

REVIEW

Socio-psychological dimensions of the COVID-19 pandemic**Onur Oral¹, Zeinab Rezaee², George N. Nomikos³, İnci Banu Ayca⁴**

¹Ege University, Faculty of Sports Sciences, Izmir, Turkey, ²Department of Exercise Physiology, Ferdowsi University of Mashhad, Mashhad, Iran, ³Chios Hospital, Department of Orthopaedic Surgery, Chios, Greece, ⁴Marmara University, Faculty of Sport Sciences, Department of Sports Health Sciences, Anadoluhisari-34815 Istanbul-Turkey

ABSTRACT

COVID-19 pandemic has been challenging for everyone since we have confronted various precautions such as lockdowns. Within this period, since social life has negatively been affected and socialization has become very limited, several mental health problems, such as depression and anxiety, have been observed in the community. In the search for scientific literature related to this review, the U.S. National Library of Medicine (PubMed) used MEDLINE and SportDiscus data, and we used the terms "coronavirus," "psychotherapy," and "depression." The relevant literature has also taken its source from the research of relevant articles from reference lists derived from data studies. The effects of psychotherapy, such as cognitive-behavioral therapy and pharmacotherapy, become very influential on people suffering from mental health problems. In some cases, the combination of them has also been helpful. Therefore, receiving these therapy methods should be encouraged more. Studies show that treatment methods such as psychotherapy, medication, and a combination of various ways provide benefits and contribute to the healing process of patients. The success rates of these methods are very high.

Keywords: depression, psychotherapy, coronavirus

O. Oral, Z. Rezaee, G. Nomikos, İ. Ayca. Socio-psychological dimensions of the COVID-19 pandemic. *Scientific Chronicles* 2024; 29(1): 91-101

INTRODUCTION

The year 2020 has brought about enormous shifts all over the world, including different aspects of the lifestyle of people. They have already been involved in the pages of history and have led to significant occurrences. All of these remarkable changes are caused by a virus, which is referred to as SARS-CoV-2, in other words, Coronavirus Disease-2019 [1], which was announced as a pandemic by the World Health Organization (WHO) later [2].

With the incidence of this virus, people are directed to adapt to the new routines, such as wearing face masks, limiting socialization, staying at home, and so on. These recent habits have led to various effects on people, from physical to mental health. As a result of the particular products, disorders such as anxiety and depression have been widely observed in different parts of the world.

Being a very effective and quick-spreading virus, COVID-19 is reported to be a

member of β -CoVs [3], including other viruses such as SARS (SARS-CoV) and MERS (MERS-CoV) [4]. According to the studies carried out on COVID-19, the spread of this virus occurs via large droplets produced while coughing, sneezing, and talking, and it might also be spread by contact with surfaces and touching the nose and mouth [5]. The incubation period of SARS-CoV-2, namely COVID-19, is estimated to be in 14 days after contact, but generally, symptoms appear around the fourth to fifth days [6]. The most common symptoms observed in patients are fever, dry cough, fatigue, and so on [7]. Based on the studies and cases related to COVID-19, specific steps have been taken by authorities and governments to prevent the spread of the virus and the increase in the number of coronavirus cases. Therefore, precautions such as wearing face masks, keeping physical distance from other people, washing hands regularly, and staying at home are recommended, and they have significantly changed the community's lifestyle. Among these precautions, quarantine and isolation have been effective [8] and significantly decreased the number of cases. However, these preventive measures have mainly led to adverse outcomes, and this pandemic has affected people's physical and psychological health. For instance, long quarantine periods have changed the physical activity behaviors of the community and provoked the adoption of a sedentary lifestyle. These circumstances caused deterioration in the physical health of people.

