

COGNITIVE BEHAVIORAL THERAPY-AN ALTERNATIVE THERAPY TO OVERCOME DEPRESSION IN PATIENTS WITH MULTIPLE SCLEROSIS

Article Review by Mr. Abhishil Suvarna, India

(M.Sc Pharmaceutical Chemistry, PhD in Clinical Research Student of Texila American University)

Email:- abhi_suvs2004@yahoo.com

SOURCE

Hind, D, Cotter, J, Thake, A, Badburn, M, Cooper, C, Issac, C, House, A, (2014). “Cognitive behavioural therapy for the treatment of depression in people with multiple sclerosis: a systematic review and meta-analysis”, BMC Psychiatry, vol 14, issue 5, viewed 15 January 2014, <http://www.biomedcentral.com/1471-244X/14/5>

KEYWORDS

Multiple Sclerosis, Depression, Cognitive Behavioural, Researches, Molecular Genetics, Pathophysiology

INTRODUCTION

This review would critically review the article, “Cognitive behavioural therapy for the treatment of depression in people with multiple sclerosis: a systematic review and meta- analysis”, published in BMC Psychiatry. The review would introduce the article with a brief summary on the basis of available literature and further critique the overall structure of the article. The review would provide information on the accessibility of the article and highlights on current activities that are ongoing in the area of research. In addition, it would also provide information on the article by critically evaluating it on the basis of accuracy, relevance, stability, objectivity and ultimately the credibility of the article set to be reviewed. The cited references would also be critiqued on the basis of the authenticity of the article and presentation of references for future citations.

REVIEW OF LITERATURE

Multiple Sclerosis (MS) is a progressive neurological, autoimmune condition, which affects the myelin sheath within the central nervous system, leading to less effective communication between neurons. Thus, showing symptoms of MS which are experienced early on in the form of muscle spasm, tingling pain in extremities, general weakness and blurred vision. (7) Depression in MS is another most common psychiatric disorders and proposed early care will help maintain the quality of life and prevent suicidal tendencies. (14) It has been proven that the suicidal tendency is 7.5 times higher in MS patients than in general population. (10) The main reasons for depression in MS are the associated physical and cognitive impairments, mood tendencies, treatment side effects of Interferon B and immune system dysfunction. (14) It has also been found that cognitive impairment is generally aggravated when depression is in the moderate to severe range (13).

Depression in MS can be treated by psychotherapy and this has been one of the most acknowledged treatments for the past 3 decades. There have been group cognitive behavioural therapy and Individual Cognitive behavioural therapy (CBT) used to treat depression in the past. Both the therapies have been shown to decrease levels of depression in MS patients and hence, are the best tools for effective management of depression in MS (14). Pharmacotherapy along with psychotherapy have proven to be fruitful however, it has been seen that a structured system which includes regular follow up, monitoring of patient adherence to therapy need to be implemented in patient care for depression in MS (14).

ARTICLE SUMMARY

Depression being a common symptom amongst people with MS; the study primarily aimed to denote the impact of cognitive behavioural therapy in treatment of depression in people with MS. Thus based on the available evidence, a systematic review was undertaken to meet the study objectives. The publications that were subject to review was identified using MEDLINE, PsycINFO and the Cochrane Central Register of Controlled Trials which majorly involved data on individual, group CBT, conducted face-to-face or remotely, to no CBT. Out of 153 studies 7 were identified to review the compounding factors which involved data retrieval for 433 subjects that fulfilled the eligibility criteria of MS with depression and associated psychotic disabilities. The researchers then analysed the collated data statistically to evaluate the impact of CBT on depression and further facilitated with favourable results. Despite the study being a success it had its own limitations as the scope of the study was too narrow to be having a firm conclusion on the research topic. The article therefore concluded on the basis of evidence based medicine that CBT can be an effective alternative in treating the associated depression in MS patients and further improving quality of life. The article may also represent an opportunity for future research in MS. (6)

ARTICLE STRUCTURE

The article was structured very systematically defining every section of the article in a organized manner. The article was separated from the abstract making it distinct in the beginning of the article. The abstract provided highlights of the article under 4 major headings of background, methods, results and conclusion. The author introduced the articles as per the main headings mentioned in the abstract followed by subsequent sub-headings which explains every aspect of the study in a systematic manner. A thorough discussion was provided after the results section and it discussed every aspect of the objective to achieve the endpoint. Limitations to the study were also discussed. Author specific activities too were clearly mentioned under the heading of author's contribution. The author has also acknowledged the stake holders involved in the success of the study completion.

The articles used as a reference in support to the article are mostly original article and have presented in as per the journals requirement. Author specific referencing was maintained uniformly all across the article. A blend of small and large paragraphs was sectioned under respective headings. The article involved multiple tabular formats, images and graphical representations that were easy to assess and link to the discussion in the article to discuss the outcomes of the research. The article was retrieved from Biomed Central open access in a PDF document format, thus the internal links were not easily accessible. Prior to conclusion the article mentions the necessity for conduct of research in the particular domain and thus influences future research.

