EFFICACY OF COGNITIVE THERAPY IN DELUSION

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THESIS SUBMITTED FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN PSYCHOLOGY
UNIVERSITY OF CALICUT
2005

DECLARATION

*I hereby declare that this thesis "**Efficacy of Cognitive Therapy in Delusion**" has been conducted by me, under the guidance of Dr. C.Jayan, Reader, Department of Psychology, University of Calicut, Kerala. I further declare that this is an original study and no part of it has been published or submitted to any university previously.*

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*Certified that this thesis, entitled "**Efficacy of Cognitive Therapy in Delusion**", is an authentic record of research work carried out by Gireesan.K, under my supervision and guidance and that no part of thereof has been presented for any other degree, diploma, associationship, fellowship and other similar title.*

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ACKNOWLEDGEMENT

I would like to thank my guide, Dr. C.Jayan, Reader, Department of Psychology, University of Calicut for guiding and providing suggestions at every single step of this research work.

I express my sincere gratitude to Dr. John Baby, Head, Department of Psychology, University of Calicut, Kerala, for providing me the departmental facilities to carry out the present study.

I also thank my colleague clinical psychologist, Mr. S. Sreelal for supporting me in this research work as an independent rater.

I specially thank Dr. Immanuel Thomas, for his support in the statistical analysis.

I would also like to thank Shiney Annamma Varghese, Zaileshia, Krishna Priya, and Sudheej for their active support in various stages of this research work which has really helped in the completion of this work.

I record my indebtedness to my wife Dr. K.S.Shyla and my beloved children Gautam and Vivek for their boundless support and encouragement in my work.

Last but not the least, I thank all the patients and their relatives for participating in this study..

Gireesan.K

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INTRODUCTION

"I cannot pretend to agree with him, when I know that his mind is working altogether under a delusion"

Anthony Trollope, in his novel ***'He knew he was Right'*** **(1869)**

Fundamental to clinical practice in psychiatry, using the phenomenological or empathic method, is obtaining a clear account of the ideas or notions that the subject, actually holds. So are delusions important and phenomenologically distinct.

'A delusion is a false, unshakable idea or belief which is out of keeping with the patient's educational, cultural and social background; it is held with extraordinary conviction and subjective certainty' (Sims, 1988)

The English word **delude** comes from Latin land implies playing or mocking, defrauding or cheating. The German equivalent **Wahn** is a whim, false opinion, or fancy. The French equivalent, **delire** implies the ploughshare jumping out of the furrow.

Definitions of delusion

Jaspers (1959) regarded a delusion as a perverted view of reality, incorrigibly held, so giving delusions' three components:

- They are held with unusual conviction.
- They are not amenable to logic.
- The absurdity or erroneousness of their content is manifest to other people.

Hamilton (1978) defined delusion as: "A false unshakeable belief which arises from internal morbid process. It is easily recognizable when it is out of keeping with the person's educational and cultural background."

Kendler et al; (1983) proposed several vectors or dimensions of delusional severity:

- Conviction - the degree to which the patient is convinced of the reality of the delusional beliefs.
- Extension - the degree to which the delusional belief involves areas of the patient's life.
- Bizarreness -the degree to which the delusional beliefs depart from culturally determined conventional reality.
- Disorganization - the degree to which the delusional beliefs are internally consistent, logical and systematized.
- Pressure - the degree to which the patient is preoccupied and concerned with the expressed delusional beliefs.
- Affective Response.
- Deviant behavior resulting from delusions.

The term delusion is frequently used in ICD 10 but it is not defined there. It is referred to in all major categories of organic mental disorders.

Conceptual definition

A false personal belief based on incorrect inference about external reality and firmly sustained in spite of what everyone else believes and in spite of what constitutes incontrovertible and obvious proof or evidence to the contrary. The belief is not one ordinarily accepted by other members of the person's culture. (APA, 1987, DSM-III).

Primary and Secondary Delusions

Primary delusion implies that delusion is not occurring in response to another psychopathological form such as mood disorder. Secondary delusion is that false belief which is understandable in present circumstances, because of the pervasive mood state or because of the cultural content.

Gruhle (1915) considered that a primary delusion is a disturbance of symbolic meaning, and not an alteration in sensory perception, apperception or intelligence. Primary delusion occurs in schizophrenia and not in other conditions; they include both delusional perception and delusional intuition (Cutting, 1985). Secondary delusion occurs in many conditions other than schizophrenia and this can be understood in terms of the person' background, culture or emotional state.

Primary delusion includes Autochthonous delusion, Delusional percept, Delusional Atmosphere and Delusional Memory.

Autochthonous delusions are those which appear to arise suddenly, 'out of the blue'; they are phenomenological indistinguishable from the sudden arrival of a normal idea. They are purely 'denovo'. Delusional percept is present when the patient receives a normal perception, which is then interpreted with delusional meaning, and has immense personal significance. It is a first rank-symptom of schizophrenia. Jaspers delineated the concept of delusional percept. For the patient experiencing delusional atmosphere, his world has been subtly altered. He experiences everything around him as sinister, portentous, uncanny, and peculiar in an indefinable way. He knows that he personally is involved but cannot tell how. He has a feeling of anticipation, sometimes even of excitement, that soon all the separate parts of his experience will fit together to reveal something immensely significant.

Delusional Memory is when the patient recalls as 'remembered' an event or idea that is clearly delusional in nature; that is, delusion is retrojected in time. They are sometimes called retrospective delusions. An event that occurred in the past is explained in a delusional way.

Origin, Maintenance and Stages of Delusion:

Brockington (1991) has summarized the factors involved in delusion formation.

i. Disorder of brain function.
ii. Background influences of temperament and personality.
iii. Maintenance of self-esteem.
iv. The role of affect
v. As a response to perceptual disturbances.
vi. As a response to depersonalization.
vii. Associated with cognitive overload.

Factors Concerned on the Maintenance of Delusions

1. The inertia of changing ideas and the need for consistency.
2. Poverty of interpersonal communication - deafness, lack of relatives, foreign language isolation
3. Aggressive behavior resulting from persecutory delusion provokes hostility.
4. Delusions impair respect for and competence of the sufferer and promote compensatory delusional interpretation.

These factors though not absolute, may act synergistically to initiate and maintain delusion.

Conrad proposed five stages in the development of delusional psychosis:

i. ***Trema:*** delusional mood representing a total change in perception of the world.
ii. ***Apophany***: a search for, and the finding of new meaning for psychological events.
iii. ***Anastrophy***: heightening of the psychosis.
iv. ***Consolidation***: forming of a new world or psychological set based on new meanings
v. ***Residuum***: eventual autistic state.

Types of Delusions: Classification on the Basis of Content

Delusions are infinitely variable in their content but certain general characteristics commonly occur. The content is determined by the emotional, social and cultural background of the patient.

Lasegue (1852) has distinguished Delusions of persecution from other forms. People, who have delusionally beliefs that their lives are being interfered with from outside more often, feel this to be harmful than beneficial. A variant on the usual beliefs of persecution or malevolent intent are delusions of prejudice wherein the patient believes that he is being slighted, over looked, passed over in favor of someone else. The interfering agent in delusions of persecution may be animate or inanimate, other people or machines may be systems, organizations or institutions rather than individuals. Persecutory delusions occur in many different conditions; in schizophrenia, in affective psychoses, in organic states, etc. The affect associated with the belief of persecution may vary from an inappropriate indifference and apathy in schizophrenia, to stark terror.

Todd and Dewhurst (1955) & Mullen (1990) have described about delusion of infidelity, that is, where the subject believes himself or herself to be the victim of their partner's unfaithfulness, may occur without other

psychotic symptoms. This is identifiably delusional when the belief of the spouse is based on delusional evidence.

Morbid jealousy described by Ey(1950) is a feeling of jealousy coupled with a sense that the loved object 'belongs to me' and I belong to the other'.

Delusions of love also called Erotomania was described by Sir Alexander Morrison(1848) as being "characterized by delusion." the patient's love is of sentimental kind, he is wholly occupied by the object of his adoration, whom, if he approach it with respect. The fixed and permanent delusions attending Erotomania sometimes prompt those labouring under it to destroy themselves or others, for although in general tranquil and peaceful, the patient sometimes becomes irritable passionate and jealous". Erotomania is commoner in women than men and a variety has been called by Mart (1921) "Old Maids" Insanity" in which persecutory delusions often develop. A variation of Erotomania was described by, and retains the name of, de Cle'rambault (1942). Typically a woman believes a man, who is older and of higher social status than she, is in love with her. The victim has usually done nothing to deserve her attention and may be quite unaware of her existence; sometimes he is a well-known public figure quite remote from the patient.

Delusional misidentification is a rare, colorful syndrome, and has four different manifestations. In Capgras Syndrome (Capgrs & Reboul - Lachaux, 1923), the patient believes that an impostor pretending to be that person has replaced someone close to him; the abnormality is delusional and not hallucinatory. According to Christodoulou & Maliava-Loulakaki(1981) the delusional misidentification is applied to four rare, closely related syndromes:

i. The ***Capgras*** Syndrome

ii. The syndrome of ***Fregoli*** (Courbon & Fail, 1927), in which the false identification of familiar people occurs in strangers.

iii. The syndrome of ***intermeta-morphosis*** (Courbon & Tusques, 1932) characterized by the patient claiming that the familiar person (usually regarded as a persecutor) and the misidentified stranger share physical similarities as well as psychological.

iv. The syndrome of ***subjective doubles*** (Christodoulou, 1978), in which the patient believes that another person has been physically transformed into his own self.

Grandiose delusions occur both in Schizophrenia as well as Mania. The patient may believe himself to be involved in some very special and secret mission about which he has not yet been fully briefed but, in anticipation of which he is waiting with excitement for the denouement. He may also believe himself to be a famous celebrity or to have supernatural powers.

Religious delusions are common. Decision as to whether beliefs are delusional or not must nest on the principles that, the way delusional beliefs are held and the evidence produced in support. Because a religious belief is very bizarre and at variance with those held by the interviewer, it does not necessarily make it a delusion. Religious delusions may be grandiose in nature.

Delusions of guilt and unworthiness are common in depressive illness. They often lead to suicide and rarely to homicide, when the killing of close relative may be followed by the patient's suicide. The killing of children by depressed mothers or the killing of wives or sometimes also children by husbands may follow affective illness; suicide may follow immediately or later (Higgins, 1990).

Hypochondriacal delusions concerning the bodily functions mainly like the physical functions are not working, or bodily functions interfered with the rays emitted from a planet, etc. are more common in schizophrenia. Schneider (1920) has quoted that less striking hypochondriacal delusions of ugliness or misshapenness of any of his body parts. Culture bound delusions like koro (Lapierre, 1972) on which there is a definite belief that the penis is shrinking into the abdomen, are also been identified.

Delusions of Infestation have been described by Hopkinson (1970) and by Reilly (1988). In Ekbom's Syndrome (Ekbom, 1938), the patient believes that he is infested with small but macroscopic organisms.

Shared delusions also known as 'la folia' deux' described by Lasegue & Falret (1877) refers to the delusion which occasionally is transferred from a psychotic person to one or more others with whom they have been in close association, so that the recipient shares the false belief. There are Delusions of control, which are otherwise known as passivity or 'made experiences', in which the patient believes that he is just a passive recipient of the outside forces that control him. This is one of the first rank symptoms of schizophrenia.