On the other hand, the practice of social isolation has prevented people from getting in

contact with their relatives, friends, and so on, which also has caused many mental problems in the long term. According to Torales et al., cognitive difficulties such as anxiety, depression, stress, sleep problems, and fear have been generally observed in the community during the pandemic period [9]. Likewise, during and after the Severe Acute Respiratory Syndrome (SARS) pandemic, the rate of depression, anxiety, and post-traumatic stress disorder was between 10% and 18% [10]. Among these problems, depression has become notable and prevalent since extended social isolation time has relatively triggered it, which has symptoms such as feeling alone, helpless, worried, and so on [11]. Likewise, according to a study, people who meet with their families and friends less than once a month have a higher risk of depression [12], which proves that the community may have more tendency to suffer from this mental health problem within this period. Such that various adverse incidents related to lockdowns and suicides have been reported around the world. For instance, A teenager, Emily Owen, who was 19 years old, committed suicide due to the fear of isolation, as reported by Miller in the New York Post [13]. Similarly, another survey in the U.S.A. proves that younger people are affected by anxiety and depressive disorder symptoms during a pandemic. In contrast, the rate of older people suffering from these symptoms is lower [14].

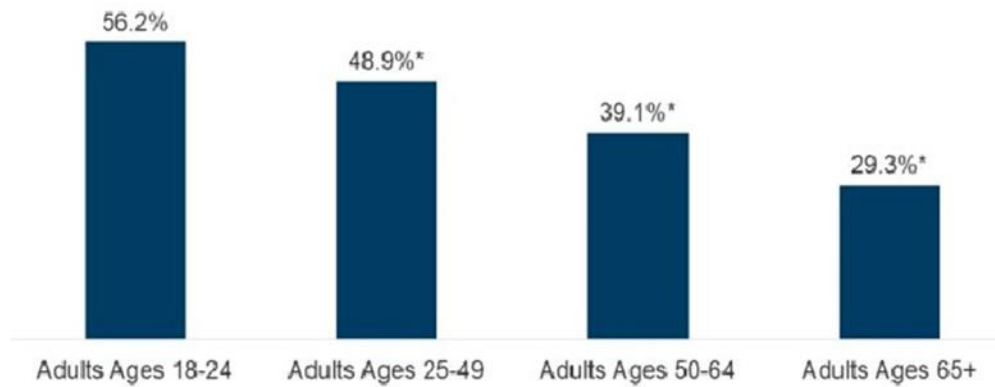


Figure 1 shows the rates of adults reporting anxiety or depressive disorder symptoms during the COVID-19 pandemic by age. According to the figure, 56.2% of adults whose ages vary between 18-24 show symptoms, whereas 48.9% of adults aged between 25-49 suffer from these problems. In addition, adults aged 50-64 experience symptoms of depression or anxiety at 39.1% – finally, 29.3% of adults who are over 65 faces this problem [14].

Another comprehensive study in China pointed out that this pandemic had affected roughly 35% of people regarding psychological problems [15]. In addition, it is also argued that the pandemic stimulates the possibility of depression and anxiety in people with a history of psychiatric illnesses and increases the risk of recurrence [16]. To grasp this problem, it is crucial to get to the root of it. Therefore, at this point, it would be beneficial to ask what depression is and which symptoms it has.

Depression is "a common and serious medical illness that negatively affects how you feel, the way you think and act," by American Psychiatric Association [17]. It is prevalent in this illness that feelings such as sadness, losing interest, and joy in daily life and activities, also called anhedonia, and loss of concentration might arise [18]. Depression is also marked with symptoms such as social isolation and reduced social integration [19], which is relatively more common in depression than other physical and mental illnesses [20]. In

addition, since significant differences might be observed in social integration and isolation behaviors before depression symptoms, they are accepted as vital risk factors [21,22]. But what are the leading causes of depression? Several factors might play a role in developing this mental illness, and they could be biological, psychological, and social-related such as mourning, divorce, trauma, and so on. In addition, depression could be induced by some genetic, hormonal, and chemical factors in the brain [23], and studies show that since it is the second most common mental health problem in the world, for instance, in developed countries, at least 20% of people suffer from it at some point in their lives [24]. Considering the prevalence of depression around the world and the stated facts, it is not surprising to witness that this pandemic of COVID-19 might cause depression and increase the number of people suffering from it around the world because social isolation and the lack of social integration are critical factors as it is stated before. However, the treatment process of this illness is possible, methods are

proven to be practical, and new approaches towards depression are very promising.

