

Case Study

Cognitive Drill Therapy and Jacobson Progressive Muscle Relaxation in the Treatment of Obsessive Compulsive Disorder (OCD): A Case Study

Preeti Bajpai¹, Neeraj Kumar Mishra¹, Sweta²¹M.Phil Clinical Psychology, Department of Clinical Psychology, Nai Subah Institute, Varanasi, UP, India.²Asst. Professor, Department of Clinical Psychology, Nai Subah Institute, Varanasi, UP, India.

Corresponding Author: Neeraj Kumar Mishra

ABSTRACT

Cognitive drill therapy (CDT) focus on repetition of words or sentence, and exposure related to preoccupied feared consequences. It is a psychological management of OCD, and phobia. The Index Patient was a 30 years old, unmarried female belonging from middle socioeconomic status (selected as per ICD 10 diagnostic criteria). Her symptoms began six years ago when her family members noticed certain distinctive changes in her behavior. She felt preoccupied contamination either touch with things or only proximity of dirty things or people who involve in such things, she spent her most of time in cleaning house, washing hands, she starts avoiding to- go out from home. Her cognition of ideation is fear to become contamination, and this contamination convert into lethal disease and act was washing, cleaning, avoiding things, and outside from home. She was referred for psychological management. The baseline assessment was used for measure the status of (OCD). Tools were used Y-BOCS rating scale, Beck anxiety scale. (BAI) Beck depression scale (BDI). This is a single case study. Therapy was 3 phase (12 sessions -45 minutes once a week). Initial phase comprises a therapeutic alliance, psycho-education and baseline assessment. Middle phase comprising Jacobson progressive muscle relaxation (JPMR) & cognitive drill therapy Termination phase comprising post-assessment and follow-up. In this therapy session, the Cognitive drill was applied in-vitro and at the verbal level. No in-vivo behavioral exposure was done in therapy sessions & Jacobson progressive muscle relaxation was used to reduce anxiety or discomfort. The intervention made a positive outcome and post-therapeutic assessment score was decreased. The patient herself and family members reported symptoms were reduced.

Key Words: Cognitive drill therapy (CDT), Obsessive Compulsive Disorder (OCD), Jacobson Progressive Muscle relaxation (JPMR), contamination

INTRODUCTION

Cognitive drill therapy is a form cognitive therapy work through repetitive verbal exposure, and deal with irrational fear (phobia), anxiety and obsessive-compulsive disorder. Theory behind this therapy is conditioning, exposure to cognitive appraisal and linguistic pattern to phobia, and OCD. Obsessive-compulsive disorder (OCD) is described by various symptom including intrusive thought, image, preoccupied rituals and compulsive

behaviors (Sadock, Sadock, & Ruiz, 2015). OCD is highly researched and conceptualized problem, yet remain this is indisposed, comprehensive and costly mental disorder (Khan S, Singh Dinesh Rathor, and Jain Rakesh may 2018). This is 4th most common psychiatric problem, and highly rated in unmarried male, higher socio economic class, and highly educated/intelligence. ("National Mental Health Survey of India, 2015-16," 2015). Treatment typically contain psycho-

education, pharmacotherapy especially SSRIs, behavior therapy, cognitive therapy and exposure response prevention (Kumar, Sameer, & Singh, 2012). Exposure response prevention (ERP) is one of the established techniques to managing the obsessive-compulsive disorder, in the recent decade, but disadvantage with ERP drop-out (2 out of 8 patients) in 1st line treatments (Of, 2016)(Samantaray, Singh, Mohapatra, & Sengar, 2018). Cognitive therapy is better treatment to reduce the severity of OCD symptoms (Samntray N.N, Singh P., Mohapatra J. & Senger K. S. 2016) (A, 2016), and patients have difficulty to tolerate anxiety produced by ERP. OCD has two components one is intrusive thought or image, convert into contamination (intangible/mental, and tangible), feeling of stigma and related compulsive behavior (Warnock-Parkes, Salkovskis, & Rachman, 2012). Mental contamination are arisen from without tangible contact of contaminating objects and changed to tangible contact, feeling of dirtiness and compulsory behavior like, counting, ordering, washing hand other rituals (Coughtrey & Shafran, 2017), Cognitive drill repeated exposure at cognitive and behavioral level (Manual, n.d.), and linked with neurobiological correlates of linguistic approaches and focus on past present and future. (Manual, n.d.). Anxiety is apprehension in present, and directly associated with future and maintained through conditioning of past event. (Sadock et al., 2015). At the cognitive level the anxiety response to conditioned stimuli of past or present. (Damiano D., Prosser L., Curatalo L., 2013). This therapy recently develops by Dr Rakesh Jain from the background of cognitive behavior therapy. The theoretical based of therapy is conditioning, exposure, cognition, and consequences (Kumar & Dubey, 2017). Individual required to repeat verbal or sub-verbal level, thought or stimuli of anxiety or threat perception, and time convert from future to past/present, individual rate their distress, this process

