Evaluation of Quality of Life Impairment in Depressive Patients

Ranganathan Lakshmi[1] & Swaminathan S[2]

[1]Research Intern, Krishnamacharya Yoga Mandiram, Mandaveli, Chennai.
[2] Chief of Biochemistry, SRM Medical College & Hospital and Research Centre, Kattankulathur, Kancheepuram District, Chennai, South India.

Abstract- Depression has now become an universal health problem and the outcome of such disorder is physical, psychological, mental and social problems. Several studies have shown that depression results in impairment in the quality of life leading to decreased work performance, The purpose of this study is to find out the association between the levels of depression by scoring systems and the degree of impairment with the quality of life. This prospective study was carried out as part of a doctoral research in a prominent yoga centre in the city from January 2012 to July 2013. 34 subjects, both males and females in the age group 18 – 60 years, who sought yoga treatment for depression, who scored greater than 8 points with Beck's depression inventory and signed informal consent were enrolled for this study. The quality of life score were collected using SF – 36 questionnaire. Beck's depression scores and demographic details were used for statistical analysis using SPSS version 17.0 software. Pearson correlation coefficient analysis gave r values of -0.582 and -0.585 between depression and physical and mental health respectively and the p values was < 0.05 for both parameters. This study shows that quality of life is significantly affected by depression. The negative correlation reveals that the quality of life decreases as depression increases and mental health is more affected than physical health.

Index Terms- Depression, Quality of life, MDD, physical health, mental health, Beck's Score.

I. INTRODUCTION

Major depressive disorder (MDD) is the fourth leading disease causing functional impairment, disability and workforce loss worldwide. It is a prevalent health problem which is associated with substantial mortality, direct medical cost, diminished life quality, and significant physical and psychosocial impairment. Psychiatric illnesses are strongly associated with impairment in quality of life (QOL), frequently at levels that are equal to or exceed those of medical illnesses. Depression negatively impacts a myriad of facets of an individual's life including functioning, satisfaction with work, relationships, leisure, physical health, mental health, sexual functioning, sleep patterns, future outlook and overall sense of fulfillment or contentment with one's life. Studies have demonstrated that patients with MDD have significant impairments in QoL. An analysis from the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) study revealed that severity of depressive symptoms was significantly associated with poor health-related QoL (1). A study demonstrated significant impairments in QoL in subjects with a broad array of different depressive and anxiety disorders entering clinical trials. (2) and another study found that the degree of disability was related to severity of depression in patients with MDD (3).

According to Diagnostic Manual from American Psychiatric Association(DSM-IV) classification, a diagnosis of MDD is possible only when there is evidence of significant inference with normal functioning of an individual.. Health-related quality of life is the most appropriate indicator of social functioning. However, despite the high prevalence of MDD in the general population, it is uncommon for clinicians to assess overall functioning in a systematic way before making such diagnosis. Impaired quality of life is a significant problem for people with MDD and is often not addressed through symptom remediation alone.

An important correlate of functioning is QoL, which is typically defined as "patient's own assessments of how they feel about what they have, how they are functioning, and their ability to derive pleasure from their life's activities". Individual's perception of QoL is an additional factor that should be part of a complete assessment. As health-related QoL is a purely subjective measure, patient-rated questionnaires have been found to be most important in this context.

Health-related QoL includes dimensions other than social functioning, which mostly include physical health and mental health (including both cognitive and affective problems). The Short form Health Survey (SF-36) includes subscales relating to physical and mental health, which, like the social functioning subscales, are measured in terms of degrees of well being.

QoL indices have been used in medical practice to estimate the impact of different diseases on functioning and well-being and to compare outcomes between different treatment modalities. An integrated view of the issue of quality of life in patients with depressive disorders can provide important information regarding the nature and extent of the burden associated with these disorders and may be useful in the development of strategies to deal with it.

QoL is used to assess the overall impact of medical treatments from the patient's perspective. Because depression affects a person's ability to function at work and at home, the evaluation of various treatments must include an assessment of patients' physical, social and psychological status(4). Quality of life has become an important outcome criterion for psychiatric interventions. In chronic disorders with no complete recovery, the improvement of QoL is an important treatment goal. (5). Measuring the individual QoL appears as an adapted needs assessment and helps the psychotherapist in focusing on the patient's problems and desires (6). The purpose of this study is

therefore to evaluate patients suffering from depression in terms of Beck's score to assess the QoL in terms of physical and mental health.

II. Material and Methods

Subjects

This study was conducted at Krishnamacharya Yoga Mandiram, Chennai, as part of a doctoral research work. The study was approved by the Centre's Ethics Committee. A total of 34 subjects, both males and females in the age group of 18 – 60 years (13 males and 21 females) were enrolled for this study.