Studies generally recommend psychotherapeutic, psychopharmacological, or combination therapies for the treatment of depression [25, 26]. There are various methods, such as cognitive behavioral therapy, acceptance and commitment therapy, interpersonal psychotherapy, and so on, which would be very helpful for people negatively affected by the COVID-19 pandemic and its results. In addition, studies show that problem-solving, cognitive behavior and counseling significantly and positively impact moderate depression [27]. First, as one of the most prevalent methods, cognitive behavioral therapy (C.B.T.) includes a treatment method that mainly concentrates on thoughts, feelings, and behaviors caused by depression and anxiety. It assumes that mood disorders and other feelings result from incorrect thinking and belief systems [28, 29]. In addition, studies show that C.B.T. boosts social functioning compared to pharmacological treatment methods [30].

On the other hand, acceptance and commitment therapy (A.C.T.), which is included in mindfulness therapies, concentrates on strategies focusing on a valued existence instead of reducing distress. A.C.T. supports the idea that patients should determine what is important to them and adapt themselves accordingly. This therapy also accepts that distress is a normal feeling of human existence, and people should change their world based on the things they value. As a result, the level of depression will be diminished [31]. Therefore, according to this therapy method, depression will be resolved by increasing the meaning and value of things

rather than trying to reduce distress and mood swings.

Furthermore, another treatment method, interpersonal psychotherapy (I.P.T.), aims to approach depression patients by helping them control interpersonal circumstances by improving interpersonal skills [32]. On the other hand, psychopharmacological substances are commonly recommended during the treatment process of depression. According to this method, depression is a chemical lack of balance in the brain [33]. High extracellular serotonin and norepinephrine levels could improve mood and decrease depression symptoms [34, 35]. Therefore, giving medication to depression patients is a prevalent and preferred method by many therapists. In addition, considering the medication treatment, several studies argue that combining psychotherapy methods such as C.B.T. and antidepressant medications could provide more benefits and outcomes than psychotherapy or medication alone. This approach advocates the idea that while remedies might balance the situation of patients, psychotherapy methods may reduce distress and help them to gain skills to cope with depression [36]. Moreover, a study found that combination therapy of psychotherapy and medication provides better results for patients under 60 years old and suffering from recurrent depression [37].

Regarding the treatment methods for depression, it is possible to benefit from them and experience the positive impacts during the COVID-19 pandemic. These days, people have more tendency to suffer from mental disorders such as depression and anxiety because of the pandemic precautions, which include