called drill. Continued repetition distress convert into the mind-body reaction, (Khan, Rathor, & Jain, 2018). These drill produce discomfort/distress, in the absence of pharmacotherapy, and difficult to handle this situation. The alternative of pharmacotherapy (SSRIs) is progressive muscle relaxation training. (Wolitzky-Taylor, 2009) Progressive muscle relaxation training is useful in control the outcome of anxiety OCD (Maltby & Tolin, 2003) and moderate effect on the treatment of other anxiety disorders (Francesco, Mauro, Gianluca, & Enrico, 2010).

METHOD

Sample

The sample was selected as per (ICD-10) and purposive sampling technique was used for the selection, and the case was OCD. Case: Ms. P, 30 years old, formally educated till 12th standard, unmarried female, belongs to middle socio economic condition, presented with the C/o Excessive washing, preoccupation with cleanliness, excessive fear of contamination, irritability and stubbornness, frequent anger outbursts, difficulty concentrating. The index patient was apparently well before 6 years when she came to OPD to seek. Symptoms started after the death of her friend of neighborhood, who was suffer from jaundice and skin diseases. Her mother complained that she became excessively stubborn, remained anxious and excessively confused in decision making. Gradually she developed the habit of washing utensils, clothes, hands repeatedly she spent much time in bathroom (bathe 5-6 times in a day). She preoccupied with her thoughts of cleanliness and concerned about her personal hygiene. She used to wash several times in order to ensure that every nook and corner of the house was clean and free of germs. Most of the time she was spent in cleaning as a result, she failed to cook the meal and their other responsibility. She felt distress from uncontrollable engaging in acts of cleaning and washing. She avoided going out and public place, and mostly

remained confined within the four walls of her room. Due to these acts her fear of contamination was increased and constant preoccupation with thoughts of cleanliness adversely affect her interpersonal relations, daily life activities and family responsibilities. She became annoyed and irritable very easily on minor provocations and petty issues, especially when her demands are not met by others. Her condition worsened day by day. No co-morbid psychiatry, medical or neurological condition, and intellectual disability were found.

Reason for Taking Intervention: To decrease the symptoms of obsessive thoughts, preoccupation with contamination, excessive cleaning, and washing without using of SSRIs.

Measures:

Yale-Brown Obsessive Compulsive Scale (Y-BOCS)(Dalglish et al., 2007), Beck Anxiety Inventory, and Beck Depression Inventory was used for baseline assessment. Yale-Brown obsessive Compulsive (Y-BOCS) scale used for assess the level of obsession. In which unwanted ideas, image or impulses, come in mind against the persons wishes and effort to resist. The common fear is being contaminated, repetitive doubt about danger, fear of losing important things etc. This is a 5 point Likert scale, range (0-4) item each, consist 10 items. Beck Anxiety Inventory (BAI) is a self-reported measurement of anxiety. The BAI consist of 21 Items. Reliability of test Cronbach's Alfa is .92, test retest .75, the validity of moderately correlated with Hamilton anxiety scale is 0.51 & mildly correlated with Hamilton depressive rating scale is 0.25 (beck et. Al., 1988) Beck depression scale is a self-reported scale, consisting of 21 item range from 0-4,

Pre-therapy Assessment & findings:

Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) assesses obsessive-compulsive symptoms. On this scale patient's score on obsession subscale was 20, which indicates a moderate range of

severity and her score on compulsion subscale was 30, indicating the severe level of OCD. Beck Anxiety Inventory (BAI). Assess self-reported anxiety, on this scale patient's score, was 17, which indicates the mild level of anxiety. Beck Depression Inventory (BDI), assess the level of depression present in the patient, on this scale patient's score was 40, which indicates the severe level of depression.

Procedure: In order to assess the efficacy of the cognitive drill along with JPMR on OCD patient, a pre and post-test design was employed. Measurements were taken on YBOCS. Following the baseline assessments, the subject attended 12 therapy sessions. The length of each session was around 40 minutes to one hour. Essentially, the intervention includes the following components which were carried out in an average of 12 sessions.

