

## Research Article



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## EVALUATION OF CITALOPRAM AFFECTED THE GENERALIZED ANXIETY DISORDER PARTICIPANTS' QUALITY OF LIFE

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### ABSTRACT

**Background:** Escitalopram is an effective treatment for generalized anxiety disorder, while it has been shown to have an impact on the participants' quality of life when taken as prescribed. There is, however, a dearth of information in the literature on the subject.

**Aim:** The purpose of this study was to evaluate how citalopram affected the generalized anxiety disorder participants' quality of life. Additionally, it contrasted the quality of life (QoL) prior to and following treatment.

**Methods:** The current study evaluated 120 participants who had never been treated for generalized anxiety disorder (GAD) and were diagnosed at the Institute's Department of Psychiatry using the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) criteria. The Hamilton anxiety rating scale was used to gauge the severity of GAD. Participants were chosen based on their current escitalopram prescription, which calls for a daily dose of 10 mg. The WHO-QoL-BREF questionnaire was used to evaluate any changes in quality of life following a 4-week period of participation.

**Results:** The study's findings indicated that the first mean WHO QoL-BREF score was 217.46. The mean quality of life ratings increased significantly to 276.46 after 4 weeks of escitalopram therapy. Following escitalopram treatment, these data demonstrated a considerable improvement with a mean rise of 59 points.

**Conclusion:** The current study comes to the conclusion that escitalopram medication significantly improves the quality of life for individuals with generalized anxiety disorder.

The necessity for effective management strategies for this condition is understated by the treatment outcomes in these subjects.

**Keywords:** stress, depression, anxiety, escitalopram, GAD, and DAS-21

### INTRODUCTION

The hallmark of generalized anxiety disorder (GAD), a prevalent mental health illness that is not condition-specific, is excessive and ongoing worry. This crippling illness manifests as a collection of symptoms that greatly impair a person's ability to go about their everyday life, such as palpitations, tense muscles, irregular sleep patterns, irritability, anxiety, and exhaustion. Beyond the initial symptoms that typically accompany serious depression, GAD is a pervasive disorder that has a substantial impact on a person's overall quality of life (QoL).<sup>1</sup>

The highly accepted WHOQoL-BREF (World Health Organization's Quality of Life Brief Version Questionnaire) scale has been used to accurately measure quality of life. This instrument has proven to be highly valid and reliable across a wide range of subjects and medical issues, including mental health illnesses. The use of a four-week follow-up is

supported by evidence from the literature, which shows that the first reaction to SSRI (selective serotonin reuptake inhibitor) medication, including escitalopram, typically occurs within four weeks.<sup>2</sup>

According to data from earlier research, GAD treatment typically begins in the first few weeks of SSRI use. Escitalopram's therapeutic efficacy typically increases between weeks two and four, and it is known to reach steady-state plasma concentration almost a week after daily ingestion. These findings are in line with clinical recommendations that recommend assessing patients a few weeks following the start of SSRI therapy in order to guarantee tolerance and effectiveness. Therefore, a 4-week follow-up is backed by both clinical procedure and empirical data to manage GAD subjects and ensure the validity of quality of life measurements taken after treatment.<sup>3</sup>

Additional research is required to determine the precise impact of pharmaceutical therapy on quality of life in individuals with GAD, as prior literature data has indicated negative impacts of GAD on quality of life. Another medication that is used well to treat GAD and has become very popular recently is escitalopram. However, after four weeks of treatment with a dose of 10 mg per day, escitalopram has been shown to have an impact on the quality of life of those who are affected.<sup>4</sup>

The purpose of this study was to evaluate how escitalopram affected the quality of life of participants with generalized anxiety disorder. The quality of life (QoL) before and after treatment was also compared in the study.

## **MATERIALS AND METHODS**

The goal of the current interventional study was to evaluate how escitalopram affected the quality of life of participants with generalized anxiety disorder. The quality of life (QoL) before and after treatment was also compared in the study. The Institute's Department of Dermatology and Department of Psychiatry provided the study participants. Prior to participation, all individuals gave their written and verbal informed consent. 120 participants with a diagnosis of generalized anxiety disorder (GAD) who visited the Institute's Department of Psychiatry during the study period were evaluated for this study.