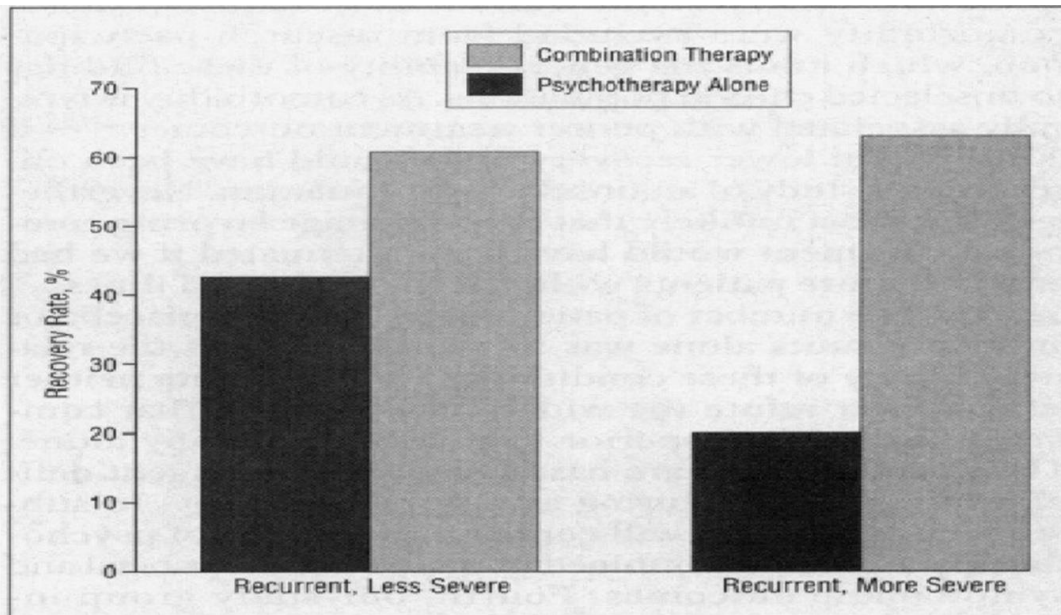


Figure 2 shows the recovery rates of recurrent depression patients with psychotherapy alone or combination therapy [37].

lockdowns, abstaining from socialization, and so on; it is crucial to make an appropriate diagnosis and provide correct treatment methods.

DISCUSSION

In a randomized controlled group with anxiety disorder study, patients were offered to benefit from three different treatment methods: computer-based C.B.T. only, medication, or a combination of these treatments. 9% of the patients chose medicine only, whereas 34% benefited from C.B.T. only. In addition, 57% of them preferred the combination treatment. As a result, although all treatment types provided positive benefits to patients, patients who received at least one C.B.T. session were observed to experience significant decreases in anxiety and depression [38].

In a meta-analysis conducted by Peng et al. to review the efficacy of psychotherapy, which includes various methods such as C.B.T., reminiscence therapy, and so on, fourteen studies were included with 705 participants, although 607 of them accomplished follow-ups. As a result, each psychotherapy type was more successful compared to placebo/no intervention [39].

In another meta-analysis of Cognitive Behavioural Group Therapy (CBGT) conducted by Feng et al., 32 studies were included. The groups generally consisted of 6-10 patients who participated in therapies between 8-12 weeks and an hour a week. This study proved that depression levels decreased compared to a control group. In addition, it was found in the follow-ups that these levels were managed to be continued [40]. Besides, Nieuwsma et al. conducted a review and a meta-analysis of 15 randomized control groups by examining brief forms of C.B.T.,

mindfulness-based C.T., and problem-solving therapy. As a result, these short types of psychotherapy were found to be more successful than control conditions, which proved that they could become good options for patients who prefer short-term treatment methods for depression [41].

According to the systematic review of S.Y. Lee et al. with R.C.T.s on older adults suffering from subsyndromal depression, it was found that patients, who had received psychotherapy, had fewer symptoms of depression and more infrequent incidences of Major Depressive Disorder during the follow-up for 12 months when compared to the group who did not receive treatment [42].

In a meta-analysis conducted by De Maat et al. to determine the effectiveness and drop-out rates of psychotherapy and pharmacotherapy for depression, ten studies were included with patients suffering from major depressive disorder. Six hundred forty participants were treated with pharmacotherapy, whereas 593 were treated with psychotherapy. Although the therapy method did not create a difference in the risk of remission, after one or two years of follow-up, it was found that psychotherapy caused a lower relapse rate (26.5%) compared to pharmacotherapy (56.6%). In addition, the dropout rate of pharmacotherapy was higher (28.4%), whereas the same rate of psychotherapy was lower (23.6%) [43].

In a review carried out by Stewart and Chambless related to social anxiety disorder, on the other hand, eleven studies were included. The pre-test and post-test processes of patients and effect sizes were evaluated. As a result, patients who received treatment with

the C.B.T. method showed significant improvements [44].