Inclusion criteria: Subjects who scored 8 or more as per Beck's Depression Inventory and who were willing to provide details in SF – 36 questionnaire and sign an informal consent were included in this study.

Exclusion Criteria: Subjects with Psychotic symptoms, severe life threatening illness as well as those who are already undergoing yoga treatment were excluded.

Assessment

Each subject was interviewed briefly and was asked to complete the Beck's Depression inventory and SF36 questionnaire. An informal consent was obtained from each patient.

Becks Depression Inventory: This scale was developed by Aaron T Beck, a self-administered four point Likert scale containing 21-items, designed to assess the severity of the symptoms of depression. The total responses were added to determine the overall Beck's score ranging from zero to 63. Based on the total score, the severity of depression was classified as, 0 to 13 - minimal depression; 14–19 - mild; 20–28 – moderate and 29–63 - severe depression.

Statistical analysis

Statistical Package for Social Science (SPSS) version 17.0 (Chicago, IL, USA) was used to analyse the data. Descriptive statistics were used for all variables. Pearson's correlation analysis was done to find out the association between depressive scores and QOL. QOL and depression score of mild, moderate and severe depressive patients were compared using analysis of variance (ANOVA) test. Quantitative data are represented as the mean± standard deviation (SD) and a p value of <0.05 was considered as an expected level of significance.

III. RESULTS

Table I
Parameters Analysed and Results

S. No.	Parameters Analysed	Result
1	Mean depressed scores (all subjects)	21.41 ±7.02 (x ± 2SD)
2	QOL - Physical health	44.97 ± 9.41 (x ± 2SD)
3	QOL - Mental health	36.17 ± 11.78 (x ± 2SD)
4	r and p values (depression Vs Physical health)	-0.582 ; p <0.05
5	r and p values (depression Vs Mental health)	- 0.585 ; p <0.05

Table I gives the results obtained for depression scores as well as scores for physical and mental health. The mean depression score for all patients was 21.41 ± 7.02. Mean Quality of life scores was 44.97 ± 9.41 for Physical health and 36.17 ± 11.78 for mental health respectively. Pearson correlation coefficients obtained were -0.582 for physical and -0.585 for mental health respectively. The P value for both physical and mental health was found to be <0.05.

Table 2
Depression scores Vs QoL (ANOVA Test)

Depression score	Number of patients	QoL – Physical health (x ± 2SD)	QoL – Mental health (x ± 2SD)
8 - 13	5	53.4 ± 7.23	49.2±10.03
14 - 18	7	50.85 ± 9.66	41.57 ± 8.94
19 - 28	15	41.86 ±7.81	33.53 ± 10.64
29 - 32	7	39.71 ± 7.76	27.14 ± 8.02
P value		0.008	0.002

Physical and Mental health scores of QoL was compared with minimal, mild, moderate and severe depression scores using ANOVA test. P values for physical and mental health parameters were found to be <0.01. As the stage of depression increased, QoL values (both physical and mental health scores) decreased.

IV. Discussion

Both response and remission in patients with Generalised Anxiety Disorders (GAD) and remission in patients with MDD are correlated with a 'normal' quality of life enjoyment and satisfaction. The management of depression is very important to improve quality of life as well as distress. (7)

Although treatment may reduce the severity and frequency of target symptoms, the patient's assessment of QoL helps to differentiate a true treatment response and remission from a partial response. The evaluation of what constitutes an adequate treatment response or remission is complicated and likely requires multiple parameters assessment in order to develop a complete understanding. In both anxiety and depressive disorders, the patient suffers from impaired functioning, which results in increased healthcare utilization. Because these patients do respond to treatment, the idea of "wellness" as a high end state treatment outcome should be an important consideration when selecting a treatment option. (8)

In a study involving a large sample of the Australian population, all the dimensions of QoL, as measured by SF-36 items were poor among patients with depression with respect to the non-depressed general population, with the poorest level reached by patients with major depression.(9) Some studies indicate that the severity of Depression was significant in negatively influencing QoL of patients has been confirmed,

lower levels of QoL among patients with major depression with respect to those with dysthymia and adjustment disorders.(10)

The findings in this present study are consistent with other studies showing significant impairment of QoL in MDD patients such as STAR*D trial,(1) and the European Factors Influencing Depression Endpoints Research study (11) and another International six country study.(12) The literature investigating potential sex differences in MDD are quite extensive, but those investigating differences in QoL is sparse.(13) In the present study no differences in the measurement of QoL or functional impairment are based on sex.