Participants in the study had to be between the ages of 18 and 60, have a confirmed clinical diagnosis of GAD in accordance with the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) criteria in either Hindi or English, depending on the subject's preference, and be willing to participate. Women who were nursing or pregnant, participants under the age of 18, participants over the age of 60, and participants with any co-occurring mental illness were all excluded from the study. Staff members who had received training in the process used and evaluated the WHOQoL-BREF at baseline following the final inclusion of the study participants. After then, the subjects received a regular dose of 10 mg of escitalopram for four weeks.

The WHOQoL-BREF was re-administered by the same personnel who had completed the baseline assessment, ensuring that bias and data collection were eliminated, when the individuals returned for follow-up after four weeks of treatment. All patients were evaluated at baseline prior to treatment and four weeks after starting escitalopram treatment (post-treatment). The study participants were observed for a total of four weeks.

The WHOQoL-BREF scale for evaluating quality of life, the HAMA (Hamilton Anxiety Rating Scale) score, family history of anxiety disorder, history of smoking, history of alcohol, marital status, residence, occupation, social and economic status, education, weight, height, gender, and age of the study participants were among the clinical data and sociodemographic characteristics that were documented for each subject.

The WHOQoL-BREF questionnaire is a widely used tool for evaluating the health of both healthy and sick individuals. It includes overall wellbeing, quality of life, and 26 questions broken down into 4 domains. Every question was scored on a scale of 1 to 5, and the findings were converted to scores between 0 and 100. The Hamilton Anxiety Severity Scale, or HAMA, consists of 14 questions designed to gauge a subject's level of anxiety. HAMA has demonstrated its sensitivity to changes in anxiety and depression disorders and also classifies the severity of GAD symptoms. The Kuppaswamy socioeconomic scale, which evaluates households based on three criteria—cumulative income, professional standing, and educational background—was another measure utilized in the study.

On this scale, cumulative scores fall between 3 and 29. It divides families into five groups: upper, lower middle, upper lower, and lower middle. The DSM-5 and the Statistical Manual for Mental Disorders, Fifth Edition were used as the diagnostic criteria for GAD.

The collected data was statistically evaluated using the Student t-test, ANOVA (analysis of variance), Chi-square test, and SPSS (Statistical Package for the Social Sciences) software version 24.0 (IBM Corp., Armonk, NY, USA) for evaluating descriptive measures. The findings were presented as frequency, percentages, mean, and standard deviation. A p-value of less than 0.05 was taken into account.

## RESULTS

The goal of the current interventional study was to evaluate how escitalopram affected the quality of life of participants with generalized anxiety disorder. The quality of life (QoL) before and after treatment was also compared in the study. In this study, 120 participants who had never received therapy for generalized anxiety disorder (GAD) based on the Institute's Department of Psychiatry's DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) criteria were evaluated.

In the current study, there were 73.4% (n=88) males and 26.6% (n=32) females. Of the survey participants, 63.4% (n=76) reported living in an urban area, whereas 36.6% (n=44) reported living in a rural one. The study included 31.6% (n=38) single people and 68.4% (n=82) married subjects. 16.6% (n=20) and 18.3% (n=22) of the study participants had a positive history of smoking and alcohol consumption, respectively. 8.4% (n=10) of research participants had a positive family history of anxiety illness (Table 1).

According to the Kuppaswamy socioeconomic scale, the majority of study participants (38.4%; n = 46) belonged to the lower middle class, followed by the upper middle class (33.4%), upper lower class (26.6%), upper class (16%; n = 2), and no participant in the current study was from the lower class (Table 1). The baseline HAMA score was  $16.03 \pm 6.48$ , and 20% of subjects had moderate to severe anxiety. The study's findings also revealed that the physiological domain score was  $45.74 \pm 12.40$  and the mean WHO QoL-BREF score was 217.46 at baseline. The mean HAMA scores dropped dramatically to  $12.3 \pm 5.43$  during the 4-week follow-up.

When comparing the study participants' ratings on the WHO QoL-BREF scale before and after therapy, the environmental domain revealed a significant rise from baseline to 4 weeks ( $p < 0.005$ ). From baseline to 4 weeks, there was a comparable and statistically significant gain in the social relations, psychological, and physical domains ( $p < 0.005$ ). These findings show that escitalopram medication significantly improves the quality of life for GAD patients, particularly in the psychological area, and that there were no adverse effects observed during the trial (Table 2).