Besides, Hunsley and Lee also conducted a review, and two studies related to S.A.D. and treatment methods' effectiveness were evaluated. In both studies, treatment completion rates and the improvements led by these treatment methods were significantly meaningful compared to those stated in R.C.T.s [45].

CONCLUSION

While the limitations and restrictions determined to prevent an increase in coronavirus cases have been affecting the world significantly, social life has become a part of these shifts, and we have still observed negative results.

People could not interact with each other or spend limited time within the frame of specific restrictions such as lockdowns, keeping physical distance, wearing a face mask, etc.

As a result of all these things, mental problems have started to appear, various symptoms of disorders such as depression and we have observed anxiety, and the incidence rates of these health problems increased.

In addition, people, who suffered from these mental problems in the past, have faced a risk of relapse.

However, today, it is possible to state that numerous treatment approaches related to depression and anxiety, such as psychotherapies and medication, could enable a healthy process and provide positive results

considering the recovery success rates as stated in this study.

Acknowledgement We would like to express our special thanks of gratitude to Dr. Nikitas N. NOMIKOS for his very successful contribution to the literature research process and unique academic support in the publication during the process of this review article.

Conflict of interest The author certifies that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

Funding The author certifies that there is no funding from any financial organization regarding the material discussed in the manuscript.

Author's contributions All authors read and approved the final version of the manuscript.

REFERENCES

1. Coronaviridae Study Group of the International Committee on Taxonomy of Viruses. The species Severe acute respiratory syndrome-related coronavirus: classifying 2019-nCoV and naming it SARS-CoV-2. *Nat Microbiol.* 2020 Apr;5(4):536-544.
2. World Health Organization Press Conference. The World Health Organization (WHO) has officially named the disease caused by the novel coronavirus as COVID-19. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>
3. Zhu N, Zhang D, Wang W, Li X, Yang B, Song J, et.al.; China Novel Coronavirus Investigating and Research Team. A Novel Coronavirus from Patients with Pneumonia in China, 2019. *N Engl J Med.* 2020 Feb 20;382(8):727-733.
4. Weiss SR, Leibowitz JL. Coronavirus pathogenesis. *Adv Virus Res.* 2011;81:85-164.
5. Rothe C, Schunk M, Sothmann P, Bretzel G, Froeschl G, Wallrauch C, et.al. Transmission of 2019-nCoV Infection from an Asymptomatic Contact in Germany. *N Engl J Med.* 2020 Mar 5;382(10):970-971.
6. Guan WJ, Ni ZY, Hu Y, Liang WH, Ou C.Q., He JX, et.al.; China Medical Treatment Expert Group for Covid-19. Clinical Characteristics of Coronavirus Disease 2019 in China. *N Engl J Med.* 2020 Apr 30;382(18):1708-1720.
7. Shen K, Yang Y, Wang T, Zhao D, Jiang Y, Jin R, et.al.; China National Clinical Research Center for Respiratory Diseases; National Center for Children's Health, Beijing, China; Group of Respirology, Chinese Pediatric Society, Chinese Medical Association; Chinese Medical Doctor Association Committee on Respirology Pediatrics; China Medicine Education Association Committee on Pediatrics; Chinese Research Hospital Association Committee on Pediatrics; Chinese Non-government Medical Institutions Association Committee on Pediatrics; China Association of Traditional Chinese Medicine, Committee on Children's Health and Medicine Research; China News of Drug Information Association, Committee on Children's Safety Medication; Global Pediatric Pulmonology Alliance. Diagnosis, treatment, and prevention of 2019