The sequence of Progressive muscle relaxation

- First, they make comfortable
- Demonstrate and taught the process of JPMR.
- Make a comfortable position (either sitting, or laying)
- Before the beginning to tense the muscle group, to feel the tension in a particular group of muscle lower limbs -feet and legs, middle- stomach, chest. Arms shoulders and neck and face.
- Keep the muscle tensed-up up to 5 seconds (but avoid making painful conditions).
- Gradually relax the muscle and keep in the same position up to 10-15 seconds.

Intervention of JPMR

Jacobsen Progressive muscle relaxation (JPMR) was introduced to reduce the symptoms of anxiety and depression. During the therapy JPMR technique was demonstrated and taught. Therapist introduces Cognitive Drill and JPMR simultaneously. During CDT patient felt anxiety and discomfort, this discomfort is the maintaining factor of the compulsive

acts. JPMR reduced this discomfort and improve the effectiveness of therapy.

Cognitive Drill Protocol: Psycho-education: In this process therapist provide information regarding the mental illness (OCD), and nature of the illness, its underlying probable etiology, prevalence, symptoms nature and process of treatment, as well as the prognosis is provided to the patient as well the family members. Therapist explains her external factor as well as cognitive factor of developing OCD. The main goal of psycho education is to help the patients cope with their illness by employing effective therapeutic strategies so that their quality of life can be increased and relapse be prevented.

Initial identification of fear-producing stimulus events and cognitions: With the collaborative effort of the therapist and the client, make detailed list of all the anxiety-provoking situations and events which results in obsession and compulsions are identified and listed in a hierarchical manner. Such as “if she went to toilet become infected, out-side of home germs are present and I would not able to save myself and I become infected”. The Client has many anxiety triggering situations in a day; therefore the client is given the homework to pin down all those situations in a diary which cause the obsessive thoughts and compulsive rituals. And the forthcoming session it dealt by the therapist.

Conversion of linguistic pattern: Transformation of this future perspective into a past or a present. one is the pivotal component of this protocol as the cognition associated with anxiety mostly expresses itself in the future perspective. For example, I will become contaminated with germ (future tense) converted into, I have become contaminated (past tense) or I am contaminated (present tense). Limitation of this protocol may not be effective on the patients who already have developed a belief that she is contaminated as their linguistic patterns cannot be reformed into a past or a present one. Therefore, a crystal

clear mention of the future frame of reference must be present.

Cognitive drill: The stimulus and events or thoughts which elicit anxiety are identified as a first step of the drilling process. After the anxiety-provoking stimulus is identified, we begin with the stimulus which produces the least anxiety as those events which produce high anxiety cannot be started first. Therefore, in this process, the anxiety-provoking idea is repeated verbally for about 2-5 minutes and is again resumed t a gap. Here patient complaint that she will become infected then the statement is verbalized as “I am infected” and this statement is repeated verbally by the patient continuously for about 2-4 minutes followed by a gap and this drilling process is continued for about 45 minutes. The drill for the anxiety-provoking ideas is continued until it ceases to produce anxiety response. In this way, the procedure is continued from one anxiety provoking idea to another anxiety provoking idea after a significant reduction in the anxiety of the former one.

Subjective reports of discomforts: The therapist note down the level of discomfort produced in the patient that can be measured easily such as on a 0-10. As soon as the level of discomfort is reduced from high to moderate and gradually to low, the process is then continued with another event which evokes anxiety followed by a gap.

Change of cognitive drill statements: Once the anxiety that is produced from a statement is lowered or ceased as indicated by the subjective units of discomfort, we cling to another such anxiety-provoking statement and in this manner; the procedure of cognitive drill is continued.

Homework: after the session, homework is given to the patient in that he is asked to carry out drilling process by either verbally repeating the converted statements or writing it in a piece of paper for 1 or 2 times daily. Initially patient found difficulty in doing home work, she avoid due to feeling of discomfort. When she used to JPMR simultaneously, became able to complete her task.

Other considerations: In the termination of therapy, therapist advised to clients to follow the cognitive drill therapy on their own. Also, the therapist plans some sessions after termination such as weekly session, fortnightly session, monthly session or booster sessions every three months in a year in order to prevent relapses.

