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Effectiveness of CBT therapy for Generalized Anxiety Disorder in an Outpatient Counseling Center

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Abstract

The study aims to investigate the effectiveness of cognitive behavioral therapy(CBT) for Generalized Anxiety Disorder(GAD) in the Islamic University Of Gaza (IUGAZA) Counseling Center. The sample consisted of 14 patients (11 females and 3 males) diagnosed with(GAD). The mean age was 24.8 (SD = 6.2) .The research tool was Hamilton Anxiety Rating Scale (HAM-A). The experimental approach was used with one sample design. The result showed that: CBT therapy effect a significant reduction in anxiety symptoms in patients with Generalized Anxiety Disorder, and that this reduction is maintained when measured 2 months after termination.

Keywords:
effectiveness, cognitive behavioral therapy(CBT), Generalized Anxiety Disorder(GAD), (IUGAZA) Counseling Center.

فعالية العلاج المعرفي السلوكي على القلق العام مع مرضى خارجيين في مركز الإرشاد النفسي

تهدف الدراسة لفحص فعالية العلاج المعرفي السلوكي في علاج القلق العام، لدى عينة من الحالات المترددة على مركز الارشاد النفسي بالجامعة الاسلامية بغزة، تضمنت العينة (14) حالة منها(11) أنثى (3) ذكور، وقد سبق تشخيصهم بالقلق العام بمتوسط عمر (24.8) عاماً، وانحراف معياري(6.2). وقد تم استخدام مقياس هاملتون لتقدير القلق اداة للدراسة، واعتمدت الدراسة التصميم التجريبي بعينة واحدة للتحقق من اهدافها.

وقد اظهرت النتائج فعالية العلاج المعرفي السلوكي بصورة دالة في تخفيف اعراض القلق العام، وقد استمر هذ التأثير المخفف للأعراض بعد شهرين من انتهاء العلاج وقد اوضحت ذلك القياسات المتعددة على عينة الدراسة.

كلمات مفتاحية:
الفعالية، العلاج المعرفي السلوكي، اضطراب القلق العام، مركز الارشاد النفسي بالجامعة الاسلامية بغزة

Introduction and Background:

Generalized Anxiety Disorder (GAD): Generalized anxiety disorder is marked by excessive and uncontrollable worry, that is maintained by cognitive biases toward threat relevant stimuli and the use of worry and overly cautious behaviors as a means to avoid catastrophic images and associated autonomic arousal. The Diagnostic and Statistical Manual criteria for GAD require the presence of anxiety and worry about a variety of topics, and the difficulty of control of worry for six months, that is associated with physical and cognitive symptoms. (American Psychiatric Association, 2013).

Anxiety Disorder is one of the most prevalent anxiety disorders, it was found to affect 5.7% of people over their lifetime (Kessler et al., 2005). This makes the need to treat GAD of special importance, since it is considered one of the disabling psychiatric disorders (Grant et al., 2005). The intrusive nature of worrying thoughts in GAD is associated with judgment biases and attention biases. The tendency to interpret ambiguous situations in a threatening manner (Mathews et al., 2000. Mathews et al., 2005), overestimate the likelihood of negative events (Buttler et al., 1987), and over-attention to threatening stimuli, even when the stimuli are not consciously perceived (Mogg et al., 2005). GAD is also characterized by Avoidance Behaviors like excessive preparation, constant checking and procrastination (Wells et al., 1994). Although effective in reducing anxiety, these behaviors are believed to reinforce the cycle of worry. Attempting to cope with worry persons with GAD may attempt to control worry by distraction (Shut et al., 2001). Another cognitive coping is to use distraction or attempting to forcibly suppress worrying thoughts, that would reduce worry on the short term (Wegner et al., 1987),. However, suppression attempts may make worrying thoughts more accessible (Wegner et al., 1992).

