. The research was also based on VR exposure and showed the effectiveness of using this technology.[30]

The use of VR can be very beneficial in the treatment of specific phobias. In a study by Ramsey et al,[31] it was found that immersive VR exposures showed clinical benefits in reducing anxiety severity in children and adolescents. The researchers emphasize that VR exposure induced changes in both subjective and physiological outcomes.

In the case of specific phobias, studies are showing that VR exposure can take place without the presence of a therapist. Donker et al[32] emphasize that they were the first to prove that fully automated mobile VRCBT therapy delivered in a natural environment can maintain long-term effectiveness in reducing symptoms of aviophobia.

The effectiveness of VR is also noted in the treatment of general anxiety disorder. The authors point out that some CBT treatment plans for generalized anxiety disorder (GAD) can be adapted and supplemented with VR exposure techniques and/or mindfulness techniques generated by various software. According to the authors, combining techniques allows for the effective treatment of GAD as well as other anxieties.[33]

Depression

The authors emphasize that, unlike anxiety, few attempts have been made to translate CBT techniques into the treatment of depression using VR. They point out that traditional techniques can be enriched with VR in the areas of psychoeducation, behavioral activation, cognitive restructuring, and social skills training. They also indicate that VR offers the possibility of specific experiences, such as alternative identity or contact with animals, which may also have positive effects in the treatment of depression.[34] Other studies also show that patients with depression have positive experiences in VR. The authors selected 57 VR scenarios consistent with the PoCot (Positive Valence System-Focused Cognitive Behavioral Therapy for Depression) concept. They asked patients with depression to practice "liking experiences" (one of the PoCot practices) with VR during weekly sessions and between sessions. The study found no adverse events and noted that VR treatment can be successfully used in patients with depression. In results comparing the state before and after VR intervention, more than half of the patients showed improvement on the BDI-II depression scale.[35]

Biomarkers and machine learning are innovations enabled by technology in the treatment of depression. Thanks to profiled programs, the technology can detect symptoms that predict impending episodes of depression[36] or mania (in bipolar disorder). However, such observations require special adaptation of the technology and preparation of both therapists and patients.

Other studies show that CBT can be an alternative to pharmacotherapy as a form of intervention to reduce suicidal thoughts. Researchers tested the effectiveness and safety of VR-assisted CBT in patients with depressive disorders. CBT in the study group (using VR) and the control group (standard pharmacotherapy) lasted six weeks. Assessments were conducted after the end of the process and one month later. Both groups showed comparable improvement in depression. A decrease in suicidal thoughts was observed in the group that used VR. No differences in remission were found between the two groups. No adverse effects resulting from the use of VR were observed in the study group.[37]

In summary, the literature highlights the disparities in research on VRCBT for depression compared to VRCBT for anxiety disorders. Despite promising results, depression therapy requires more personalized programs, which may hinder its application.

Eating Disorders

Scientific articles also point to the possibility of using VRCBT in the treatment of eating disorders. A greater reduction in the frequency of binge eating episodes was observed in participants who underwent VR-assisted CBT compared to those who underwent CBT without the use of VR. However, no statistically significant difference in body mass index was observed. The results highlight the potential of VR in helping patients with eating disorders, but the authors point to the need for further research.[38]

Research shows that the use of VR to support CBT can not only diversify some techniques, but also contribute to the sustainability of therapy effects. Research by Manzoni et al[39] indicates that VR-assisted CBT was effective in further weight loss even after one year of follow-up, while participants who received CBT alone regained most of the weight they had lost on average. The results confirm the hypothesis that VR can increase the long-term effectiveness of CBT.[39] The long-term effects of VRCBT have also been observed in other studies. The results of an experiment by Pla-Sanjuanelo et al[40] show that the use of VR in therapy contributes to the effectiveness of treatment for bulimic eating disorders by reducing symptoms and food cravings. Interestingly, in the group that additionally used antidepressants (which are standard in the treatment of eating disorders of this type), no additional benefits were reported.[40] The improvement after treatment in both groups persisted during the 6-month follow-up period.

Specific to VRCBT in the treatment of eating disorders is the possibility of experiencing a body other than the real one,[41] which in turn enables several therapeutic effects to be achieved: 1. working on motivation: accelerating gratification through experiencing a body image other than the current one for people with obesity[42] and 2. changing the perceived body image[43] or the desired body image[44] in people with anorexia or bigorexia.

Addictions

Researchers also note the potential of VR as a tool to support addiction treatment. VR can effectively simulate situations that trigger the urge to use psychoactive substances, thereby helping to build experience in refraining from substance use in risky situations. Thanks to this technology, therapists can expose patients to triggers in a safe and controlled environment. The combination of VRCBT would allow patients to practice strategies for coping with the urge to use substances. In addition, VR simulations can be personalized to better meet the needs of specific individuals.[45] VR can support further research into the mechanisms of addiction and the development of new therapeutic interventions.[46,47]

Autism Spectrum Disorders

A study by Maskey et al[48] presents an innovative use of VR as a tool to support CBT in adults with ASD. Anxiety and phobias are common in this group of patients, which is why the primary focus of therapy was on reducing them. The researchers believe that VR technology can increase patient engagement, enable the adaptation of therapeutic scenarios to individual needs, and facilitate the use of acquired skills in the real world. The results were monitored six weeks and six months after the intervention. All participants completed the entire program (one therapy session and four 20-minute sessions in an immersive environment). Five of the eight participants were assessed as responding to the intervention, and 6 months after its completion, an improvement in functioning in the areas studied was observed. The results suggest a high acceptability of the intervention and indicate the effectiveness of the tool.[48] These findings correspond to the results of other studies that were also conducted with adults on the spectrum, with the additional variable of the participants' origin. The author emphasizes that:

> the integration of technological advances such as VR and telehealth services, combined with evidence-based CBT practices, using culturally tailored treatment, may be acceptable, appropriate, and feasible, while contributing to the reduction of social anxiety symptoms.[49]

More specific to working with people on the spectrum is work in the area of social-emotional competencies. A study on the potential of VR in this area among children with autism spectrum disorder showed that VR training increases emotion expression and regulation, as well as developing social adaptation and interaction skills after training.[50]

Discussion

Benefits of Using VR in Therapeutic Interventions

Dilgul et al[51] conducted a literature review on the use of CBT with immersive VR technology, paying particular attention to the number, duration, and frequency of sessions. Most of the 93 studies they analyzed focused on anxiety disorders. The most common sessions were 8 hours long and took place once a week. VR therapies proved to be at least as effective as traditional face-to-face therapies. Researchers emphasize the need for further research in the context of disorders other than anxiety. The benefits of using VR are primarily related to the possibility of participation and the ability to repeat the exposure planned by the therapist as many times as desired. The opportunity to participate in situations that are difficult to experience in everyday life or that require a long wait, such as flying, riding a roller coaster, or sailing.

VR also offers the opportunity to experience what we expect in the future, such as experiencing a different body image than the current one.

Challenges in the Use of VR in Mental CBT Therapy

The challenges of using VR in therapy include the cost of the equipment itself, which, although cheaper than a few years ago, can still be an obstacle to its widespread use by psychotherapists. In addition, it is necessary to use specialized software tailored to the treatment of specific disorders, which is very expensive to develop for individual needs. It is also necessary to train therapists in the use of the equipment. Possible side effects such as fatigue, dizziness, nausea, symptoms similar to motion sickness – referred to as simulator sickness[52] – and limitations in use due to the health condition of patients should also be mentioned. For some groups of people, manufacturers indicate that consultation with a doctor is necessary before using VR, for example, people with heart disease or pregnant women. It should also be noted that in the context of exposure, VR makes the patient aware that what is happening to them is not real, which is why the next step after VR exposure (eg, in the case of social phobias) is in-vivo exposure.

Limitations and Mixed Findings

Although the overall findings reviewed in this manuscript suggest promising effects of VR-assisted CBT, it is important to note that not all studies report superior outcomes compared with traditional CBT. Several investigations indicate comparable rather than additive effects of VR, and some trials report no statistically significant advantage of VR-based interventions over standard approaches. Moreover, a substantial proportion of the available evidence is based on pilot studies or trials with relatively small sample sizes, short follow-up periods, and limited blinding, which may restrict the generalizability of the findings. These methodological limitations highlight the need for cautious interpretation of the results and underscore the importance of conducting larger randomized controlled trials with long-term follow-up.

Emerging Directions

Recent advances in immersive technologies and automated therapeutic platforms have expanded the potential scope of VR-assisted cognitive-behavioral therapy beyond traditionally studied conditions. Emerging evidence also suggests potential applications of VR-assisted CBT in psychotic disorders, particularly in reducing avoidance, distress, and paranoid ideation through controlled virtual social environments.[53] Although this area was beyond the primary scope of the present review, it represents a promising direction for future research.

Conclusions

Virtual reality combined with cognitive-behavioral therapy (VR-CBT) represents a valuable and evidence-based complement to traditional psychotherapeutic approaches, particularly in the treatment of anxiety disorders, for which the strongest and most consistent empirical support is currently available. The reviewed literature clearly indicates that VR-

based exposure is the most established and clinically validated application of VR-CBT. In contrast, evidence for the use of VR in other mental disorders such as depression, eating disorders, addictions, and autism spectrum disorders, remains more limited, heterogeneous, and often reliant on smaller or highly individualized intervention protocols, which may restrict broader clinical implementation.

From a clinical perspective, VR-CBT offers several potential benefits, including increased control over exposure conditions, improved accessibility of therapeutic scenarios, and enhanced patient engagement. However, practical barriers must be considered, including the cost of VR equipment and software, the need for specialized therapist training, potential side effects such as cybersickness, and the importance of careful patient selection. Ethical considerations, including informed consent specific to VR use and the maintenance of a strong therapeutic alliance in technology-mediated interventions, are also essential for safe and effective implementation.

The findings of this review highlight important research priorities, including the need for larger randomized controlled trials, long-term follow-up studies, and greater methodological consistency across studies. Further research is also required to support the standardization of VR-CBT protocols and to evaluate their cost-effectiveness and feasibility in routine clinical practice. Addressing these gaps will be crucial for advancing the role of VR-CBT across a wider range of mental disorders and for informing future clinical guidelines, training programs, and health policy decisions.

Abbreviations

ASD, autism spectrum disorders; CBT, Cognitive-behavioral therapy; DSM, Diagnostic and Statistical Manual of Mental Disorders; EDE-Q Eating Disorder Examination Questionnaire; GAD-7, Generalized Anxiety Disorder 7; GAD, generalized anxiety disorder; ICD, International Statistical Classification of Diseases and Related Health Problems; LSAS, Liebowitz Social Anxiety Scale for Adults; PHQ-9, Patient Health Questionnaire 9; PoCot, Positive Valence System-Focused Cognitive Behavioral Therapy for Depression; PTSD, post-traumatic stress disorder; RCT's, randomized controlled trials; SUDS, Subjective Units of Distress Scale; SPIN, Social Phobia Inventory; VR, virtual reality; VRCBT, virtual reality-assisted cognitive behavioral therapy.

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