- novel coronavirus infection in children: experts' consensus statement. *World J Pediatr.* 2020 Jun;16(3):223-231.
8. Health essentials (2020). Covid-19 understanding quarantine, isolation, and social distancing in a pandemic. Retrieved from: <https://health.clevelandclinic.org/covid-19-understanding-quarantine-isolation-and-social-distancing-in-a-pandemic/>
 9. Torales J, O'Higgins M, Castaldelli-Maia JM, Ventriglio A. The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int J Soc Psychiatry.* 2020 Jun;66(4):317-320.
 10. Wu KK, Chan SK, Ma TM. Post-traumatic stress, anxiety, and depression in survivors of severe acute respiratory syndrome (SARS). *J Trauma Stress.* 2005 Feb;18(1):39-42.
 11. Ao, B. (2020, June 2). Unemployment, isolation, and depression from COVID-19 may cause more' deaths of despair'. *Medical Xpress - medical research advances and health news.* <https://medicalxpress.com/news/2020-06-unemployment-isolation-depression-covid-deaths.html>
 12. Health Effects of Social Isolation and Loneliness. Aging Life Care Association. (n.d.). <https://www.aginglifecarejournal.org/health-effects-of-social-isolation-and-loneliness/>
 13. Miller, J. R. (2020, March 25). British teen dies after suicide attempt due to coronavirus fears. *New York Post.* <https://nypost.com/2020/03/25/british-teen-dies-after-suicide-attempt-due-to-coronavirus-fears/>
 14. Nirmita Panchal, R. K., & 2021, F. (2021, April 14). The Implications of COVID-19 for Mental Health and Substance Use. K.F.F. <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>
 15. Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *Gen Psychiatr.* 2020 Mar 6;33(2):e100213.
 16. Lee AM, Wong JG, McAlonan GM, Cheung V, Cheung C, Sham PC, Chu CM, Wong PC, Tsang KW, Chua SE. Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry.* 2007 Apr;52(4):233-40.
 17. What Is Depression? (n.d.). <https://www.psychiatry.org/patients-families/depression/what-is-depression>
 18. American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders.*
 19. Wade TD, Kendler KS. The relationship between social support and major depression: cross-sectional, longitudinal, and genetic perspectives. *J Nerv Ment Dis.* 2000 May;188(5):251-8.

20. Hirschfeld RM, Montgomery SA, Keller MB, Kasper S, Schatzberg AF, Möller HJ, et al.. Social functioning in depression: a review. *J Clin Psychiatry*. 2000 Apr;61(4):268-75.
21. Cacioppo JT, Hughes ME, Waite LJ, Hawkley LC, Thisted R.A. Loneliness as a specific risk factor for depressive symptoms: cross-sectional and longitudinal analyses. *Psychol Aging*. 2006 Mar;21(1):140-51.
22. Glass TA, De Leon CF, Bassuk SS, Berkman LF. Social engagement and depressive symptoms in late life: longitudinal findings. *J Aging Health*. 2006 Aug;18(4):604-28.
23. Ng CW, How CH, Ng YP. Managing depression in primary care. *Singapore Med J*. 2017 Aug;58(8):459-466.
24. Lopez AD, Mathers CD, Ezzati M, Jamison DT, Murray CJ. Global and regional burden of disease and risk factors, 2001: systematic analysis of population health data. *Lancet*. 2006 May 27;367(9524):1747-57.
25. Butler AC, Chapman JE, Forman EM, Beck AT. The empirical status of cognitive-behavioral therapy: a review of meta-analyses. *Clin Psychol Rev*. 2006 Jan;26(1):17-31.
26. Hollon SD, Jarrett RB, Nierenberg AA, Thase ME, Trivedi M, Rush AJ. Psychotherapy and medication in the treatment of adult and geriatric depression: which monotherapy or combined treatment? *J Clin Psychiatry*. 2005 Apr;66(4):455-68.
27. National Institute for Health and Clinical Excellence. (2007). Depression: management of depression in primary and secondary care.
28. Morgenstern J, Morgan TJ, McCrady BS, Keller DS, Carroll KM. Manual-guided cognitive-behavioral therapy training: a promising method for disseminating empirically supported substance abuse treatments to the practice community. *Psychol Addict Behav*. 2001 Jun;15(2):83-8.
29. Cunningham MR. What do you do when you're happy or blue? Mood, expectancies, and behavioral interest. *Motivation and Emotion*. 1988;12(4), 309–331.
30. Scott J, Teasdale JD, Paykel ES, Johnson AL, Abbott R, Hayhurst H, Moore R, Garland A. Effects of cognitive therapy on psychological symptoms and social functioning in residual depression. *Br J Psychiatry*. 2000 Nov;177:440-6.
31. Zettle RD, Rains JC, Hayes SC. Processes of change in acceptance and commitment therapy and cognitive therapy for depression: a mediation reanalysis of Zettle and Rains. *Behav Modif*. 2011 May;35(3):265-83.
32. Markowitz JC, Weissman MM. Interpersonal psychotherapy: principles and applications. *World Psychiatry*. 2004 Oct;3(3):136-9.