Post Therapy assessment:

In post assessment her scores on Y-BOCS severity rating scale were found to be 18 and 15 for obsessions and Compulsions respectively indicating moderate level of severity. Beck Anxiety Inventory (BAI). Assess self-reported anxiety, on this scale patient's score, was 10, which indicates the mild level of anxiety. Beck Depression Inventory (BDI), assess the level of depression present in the patient, on this scale patient's score was 21, which indicates the moderate level of depression.

RESULTS

Finding of Y-BOCS rating scale his scores was found to be 20 and 23 for obsessions and compulsions, indicate moderate level of severity. Post assessment indicated her scores to be 15 and 18 for obsessions and compulsions respectively indicating mild level of severity. Further in the follow up session his scores were found to be 6 and 5 for obsessions and compulsions respectively, indicative of mild level of severity. Anxiety and depression found in post therapy 30 to 10, and depression reduced 40 to 21, which indicate mild level of anxiety and moderate level of depression.

DISCUSSION

The present study was designed to gather the preliminary evidence for the efficacy of cognitive drill therapy in OCD. The result indicates a positive outcome of cognitive drill protocol. Patient-reported significant improvement and she started facing those situations which she was avoided previously. Patient-reported her self-confidence was enhanced. Cognitive drill provides an opportunity to face her

danger thoughts that something terrible may happen, if they fail to act their rituals, in a safe environment without making proximity with that objects. It is also helpful to reduce the dropout rate of follow-up. At the same time when anxiety/discomfort feels by the patient the distracter introduced. In this case study instead of using distracter therapist used JPMR to reduce the physiological symptoms of anxiety based on fight or flight. After this practice, if such situation faces by the patients she is able to handle without getting anxious. She is able to handle some other small danger. Now she is able to think about dirty deeds as well as she able to touch the dirty object without becoming anxious.

CONCLUSION

The present case study is to see the effectiveness of CDT with Jacobsen Progressive muscle relaxation (JPMR) and significant impact was found in level of depression, significant reduction in symptoms of OCD, and significant improvement of confidence as well as quality of life. In future direction this is a single case study. It should be administer with large number of sample, and should be compare CDT with other therapy.

REFERENCES

- A, H. P. (2016). Obsessive Compulsive Disorder (OCD): A Psychological Character Analysis, 1-14.
- Coughtrey, A. E., & Shafran, R. (2017). Mental Contamination, I.
- Dalgleish, T., Williams, J. M. G. ., Golden, A.-M. J., Perkins, N., Barrett, L. F., Barnard, P. J.,
- Watkins, E. (2007). [No Title]. Journal of Experimental Psychology: General, 136(1), 23–42.
- Damiano D., Prosser L., Curatalo L., A. K. (2013). NIH Public Access, 27(3), 200–207. <https://doi.org/10.1177/1545968312461716.Muscle>
- Francesco, P., Mauro, M. G., Gianluca, C., & Enrico, M. (2010). The efficacy of