Delusions, Delusion like Ideas and Over Valued Ideas

True delusions are the result of a primary delusional experience, which cannot be deduced from other morbid phenomenon while the delusion like idea is secondary and can be understandably derived from some other morbid psychological phenomenon. Over valued idea, which occurs in healthy people, and in the mentally ill, is a thought, which because of the associated feeling tone, takes precedence over all other ideas and maintains this precedence permanently or for a long period of time.

Systematized and Non-systematized Delusions

Incompletely systematized delusions, there is one basic delusion and the remainder of the system is logically built on this error. Completely systematized delusions are extremely rare.

Delusions in Psychotic Disorders

Delusions arrive in the minds of the mentally ill in the same way as ideas arrive in the minds of the creative; the two are subjectively indistinguishable. In psychotic disorders, cognitive distortions are not readily discounted if they do not hold up under reasoning or reality testing. Patients with psychoses take hypotheses, facts and imaginings as reality. The content of psychotic delusions reflects everyday concerns regarding interpersonal relationships; being attached, influenced, manipulated, controlled and demeaned. A significant feature of delusions is the "centrality" of the patient's interpretations. They perceive themselves as the focal point of a global drama and relate all events to themselves. Once formed, the delusions shape the interpretation of events and explanations for adversities. The content of Schizophrenic delusions is naturally dependent on the social and cultural background. Studies show that delusions have changed with time. (Kranz, 1950)

Delusions are not alterable by persuasion. Although Schizophrenic delusions do not always respond to treatment with psychotropic drugs, gratifyingly they do frequently clear. As the delusions fade, the patient may gain insight and regard them as false beliefs "as due to illness", Such a person need help in accepting himself as he may feel himself to be damaged, vulnerable and un trustworthy and suffer massive loss of self-esteem.

In contrast to the mechanistic and reductionistic framing of delusions as representing fixed neuropsychological deficits, the cognitive approach

attempts to make sure of the way common cognitive biases may distort the perception of the experiences.

Delusions in Paranoid Schizophrenia

Preoccupation with one or more systematized delusions or with frequent auditory hallucinations related to single theme is very common. Delusions are usually persecutory or grandeur in nature. Persecutory delusions may get systematized. In addition to it, erotic, hypochondriacal delusions are not uncommon. In paranoid schizophrenia, delusional ideas expressed by the patient might appear to be true, unlike that of hebephrenic patients, which are usually so bizarre. It is assumed that patients act as if delusional ideas were true. His actions become meaningful and it can be understood why he elaborates and enlarges on them and develops resentment against people around him, where he considers are hostile because they disbelieve his ideas. Sometimes various delusional ideas, instead of becoming systematized may be fleeting only and may change from day to day.

Content of delusion is largely determined by patient's past and present experiences. Some authorities believe that the defense mechanisms of denial and projection are of importance in developing delusions. Delusional thought begins to develop when the individual feels threatened by others or experiences anxiety related to real or imagined trait of his own. As a protective measure, the individual intellectually and emotionally projects his negative qualities and may ascribe them to other persons, which is accomplished by misinterpreting impressions of events and things.

Regression also sometimes occurs when ego boundaries become deficient or lost. Internal drives and instincts, which are denied by the patient, are more rapidly projected on to the environment. When this happens, delusions may be seen as justification of something the patient cannot accept himself. He denies the idea of feelings and blames someone

or something in his environment for this. Thus delusion may be seen as having some protective value to an ego about to overcome by unacceptable impulses of it.

Its importance is evident from the factors discussed above regarding delusions in paranoid schizophrenia, that is, how sensitive a patient could be. Hence the therapist, before embarking any form of intervention should keep certain issues in mind. The rationale of those factors is as follows:

i. The patient should be included in the formulation and decision of treatment plan whenever possible and appropriate. Including the patient may help build trust and decrease suspicion and feeling of powerlessness.
ii. Interact with the patient on the basis of real things; do not dwell on the delusional material. Interacting with reality is healthy for the patient.
iii. Do not be judgmental or belittle or joke about the patient's beliefs. The delusions are not funny to the patient. They are real to them and they may feel rejected or unimportant if you attempt to humour his delusions. Chances are also there that the therapist also becomes incorporated into the patient's delusions.
iv. Never convey the patient that you accept the delusions as real. Therapist would be reinforcing the delusions if he indicates belief in the delusion.
v. Decrease or eliminate patient's delusions and ideas of references. Logical argument does not dispel delusional ideas and can interfere with development of trust and may in fact reinforce the beliefs.
vi. Attempt to discuss the delusional thoughts as problem in the patient's life. Discussion of the problems caused by the delusions is a reality.
vii. Encourage patient to discuss topics other than delusions, such as, family or school, etc. Familiar topics may help in directing the patient's attention to reality.

viii. Encourage patient to express feelings. Expression of feelings can help the patient to identify, accept and work through his feelings.

Cognitive Focus in Delusions

The dimensions of delusions whether it is in psychotic or non-psychotic conditions, show many similarities, including:

i. *Pervasiveness*: the extent to which the patient's consciousness is being controlled by the belief.
ii. *Conviction:* the degree to which the patient believes it.
iii. *Significance*: the belief's importance in the patients over arching meaning system.
iv. *Intensity*: the degree to which it prevents or displaces more realistic belief
v. *Inflexibility*: the degree to which the belief is impervious to contradictory evidence, logic or reason.

Delusions should be thought as points on a continuum with normal functioning, with position on this continuum being determined by factors (or dimensions) such as the clients' degree of belief conviction and the amount of time spent preoccupied with the belief. There was thus a shift of emphasis away from defining a delusion according to whether the conviction was absolute, the belief unmodifiable, and so forth, toward determining for a given individual the degree of belief conviction the extent to which the belief was modifiable and so on.

Cognitive Theories of Delusion

In most of the cognitive theories and empirical studies of delusions, the underlying construct is models of belief formation and maintenance. One goal of such cognitive investigations is to specify what leads to the development and maintenance of delusions in order to inform therapeutic change, by means of cognitive therapy. The growing evidence of the effectiveness of cognitive-behavioral approaches with delusions adds a further impetus to the task of theoretical development (Bouchard Vallieres, Roy & Maziade, 1996; Kuipers et al., 1997)

Single Factor Model of Delusion

Maher (1974) offered a cognitive account of delusions, which emphasized disturbances of perception. He proposed that a delusional individual suffers from primary perceptual anomalies, fundamentally biological in nature, that involve vivid and intense sensory input. He argues that the individual being prone to experience these abnormal percepts seeks an explanation, which is then developed through normal cognitive mechanisms. The explanation (that is, the delusion) is derived by processes of reasoning that are entirely normal and the delusional beliefs are reinforced by the anxiety reduction which accompanies the development of an explanation for disturbing or puzzling experiences.

Maher (1988) cited evidence in support of this view from two sources.

i. Delusions occur in large number of medical and psychological conditions, which he argues that delusions serve as an adaptive function, secondary to whatever disturbance is caused by the pathogenic agent.
ii. Evidence is cited that irrational beliefs can be provoked in the general population under anomalous environmental conditions,

for example, undetected hearing loss leading to paranoid ideas (Zimbardo, Andersen & Kabat, 1981).

iii. Maher argues that there is an "absence" of evidence for any impairment of reasoning ability, 'apart from the inference made from the presence of the delusions themselves'.

Maher's account is an elegant single factor model of delusions, in which an abnormality of perceptual processing combined with paradoxically normal reasoning leads to the delusion. However it does not provide a complete account of all delusions.

Some delusions are found to occur in the absence of any anomalous experiences (Chapman & Chapmen, 1988). There is growing evidence of reasons and attribution biases in people with delusions, which suggests that they may display systematic differences in cognitive processes from those in the general population. And also it is probable that the experience of anomalous percepts (e.g. hallucinations) is a less passive process than Maher suggests, and may result, in part, from biased cognitive processes in the task of "reality discrimination" (Slade & Bentall, 1988).

However, even if Maher's account applies only to a restricted set of delusions his proposal is important in positing that delusions are ***explanations of experience***, that they represent the individuals' attempt ***to make sense of events***. These contrasts very markedly with the conventional wisdom regarding delusions, dating from Jaspers (1913), primary delusions are 'ununderstandable' and psychologically irreducible.

Maher's work was the key stimulus for the renewed interest in generating psychological accounts of delusions since the 1980s.

Theory of Deficits in Meta-Representation

Frith (1992) has proposed that delusions of reference and of persecution arise from an ability to represent the beliefs, thoughts and intentions of other people, a 'theory of mind' deficit. Put concisely, 'by their very nature, delusions of reference, persecution and misidentification are characterized by a misinterpretation of another person's behavior or intentions. Thus the argument that these symptoms arise as a result of a deficit in a system which enables us to infer what is in the minds of other people is straightforward' (Corcoran, Mercer & Frith, 1995).

However, while theory of mind deficits may be a plausible factor in some patients with persecutory delusions, in the formation and maintenance of the delusions, the evidence linking other-representation deficits specifically to persecutory delusions is not yet convincing. Theory of mind deficits' relevance to delusions needs more study.

Probabilitistic Reasoning Bias Model (Multifactorial Model)

Garety and Memsley (1994) argued that delusions are unlikely to share a common cause but that a number of factors contribute to their formation and maintenance. They set out a multifactor model in which the past experience; affect, self-esteem and motivation play a part in some delusions, while in others biases in perception and judgment are prominent. Normal processes of belief formation and maintenance also come into play, such as, selective attention and confirmation bias.

A number of studies had identified a tendency for people with delusions to "jump to conclusions" (JTC) (Garety & Memsley, 1994).

Bayesian inference provides a general framework for evaluating belief as they are formed and maintained, since it incorporates the level of the prior belief and governs the way in which the strength of once' belief in

a hypothesis should be revised in the light of new information (Fischhoff & Beyth-Marom,1983). Garety & Memsley predicted that, on a Bayesian inference task, people with delusions would make more rapid and over confident judgments than other clinical and non-clinical controls. They did not hypothesize that this bias would be specific to certain types of delusions or to people with delusions only with a diagnosis of schizophrenia (Huq, Garety & Memsley, 1988)

Jumping to conclusions (JTC) has been found in people with delusions, irrespective of a diagnosis of schizophrenia or a delusional disorder, and in people with schizophrenia when the current delusional status is less clear (Mortimer et al, 1996).

Persecutory Delusions as Defense

Bentall and his colleagues have proposed that people with persecutory delusions construct them to maintain self-esteem, avoiding discrepancies entering consciousness between how they perceive themselves to be and how they would like to be (Bentall, Kaney & Demey, 1991). They argue that externalizing causal, attributions (persecutory delusions) are evoked for negative events, which might otherwise increase the accessibility of underlying negative self-representations.

Persecutory delusion is viewed as a defense account, since it is proposed that an attributional style characterized by blaming other people for bad events and taking credit for good events is implicated. Bentall and his colleagues describe this as an extreme form of the self serving-bias, which is reported to be present in the general population as a means of maintaining self-esteem.

