Original Research Article

The utilization pattern of Cognitive Behavior Therapy for anxiety disorders in adults: A naturalistic study from a Medical College Hospital

Sudhir Hebbar[1], Sylvester Satish Romero[2*]

[1]Professor and HOD, [2]Assistant Professor
Department of Psychiatry, Saptagiri Institute of Medical Sciences and Research Center, Bangalore, India
[*]Corresponding author email: **Sylvestersatishromero45@gmail.com**

Abstract

Background: Cognitive Behavior Therapy (CBT) for anxiety disorders is proved to be equally efficacious to medications in research settings. Is CBT effective in naturalistic settings? Studies in naturalistic setting are recently surfacing world over. Indian studies in this area are almost non-existent.

Material and methods: Eighty adult patients satisfying criteria for an anxiety disorders as per Diagnostic and Statistical Manual of Mental disorders, 5th edition (DSM-5) were evaluated using appropriate rating scale and treated with medication only, CBT only or a combination. Socio-demographic variables between CBT (n=33) and no CBT (n=47) were compared. Various utilization parameters were evaluated. Results analyzed using statistical tests.

Results: Education, economic status, closeness to hospital, younger age and male gender was associated with taking up psychotherapy. Panic disorder was 4 times prevalent than all other anxiety disorders. There was 59% primary dropout/refusal, 37% premature termination of CBT. Both refusal of 59% and premature termination of 14% of total sample add up to 73%. This indicated intent to treat number was 4. In this panic disorder dominant sample mean number of CBT sessions were 3.2

Conclusion: Treatment refusal and dropout from CBT is a significant problem among patients with anxiety in the general hospital psychiatry setup. At its darkest light, in this study intent to treat number is roughly 4. Still the silver line is that there are patients who utilize CBT and improve in this setup.

Key words

Anxiety disorder, Utilization, Cognitive behavior therapy.

Introduction

The evidence [1] for the efficacy of Cognitive behavior therapy (CBT) in anxiety disorders is well established in the research settings. As per the National Institute for Health and Care Excellence [2] of United Kingdom (NICE) guidelines patient with anxiety disorders should be offered CBT or medications. In spite of this evidence, the national survey 2006 in United States [3] recognizes a considerable gap between research evidence for psychotherapy and clinical training. In India National mental health survey of India [4] 2015-16 reports a treatment gap for mental disorders range between 70% and 92% for different disorders. In a review [5] Kuruvilla had lamented about the tenuous relation between behavior therapy research and Indian psychiatry.

Even though CBT is found to be effective in research settings, how many patients are willing to use it and to what extent? What are the characteristics of patients who attend CBT in comparison to patients opting for medications? Recently studies have addressed this issue of utilization pattern. Looking at the refusal rate (pre-treatment dropout), one meta-analysis [6] concluded that 'clients who were assigned to pharmacotherapy were 1.76 times more likely to refuse treatment compared with clients who were assigned psychotherapy'. Another study [7] reported the exact opposite finding that psychotherapy refusal was four times more than the medication refusal. This contradictory finding may be due to the research done in different (naturalistic or research) settings. Second issue is the premature dropout from CBT. In research settings [6] dropout is about 20%. Hardly any data is available about this aspect in the naturalistic psychotherapy settings. The third issue is the total number of CBT sessions attended during CBT course. Studies [8, 9] reported that patients attend a mean number of 5-6 sessions in naturalistic service settings. In research settings prefixed number of sessions (usually 8 to 16 sessions) was agreed upon before starting the therapy. In naturalistic studies number of sessions is not prefixed. To shed light on these issues in a naturalistic setting this study is conducted.

Aim

- To compare the socio-demographic variables of patients who had attended CBT (at least one or more) sessions and those who did not attend CBT sessions.
- To describe the utilization pattern in the form of refusal rate, premature termination and number of CBT sessions attended.

Materials and methods

This study was started after obtaining approval from institutional ethics committee. Informed consent was obtained from patients. Patients were screened for the inclusion and exclusion criteria using Diagnostic and Statistical Manual of Mental disorders, 5th edition (DSM-5). Eighty consecutive adult patients with anxiety disorders (panic disorder with or without agoraphobia, obsessive compulsive disorder, social phobia, generalized anxiety disorder, post-traumatic stress disorder and specific phobias), aged 18 to 65 years, and attending psychiatry department of a Medical College during February 2017 to November 2017 were the sample of this study. Patients with psychotic disorders, organic brain syndromes and mental retardation were excluded. Patients opting for drugs were given medications and patients opting for CBT only were treated accordingly. Patients opting for both were given a combination. CBT was given free of cost.