- relaxation training in treating anxiety. *International Journal of Behavioral Consultation and Therapy*, 5(3–4), 264–269. <https://doi.org/10.1037/h0100887>
- Khan, S., Rathor, D., & Jain, R. (2018). Cognitive Drill Therapy in Mental Contamination: a Case Study. *International Journal of Advanced Research*, 6(5), 246–253. <https://doi.org/10.21474/IJAR01/7026>
 - Kumar, R., & Dubey, B. L. (2017). Cognitive Drill Perspective on the Nature of Stimulus in Anxiety Disorders, 135–136.
 - Kumar, R., Sameer, A., & Singh, B. (2012). Preliminary Test of Cognitive Drill as an Intervention, 39(1), 67–74.
 - Maltby, N., & Tolin, D. F. (2003). Overview of treatments for Obsessive-Compulsive Disorder and spectrum conditions: conceptualization, theory, and practice. *Brief Treatment and Crisis Intervention*, (December), 127–144. <https://doi.org/10.1093/brief-treatment/mhg011>
 - Manual, P. (n.d.). Cognitive drill therapy.
 - National Mental Health Survey of India, 2015-16. (2015).
 - Samantaray N. N. , Singh P., Mohapatra J. & Senger K S .(2018), Comparative Study of Efficacy of Behaviour Therapy, Cognitive Therapy and SSRI on Obsessive Compulsive Disorder: Indian Journal of Clinical Psychology, Vol. 45, No. 1, 51-58
 - Sadock, B. J., Sadock, V. A., & Ruiz, P. (2015). Synopsis of Psychiatry: Behavioral Science/ Clinical Psychiatry 11Th Edition. Synopsis of Psychiatry: Behavioral Science/ Clinical Psychiatry 11Th Edition.
 - Samantaray, N. N., Singh, P., Mohapatra, J., & Sengar, K. S. (2018). Comparative Study of Eicacy of Behaviour Therapy, Cognitive Therapy and SSRI on Obsessive Compulsive Disorder, 45(1), 51–58.
 - Warnock-Parkes, E., Salkovskis, P. M., & Rachman, J. (2012). When the problem is beneath the surface in OCD: The cognitive treatment of a case of pure mental contamination. *Behavioural and Cognitive Psychotherapy*, 40(4), 383–399. <https://doi.org/10.1017/S1352465812000252>
 - Wolitzky-Taylor, K. B. (2009). Randomized clinical trial investigating the efficacy of self-administered interventions for reducing pathological academic worry. *ProQuest Dissertations and Theses*, 230.
 - A, H. P. (2016). Obsessive Compulsive Disorder (OCD): A Psychological Character Analysis, 1–14.
 - Coughtrey, A. E., & Shafran, R. (2017). Mental Contamination, I.
 - Dagleish, T., Williams, J. M. G. ., Golden, A.-M. J., Perkins, N., Barrett, L. F., Barnard, P. J., Watkins, E. (2007). [No Title]. *Journal of Experimental Psychology: General*, 136(1), 23–42.
 - Damiano D., Prosser L., Curatalo L., A. K. (2013). *NIH Public Access*, 27(3), 200–207.
 - Francesco, P., Mauro, M. G., Gianluca, C., & Enrico, M. (2010). The efficacy of relaxation training in treating anxiety. *International Journal of Behavioral Consultation and Therapy*, 5(3–4), 264–269. <https://doi.org/10.1037/h0100887>
 - Khan, S., Rathor, D., & Jain, R. (2018). Cognitive Drill Therapy in Mental Contamination: a Case Study. *International Journal of Advanced Research*, 6(5), 246–253.
 - Kumar, R., & Dubey, B. L. (2017). Cognitive Drill Perspective on the Nature of Stimulus in Anxiety Disorders, 135–136.
 - Kumar, R., Sameer, A., & Singh, B. (2012). Preliminary Test of Cognitive Drill as an Intervention, 39(1), 67–74.
 - Maltby, N., & Tolin, D. F. (2003). Overview of treatments for Obsessive-Compulsive Disorder and spectrum

- conditions: conceptualization, theory, and practice. *Brief Treatment and Crisis Intervention*, (December), 127–144.
- Jain R. (2015) *Professional Manual, Cognitive drill therapy. Fast OCD-Panic-Phobia Relief*.
 - National Mental Health Survey of India, 2015-16. (2015).
 - Samantaray N. N. , Singh P., Mohapatra J. & Senger K S .(2018), *Comparative Study of Efficacy of Behaviour Therapy, Cognitive Therapy and SSRI on Obsessive Compulsive Disorder: Indian Journal of Clinical Psychology*, Vol. 45, No. 1, 51-58
 - Sadock, B. J., Sadock, V. A., & Ruiz, P. (2015). *Synopsis of Psychiatry: Behavioral Science/ Clinical Psychiatry 11Th Edition*. *Synopsis of Psychiatry: Behavioral Science/ Clinical Psychiatry 11Th Edition*.
 - Samantaray, N. N., Singh, P., Mohapatra, J., & Sengar, K. S. (2018). *Comparative Study of Efficacy of Behaviour Therapy, Cognitive Therapy and SSRI on Obsessive Compulsive Disorder*, 45(1), 51–58.
 - Warnock-Parkes, E., Salkovskis, P. M., & Rachman, J. (2012). *When the problem is beneath the surface in OCD: The cognitive treatment of a case of pure mental contamination*. *Behavioural and Cognitive Psychotherapy*, 40(4), 383–399.
 - Wolitzky-Taylor, K. B. (2009). *Randomized clinical trial investigating the efficacy of self-administered interventions for reducing pathological academic worry*. *ProQuest Dissertations and Theses*, 230.

How to cite this article: Bajpai P, Mishra NK, Sweta. Cognitive drill therapy and Jacobson progressive muscle relaxation in the treatment of obsessive compulsive disorder (OCD): a case study. *Int J Health Sci Res*. 2018; 8(12):206-212.