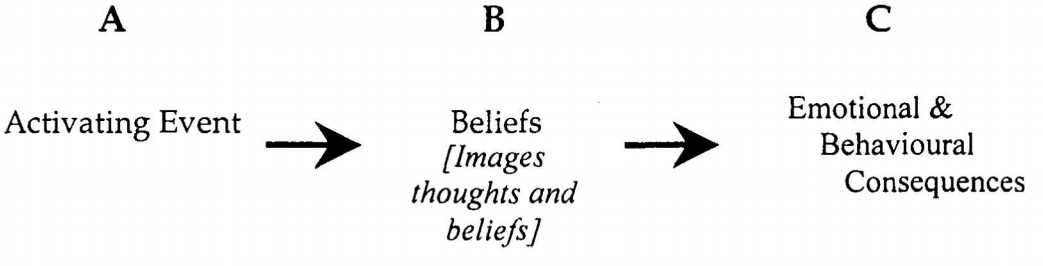
Cross-Sectional analysis of delusional thinking demonstrates several common objective cognitive characteristics including ***egocentric bias***, ***externalizing bias*** and an ***intentionalizing bias***. It is through the egocentric

bias by which the patients become locked into an egocentric perspective and construe even irrelevant events as self-relevant. Internal sensations or symptoms are attributed to external agents by the use of an externalizing bias. Intentionalizing bias leads the patient to attribute malevolent and hostile intentions to other people's behavior (Beck, 2000).

Historical conceptualizations of delusions have maintained that they represent abnormal beliefs, which are qualitatively different from normal beliefs. In the last twenty three years has seen a shift in emphasis away from discontinuity to continuity, and from qualitative to quantitative differences. Individuals with paranoid delusions are acknowledged to be thinking and behaving in ways, which can be detected in ordinary people. It is implicit to view that delusions need to be studied on an individual basis, and that specific and varied dimension of thinking and behavior need to be covered.

ABC Perspective on Delusion-Cognitive Model

The Central point in cognitive mediation is that responses to events are mediated by thoughts, images and beliefs. (Breuie, 1988). The cognitive model that is being widely used for working with delusions and voices draws mainly on Beck's cognitive therapy. Possibly the clearest and heuristically most useful framework for cognitive psychotherapy is Ellis' ABC Model(1962).



The cognitive ABC Model

A stands for Activating Event, B stands for Belief about the Activating Event and C stands for the emotional or behavioral consequences that follows from the B, given A.

Five Fundamental Principles of the ABC Model

i. All psychological problems are Cs
ii. Problems arise from Bs, not As.
iii. There are predictable connections between Bs and Cs
iv. Core Bs arise from early experience
v. Weakening Beliefs weakens Associated Distress and disturbance.

Delusions, within an ABC Analysis are obviously Bs - that is, they are delusional interpretations of an event (A) and may or may not be associated with distress and disturbance at point C. At an immediate level, depicting delusional experience in this way ensures that attention is paid to the environmental and bodily events (As), clarifies that the delusion is but one possible interpretation placed on events, and shows if the delusion is a problem (i.e., distressing or disturbing) to the client.

ABC perspective on delusions brings with it the conceptual clarity that delusions always contain an explicit inference, but the evaluations are usually implicit and will need teasing out through thought chaining.

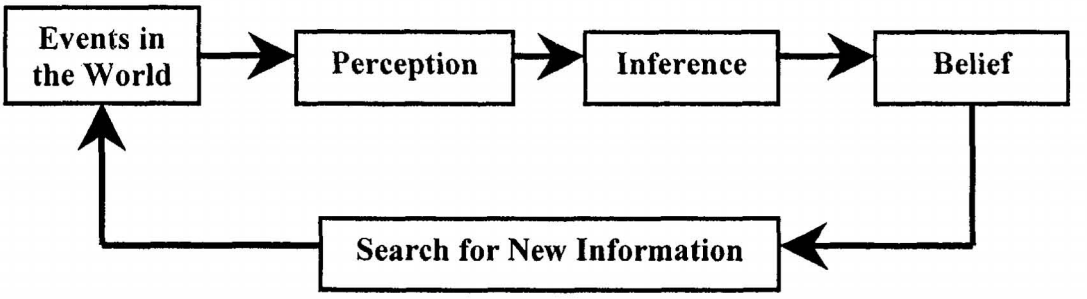
A cognitive ABC analysis of delusions

Delusion	Antecedent	Belief	Consequences
Mind reading	Client cannot find a word, therapist supplies it.	She read my mind, I've found her out, I knew it	× Elated × Pressure to tell people
Paranoid	Car horn sounds outside house	They have come for me, to kill me	× Fear × Runs from flat
Thought broadcast	Client shopping Hears man say what he was thinking	My thoughts are being transmitted to others	× Panic × Escape
Thought Insertion	Client has sudden intrusive & shocking thought	Its not mine someone put it in my head with a special machine	× Fearful, exposed × Urge to hide
Reference	Doctor walks past window head held high	He thinks he's better than me, he is letting me know	× Shame × Moves away from window
Grandiose	The Queen says on TV she loves all her children	She means me, she loves me, I am her daughter	× Elation
Infestation	Scalp itching	They are biting me against, I can't stand it	× Anxiety × Helplessness
Sermatic	Wakes feeling tired, aching	I've got AIDS, I'm going to die.	× Terror × Immobilized
Capgras	Father supports clients admission to hospital	He's not my dad, dad wouldn't do it, he's an alien	× Frightened × Withdraws clenches fists
Cotard	Fails to respond to once enjoyed activity	I feel nothing, I'm dead	× Emptiness × Suicidal
Control	Moves to push daughter out of open window	I did'nt do that, they made me do it, they did it, it's not my fault.	× Reassured × Passive

The proper debate about whether delusions are all either reasonable explanations of abnormal experiences, or unreasonable explanations driven by motivational force, is an example of absolutistic thinking once again being unhelpful, and recognition that some delusions are the result

predominantly of perceptual abnormality others predominantly of psychological motivation.(Gazcety, 1991).

Model of Belief Acquisition in Delusion



Cognitive Processes and Delusions

In this model, belief relevant information in the world is perceived by the individual, who then makes certain inferences about the data and arrives at a belief (Bentall, 1990).

Cognitive Therapy in Schizophrenia

The notable results from the introduction of atypical anti-psychotics in the treatment of schizophrenia have paralleled promising research findings for cognitive behavioral therapy (CBT) in the treatment of patients with persistent psychotic symptoms. Although CBT has become a widely practiced and empirically supported psychotherapeutic approach (Chambless and Gillis, 1993; Dobson, 1989), only in the past decade has its use been advocated in the treatment of schizophrenia.

Basic research on cognitive processes in psychosis has suggested that hallucinations and delusions may be extreme variants of ordinary appraisal processes and belief formation. Cognitive processes that may lead to delusional belief consist of a tendency to overestimate coincidences (Garety and Hemsley, 1994; Garety et al, 1991), and to engage in self serving biases to protect vulnerable self esteem (Bentall et al, 1994), seen in schizophrenia. Deluded patients also evidence attentional biases towards threat-related

stimuli (Kaney et al, 1991). Once formed, delusional beliefs may be maintained in a similar way to ordinary beliefs: supporting evidence is recruited and disconfirming evidence is ignored or minimized.

In a number of large-scale outcome studies with cognitive therapy for schizophrenia, cognitive therapy has been shown to offer significant gains for those patients who have not been wholly helped with medications. It may even serve to prevent the consolidation of the illness if delivered with those in the early stage of the illness.

Review of Literature

REVIEW OF LITERATURE

Literature has been reviewed under the following headings:

i. Psychological treatments for Delusions
ii. Cognitive therapy in Schizophrenic disorder
iii. Cognitive therapy in Delusions
iv. Cognitive therapy in delusions: Indian Studies

Delusional beliefs are heterogeneous and occur in numerous clinical disorders such as schizophrenia, delusional disorder (paranoia), dementia and severe mood disorders (APA, 1987). There has been a growing interest in studying particular symptoms of psychosis (Berenbaum, Oltmanns & Gotterman, 1985; Slade & Bentall, 1988). However, in spite of the fact that delusions are extremely common in psychosis, this symptoms has suffered experimental neglect (Oltmanus, 1988; Winters & Neales, 1983; IPSS, WHO, 1973).

Psychological treatments for delusions

Operant methods have been used in the treatment of delusions by a number of researchers. (Richard et al, 1960; Ayllou & Haughton, 1964; Liberman et al' 1973; Wincze et al; 1972) A study by Wincze et al (1972) compared the effectiveness of providing social reinforcement or token reinforcement as a reinforcer when psychotic patients exhibited non-delusional talk. They found that both were effective at reducing the occurrence of delusional talk. Belief modification procedures (Beck1952) was further developed by Watts using the principle of "psychological reactance" outlined by Brehen(1966). Watts et al (1973) argued that direct rejection of a patients' delusional belief. Martman &Cashman(1983) have also described a form of cognitive behavioral treatment which included a belief modification procedure. More recently, Chadwick and Loure (1990; 1994) have reported successful

interventions with patients experiencing delusions using form of verbal questioning, belief modification and experimental reality testing.

Cognitive therapy in schizophrenic disorders

A doubled-blind controlled outcome study by Temple and Ho (2005) compared Cognitive Therapy with a treatment-as-usual group. Independent raters assessed symptom severity and psychosocial functioning at baseline, and at 6 months. Improvements were found for Cognitive Behavior Therapy (CBT) patients in Clinical Global Impression for Improvement, Global Psychosocial Functioning, the Global Assessment Scale (GAS) ratings, overall symptoms, and delusions. A trend toward significance was found for reductions in negative symptoms ($p<0.06$). The results suggest the potential utility of cognitive therapy as a companion therapy for schizophrenia.

Wiedemann G, Klingberg S. (2003) While the treatment of positive symptoms of patients with schizophrenic psychosis appeared until recently to be solely pharmacotherapeutic, new research findings show the efficacy of cognitive-behavioural psychotherapy (CBT) on positive symptoms in chronic psychotic patients. In addition, the effectiveness even in acute and recent-onset psychosis could be shown in some studies. The effects of CBT and standard care in psychosis compared to standard care alone and to other psychosocial interventions plus standard care are reviewed. The results of several studies and one meta-analysis show that CBT in schizophrenia patients has a direct effect on psychotic symptoms such as hallucinations as well as on relapse prevention.

To test the effectiveness of added CBT in accelerating remission from acute psychotic symptoms in early schizophrenia., a 5-week CBT programme plus routine care was compared with supportive counseling plus routine care

and routine care alone in a multi-centre trial randomising 315 people with DSM-IV schizophrenia and related disorders in their first (83%) or second acute admission. Outcome assessments were blinded. Linear regression over 70 days showed predicted trends towards faster improvement in the CBT group. Uncorrected univariate comparisons showed significant benefits at 4 but not 6 weeks for CBT vs. routine care alone on Positive and Negative Syndrome Scale total and positive sub-scale scores and delusion score and benefits vs. supportive counseling for auditory hallucinations score. The authors have concluded that CBT shows transient advantages over routine care alone or supportive counselling in speeding remission from acute symptoms in early schizophrenia (Lewis et al, 2002).

In a randomized control trial by Tarrier et al (2004), 309 patients admitted for the first time, presenting with schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder or psychosis, were randomly assigned to cognitive behavioural therapy or supportive counseling plus usual care compared with usual care alone. At 18 months, cognitive behavioural therapy and supportive counseling plus usual care significantly improved schizophrenia symptoms compared with usual care. The authors have concluded that CBT and supportive counseling significantly improve schizophrenia symptoms. However neither of the therapies affected relapse or rehospitalization rates in the long term.

A randomized controlled design was used by Sensky et al (2000) to compare the efficacy of manualized CBT developed particularly for schizophrenia with that of a nonspecific befriending control intervention. Patients were assessed by blind raters at baseline, after treatment and at 9 months follow up evaluation. Both the intervention resulted in significant reductions in positive and negative symptoms and depression. At the 9 months follow-up evaluation, patients who had received cognitive therapy continued

to improve, while those in the other group did not. The authors concluded that CBT is effective in treating negative as well as positive symptoms in schizophrenia resistant to standard anti-psychotic drugs, with its efficacy sustained over 9 months of follow-up.