Prevalence and Burden: Worldwide 3.1% among USA adult population (Kessler et al. 2005). In the UK 5% lifetime (Weisberg et al. 2009). In Australia 3-5% 12 months prevalence (Hunt et al. 2002). Globally, the lifetime prevalence of anxiety disorders differs between men (10.1%) and women (18.2%) this is also true for GAD were prevalence in women is twice that in men (Steel et al. 2014). In Arab countries several epidemiological studies have reported the prevalence of anxiety disorders. In Lebanon the prevalence of any anxiety disorder was 16.7% (Karam et al. 2015), In Morocco GAD lifetime prevalence was 9.3% (Kadri et al. 2010). An epidemiological study in Egypt found the prevalence rate of 4.8% for GAD (Kadri et al. 2009). In Qatar, high prevalence of anxiety disorders was found in the community GAD was 20.4% (Ghuloum et al. 2014) and 68% for any anxiety disorder in primary care patients (Bener et al. 2012). GAD was often (38.8%) comorbid with depression (Ohaeri et al. 2012).

Cognitive Behavioral Therapy for GAD: Cognitive-behavioral therapy (CBT) proposes that symptoms and dysfunctional behaviors are often mediated by cognition and improvement can be produced by modifying dysfunctional thinking and beliefs (Dobson & Dozois, 2001). CBT has been applied in the treatment of many psychiatric disorders with success, and is one of the most extensively researched forms of psychotherapy (Butler et al., 2006).

Cognitive behavioral therapy (CBT) for GAD is based on evidence that shows that persons with GAD engage in overestimations and catastrophizing of negative events; show limited confidence in problem solving; require additional evidence before making decisions; have a low tolerance of uncertainty, an iterative problem-solving style, worry about worry, and numerous behavioral and cognitive strategies that may actually be counterproductive and help maintain the self-perpetuating cycle of worry (Craske, 2003) . Cognitive Behavioral Therapy (CBT) is a well-established treatment for GAD (DeRubeis & Crts-Cristoph, 1998). A review of 13 treatment outcome studies determined that CBT outcomes were better compared to waitlist and alternative treatments (Borkovec & Russcio, 2001). The efficacy of CBT in the treatment of GAD is well established by research. In a meta-analysis based on thirteen studies, the authors concluded that psychological therapies, all using a CBT approach, were more effective than treatment as usual or wait list control in achieving clinical response at post-treatment (RR 0.64, 95%CI 0.55-0.74) (Norton et al., 2007). In regards to GAD the controlled effect size for CBT in generalized anxiety disorder was 0.51 (95% CI 0.05-0.97), indicating a medium effect although only two studies using a randomized controlled design to examine CBT treatment in patients with generalized anxiety disorder. (Hunot et al., 2007). It was also shown that CBT significantly reduces the cardinal symptom of GAD: pathological worry and the effect was maintained on follow up 6-12 months later (Corvin et al., 2008). Reviewing studies comparing CBT with

psychopharmacological treatment (Gould et al, 1997), both were effective but CBT was associated with clear maintenance of treatment goals on long-term follow up. In clinical practice, when CBT is tested under less-controlled, real world conditions the effect of CBT in treatment of GAD was found to be similar to the that obtained from well-controlled efficacy studies (Stewart & Chambless, 2009). Applied relaxation and CBT were found to be both effective in treating GAD (Borkovec & Costello, 1993). Both components of CBT (behavioral desensitization and congnitive therapy) were found to be equally effective (Borkovec et al. 2002). Older adults with GAD treated in a community setting, CBT was found to be superior to supportive counseling and maintained improvement on follow up (Barrowclough et al. 2001). Using CBT to supplement medications for anxiety disorders has a good chance of improving response (Bandelow et al. 2013). In general, CBT for GAD was consistently found to be superior to treatment as usual (TAU) under different circumstances (Watts et al. 2015). Also, when CBT is practiced in clinical "real-world" settings, patients treated with CBT for anxiety disorders tend to maintain improvement on 3 years follow up (Wootton et al. 2015). CBT can also be effectively delivered by community-based counselors in group format (Heatherington et al. 2014), and is as effective as applied in individual format in community settings (Hans & Hiller, 2013).