ARTICLE CRITIQUE

Authority

The article was published in the BMC Psychiatry. The Journal is an open access journal used for publishing articles which mainly focuses on the information that is obtained in the field of psychiatry either from clinical trials or various observational / behavioural studies thus supporting evidence based medicine. The journal is being supported by Biomed Central and all rights pertaining to the article is reserved with Biomed Central Ltd.

The author is currently being involved in multiple researches involving multiple sclerosis population to understand the probable challenges that could be faced in improving the quality of life of patients with multiple sclerosis and also provide alternatives to improve management of the disease with alternative therapies. The article has been verified and approved by all the co-authors and two of the authors involved have shown competing interest. No specific funding was provided for the conduct of the research; however start-up activities were looked up by the lead author.

Accuracy

The article was published in an open access, academic oriented journal specifically for studies or researches involving geriatric population which is majorly supported by the Biomed Central Ltd. The articles published in this journal mainly focuses on researches focused on prevention, diagnosis and

management of psychiatric disorders, as well as related molecular genetics, pathophysiology, and epidemiology. (9) The article was reviewed by all the authors and further peer review by the journal editors along with its acceptance in the journal affirms the accuracy of the article. There were no conflicts of interest observed amongst the authors, however competing interest was observed between Hind and Cooper as they were trialists in the CBT Software for the treatment of depression in people with MS. (6) Further acceptance of the author for scope of bias due to limitations in the study design assures the article can be considered genuine and acceptable for further research.

Currency

The article was published in the journal on January 2014 and was received by the reviewing committee in July 2013. The dates itself indicates the currency of the article as not much success is being obtained in research on MS population. Thus the article may be considered as current.

Relevance

The article was derived from an academic oriented open access journal BMC Psychiatry. The journal is a specifically for health and healthcare of psychiatric population irrespective of age and gender, including the effects of healthcare systems and policies. The article would majorly benefit researchers involved in psychiatric research specifically involving MS patients. It would also benefit researchers to further design clinical trials by overcoming the most probable shortfalls.

Objectivity

The article aimed to determine the importance of cognitive behavioural therapy in the treatment of depression in MS patients also provide alternatives; strategies and future recommendation for further research which would enable reach the study endpoints. The article had limitations which the author identified as the study progressed, thus meeting the endpoints of the study were challenging. At the end of the article the author did mention the drawbacks of the study and also acknowledged the scope of bias because of the limitations in the study design. Competing interest is being observed amongst the lead authors of the article. They also acknowledged the work done by each fellow researcher.

Stability

The article has been published in a recognised open access journal wherein articles go through a strict review process and thus is considered to be stable and resourceful for researchers.

Analysis of Graph / Image / Table

The research article involved graphs, images and tables. Study specificities were discussed systematically which clearly defined every aspect of the expected outcome. The graphs were analysed statistically and discussed effectively with proper referencing throughout the article.

RECENT ADVANCE RELATED TO THE TOPIC

MS is an autoimmune disease that affects an individual making him incompetent in dealing with certain activities of life. Associated complication in the form of depression, mental and physical impairment does influence the quality of life of such individuals. It is thus that researchers are working on implementing newer techniques and / or therapy patterns to overcome the clinical condition thus improving quality of life of these patients.

Researchers are currently involved in generating data on the basis of available data to provide future researchers scope for further research. In the past, studies have explored age-related patterns of disease presentation, treatment approaches, survivorship, quality of life, impact of co morbidities, and functional outcomes which indirectly may help researchers to generate hypothesis in overcoming the clinical condition. (5) In addition to the two treatment methodologies listed above complementary and alternative medicine (CAM) is also useful to help manage the different lifestyle changes and stress brought upon by the disease (10). CAM involves a wide range of disciplines and traditions from all across the horizon. These help to provide holistic healing to the patients as it encompasses not only diet and exercise but also stress management strategies. (10) For those patients who do not respond to the therapies mentioned earlier in the literature review section, the following three methodologies may be adopted: trans cranial magnetic stimulation, which is under study at present, Vagus nerve stimulation, which has been used in since the late 1990s in epileptic patients and electroconvulsive therapy (ECT), however, ECT may have negative impacts on the blood brain barrier and hence, the patients need to reassess the risks vs benefits before undergoing this procedure (12). In addition, cognitive and behavioural treatments mainly aiming to psychoanalytic therapies, systematic therapies, integrative therapies and methodological integrations of cognitive, behavioural and humanistic approaches are widely practised. (15). All these additional therapies are subject to further research.

CONCLUSION

The article published by Daniel Hind has been reviewed critically on the basis of its authority, accuracy, relevance, stability, currency and objectivity. The article was presented in a systematic manner defining each and every section as mentioned in the abstract. The article involved tables, diagrams and graphical representations which were effectively discussed and referenced throughout the study. The study was published in an academic journal which was supported by Biomed Central Pvt. Ltd which affirms the authenticity of the article.