Early case studies and non-controlled trial studies focusing on the treatment of delusions and hallucinations have laid the foundation for more recent developments in comprehensive cognitive behavioral therapy (CBT) interventions for schizophrenia. Seven randomized, controlled trial studies testing the efficacy of CBT for schizophrenia were identified by electronic search (MEDLINE and PsychInfo) and by personal correspondence. After a review of the studies, effect size (ES) estimates were computed by Rector and Beck (2001) to determine the statistical magnitude of clinical change in CBT and control treatment conditions. CBT has been shown to produce large clinical effects on measures of positive and negative symptoms of schizophrenia. Patients receiving routine care and adjunctive CBT have experienced additional benefits above and beyond the gains achieved with routine care and adjunctive supportive therapy. These results reveal promise for the role of CBT in the treatment of schizophrenia although additional research is required to test its efficacy, long-term durability, and impact on relapse rates and quality of life. Clinical refinements were needed also to help those who show only minimal benefit with the intervention

Georg et al (2005) described a patient with schizophrenia, whose delusions were well managed by his mother using informal cognitive therapy principles. Primary carer could be more involved as 'co-therapists' in the cognitive treatment of psychotic symptoms in some patients. The authors suggested that future work needs to explore the effectiveness and feasibility of more structured cognitive therapy input for carers (as co-therapists) of patients with psychosis.

Moorhead, Turkington (2001) reports the process, interventions, and outcome of the cognitive-behavioural therapy of a patient who had a diagnosis of delusional disorder. The clinical features, process of therapy, and successful outcome are all discussed in relation to explanatory information processing models of delusion development and maintenance, and recent developments in formulation-driven CBT of delusions. The implications for therapy, service development, and training are discussed. Beliefs that mediate the relationship between core schemas and delusions may form a helpful focus for early therapeutic endeavor in psychosis.

Much of the previous studies have suggested that cognitive therapy is effective in modifying delusions. In order to assess the effectiveness of cognitive therapy on patients seen in routine clinical work, 18 patients with chronic delusions were treated by Jakes, Rhodes and Turner (1999) using cognitive therapy, after the method of Chadwick and Lowe. A single-case multiple-baseline experimental design was used, including a control treatment. Each subject was used as their own control. Six patients reduced conviction in their delusions during cognitive therapy and not during the control treatment. Seven patients' conviction ratings did not change. Five patients showed a variable response. Degree of conviction did not fall to zero in any patient. All patients reported that the therapy had been helpful; six spontaneously mentioned changes in psychotic thinking. The authors concluded that one-third of patients with chronic delusions whom they treated responded to delusion modification with a reduction in degree of belief. Change within therapy sessions predicted outcome, as did variation in the conviction during baseline. Cognitive therapy with delusions has to aim at reducing distress as well as conviction.

To critically review the evidence for three contemporary theories of delusions, the theoretical approaches to delusions proposed by Frith and

colleagues ('theory of mind' deficits), Garety and colleagues (multi-factorial, but involving probabilistic reasoning biases) and Bentall and colleagues (attributional style and self-discrepancies) were summarised by Garety and Freeman (1999). The findings of empirical papers directly relevant to these proposals were critically reviewed. The papers were identified by computerized literature searches (for the years 1987-1997) and a hand search. The evidence does not unequivocally support any of the approaches as proposed. However, strong evidence is found to support modifications of Garety and colleagues' and Bentall and colleagues' theories. Studies have replicated a 'jumping to conclusions' data-gathering bias and an externalizing attributional bias in people with delusions. There was preliminary evidence for a 'theory of mind' deficit, as proposed by Frith, although possibly related to a more general reasoning bias. Evidence for an underlying discrepancy between ideal and actual self-representations is weaker. A multi-factorial model of delusion formation and maintenance incorporating a data-gathering bias and attributional style, together with other factors (e.g. perceptual processing, meta-representation) as consistent with the current evidence. It has been recommended that those findings be incorporated into cognitive therapy approaches.

A series of small, mainly uncontrolled, studies have suggested that techniques adapted from cognitive-behavioural therapy (CBT) for depression can improve outcome in psychosis, sixty participants having at least one positive and distressing symptom of psychosis that were medication-resistant were randomly allocated between a CBT and standard care condition (n = 28) and a standard care only control condition (n = 32) by Kuipers et al (1997). Therapy has been individualized, and lasted for nine months. Multiple assessments of outcome were used. Over nine months, improvement was significant only in the treatment group, who showed a 25% reduction on the

BPRS. No other clinical, symptomatic or functioning measure changed significantly. Participants had a low drop-out rate from therapy (11%), and expressed high levels of satisfaction with treatment (80%). Fifty per cent of the CBT group were treatment responders (one person became worse), compared with 31% of the control group (three people became worse and another committed suicide). The authors have concluded that CBT for psychosis can improve overall symptomatology and the findings provide evidence that even a refractory group of clients with a long history of psychosis could engage in talking about psychotic symptoms and their meaning, and this would improve outcome.

In recent years a number of cognitive behavioural formulations have been offered for auditory hallucinations and attempts have been made to develop interventions based on them.

Chadwick and Birchwood (1994) found that the beliefs people had about their voices fell into 4 distinct categories - those about a voice's identity, power and meaning and those about compliance. Using the belief-modification technique, which emphasized on the therapist and patient together examining the reasoning processes that supports the hallucinations, beliefs about the voices' omnipotence, identity and purpose were systematically disputed and tested in 4 patients with drug resistant voices. Large and stable reductions in conviction in these beliefs were reported, and these were associated with reduced distress, increased adaptive behaviour and a fall in voice activity.

Based on Beck's cognitive therapy, Kingdon and Turkington (1994) developed the rational responding approach, which involved helping the persons to identify the control of their voices, and associated cognitions and to generate alternative cognitive responses.

Tarrier, Beckett, Harwood et al. (1993) have compared the effectiveness of a cognitive intervention specifically targeted at psychosis symptoms (coping strategy enhancement) with a more general cognitive intervention aimed at improving problem solving skills, in 27 treatment resistant schizophrenic patients. A significant interaction reflected more change in symptom severity for the coping strategy enhancement than problem solving treatment when comparing test scores before treatment with those immediately after treatments and at 6-months follow-up. The authors opined that coping strategy enhancement treatment may effect symptom change through increased coping skills, which was present in the coping strategy enhancement but not problem solving group.

Joseph Raj et al. (1999) reported a case of 22 years old male with paranoid schizophrenia, treated for his drug-resistant auditory hallucinations. The person had second and third person commanding, commenting and derogatory auditory hallucinations of severe intensity and distress, which did not respond to anti-psychotic medication. Following 12 sessions of CBT for over 2 months, the patient reported significant improvement. Significant change was also evident in his social, personal and occupational functioning at termination. Follow up at one month revealed maintenance of treatment gains.

Cognitive therapy has emerged as a feasible and valuable complement to the treatment of patients suffering from a schizophrenic disorder. It can be carried out at various levels and with different goals in mind and its use is not in conflict with concomitant and strictly individualized medication.

Cognitive Therapy in Delusions

The treatment outcomes in the cognitive clinical treatment of delusions are heterogeneous or diverse. Kingdon & Turkington(1991) credit a case done

by Beck (1952), as the first to describe the use of 'reasoning' techniques in the treatment of delusional thinking and beliefs. Though there is much overlap between behavior therapy and cognitive therapy (Beck, 1970), traditional behavioral treatment of delusions is readily distinguished from the approach of cognitive therapy. The central difference is modification of "verbatizations"or verbal behavior" in behavior therapy and "Belief modification" (Alford 1986; Chadwick & Laure, 1990).

Greenwood (1983) has observed that increased guardedness on the part of the delusional patients, following attempted cognitive restructuring strategies, have come down noticeably. The responses were even better when done in group than individual therapy. Fleece, Alfrod & Roth Blum (1982) has successfully modified delusional verbalizations in a chronic paranoid schizophrenia, particularly focusing on the method of collaborative empiricism.

As we enter the new millennium, a promising new approach to schizophrenia is emerging. Accumulating empirical evidence indicates that cognitive therapy combined with standard treatments provides significant improvement of drug resistant and residual symptoms. The non-random allocation control study conducted by Garety et al (1994) on 2 groups of patients who received pharmacotherapy and pharmacotherapy plus cognitive therapy delivered bi-weekly for 6 months respectively, showed that the patients who received combined management showed global improvement on psychiatric symptomatology as well as lower level of preoccupation, conviction, and acting on delusional beliefs.

A randomized control trial by Kinpers et al (1997) where patients more allocated to either cognitive therapy or standard care or standard care only following nine months of weekly or bi-weekly individual therapy. The clinical

improvement as assessed by a general measure of symptomatic disturbance was significant only for patients who received cognitive therapy. The study also demonstrated that patients have a low drop-out rate (11%) and express high levels of satisfaction with the CBT intervention (80%).

A subsequent paper on the predictors of outcome in this (above mentioned) study showed that a key predictor of response to cognitive therapy was "a response indicating cognitive flexibility concerning delusions" whereas this cognitive variable was unrelated to outcome in the control group.

Sneaky (2000) and colleagues conducted a randomized controlled study with medication-resistance schizophrenics. Patients received 20 weeks of cognitive therapy plus standard care or 20 weeks of "befriending therapy' plus standard care. Befriending therapy encouraged patients to talk about neutral, non-threatening topics. Both groups showed significant improvement on the schizophrenia change scale score. However, patients who received cognitive therapy showed more clinical improvement at nine-month follow-up, whereas the clinical gains made by the befriending group deteriorated to pretreatment baseline levels.

Tarrier (1999) randomly allocated chronic schizophrenic patients suffering from persistent positive symptoms to cognitive therapy plus standard care or supportive counseling plus standard care. Both psychotherapy conditions consisted of 20 sessions within a 10 week period followed by four booster sessions in monthly intervals. Cognitive therapy was superior on all measures of clinical outcome: delusions, hallucinations and general psychopathology. The routine-care group, moreover, experienced more relapses and spend more days in hospital. They also continued to maintain their clinical benefits and have significantly fewer positive symptoms than the other group.

Pinto & Colleagues (1999) in Italy completed a randomized controlled study comparing cognitive therapy versus supportive therapy in medication resistant inpatients and outpatients, started on an effective dose of clozapine (atypical anti-psychotic). Both treatments were shown to produce statistically significant improvement on overall psychopathology. Cognitive therapy showed greater reductions on measures of over all psychotic symptoms and positive symptoms than did patients receiving combination supportive therapy.

Study conducted by Kingdon and Trukington (1991) implementing CBT, with special focus on the normalizing rationale, in schizophrenia revealed high acceptability and a low readmission rate with no suicides or homicides over a seven year period. The cognitive behavioral repertoire continues to expand into a diversity of therapeutic modalities including coping skills enhancement (Tarrier et al, 1993), cognitive remediation (Green, 1993) and early intervention (Bickwood et al, 1989).

There is an intriguing simplicity to the notion of the possible application of cognitive therapy to treat delusional beliefs. Indeed, a central focus of cognitive therapy is the treatment of disordered cognitive content (such as ,negativity) and disordered cognitive processes (such as, dichotomous thinking). This approach has been successfully applied in cognitive therapy of disorders which, unlike delusional beliefs, have not historically been viewed as essentially cognitive in nature (Dobson, 1989; Hollon, De Rubies & Seligman, 1992; Robins & Mayer, 1993). Therefore, in this sense, the possibility of applying cognitive therapy to treat delusional beliefs may appear self evident.