Assessment

Socio-demographic and disorder specific details were collected using semi-structured pro-forma. Baseline anxiety rating was recorded for patients

using Panic Disorder Severity Scale (PDSS) [10], Yale-Brown Obsessive Compulsive Disorder Scale (Y-BOCS) [11], generalized anxiety disorder questionnaire (GAD-7) [12]. Weekly anxiety ratings were done for patients attending CBT. All these scales have been validated and used in research extensively.

CBT intervention

Weekly or bi-weekly or even daily CBT sessions were conducted on an out - patient or inpatient basis. CBT sessions were conducted for 30 to 45 minutes using Beck's CBT model [13] and 'Process Based CBT' an integrated model [14] which combines Acceptance and Commitment Therapy and mainstream Beck's CBT model. Patients not keeping the scheduled appointments and coming casually were also treated and followed up. Patient who attended CBT were followed up for 2 months. Patient opting for only medication were not followed up.

Therapist

CBT was conducted by the first author. The first author has practiced CBT on this type of patients for about a decade. He has received online training in CBT from Beck institute and ACT by Dr Russ Harris. He has reported his preliminary observation in the past.

Results

Table - 1 shows the characteristics of patients who took CBT and who did not. Patients who took CBT were more likely to be educated, live nearer to the hospital, financially better off. These differences were statistically significant at p=0.5. Also there was a trend towards younger age and men amongst who take CBT, though this was not significant at P=0.5. Employment status, marital status, duration of illness, diagnosis or medication status at the evaluation time was not significantly different between groups.

Out of 80 patients, 47 patients opted for medication and 33 opted for CBT indicating a primary dropout/refusal of 59%. Out of those 33 patients 15 were on medication and wanted to combine CBT along with medications. At the end of CBT sessions only 12 were on medication.

Mean number of CBT sessions attended was 3.2 with the range of 1-8. Premature termination in this study was 34%. This was 14% of total sample. Both refusal of 59% and premature termination of 14% add up to 73%. This indicates intent to treat number was 4.

This study reveals that panic disorder patients represent quite disproportionately (78%) among anxiety disorder patients. There was no Social anxiety disorder, Post traumatic stress disorder or Specific phobias in this study sample.

Discussion

Our finding that higher education, younger age and better financial status predicted entering in to CBT is consistent with the past research. Summarizing the pattern of non-attendance of psychotherapy the authors [15] wrote "Research reviewers have concluded that several variables predict nonattendance and these variables appear to be consistent over time: lower socioeconomic status, ethnic minority status, being older, being male, fear of being stigmatized, and being a person who causes stress to others but has less psychological distress him- or herself.". Shorter distance is associated with attending CBT. This parameter is not examined in the past literature. This study contradicts the past research finding that men take up psychotherapy less than women. In this study men took CBT more than women. Same finding is observed in the past 2 studies [16, 17] from India. This variation may be due to the cultural factors.

Primary dropout /refusal in this study were 59%. Data on this aspect is also sparse. However one similar study [17] from India has noted 34% primary dropout. One Meta-analysis [6] referred earlier concluded "Clients who were assigned to pharmacotherapy were 1.76 times more likely to refuse treatment compared with clients who were assigned psychotherapy". Finding of this study

is inconsistent with that study. But another study [7] reported pre-treatment dropout for psychotherapy is 4 times than pharmacotherapy. This difference may due to the settings and methodological issues. In naturalistic settings like in the later study the pre-treatment dropout may be high. This aspect needs to be examined in further studies.

Table - 1: Comparison between the CBT group and No CBT group.