MS is an autoimmune, neurological disorder that impacts the life of patients drastically making them highly dependent on their peers. Associated depression aggravates the clinical condition making it difficult for the patient to undergo his daily activity due to the mental and physical impairment involved. Various treatment suggestions in the form of psychotherapy, CBT along with CAM therapies are being practiced and are in research to delve the best practise and make it available.

The study aimed to determine the impact of CBT on treating depression in MS patient's on the basis of a systematic review which was satisfactorily attained by the author. A scope for bias too was

highlighted in the discussion under the limitation in the study. The currency of the article suggests further scope for research in understanding the commonly faced challenges and making an effort to overcome them. Currently there are studies that are ongoing to denote improvement in care that could be provided to the MS patients in all aspect of treatment, management and palliative care.

REFERENCES

1. Ball, J., Thinking your way out of Depression, New South Wales, Retrieved January 31, 2014: http://www.blackdoginstitute.org.au/docs/cbt_jillianball.pdf
2. Beltman, M., Richard, W., Voshaar, V., & Speckens, O., (2010). Cognitive Behavioral therapy for depression in people with a somatic disease: meta-analysis of randomised controlled trials. *BJP*, 197, pp 11 -19. Retrieved from: <http://bjp.rcpsych.org/content/197/1/11.long>
3. Buchanan, R., Freedman, W., Javitt, R., Abi-Dargham, DC., & Liberman, A.,(2007). Recent advances in the development of novel pharmacological agents for the treatment of cognitive impairment in schizophrenia. *Schizophrenia Bulletin*, 33, 5, pp 1120 – 1130. Retrieved from: <http://schizophreniabulletin.oxfordjournals.org/content/33/5/1120.full.pdf+html>
4. Cooper, CL., Hind, D., Parry, GD., Isaac, CL., Dimairo, M., O'Cathain, A., Rose, A., Freeman, JV., Martin, L., Kaltenthaler, EC., Thake, A., & Sharrack, B.,(2011). Computerised cognitive behavioural therapy for the treatment of depression in people with multiple sclerosis: external pilot trial. *Trials*, 12, 259. Retrieved from: <http://www.trialsjournal.com/content/12/1/259>
5. Duke Geriatrics. Clinical Research. Retrieved January 31, 2014: <http://geriatrics.medicine.duke.edu/research/clinical-research>.
6. Hind, D., Cotter, J., Thake, A., Badburn, M., Cooper, C., Issac, C., & House, A.,(2014). "Cognitive behavioural therapy for the treatment of depression in people with multiple sclerosis: a systematic review and meta-analysis", *BMC Psychiatry*, 14, 5, Retrieved from: <http://www.biomedcentral.com/1471-244X/14/5>.
7. Medline Plus. X-Plain, Multiple Sclerosis. Retrieved January 15, 2014: http://www.nlm.nih.gov/medlineplus/tutorials/multiplesclerosis/htm/_no_50_no_0.html.
8. Morris, RM., Dennison, L., & Chalder, T., (2010). Supportive Adjustments for Multiple Sclerosis. Multiple Sclerosis Society. Retrieved January 28, 2014: <http://www.mssociety.org.uk/sites/default/files/Documents/Professionals/SAMS%20Manual%20OGI22%201210%20-%20web.pdf>.
9. Murray, A., (2014). *BMC Psychiatry*. Retrieved January 30, 2014: <http://www.biomedcentral.com/bmcp psychiatry/about>.

10. National Multiple Sclerosis Society. Retrieved January 15, 2014: <http://www.nationalmssociety.org/about-the-society/index.aspx>
11. NHS choices. Cognitive Behavioural Therapy. Retrieved January 28, 2014: <http://www.nhs.uk/conditions/Cognitive-behavioural-therapy/Pages/Introduction.aspx>.
12. Shaddy, A., (2007). Understanding and treating depression in Multiple Sclerosis, recognising the symptoms and learning the solutions. *Multiple Sclerosis Association of America*. Retrieved from: <http://www.mymsaa.org/PDFs/MsAA.Depression.0507.pdf>.
13. Siegert, RJ., & Abernethy, DA., (2005). Depression in multiple sclerosis: a review, *Journal of Neurol Neurosurg Psychiatry*, 7, pp: 469–475. Retrieved from: <http://jnnp.bmj.com/content/76/4/469.short>.
14. Wallin, MT., Wilken, JA., Turner, AP., Williams, RM., & Kane, R., (2006). Depression and multiple sclerosis: Review of a lethal combination. *Journal of Rehabilitation Research and Development*, 43, 1, pp 45-62.
15. Whitefield, G., & Williams, C., (2003). The evidence base for cognitive – behavioural therapy in depression: delivery in busy clinical settings. *Advances in Psychiatric Treatment*, 9, pp 21 – 30. Retrieved from: <http://apt.rcpsych.org/content/9/1/21.full>.