Several controlled trials have now been seen regarding the use of CBT for schizophrenia (Kuipers et al, 1997), to improve adherence (Lecompte and Petc, 1996; Kemp et al., 1996), as an adjunctive treatment among inpatients

admitted for short-term treatment (Drury et al., 1996) and for psychotic symptoms unresponsive to medication (Kuipers et al, 1997; Tarrier et al., 1993; Tarrier et al., 1998). Two of these studies have reported 18 months follow-up data (Kuipers et al., 1998; Kemp et al., 1998). These results have been reported as promising in the recent Cochrane review (Cormac et al., 1999) and in American Psychiatric Association guidelines (APA, 1997). However there are limitations in the published studies and questions about their generalizabiliy. Methodological problems include paucity of published methodological details (Lecompte and Petc, 1996), small sample size (Tarrier et al., 1993), problems keeping clinicians blind to the intervention (Kuipers et al, 1997; Drury et al., 1996), failure to report treatment changes that might mediate observed clinical improvements (Kuipers et al, 1997), and possible difficulties with the chosen control conditions (Kuipers et al, 1997; Drury et al., 1996; Tarrier et al., 1993).

Cognitive therapy in delusions: Indian Studies

Poornima et al. (2004) aimed at examining the efficacy of CBT in a case of delusional disorder and highlighting the importance of reducing the impact of delusion in the client's life. A 26 year old single graduate unemployed woman from middle economic status and urban background, with complaints of bad breath, decreased social interaction and fear of rejections secondary to that. Clinical evaluation revealed motor restlessness and worthlessness. An information processing style model (Fenigstein, 1992) for explaining delusions was used to understand the client's difficulties. 13 therapy sessions focusing on normalization of the daily routine, handling the delusion and managing heightened arousal. Client reported 55-60% improvement in her difficulties at the end of the therapy. The authors concluded that the cognitive behavioural interventions were found to be effective in dealing with the delusions and the efficacy of CBT in reducing the morbidity of the disorder.

Duggal, Jagadheeshan and Nizamie (2002) in their single case report described a patient with paranoid schizophrenia who developed delusion about the internet controlling him but a good response to cognitive therapy. A 31 years old, married male from lower-middle socio-economic status, hailing from a suburban background, with a 10 years long illness characterized by persecutory delusions, delusion of control, auditory and olfactory hallucination and somatic passivity. A predominant theme underlying his psychopathology was his belief that he was being persecuted by his sister-in-law. The patient had developed the delusion that his sister-in-law, through the internet, was controlling his thoughts and actions and also make him laugh and cry against his wishes. He elaborated that she would command the computer to send voices to him and that she knew his thoughts through the internet. The patient was taken for belief modification by reality testing using collaborative empiricism. In addition belief modification by normalizing rationale of Kingdom and Turkington was also used. Each session was for 20-40 minutes, done weekly and planned over a month. On subsequent interviews, the conviction of his internet related belief steadily decreased and within two weeks, he was totally free from these delusions. The conviction had dropped from 100% to 0%, but he had doubts about the voices being a manifestation of illness.

Present Study

Aim of the study

To find out the efficacy of cognitive therapy for persistent delusions in paranoid schizophrenia.

Objectives

1. To study the efficacy of cognitive therapy on persistent delusions in patients with paranoid schizophrenia.
2. To study the effect of cognitive therapy on other symptoms in patients with paranoid schizophrenia.

Methodology

Sample

The sample was (n=10) included people who sought treatment for their problems from the therapist. The sample was derived using purposive sampling method.

Inclusion Criteria

i. Patients diagnosed as having paranoid schizophrenia (F 20.0; ICD-10, WHO, 1992)

ii. Patients ranging from the age group 20-55, including both sexes.

iii. Presence of delusions, refractory to at least one year of neuroleptic medication. This is in accordance with the criterion put forward by Hustig and Hafner (1990), who defined medication resistance as

presence for at least 12 months of persistent delusion that had not responded to neuroleptic medication.

Exclusion Criteria

i. Patients with disorganized behaviour, which can interfere with the therapy process.

ii. Co-morbid diagnosis of psychoactive substance use disorder.

Design

Case study design with pre and post intervention assessments was adopted in the present study. In this design a single test group is selected and baseline measurement is established before the introduction of the treatment. The treatment is then introduced and the measurements is repeated after the intervention. The effect of the treatment would be equal to the level of the phenomenon after the treatment minus the level of the phenomenon before the treatment. Hence this design is also known as Before-and-after without control design.

Tools

i. Socio-Demographic Data Sheet (Appendix-II)

ii. Brown Assessment of Beliefs Scale (Appendix-III)

iii. Positive and Negative Syndrome Scale (Appendix-IV)

iv. A Percentage Rating for Conviction

v. Ordinal Scale of Preoccupation

vi. Reaction to Hypothetical Contradiction (RTHC) & Accommodation (Appendix-V)

Description of Tools

i. Socio-Demographic Data Sheet

This was developed to gather information about socio-demographic variables like age, sex etc. and clinical variables related to disease and treatment.

ii. Brown Assessment of Beliefs Scale [BABS]

The Brown Assessment of Beliefs Scale, a clinician-administered scale designed to assess degree of delusionality across a range of psychiatric disorders, has good psychometric properties, including interrater reliability, test-retest reliability, and internal consistency. Discriminant validity findings suggest that the scale is not a measure of aspects of illness severity assessed by the BPRS, the Yale-Brown Obsessive Compulsive Scale, or the Beck Depression Inventory. The high correlation with other measures of delusionality suggests that the Brown Assessment of Beliefs Scale is a valid measure of delusionality. Our findings also indicate that the scale is sensitive to change and therefore can be used to measure change with, and efficacy of, treatment.

Advantages of the scale include its brevity, ease of administration, and provision of a continuous measure of delusionality. The determination of a cutoff point for the presence of delusionality in body dysmorphic disorder suggests that the scale is potentially useful in classifying patients according to the DSM-IV categories of delusional versus non-delusional. However, this preliminary finding in body dysmorphic disorder needs to be replicated in other diagnostic groups. Use of the Brown Assessment of Beliefs Scale may

shed light on classification controversies about the relationship between delusional and non-delusional variants of disorders (for example, whether the delusional and non-delusional variants of OCD, body dysmorphic disorder, and hypochondriasis are the same or different disorders).

iii. Positive and Negative Syndrome Scale (PANSS) (Kay, Fiszbein and Opler, 1987)

The Positive and Negative Syndrome Scale (PANSS) by Kay et al. in 1987 could be seen as an extension and improvement of the Brief Psychiatric Rating Scale (BPRS). The PANSS has been designed to meet the needs of separately quantifying the positive and the negative syndrome in prospective drug studies in schizophrenia. Since then, the PANSS has been widely used as the main outcome variable in the evaluation of the newer (atypical) antipsychotics and seems to have become the new standard for studies in schizophrenic patient populations, thereby replacing the BPRS. The PANSS is probably the most popular schizophrenia symptom evaluation scale today (1997).

The PANSS is a 30 item, seven point (1-7, from absent to extremely severe) scale, rated with the help of a semi structured interview. A completely structured clinical interview has been introduced by Kay, and validated by Lindström et al. (SCIPANSS). The SCID PANSS has been designed for diagnostic purposes. For interview training videos and a manual containing extensive definitions of items, suggested questions, and detailed anchor points, are available from MHS.

The PANSS has three subscales the two most important ones measure specifically 1) the severity of the positive (7-items), 2) the severity of the negative (7 items) symptoms and 3) evaluates symptoms, which cannot be

linked decisively to either the positive or negative syndrome (16 items). The difference between positive and negative scores indicates whether positive or negative symptoms prevail (composite scale). Also a derived BPRS score can be calculated by summing up the score of the corresponding items. Usually three to five factors are recognized. The negative symptom and the poor rapport factor scores predict psychopathological and socio-economic outcome.

The PANSS has excellent psychometric properties, but rater training is essential. Validity and reliability have been well documented right at the beginning and the scale is well suited for longitudinal studies.

The seven item negative PANSS scale contains four of the five items considered key notions in the deficit syndrome by Kibel and six of the seven were among the items that were most important in defining the syndrome. According to Fenton and McGlashan, the negative syndrome defined by the PANSS items provides the narrowest description of the deficit syndrome of the commonly used ones and its scores has a high predictive validity with respect to outcome.

The PANSS has abundantly been shown to be sensitive to change also the sub scores have been found to have good sensitivity as outcome measure. PANSS scores have also been used to predict suicide attempts. The time-window is one week.

The PANSS can also be used in dementia, drug abuse and in depression to evaluate the deficit syndrome.

iv. A Percentage Rating for Conviction (Chadwick, Brichwood and Trower,1996)

Conviction (How certain a client is of a belief) is one of the main measures of delusional thinking and of how it changes in therapy. How conviction is measured probably reflects the clinician's interest in measurement and research as much as the client's ability and wishes. A simple percentage rating (0=zero conviction -100=absolute) is certainly adequate for most settings. As an alternative personal questionnaire method was entertained in order to have internal reliability checks.

v. Ordinal Scale of Preoccupation (Chadwick, Brichwood and Trower, 1996)

A simple ordinal scale is used to capture how much the person is preoccupied and detect any gross changes over the course of therapy. That is to rate the statement as given here: 'In the last week I have thought about my belief as 0 (Not at all), 1 (3 or 4 times in the week), 2 (every day) and 3 (many times a day).

vi. Reaction to Hypothetical Contradiction (RTHC) & Accommodation (Brett-Jones, Garety & Hemsley, 1987)

RTCH is a measure of people's potential for accepting disconfirmation. A plausible hypothetical event that is inconsistent with the delusion is described and the individual is asked how if at all such an occurrence would alter the delusion.

PROCEDURE:

10 patients with the above mentioned inclusion and exclusion criteria were taken from the clients who have come for consultation/treatment from the therapist. Scales were administered by an independent rater, who was not involved in the therapy. The independent rater is a qualified clinical psychologist whose intervention was sought both for pre and post-intervention assessments to prevent experimenter bias. Thus a pre-assessment and a post intervention assessment were done by the independent rater. Therapy sessions were conducted for one and a half hour, twice weekly for about 6 months. The cognitive therapeutic techniques were tailored to suit each clients needs.

Cognitive psychotherapy is a short-term present oriented psychotherapy directed toward solving current problems and modifying dysfunctional thinking and behaviour (Beck, 1964). Since that time, Beck and others have adapted this therapy to a diverse set of psychiatric disorder and populations (Freeman & Dattilo, 1992; Freeman, Simon, Beutler, & Arkowitz, 1989; Scott, Williams, & Beck, 1989). In a nutshell, the cognitive model proposes that distorted or dysfunctional thinking (which influences the patient's mood and behaviour) is common to all psychological disturbances. Realistic evaluation and modification of thinking produces an improvement in mood and behaviour. Enduring improvement results from modification of the patient's underlying dysfunctional beliefs.

Cognitive therapy is currently being applied around the world as the sole treatment or an adjunctive treatment for other disorders. A few examples are obsessive-compulsive disorder (Salkovskis & Krick, 1989), Posttraumatic stress disorders (Dancu & Foa, 1992; Parrot, & Howes, 1991) personality disorders (Beck et al., 1990; Layden, Newman, Freeman, & Morse, 1993; Young, 1990), recurrent depression (R.DeRubeis, personal communication, October,

1993), chronic pain (Miller, 1991; Turk, Meichenbaum, & Genest, 1983), hypochondriasis (Warwick & Salkovskis, 1989), and schizophrenia (Chadwick. & Lowe, 1990; Kingdon & Turkington, 1994; Perris, Ingelson, & Johnson, 1993). Cognitive therapy for populations other than psychiatric patients is being studied well: prison inmates, school children, medical patients with a wide variety of illness, among many others.