## DISCUSSION

In this study, 120 participants who had never received therapy for generalized anxiety disorder (GAD) based on the Institute's Department of Psychiatry's DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition) criteria were evaluated. The results of earlier research by Shrestha S et al. (2015) and Yamada N et al. (2020), whose authors used a study design similar to the current study in their separate investigations, were likewise comparable to the study design of the current study.

According to the study results, there were 26.6% (n=32) female participants and 73.4% (n=88) male participants. Of the survey participants, 63.4% (n=76) reported living in an urban area, whereas 36.6% (n=44) reported living in a rural one. The study included 31.6% (n=38) single people and 68.4% (n=82) married subjects. 16.6% (n=20) and 18.3% (n=22) of the study participants had a positive history of smoking and alcohol consumption, respectively. 8.4% (n=10) of the study participants had a positive family history of anxiety disorders. These findings aligned with the findings of Mendlowicz MV et al. (2000) and Dzevlan A et al. (2019), in which the authors evaluated participants based on their specific study demographics.

According to the Kuppaswamy socioeconomic scale, the majority of study participants (38.4%; n = 46) belonged to the lower middle class, followed by the upper middle class (33.4%), upper lower class (26.6%), upper class (16%; n = 2), and no participant was from the lower class in this study (Table 1). The baseline HAMA score was  $16.03 \pm 6.48$ , and 20% of subjects had moderate to severe anxiety. The study's findings also revealed that the physiological domain score was  $45.74 \pm 12.40$  and the mean WHO QoL-BREF score was 217.46 at baseline. The mean HAMA scores dropped dramatically to  $12.3 \pm 5.43$  during the 4-week follow-up.

The results of the present study were consistent with those of Lenze EJ et al. (2011) and Stein DJ et al. (2005), who found that the Kuppaswamy socioeconomic scale and HAMA scores reported by the authors in their investigations were comparable.

The environmental domain showed a significant rise from baseline to 4 weeks ( $p < 0.005$ ) when comparing the study patients' WHO QoL-BREF scale scores before and after therapy. From baseline to 4 weeks, there was a comparable and statistically significant gain in the social relations, psychological, and physical domains ( $p < 0.005$ ).

These findings show that escitalopram medication significantly improves the quality of life for GAD patients, particularly in the psychological domain, and that there were no adverse effects observed during the trial. These findings were consistent with those of Wetherell JL et al. (2011) in 2004 and Muneer MU et al. (12) in 2022, where the authors similarly reported a comparison of WHO QoL-BREF scale scores in research subjects identical to the current investigation.

## CONCLUSIONS

The present study, within its limitations, concludes that treatment with escitalopram is associated with significant improvement in the quality of life in subjects with generalized anxiety disorder. The treatment outcomes in these subjects underestimate the need for efficacious management approaches for this disorder. However, further longitudinal studies with larger sample sizes and longer monitoring are needed to reach a definitive conclusion.

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S. No	Characteristics	Number (n)	Percentage (%)
<b>1.</b>	<b>Gender</b>		
<b>a)</b>	Males	88	73.4
<b>b)</b>	Females	32	26.6
<b>2.</b>	<b>Residence</b>		
<b>a)</b>	Urban	76	63.4
<b>b)</b>	Rural	44	36.6
<b>3.</b>	<b>Marital status</b>		
<b>a)</b>	Married	82	68.4
<b>b)</b>	Single	38	31.6
<b>4.</b>	<b>Smoking history</b>	20	16.6
<b>5.</b>	<b>Alcohol history</b>	22	18.3
<b>6.</b>	<b>Familial history of anxiety disorder</b>	10	8.4
<b>7.</b>	<b>Kuppuswamy socioeconomic scale</b>		
<b>a)</b>	Lower	0	0
<b>b)</b>	Upper lower	32	26.6
<b>c)</b>	Lower middle	46	38.4
<b>d)</b>	Upper middle	40	33.4

e)	Upper	2	16
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**Table 1: Demographic and disease data in study subjects with GAD**

S. No	Domains	Pre-treatment	Post-treatment	p-value
1.	Environment	63.78±13.10	75.60±13.04	<0.005
2.	Social relations	58.86±18.94	69.70±14.77	<0.005
3.	Psychological	45.74±12.40	65.53±10.00	<0.005
4.	Physical	49.02±12.33	65.57±9.75	<0.005
5.	Total	217.46±56.82	276.46±47.62	<0.005

**Table 2: Comparison of WHO QoL-BREF scale scores in study subjects before and after treatment**