V. Limitations

There are several limitations in this study. First, the sample size is small. Depression and QoL measures were self-reported. This study did not include a control group. Finally, this study used a sample of convenience of individuals who had consented to participate in the study. However, in spite of these limitations, the main results seem to be clear and relevant.

VI. Conclusion

Patients who are suffering with severe depression will have poor QoL and severe functional impairment. However, replication of the findings of this study in larger and cross-cultural samples is recommended. The results suggested the need to consider not only symptom based severity, but also functional impairment and QoL measures in the assessment and treatment of depressive patients.

References

[1] Trivedi MH, Rush AJ, Wisniewski SR, Warden D, McKinney W, Downing M, *et al*. Factors associated with health-related quality of life among outpatients with major depressive disorder: a STAR*D report. J Clin Psychiatry. 2006;67:185-95.

[2] Rapaport MH, Clary C, Fayyad R, Endicott J. Quality-of-life impairment in depressive and anxiety disorders. Am J Psychiatry. 2005;162:1171-8.

[3] Lépine JP, Gastpar M, Mendlewicz J, Tylee A. Depression in the community: the first pan-European study DEPRES (Depression Research in European Society). Int Clin Psychopharmacol. 1997;12:19-29.

[4] Kennedy SH, Eisfeld BS, Cooke RG. Quality of life: an important dimension in assessing the treatment of depression? J Psychiatry Neurosci. 2001;26 Suppl:S23-8.

[5] Aigner M, Förster-Streffleur S, Prause W, Freidl M, Weiss M, Bach M. What does the WHOQOL-Bref measure? Measurement overlap between quality of life and depressive symptomatology in chronic somatoform pain disorder. Soc Psychiatry Psychiatr Epidemiol. 2006 Jan;41(1):81-6. Epub 2006 Jan 1.

[6] Frick E, Tyroller M, Panzer M. Anxiety, depression and quality of life of cancer patients undergoing radiation therapy: a cross-sectional study in a community hospital outpatient centre. Eur J Cancer Care (Engl). 2007 Mar;16(2):130-6.

[7] Park HY, Lee BJ, Kim JH, Bae JN, Hahm BJ. Rapid improvement of depression and quality of life with escitalopram treatment in outpatients with breast cancer: a 12-week, open-label prospective trial. Prog Neuropsychopharmacol Biol Psychiatry. 2012 Mar 30;36(2):318-23. doi: 10.1016/j.pnpbp.2011.11.010. Epub 2011 Nov 28.

[8] Meltzer-Brody S, Davidson JR. Completeness of response and quality of life in mood and anxiety disorders. Depress Anxiety. 2000;12 Suppl 1:95-101.

[9] Goldney RD, Fisher LJ, Wilson DH, Cheok F. Major depression and its associated morbidity and quality of life in a random, representative Australian community sample. Aust N Z J Psychiatry. 2000;34:1022-9.

[10] Trompenaars FJ, Masthoff ED, Van Heck GL, Hodiamont PP, De Vries J. Relationship between mood related disorders and quality of life in a population of Dutch adult psychiatric outpatients. Depress Anxiety. 2006;23:353-63.

[11] Reed C, Monz BU, Perahia DG, Gandhi P, Bauer M, Dantchev N, *et al*. Quality of life outcomes among patients with depression after 6 months of starting treatment: results from FINDER. J Affect Disord. 2009;113:296-302.

[12] De Almeida Fleck MP, Simon G, Herrman H, Bushnell D, Martin M, Patrick D; Longitudinal Investigation of Depression Outcomes Group. Major depression and its correlates in primary care settings in six countries. 9-month follow-up study. Br J Psychiatry. 2005;186:41-7.

[13] Angst J, Gamma A, Gastpar M, Lépine JP, Mendlewicz J, Tylee A; Depression Research in European Society Study. Gender differences in depression. Epidemiological findings from the European DEPRES I and II studies. Eur Arch Psychiatry Clin Neurosci. 2002;252:201-9.

Authors

First Author – Ranganathan Lakshmi, Research Intern, Krishnamacharya Yoga Mandiram, Mandaveli, Chennai.
Second Author – Swaminathan S, Chief of Biochemistry, SRM Medical College & Hospital and Research Centre, Kattankulathur, Kancheepuram District, Chennai, South India.

Correspondence Author – Dr. S. Swaminathan, Chief of Biochemistry, Central Lab, SRM Medical College Hospital and Research Centre, Kattankulathur. Kancheepuram District 603 203, South India., Email : glorynathan@gmail.com