The components of the program were as follows:

Phase-I: Intake interview

Two interviews were conducted with each client by separate examiners, and this served the functions of defining the belief to be modified and of establishing rapport. One of the aims of intake interview was establishing rapport and therapeutic alliance, two individuals entering into a joint venture, both commits themselves to exploring the patient's problems, to establishing mutual trust, and to cooperating with each other to achieve a realistic goal of the amelioration of symptoms.

Phase-II: Baseline

Relevant data were collected as much as possible on the nature of the belief, with special interest being paid to the evidence, both past and present that helped to establish and maintain the belief. During the session, clients were presented with each piece of evidence they had cited for the belief and were asked to rank them in order of importance to the belief system. At no point during the baseline phase was the client's belief or reasoning challenged in any way.

Phase-III: Verbal Challenge

Throughout the intervention, the client was encouraged to view a deluded belief as being only one possible interpretation of events. The clients were not told that their interpretation was wrong but simply that there was an alternative, and they were asked to consider critically the two accounts.

Therapist challenged the evidence for the belief in inverse order of importance. In each case, an alternative to the client's delusional interpretation of events was put forward. An integral part of this involved the experiments making clear to the clients the way in which beliefs, once formed, influence the future interpretations people place on events.

After all the evidence had been dealt with, the therapist moved to challenging the belief itself, in a non-confrontational way challenging the belief was carried out in 3 stages, using Socratic Method as follows:

i. Any inconsistency and irrationality within the client's belief system was pointed out.

ii. Showing that there was a viable alternative explanation for what had been happening to the client usually (that the belief had come about in response to a particular set of events the client had experience).

iii. It was argued that the Therapist's account was the better explanation of the client's experiences.

Phase IV: Reality Testing

For those clients, for whom the verbal challenge phase was not persuasive and who adhered to the delusion, reality testing was implemented. Reality testing involves planning and performing an activity which validated or invalidates a belief, or part of a belief. Beck et al. (1979) call these activities

'behavioural experiments'. Although such activities can have direct therapeutic effects, the primary purpose is to gain cognitive change.

Fennell (1989) provides a clear procedure for how the therapist negotiates a test with the client. That is

i. Specify the inference the test is assessing

ii. Review existing evidence for the predicted outcome

iii. Device a specific experiment to test the validity of the prediction

iv. Note and learn from the results

v. Draw conclusions from this specific test.

Phase V: Normalizing Rationale

The cognitive approach to delusional beliefs has also been developed by Kingdon and Turkington (1991). The importance of attention to dysfunctional interpersonal relationships between patients and family members is the main topic of this approach. According to Kingdon and Turkington, families catastrophize psychotic symptoms as much as patients, which leads to criticism and hostility within the family. To treat this problem, Kingdon and Turkington explore alternative, 'normalizing'interpretations of psychotic symptoms. For example, they relate culturally acceptable beliefs to delusional beliefs in order to destigmatize the psychotic beliefs to patients and their families. They also have found it useful to normalize the psychopathology by showing the role of stress in onset of symptoms.

Phase VI: Follow up

To assess for maintenance of behaviour change, 2 months -2 months follow up meetings were conducted.

Phase VII: Independent Assessment

After the final follow up, a clinical psychologist, who has not involved in the therapeutic intervention and was blind about the therapeutic process, interviewed each of the 10 clients to assess different parameters of delusional belief at that point of time and to obtain their observations on the therapy.

Other Technique Implemented

Psycho-education

Psycho-education was given to the patient and family about the nature, course, prognosis and symptomatology of the illness, so that they were able to identify delusions as part of an illness and not as part of the individual client's personality or character. They were also explained about the cognitive explanation of delusions in simpler terms, and that this phenomenon is influenced by both external factors and the patients own mental events, and hence can be brought under control by manipulation of the environment and the individuals own efforts.

Maintenance of Thought Diary

Thought diary is a worksheet that helps a client to record the intensity, frequency, duration and preoccupation of the delusional beliefs. The recordings include activating events, consequent emotion, and behaviour of the delusional belief. Thought dairy is also known as the dysfunctional thought record (Beck et al., 1979). Thought dairy helps both the client and

therapist to get a better idea about the delusional beliefs, which enables the cognitive conceptualizations possible.

Develop and prioritize the problem list

The therapist reviews the patient's presenting problem. He asked the patient to bring him up to date. Then turns their attention to identifying the patient's specific problems. As a logical extension, he then helps the patient turn these problems into goals to work on in therapy.

Develop cognitive conceptualization

Cognitive conceptualization provides the frame work for the therapist's understanding of a patient. He asks the following questions to initiate the process of formulating a case 'What dysfunctional thought and beliefs are associated with the problems. What reactions are associated with thinking?' The delusion is understood in the cognitive ABC perspective. Delusions with n an ABC analysis are Bs-they are delusional interpretation of an event (A) and may or may not be associated with distress and disturbances at point C.

Socratic Questioning

Challenging beliefs through a mixture of disputing and empirical testing is the main process of cognitive intervention. This requires particular skills of interviewing style, which seek to give as little direct advice to the client as possible, but instead seek to elicit suggestions and solutions from the client, and in this way build on the client's own capacity to solve problem. This procedure, known as Socratic Method, is based around the use of open and closed questions.

Activity Scheduling

Activity monitoring and scheduling is an important component of cognitive intervention. This is used for analyzing pleasure and mastery, monitoring and measuring negative moods, scheduling pleasurable activities or overwhelming tasks, and checking predictions. The patient plans and writes in activities for the coming week such as pleasurable activities, tasks that must be done, socializing, therapy homework, exercise or previously avoided activities.

Relapse Prevention (Booster sessions)

The therapist begins to prepare the patient for termination and relapse even in the first session. Patients benefit from a visual depiction of the course of, with periods of improvement which are typically interrupted by plateaus, fluctuations, or setbacks. If the patient is prepared for setbacks, it is less likely to catastrophize if and when they occur. The therapist encourages the patient to schedule booster sessions due to several reasons.

Ethical Considerations

1. The nature of the study was explained to each client.
2. Informed consent of the patient was obtained (Appendix-I).
3. Confidentiality of the sessions was maintained.
4. The client was given choice of opting out of the programme/study whenever he/she wants.

The results of the present study are presented in two sections. The individual cases are discussed in the first section and in the second section group outcome trends are discussed.

SECTION-I

Case-I

Case History

Ms. T.S. a 25 yrs old single Christian lady from a middle socio-economic status and rural background, who is a research scholar, with a pre-morbidly well adjusted personality was presented with complaints of not being able to concentrate on her studies as she could do earlier, as somebody was commanding her not to study. She reported being scared to take bath or change her clothes, as she felt she was constantly been observed with the help of some kind of an instrument. She firmly believed that the instrument could tap all what happens in her personal life. She reported of being terribly disturbed due to all these problems at hand, was scared that somebody wants to harm hereby doing this close observation.

Mental Status Examination, the part of clinical assessment that describes the sum total of the examiners' observation and impression of the psychiatric patient at the time of the interview, revealed disturbed sleep, diminished appetite, impairment in social functioning and also a downhill course in her academics.

The patient was seen by a psychiatrist and treatment with adequate dose of Atypical Anti-psychotics was prescribed. She continued the drug treatment for about a year and a half and was quite complaint. She was better

Results and Discussion

then, her sleep and appetite improved, there was a slight improvement with her studies also. But the belief of being observed with an instrument and that she would be harmed, remained unchanged. Total duration of the illness was 3 years.

On mental status examination, the thought content reveals delusion of persecution.

Diagnosis of Paranoid schizophrenia was made. The patient was seen for Cognitive Therapy between 20/7/2002 to 18/3/2003 over 22 sessions.

Assessment

On BABS she obtained a score of 20 indicating a lack of insight in her.

On PANSS she obtained a score of 10, 7 & 19 on positive, negative and general psychopathology scales respectively indicating 'much below average' index.

On the rating of delusional conviction, she gave 95% (Simple percentage Rating)

On the ordinal scale for pre-occupation her score was 3, indicating that she gets the thought many times a day.

On scales of RTHC (Reaction to Hypothetical Contradiction) and accommodation, her scores were 4 and 5 respectively indicating the situation ignored, dismissed or persistently denied as being possible and no instance given or one given but no effect on belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Psycho Education – for patient and family members.
- Maintenance of Thought Diary.
- Develop and prioritize the problem list of
  - Symptoms - Delusions
  - Life Goals - Work, relationship, education.
- Develop cognitive conceptualization.
  - Identity ABC
- Implement Cognitive Techniques.
  - Socratic Questioning (to elicit self beliefs)
  - Normalizing rationale (to reduce distress)
  - Verbal challenging of Beliefs (to show evidence to contrary)
  - Testing of Reality.
- Activity Scheduling
- Relapse Prevention (Booster sessions)

Intervention

Initial 2 sessions were mainly made use of to establish rapport and develop a strong therapeutic alliance. In further sessions, psycho-education and cognitive intervention went hand in hand. Also each session involved checking the mood of the patient over the previous week and checking for development of new belief if any. Therapy progressed with the definition of the delusional belief she had about the instrument with the help of which she was being observed.

Socratic Method was introduced to continue interaction with the patient, using both closed end and open-ended questions. Direct advice was seldom given to the client. Subsequently the patient was taken up for verbal challenge of the evidence supporting her belief. When the evidences supporting the belief were weakened, the therapy moved on to making the patient considers the delusion as a belief and not as a fact.

A reality testing was agreed up on with the patient to observe over a period of time, when she was frequently getting the thoughts about her belief that, whether she is really getting harmed. She was made to note down and learn from the results. And finally the patient had to draw the conclusion out of this specific test.

Having the delusion cleared in a step-by-step manner, patient was then asked to consider alternative ways to infer the experience she had and also the patient was assisted in identifying the original experiences, which proceeded delusional beliefs, and on systematically testing his conclusions.

Towards the winding up sessions, the patient was asked to chart her daily activities and to strictly stick on to it so that she doesn't get time to brood about her experiences and make faulty inferences.

The family members were called in and were psycho-educated so that they do not catastrophes the experience that the patient would verbalize to them.

- Post assessment BABS score was 8 indicating fair insight in the patient.
- On post treatment assessment the PANSS scores changed to 7, 6, 7 in positive, negative and general psychopathology respectively, indicating the 'much below average' index.

- The rating of conviction was 35% Ordinal scale rating for pre-occupation was 1, which indicated that she was getting thoughts only 3 or 4 times a week.

- On RTHC and accommodation scales, her scores were 3 & 4 respectively indicating that the she could accommodate the situation by alteration in content and also that content change or belief replaced by new belief.

Thus in the patient, the belief conviction rate that she was being harmed by somebody with the help of some instrument, was steadily decreased. The conviction rates never increased about this particular belief in her over a period of 2 months follow up.

Results and Discussion

On Post treatment assessment, the BABS score of the patient became 8 from 20, suggesting that the patient developed a "fair insight" into his delusional belief.