In low and middle income countries CBT for GAD has proved effective in community settings (Barry et al. 2013). Brazilian youth treated for anxiety disorders using a Coping Cat protocol showed improvement (de Souza et al. 2013). A common elements approach, an approach based on CBT modular components, showed promising results in the treatment of anxiety disorders when applied in several low and middle income countries (Murray et al. 2014). There is a dearth of published studies examining the efficacy of CBT in the treatment of GAD in Arab populations. Recent studies in Arab cultural settings agree on the efficacy of CBT in treatment of anxiety disorders. One study from Saudi Arabia found that CBT counseling program was effective in treatment of university students suffering from anxiety (Zahrani, 2013). The prevailing and long-lasting socio-political situation in Gaza is stressful to say the least. An ongoing siege by Israel prevents movement of people and goods in and out of Gaza and results in severe shortages and crises. Uncertainty and ambiguity of the situation leads many people to live in fear and anticipation of what to come.

The IUG Counseling Center established a CBT-based counseling service for students complaining of psychological symptoms. The center employs local psychiatrist and trained counselors to identify and treat patients with stress related disorders like anxiety and depression. Anxiety is one of the major problems facing counselors in Gaza. Anxiety reactions are prevalent in Gaza due to the continuing siege and war-like situation. The purpose of this study is to examine the efficacy of a CBT based counseling program in the treatment of adult patients with GAD.

Study Design

The researcher obtained approval from the Research Ethics Committee of IUG. The study was conducted between January and August 2015.

Informed consent was obtained from all participants after explanation of the treatment procedures, and research protocol.

Sample and methods

Sample: The research include all consecutive adult patients (male or female aged 18 years or more), meeting the criteria of GAD according to the psychiatrist's diagnosis, scoring 20 or higher on the HAM-A. Exclusion criteria were the need medical treatment, or having other psychiatric or medical condition. Patients with Depressive disorders were excluded (HAM-D more than 18), or having a depressive episode in the past six months.

The sample consisted of 14 patients (11 females and 3 males) diagnosed with Generalized Anxiety Disorder and referred to counseling by the treating psychiatrist. The mean age was 24.8 (SD = 6.2) and the majority were single (64.3%), university educated

Sample		Sex		Total
		F	M	
Age	20-30	7	2	9
	30-40	4	1	4
	Total	**11**	**3**	
Social Status	Single	7	2	9
	Married	3	1	4
	Divorced	1	0	1
	Total	**11**	**3**	
Education	School	1	0	1
	Diploma	2	0	2
	University	8	3	11
		11	**3**	

Psychiatric assessment: A psychiatrist conducted a diagnostic interview to assess the diagnosis. The psychiatrist conducted a full psychiatric and medical evaluation as part of the intake procedure in the center. All patients who met the inclusion criteria were invited to participate in the study, and an informed consent was obtained. Refusing to participate did not affect the nature of treatment received in the center.

CBT based counseling: All participants received a minimum of 12 sessions of CBT based counseling free of charge.(Index1) Treatment consisted of a series of CBT based counseling sessions provided by a trained MA level clinical psychologist with training in CBT. The treatment was semi-structured using a manual that described procedures for CBT components at each treatment phase. The sessions used stress management techniques (breathing retraining, progressive muscular relaxation) and cognitive restructuring, relapse prevention. Assessment , Case formulation, Psycho-education, Behavior interventions, cognitive interventions, Relapse prevention. There is flexibility in the implementation of the program. The counselor can prioritize one of the components or extend the number of sessions to a maximum total of 16 sessions according to the response of the client. The counseling plan determined the number of sessions and main components, and is reviewed with the client periodically.

Component	Techniques
Assessment	General psychological assessment
Case formulation	CBT formulation of the client's problems and goal setting and session planning
Psycho-education	Educational Material on Mental Health, CBT and GAD
Behavioral Interventions	Breathing retraining, PMR, problem solving
Cognitive interventions	Thought monitoring, worry control cognitive restructuring
Relapse Prevention	Review of counseling progress and outcome. Early symptoms of relapse and contingency plan. Follow up appointment after 2 months.
Home Work	Following every session to be reviewed next session

Hamilton Anxiety Rating Scale (HAM-A): The scale was designed by Hamilton (1959) to measure anxiety symptoms. The scale is composed of 14 items asking about symptoms of anxiety and scored on a 5 points Likert scale from no symptoms, to severe symptoms). The total scale score is 56 and reflects the severity of anxiety symptoms. Reliability of the HAM-A was found to be good (Cronbach alpha = .87).