33. Nemeroff CB, Schatzberg AF. Pharmacological Treatments for Unipolar Depression. A Guide to Treatments That Work. 1998;271–307.
34. Weilburg JB. An overview of SSRI and SNRI therapies for depression. *Manag Care*. 2004 Jun;13(6 Suppl Depression):25-33.
35. Stahl SM. Mechanism of action of serotonin selective reuptake inhibitors. Serotonin receptors and pathways mediate therapeutic effects and side effects. *J Affect Disord*. 1998 Dec;51(3):215-35.
36. de Maat SM, Dekker J, Schoevers RA, de Jonghe F. Relative efficacy of psychotherapy and combined therapy in the treatment of depression: a meta-analysis. *Eur Psychiatry*. 2007 Jan;22(1):1-8.
37. Thase ME, Greenhouse JB, Frank E, Reynolds CF 3rd, Pilkonis PA, Hurley K, et.al.. Treatment of major depression with psychotherapy or psychotherapy-pharmacotherapy combinations. *Arch Gen Psychiatry*. 1997 Nov;54(11):1009-15.
38. Craske MG, Rose RD, Lang A, Welch SS, Campbell-Sills L, Sullivan G, et.al.. Computer-assisted delivery of cognitive behavioral therapy for anxiety disorders in primary-care settings. *Depress Anxiety*. 2009;26(3):235-42.
39. Peng XD, Huang CQ, Chen LJ, Lu ZC. Cognitive behavioral therapy and reminiscence techniques for the treatment of depression in the elderly: a systematic review. *J Int Med Res*. 2009 Jul-Aug;37(4):975-82.
40. Feng CY, Chu H, Chen CH, Chang YS, Chen TH, Chou YH, et.al.. The effect of cognitive behavioral group therapy for depression: a meta-analysis 2000-2010. *Worldviews Evid Based Nurs*. 2012 Feb;9(1):2-17.
41. Nieuwsma JA, Trivedi RB, McDuffie J, Kronish I, Benjamin D, Williams JW. Brief psychotherapy for depression: a systematic review and meta-analysis. *Int J Psychiatry Med*. 2012;43(2):129-51.
42. Lee SY, Franchetti MK, Imanbayev A, Gallo JJ, Spira AP, Lee HB. Non-pharmacological prevention of major depression among community-dwelling older adults: a systematic review of the efficacy of psychotherapy interventions. *Arch Gerontol Geriatr*. 2012 Nov-Dec;55(3):522-9.
43. De Maat S, Dekker J, Schoevers R, De Jonghe F. Relative efficacy of psychotherapy and pharmacotherapy in the treatment of depression: A meta-analysis. *Psychotherapy Research*. 2006;16(5):566-578.
44. Stewart RE, Chambless DL. Cognitive-behavioral therapy for adult anxiety disorders in clinical practice: a meta-analysis of effectiveness studies. *J Consult Clin Psychol*. 2009 Aug;77(4):595-606.

45. Hunsley J, Lee CM. Research-informed benchmarks for psychological treatments: Efficacy studies, effectiveness studies, and beyond. *Professional Psychology: Research and Practice*. 2007;38(1):21-33.