The PANSS rating changed to 7, 6, & 7 in positive, negative and general psychopathology respectively. Though the pre and post indexes indicated the general psychopathology category of 'much below average', the reduction in the numerical rating is countable. There is also a significant decrease in the conviction rate by 35% from 95%. On the ordinal scale for preoccupation, the subjects rating has came down to 1 from 3 which indicates that the patient used to get the thoughts regarding her belief many times a day, started getting thought only 3-4 times in a week.

One probable reason for the improvement in the patient was her ability to comprehend and apply cognitive strategies. However the marked reduction

in terms of preoccupation and conviction has helped her to improve her problems in concentrating in studies.

With Psycho-education, patient was able to accept her delusional belief as inappropriate and this was one of the most important steps in making her engage in cognitive therapy.

Summary

A 25 year old single Christian lady namely Ms. T S who is a research scholar was presented with a history of 3 years of illness was diagnosed as paranoid schizophrenia. She continued to believe that she is being observed by somebody with the help of an instrument in order to harm her, despite adequate does of anti psychotics. She was seen for 22 sessions of cognitive therapy. The belief conviction and preoccupation decreased and she could get back to studies with the use of psycho-education, verbal challenging and activity scheduling. She could replace the delusional belief with an alternate belief.

Thus with cognitive therapy, the patient's delusional belief conviction and preoccupation came down significantly and resulted in betterment socio-occupational functioning as well as reduction in distress.

Table 1: Pre and Post assessment Scores of Case I

Number of sessions conducted		22	
Duration of Therapy		20-7-2002 to 18-3-2003	
Scales		Pre Assessment	Post Assessment
PANSS	Positive	10	7
	Negative	7	6
	General	9	7
BABS Score		20	8
Conviction Rating		95	35
Preoccupation Rating		3	1
RTHC		4	3
Accommodation		5	4

Figure 1A: Pre and Post assessment Scores of Case I

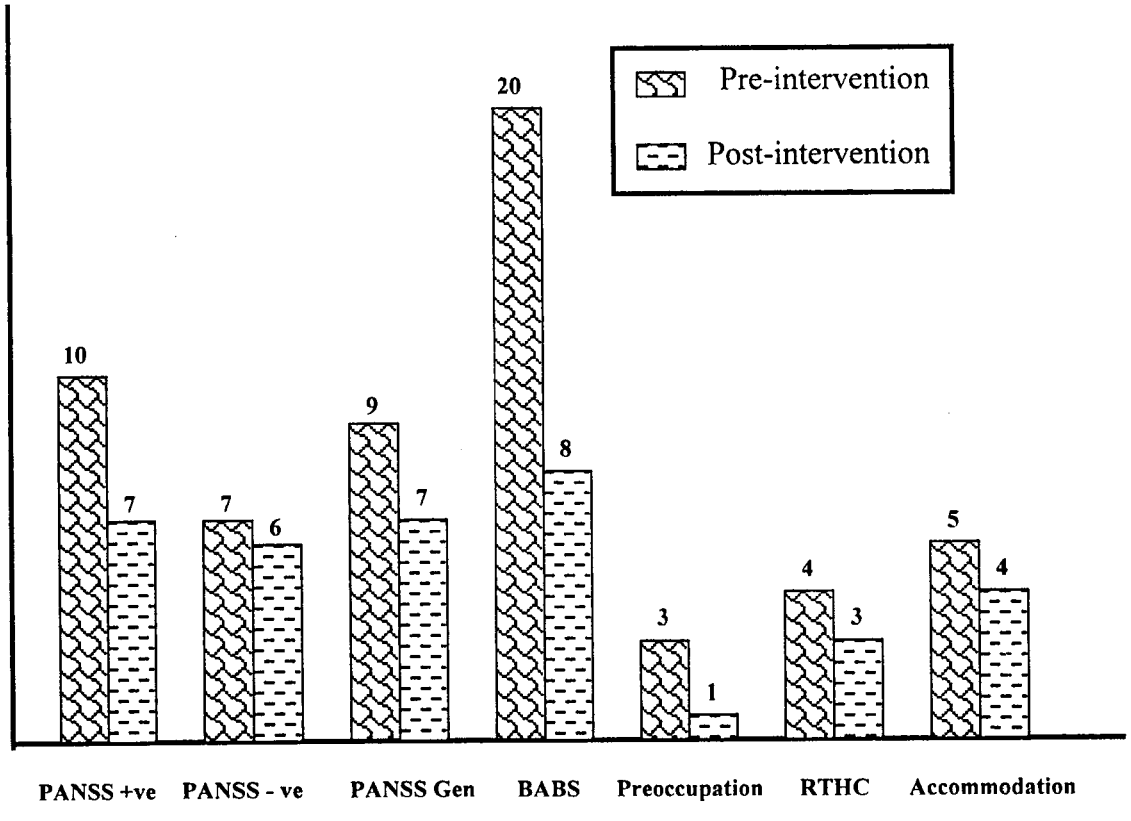
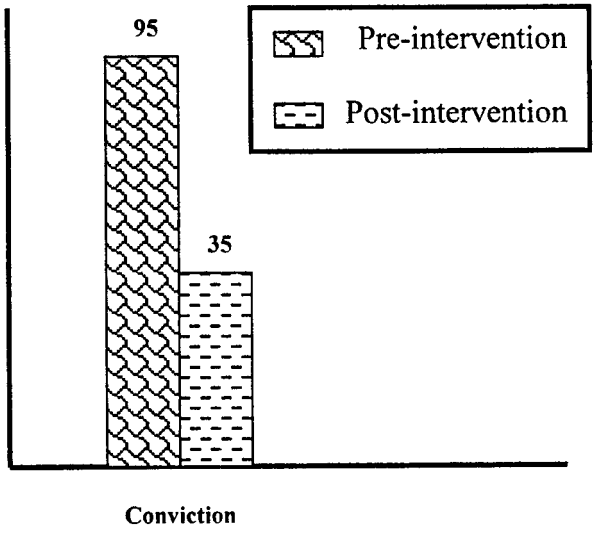


Figure 1B: Pre and Post assessment Scores of Case I



Case-II

Case History

Mrs. D.T a 38 year old Hindu lady, graduate who has been a housewife and the mother of two children, from middle socio-economic status with a well adjusted premorbid personality, from an urban back ground was presented with complaints of her memory being affected, with poor concentration and the belief that she had had a contaminated food substance and that she has some kind of an illness which she finds unable to name.

Informant reported that she was apparently normal till then, the problems developed suddenly when her husband bought tea dust from a vendor out of which she made tea, which all the family members had. Then she suddenly felt that the tea had a peculiar taste and it might be contaminated. She became panicky and coaxed all the others in the family to get medical intervention. Though none of the family members development any problem, she felt dizzy, had tremulousness and vomited two three times. On her request, she was taken to a physician who diagnosed her as having no physical ailments after the complete routine examination. She was not convinced and constantly complained of something being wrong in her stomach and that she was not able to memorize things properly and insisted that she should be seen by a gastroenterologist, who ultimately made nil diagnosis.

Following these incidents she became withdrawn, stopped doing all the household works, was not maintaining her personal hygiene, and became phobic about others in the family that something bad will definitely happen to them as they all had contaminated tea. She was neither talking to her husband, nor allowing him to have a physical contact with her and was not attending to the needs of her children. She also started hearing a female voice in her ears

from the outer space telling her to poison the family members. She was distressed and fearful due to this.

She was then taken to a psychiatrist and was put on adequate dose of atypical antipsychotics, for roughly more than a year. The family members reported improvement in her energy levels following the drug treatment, she could do some work at home, she would talk to others in the family but she still firmly believed that the tea that she had 4 years back was contaminated and the toxins are still there in her body and she has some kind of an illness due to this. She was brought for consultation with a four years history of illness.

On mental status examination, the patient's mood was found to be predominantly anxious and her thought content reflected the delusion of having an illness.

A Diagnosis of paranoid schizophrenia was made and patient was taken up for intervention. She was seen for Cognitive therapy of 21 sessions in between 15/4/2002 to 3/12/2003.

Assessment

- On BABS, the Patient's score was 23 indicating her "lack of insight" regarding the belief.
- On PANSS, she obtained a score of 11, 7 &18 on positive, negative and general psychopathology scales respectively, indicating the 'below average' index.
- On the rating of delusional conviction, her rating was 100%

- ❖ On the ordinal scale for preoccupation, her score was 3, indicating that she gets the thought many times a day.
- ❖ On the scale of RTHC 4 & 5 respectively the situation being ignored, dismissed or persistently denied and no instance given but any effect on belief.

Therapeutic Programme

- ❖ Establishing therapeutic alliance
- ❖ Psycho-education
- ❖ Prioritizing the problem list
    - × Symptom -Delusion of illness
    - × Life Goals- Interpersonal Relations and work
- ❖ Socratic Questioning
- ❖ Verbal Challenge
- ❖ Testing of Reality
- ❖ Relapse Prevention.

Intervention

Depending on the request from the patient, according to her convenience, she was seen for therapy once in 10 days. Rapport was established and was progressed to good therapeutic alliance. The delusion was well defined.

Reality testing techniques was initiated, with the client so that she can consider and view delusion as a thought (or belief), rather than to confuse them with reality. After the client had agreed upon to do this, Socratic stance was made use of with asking of question like "Do other people seen to agree with you regarding this" & when the patient responded "no", the therapist had proceeded further by asking "How do we account for that". This had lead into a dialogue to consider the evidence upon which the belief is based.

Therapy progressed by weakening the evidence supporting the delusional belief and slowly the therapist moving into the verbal challenging of the delusional belief itself. Over the subsequent sessions, Patient and therapist reached an agreement to test the belief of the patient. If the best three doctors could give a nil diagnostic report to her after completing thorough check up and all routine examination, she would consider the alternatives suggested by the therapist. When the reality testing was completed, the patient appeared to listen to the alternative considerations suggested by the therapist, for her belief.

Therapy was terminated by bringing in alterations in the patient's mood, which prevailed as anxious as it was mainly associated with the delusional belief. At the end of the sessions, the patient found herself better.

The BABS score on post assessment was 6 indicating "good insight "in her.

On post assessment, PANSS score was 8, 6 & 10 are positive, negative and general psychopathology respectively, indicating the 'much below average' index. The rating of delusional conviction was zero. On ordinal scale, the rating of preoccupation was 0, which indicated that she was no more preoccupied with the belief.

On RTHC and accommodation scales, her scores were 1 and 2 respectively indicating that she could accommodate the situation by the belief being dropped; in face of contradictory evidence and also that the dropped belief is no replaced due to some objective event.

Thus in the patient, the belief conviction that she had an illness was eradicated completely. The same belief or no new morbid belief was ever reported over a period of 2 months follow up.

Results and Discussion

On post intervention assessment, the BABS score of the patient had come down to 6 from 23 indicating that the patient has "good insight".

The PANSS rating which was 11, 7, & 18, changed to 8, 6, & 10 on positive, negative and general psychopathology scales respectively. At the interpretational index there was change to 'much below average' level of psychopathology from "Below Average". There was an absolute drop in the conviction rate from 100% to 0%. Similarly the preoccupation rate of the delusional belief which was 3, then the patient used to get thoughts many times a day, decrease to zero indicating that the patient is no more preoccupied with such thoughts. Also the scores 1 & 2 on scales of RTHC and accommodation reflects that she could accommodate the situation by dropping the belief in the face of contradictory evidence and not replacing the belief in the face of objective events.

One probable reason, she could improve herself is her higher ability to comprehend and implement the cognitive strategies. Also since family members were included and psycho educated, there was lot of mobilization on the variable social support, which has facilitated her knitting back to the family system. The absolute drop in both conviction and preoccupation rates would

have definitely served to maintain the gains of therapy throughout the follow up period and presumably further too.

