Managing Panic Disorder with Cognitive Behavior Therapy in Bangladesh: A Single Case Study

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What is panic Disorder

Unexpected panic attack that causes significant changes in one’s life style such as frequent visits to doctor or hospital. Panic attack consists of the following symptoms (DSM-IV)

- Palpitations
- Feeling faint or light-headed
- Fear of loosing control
- Fear of death
- Body shaking
- Sweating
- Shortness of breath
- Discomfort or pain in chest
- Depersonalization or de-realization etc.
What is CBT

- Cognitive-behavioral therapy is an action-oriented form of psychosocial therapy that assumes that maladaptive, or faulty thinking patterns cause maladaptive behavior and negative emotions.

- CBT also assumes that instead of reacting to the reality of a situation, an individual reacts to his or her own distorted viewpoint of the situation.

- Cognitive therapists attempt to make their patients aware of these distorted thinking patterns or cognitive distortions and change them by a process termed cognitive restructuring.
Rational of this study

• CBT has been formally introduced as a choice of treatment in the mental health service in Bangladesh for a decade but the empirical study of its effectiveness and efficacy is a few (Tanjin, 2007).

• 1.3% people in Bangladesh is suffering from panic disorder (Firoz et al., 2007).

• Effectiveness of CBT in treating panic disorder has been reported in many researches (Nadiga et al., 2003). But cultural difference is a vital issue in CBT, therefore studies are required to assess the applicability and effectiveness of the CBT in the cultural context of Bangladesh.

• Preparing the field of efficacy study for CBT in Bangladesh by a number of successful effectiveness study.
Objective

General objective
To see whether management of Panic disorder with CBT is helpful in Bangladeshi culture.

Specific objectives:
• To see whether CBT is effective in managing different symptoms of panic patient in Bangladesh.

• To see whether CBT is effective to install/reinstall adaptive cognition in panic patients.

• To see whether CBT helps to reduce the level of anxiety and depression of panic disorder.
Methodology (sample)

A single case with panic disorder and the following demographic variables was assessed and treated

- **Age**: 25
- **Education**: Higher secondary
- **Occupation**: Unemployed
- **M.S**: Unmarried
- **Birth order**: 4/5
- **SES**: Lower class
- **Living area**: Village
DESIGN

ABA design

• A = Base line or pre-test
• B = Intervention
• A = Post-test
Instruments

• **Clinical interview**

• **Anxiety Scale.** A 36 item Anxiety Scale developed by Deeba & Begum (2004). Reliability of this scale was $r = 0.916$, $\alpha = 0.01$ (Split-half reliability), $r = 0.9468$ (Cronbach-alpha), and $r = 0.688$, $\alpha = 0.01$ (Test-retest reliability). Validity of this scale was $r = 0.628$, $\alpha = 0.01$ (Criterion related validity), $F = 60.275$ at $\alpha = 0.01$ (Construct validity). Item-total correlation was found to be ranging from $r = 0.399$ to $r = 0.748$, and were all significant at 0.01 level of significance.

• **Depression Scale.** A 40 item Depression Scale developed by Uddin & Rahman (2005). Reliability of this scale was $r=0.60$, $\alpha=0.01$ (Test-retest reliability), $r=0.76$, $\alpha=0.01$ (Split-half reliability), Concurrent validity and construct validity of the scale was also reported.
Procedure

• Verbal and written informed consent was taken

• First three sessions were base line

• Following ten were intervention sessions
  (S4-formulation sharing, S5-hyperventilation and relaxation, S6-thought challenge, S7-thought challenge and problem solving, S8-exposure, S9-thought challenge and physical exercise, S10-problem solving)

• Last three were post-test, follow-up relapse prevention and termination session
Major problems in different domain

- **Cognitive:** Catastrophization, personalization, labeling, overgeneralization

- **Emotional:** Anxious, depressed

- **Behavioral:** Avoidance, safety measure

- **Social:** Disturbed family relationship, lack of knowledge and faulty belief among family members, financial crisis

- **Physical:** dryness of throat, decreased sleep, palpitation, hot flushes all over the body, headache, neckache, pain in shoulder and chest, lack of appetite, nausea, weigh loss, tiredness and shaking of body, blurred vision, pressure in chest
## Pre-test measure (Base line problems)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Severity (0-100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st Session</td>
</tr>
<tr>
<td>Headache</td>
<td>100</td>
</tr>
<tr>
<td>Blurring of vision</td>
<td>100</td>
</tr>
<tr>
<td>Chest pain</td>
<td>90</td>
</tr>
<tr>
<td>Difficulty in breathing</td>
<td>85</td>
</tr>
<tr>
<td>Loss of Memory</td>
<td>80</td>
</tr>
<tr>
<td>Sleep Disturbance</td>
<td>75</td>
</tr>
<tr>
<td>Lack of concentration</td>
<td>100</td>
</tr>
<tr>
<td>Fear of death</td>
<td>100</td>
</tr>
<tr>
<td>Avoidance</td>
<td>80</td>
</tr>
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</table>
Case formulation

Internal/External Trigger

eg. financial demand, hard labor, death news, guilt feelings, family conflict, memory loss

Perceived Threat

eg. I will die without treatment, heart attack or stock will happen soon, I am going to be mad etc

Anxiety

Misinterpretation
(eg. I am going to die, my heart will be collapsed etc.)

Physical / Cognitive Symptoms
(eg. Headache, difficult berating, pressure in chest, memory loss,)

Avoidance and safety behavior
(Including Selective Attention)
(eg. avoiding bus, work, going out side and visiting relatives; watering on head; keeping medicine etc)

Figure-1: Problem formulation of the client using cognitive model of panic with maintenance cycles (adopted from Clark, 1986)
Treatment goal

• To overcome the physical complain
• To solve the social and family problem
• To decrease avoidance.
• To overcome financial problem
• To enhance positive feeling
• To change negative cognition
Therapeutic techniques

- Psycho-education,
- thought challenge,
- Problem solving,
- Exposure,
- Hyperventilation provocation test,
- Physical exercise and
- Relaxation.
## Results

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Pretest</th>
<th>Intervention</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3rd session</td>
<td>14th session</td>
<td>1st follow up session</td>
</tr>
<tr>
<td>Headache</td>
<td>95</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Blurring of vision</td>
<td>90</td>
<td>0</td>
<td>0</td>
</tr>
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Results
<table>
<thead>
<tr>
<th>Cognitions during pretest</th>
<th>Cognitions during posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very bad.</td>
<td>Like other people I have also good and bad qualities.</td>
</tr>
<tr>
<td>I will never get a job.</td>
<td>I have to show my quality and I will get job.</td>
</tr>
<tr>
<td>I have serious problem in brain and heart.</td>
<td>Due to my thinking error I felt those problems.</td>
</tr>
<tr>
<td>I will die of heart attack.</td>
<td>My heart is quite ok and I will try to maintain it.</td>
</tr>
<tr>
<td>Hard labor is impossible for me.</td>
<td>I am able to do hard labor.</td>
</tr>
<tr>
<td>No one will help me if I fell in danger.</td>
<td>Others will help me just like I help others.</td>
</tr>
<tr>
<td>I am guilty.</td>
<td>No one can do very good task all time.</td>
</tr>
</tbody>
</table>
Results

![Graph showing depression and anxiety scale scores](attachment:image.png)
Discussion

• Combined impact of CBT and medication
• Positive social support network
Conclusion

• CBT is effective to treat panic disorder in Bangladesh

• More effectiveness study should be conducted to prepare the ground of efficacy study
Thank you all