Variable	Mean+SD/% for CBT group (n=33)	Mean+SD for No CBT group (n=47)	Mean+SD for total sample (n=80)	X^2/t/f
Age in years	32.70±11.06	36.19±11.09	34.75±11.14	0.169
Age group				
<20	1(3%)	0(0%)	1(1.3%)	P=0.069
20-30	17(51.5%)	14(29.8%)	31(38.8%)	
30-40	11(33.3%)	22(46.8%)	33(41.3%)	
40-50	2(6.1%)	5(10.6%)	7(8.8%)	
40-50	0(0%)	5(10.6%)	5(6.3%)	
>60	2(6.1%)	1(2.1%)	3(3.8%)	
Gender				
Male	19(57.6%)	19(40.4%)	38(47.5%)	P=0.130
female	14(42.4%)	28(59.6%)	38(47.5%)	
Education in years	9.91±5.36	7.26±5.70	8.35±5.68	0.039*
Employment state				
Employed	14(42.4%)	18(38.3%)	32(40%)	P=0.375
Home maker	10(30.3%)	22(46.8%)	32(40%)	
Student	1(3%)	1(2.1%)	2(2.5%)	
Others	8(24.2%)	6(12.8%)	14(17.5%)	
Distance in KM				
1-10	19(57.6%)	11(23.4%)	30(37.5%)	P=0.001**
11-50	11(33.3%)	32(68.1%)	43(53.8%)	
50-100	1(3%)	4(8.5%)	5(6.3%)	
>100	2(6.1%)	0(0%)	2(2.5%)	
Locality				
Urban	22(66.7%)	24(51.1%)	46(57.5%)	P=0.165
Rural	11(33.3%)	23(48.9%)	34(42.5%)	
Economic status				
BPL	10(30.3%)	28(59.6%)	38(47.5%)	P=0.010**
APL	23(69.7%)	19(40.4%)	42(52.5%)	
Marital status				
Married	24(72.7%)	33(70.2%)	57(71.3%)	P=0.246
Unmarried	9(27.3%)	9(19.1%)	18(22.5%)	
Divorced	0(0%)	1(2.1%)	1(1.3%)	
others	0(0%)	4(8.5%)	4(5%)	
Primary Diagnosis				
PD	26(78.8%)	36(76.6%)	62(77.5%)	P=0.518
OCD	6(18.2%)	6(12.8%)	12(15%)	
GAD	1(3%)	5(10.6%)	6(7.5%)	

Duration of illness in years				
<1	17(51.5%)	23(48.9%)	40(50%)	P=0.969
1-2	4(12.1%)	4(12.1%)	12(15%)	
2-4	7(21.2%)	8(17%)	15(18.8%)	
4-6	0(0%)	1(2.1%)	1(1.3%)	
>6	5(15.2%)	7(14.9%)	12(15%)	
Medication status at the intake				
On medication	15(18.75%)	13(16.25%)	28(35.00%)	P=0.10
Off medication	18(22.50%)	34(42.50%)	52(65.00%)	

BPL-below poverty line, APL –above poverty line, SD-standard deviation, X^2 Chi square test, t-Student's t test, f-Fisher's exact test, * significant at 0.05, **significant at 0.01

Premature termination is usually defined in research settings as the dropout before the completion of a fixed number of sessions. A comprehensive meta-analysis [18] of a staggering 669 studies found an average dropout rate of 19.7%; with rates ranging from 0% to 74%. One study [16] from India on panic disorder found premature termination to be 30%. For naturalistic settings it is not clearly defined. One proposed definition [19] is - those who terminate before reaching a level of clinically significant change. By these criteria in this study premature termination is 34% among patients who took CBT. Patient is said to have clinically significant change when patient shows both reliable change and clinically significant change criteria (reliable change criteria = individual score improvement more than 1.9 times reliable change index, clinically significant change criteria = individual score falling below 2 standard deviation of the initial score). These findings and outcome of this study will be reported elsewhere.

Mean number of session patient attended in this study was 3.2. Similar study [17] from a different setup revealed mean 5.4 sessions. Studies have reported that the patients attend a mean number of 5-6 sessions [8, 9]. One classic study [20] observed that 60% improvement in psychotherapy occurs in first 7 visits. Number of sessions attended also depends on the type of patients studied. Most of the patients in this study were having panic disorder. Panic disorder responds to short or even ultra-short CBT [21]. This explains the less number of sessions attended in this study.

Finally, in this study panic disorder was nearly 4 times prevalent compared to rest of anxiety disorders. This observation is in contrast to the epidemiological studies [4, 22] which reported OCD as 0.8%, panic disorder 0.52% and GAD 0.34% prevalent in the community from India. Panic disorder patients appear to use health care more often than other anxiety disorders [4, 23].

Strength of this study is that it is a naturalistic unique study from India. Limitations are the small sample size, rater was not blind for rating and therapist has not received rigorous training or supervision from leading CBT training centers.

Conclusion

In combination of 59% refusal and 14% drop out (of total population) for CBT, which totals to 73% is a significant problem among patients with anxiety in the general hospital psychiatry setup. At its darkest light, in this study intent to treat number is roughly 4. Still the silver line is that there are patients who utilize CBT and improve in this setup.

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