Assessment with HAM-A was done on three time points: T1) At intake, T2) on termination of counseling and T3) on follow up 2 months after termination.

Results

Treatment outcome: Fourteen patients with GAD were included in this study received a minimum of 12 sessions of CBT based counseling (Mean = 12.9, SD = 1.5). The HAM-A mean score on intake was 40.8 (SD = 5.1), there was no difference in mean score at T1 between males and females. The mean score at the end of treatment (T2) was 15 (SD = 3.9) showing a drop of anxiety symptoms. A follow up (2 months after termination of treatment, T3) The mean score was 10.9 (SD = 2.7).

Efficacy of CBT based counseling:

One Way ANOVA with Repeated measures was performed to test the hypothesis that CBT is effective in reducing anxiety symptoms in patients with GAD as measured by HAM-A, a .

Time of assessment was used as a within-subjects factor with three levels representing the three time points of assessment. Mauchlys test of sphericity was not significant, indicating the relevance of this assumption.

The test revealed that the mean HAM-A score differed statistically significantly across time points ($F(3,26)=459.5$, $p < .0005$). Post hoc tests using the Bonferroni correction revealed CBT counseling elicited a significant reduction of HAM-A scores between T1 and T2 (40.8 +- 1.36, vs 15.0 +- 1.03, respectively, $p <.0005$). Also HAM-A mean scores was statistically significantly reduced between T2 and T3 (15.00 +- 1.03 vs 10.93 +- .73, $p < .0005$). There was a moderate effect size (Cohen d = 5.85, corrected for dependence between means, using Morris and DeShon's (2002) equation.

We can conclude that CBT therapy with a minimum of 12 sessions elicits a significant reduction in anxiety symptoms in patients with Generalized Anxiety Disorder, and that this reduction is maintained when measured 2 months after termination.

Discussion

The test shows that there is a significant effect of CBT for GAD in a sample of adult patients in a community based counseling unit. The gender difference in prevalence of GAD was reflected in the sample, where females outnumbered males. We also observed that the effect was evident in the patients without using medications. It is known from previous studies that CBT and pharmacotherapy had similar effects (Gould et al. 1997)

There were no effects of age or gender on the outcome in this study, and this may reflect the universality of CBT for use with a versatile combination of demographic factors. In this regard, CBT was used to treat a group of culturally distinct patients of Arab origin. The universality of CBT was mentioned in the literature.

The effect of CBT was maintained 2 months after treatment, this coincides with the results obtained in previous studies were the effect was maintained over 3,6 and 12 months (Derubeis et al. 1998) or even a longer period of 8 years (Durham et al. 2003).

The main limitations of this study arise from its naturalistic design. We did not include a control group as it was difficult to delay the treatment for those seeking it. The majority of the sample were highly educated females, and this reflects the help-seeking behavior in this community where women, and highly educated people tend to be more aware and more accepting to psychological interventions. The short term follow up assessment (2 months) was imposed by program constraints, but it shows a strong trend that is consistent with previous findings.

The implications of this study alerts us to the importance of tackling common mental disorders in the community. GAD is one of the most prevalent anxiety disorders and carries a large burden on the lives of those affected (Kessler et al, 2009). Finding a treatment that is effective in clinical settings, and that maintains its effect over time is indicative of the need to focus on CBT as a first line treatment choice. Training of counselors and psychologists should be directed to acquisition of practical skills in CBT to be used with their clients. We could observe also that the flexibility in designing the treatment program did not have an effect on the overall effectiveness of the treatment. It also alerts us to consider community education and awareness of the impact of common mental disorders and the availability of effective treatments, especially in portions with lower education. In this regard also, more research is needed to examine the help-seeking behavior, accessibility and treatment choices for poor or less educated people.

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