Summary

A 38 year old Hindu, housewife, who is a graduate was presented with a history of 4 years of illness, used to get auditory hallucination, currently believed that the tea dust she used was contaminated and toxins from that are still present in her body which had caused some illness in her. She was taken up for Cognitive therapy and was seen for 21 sessions. Techniques of Socratic Questioning, verbal challenging, Testing of Reality and Psycho-Education were implemented. Her belief conviction and preoccupation dropped to nil significant level and her interpersonal relation also improved.

Thus with Cognitive Therapy, the patient could drop the delusional belief completely without replacing it with another alternate beliefs. Improvements in social and interpersonal relationship followed as the gains of therapy.

Table 2: Pre and Post assessment Scores of Case II

Number of sessions conducted		21	
Duration of Therapy		15-4-2002 to 3-12-2003	
Scales		Pre Assessment	Post Assessment
PANSS	Positive	11	8
	Negative	7	6
	General	18	10
BABS Score		23	6
Conviction Rating		100	0
Preoccupation Rating		3	0
RTHC		4	1
Accommodation		5	2

Figure 2A: Pre and Post assessment Scores of Case II

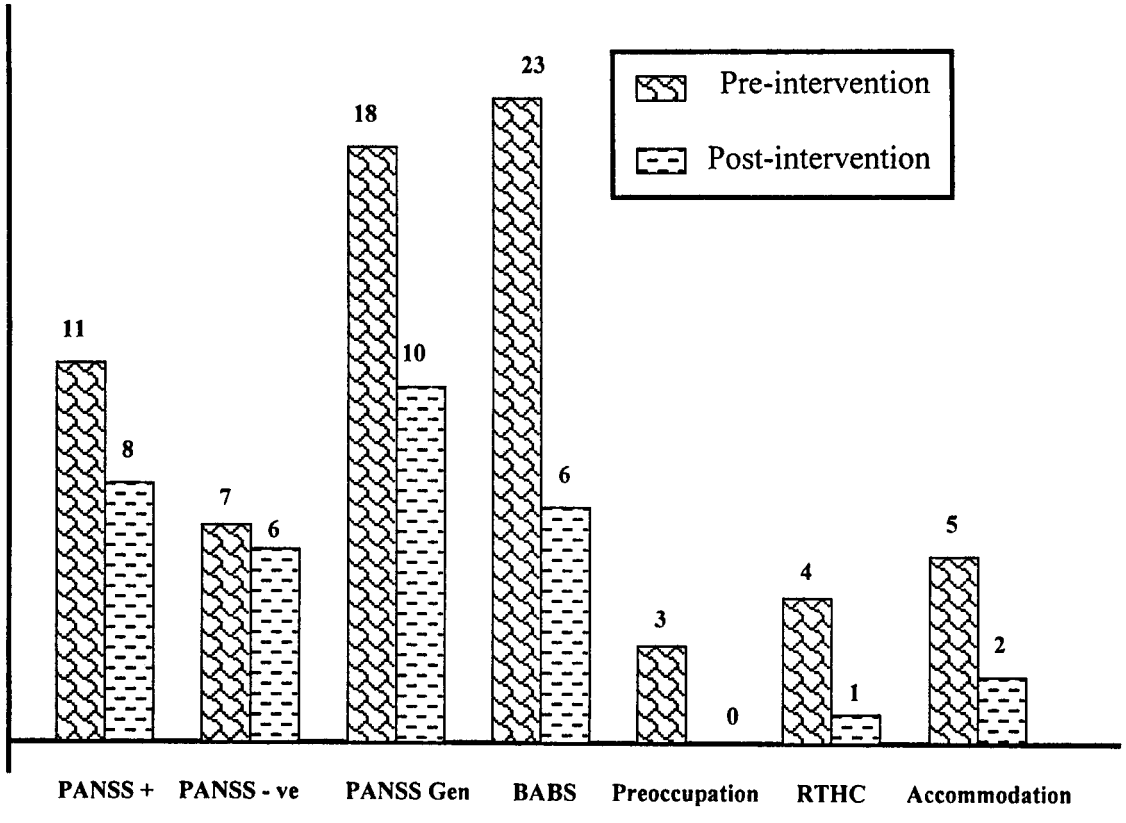
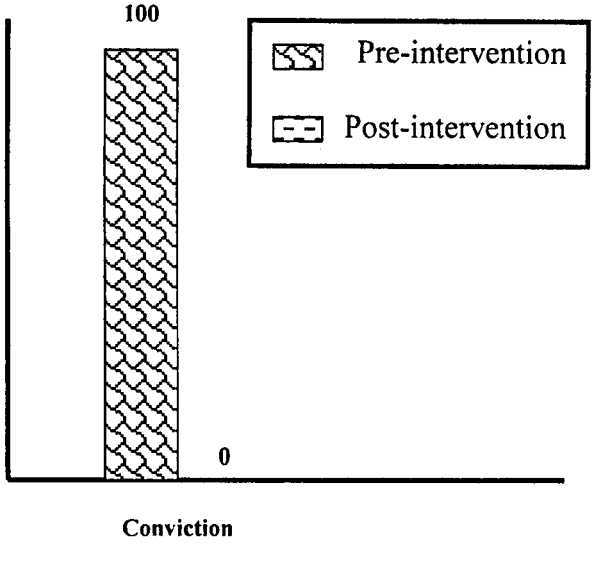


Figure 2B: Pre and Post assessment Scores of Case II



Case-III

Case History

Mr. S.K, a 35 yr old Muslim man who is married and having two children, comes from a rural background and a low socio-economic status, who was running a petty business shop, was presented with complaints of being tearful, fearful and not going for his job.

He was apparently normal when he noticed a discoloration on his skin around the genitals subsequent to a urinary tract infection. He went to a dermatologist to get helped, who suggested that, it as a casual infection, but also advised to get a blood test done, as he doubted the possibility of sexually transmitted disease. The patient who had had sexual contact twice with some other lady who lined closed to his house and had moved out 2months back from that place, got scared and had a feeling that he might have HIV infection. Thinking over the incident of physical contact that he had outside his marriage, he started believing that he is HIV positive and he might have got infected from that lady started hearing in his ears the voices of two females commenting that they have put HIV in him and they want to kill him through slow poisoning. He became very distressed, lost interest in doing anything in life and became very dull. After a year, he was taken to a psychiatrist, who after consultation kept him on anti-psychotics for about a year and slowly tapered and stopped the medication. Though he stopped hearing voices and his socio-occupational functioning became slightly lifted up, he continued to remain fearful because of the belief that he has AIDS.

On mental status examination, the patient's affect was fearful and his thought content revealed the delusion of being seropositive

A diagnosis of Paranoid schizophrenia was made. The patient was taken up for intervention with cognitive therapy, of 18 sessions during the period, 23/6/2002 to 13/1/2003.

Assessment

- On the BABS, the patient's score was 21 indicating, "lack of insight" in him.
- On PANSS, she obtained a score of 10, 8& 17 on positive, negative and general psychopathology scales respectively, indicating the "below average index".
- On the rating of delusional conviction, his rating was 95%.
- On the ordinal scale for preoccupation, his score was 3 indicating that he gets the thoughts many times a day.
- On the scale of RTHC and accommodation, the ratings were 4 and 5 respectively suggesting the situation being ignored, dismissed or persistently denied and also no instance given or one given but no effect on the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Psycho-education
- Prioritizing the problem list
    - Symptom - Delusion of being seropositive
- Testing of Reality

- Life Goals-Reduce distress and social-Occupational dysfunctioning.

- Verbal Challenging.

Intervention

After the establishment of therapeutic alliance with the client, he was explained the delusional belief and how the event of extra marital sexual contact with a lady had lead to the current belief, its formation and maintenance.

He had a fearful mood most of the time, he was taught to recognize it as the emotional consequence of his cognitions, specifically in connection with his beliefs, and not out of his health condition (being seropositive).

Client and therapist decided by mutual consent that he would look alternatively into the fact that his delusion as only a belief and not the reality. Socratic questioning was then initiated which helped the client to draw on his own doubt and experience in order to realize that there are other ways in which he is able to make sense of his experience.

Therapy proceeded with the initiation of challenging the evidence, which supported the belief. When these associated with the belief, were weakened, therapy progressed by introducing verbal challenge of the belief.

The client and the therapist held a similar opinion of testing the belief. The client had to undergo all the routine laboratory investigations including Elisa test before taking the belief as the reality. The client agreed for two Elisa tests and the other investigations within a period of 2 months. Then the client was encouraged to reject the belief by pointing out the irrationality as well as inconsistency in his belief.

The therapy sessions concluded, after the dialogues with the client to realize that the emotional and behavioral consequences, which distressed the client and impaired the social and occupational functioning was due to the faulty belief he was holding.

- On Post Assessment the BABS score was 4 suggesting "excellent insight" in him.
- On post assessment, the PANSS score was 6, 5 &14 on positive, negative and general psychopathology symptoms respectively.
- The conviction rating was obtained as zero percentage.
- On the ordinal scale for pre-occupation, his score was zero, which indicated that he was not at all preoccupied with the belief.
- On RTHC and accommodate scales, his scores were 1 and 2 respectively indicating that he could accommodate the situation by dropping the belief in the fact of contradictory evidence and also the dropped belief was never replaced due to the objective events demonstrated.

Thus the patient was completely free of pathological beliefs and never reported any such beliefs or recurrence of the same belief whenever he turned up for follow-ups in a period of 2 months after the completion of cognitive therapy.

Results and Discussion

On Post-treatment Assessment, patients BABS score changed to 4 from 21, indicating the presence of "excellent insight" in him.

The PANSS rating changed to 6, 5 &14 on positive, negative and general psychopathology scales from 10, 8 & 17 indicating a reduction in symptoms as

well as an index of 'much below average' level of psychopathology. There was also a complete drop in his rating of conviction of the belief, which became zero from 95%. He also reported that he is no more preoccupied with the thoughts, which was evident from his rating on the scale for preoccupation, which came down to zero from 3. On the scales of RTHC and accommodation, his scores because 1 & 2 reflecting the therapeutic change of the belief being dropped in the face of contradictory evidence and also the belief not being replaced with any other morbid beliefs due to the demonstration of the objective events in reality testing.

One probable explanation for therapeutic change could be due to the psycho-education given to the client by which all his myths and misconceptions regarding the methods of HIV transmission were clarified with empirical, objective data. He was also given accurate information about other STDs too. Once the evidences were challenged after reality testing, there was increased comfort in dealing with the delusional belief directly. There was also a concomitant alleviation of the patient's distress associated with the same, which facilitated the smooth progress of therapy.

Summary

A 35 year old married Muslim male was presented with a history of 2 ½ years of illness even after been on anti psychotics. He had a belief that he has HIV, which still persisted. He was taken up for cognitive therapy and was seen for 18 sessions. Therapy administered included, psycho-education, testing of reality and verbal challenging. Booster sessions were also given to ensure the maintenance of therapeutic gains after termination of main course of therapy. In this way cognitive Therapy was successful in alternative the delusional belief as well as the distress associated which lead to the personal well being of the patient.

Table 3: Pre and Post assessment Scores of Case III

Number of sessions conducted		18	
Duration of Therapy		23-6-2002 to 13-1-2003	
Scales		**Pre Assessment**	**Post Assessment**
PANSS	Positive	10	6
	Negative	8	5
	General	17	14
BABS Score		21	4
Conviction Rating		95	0
Preoccupation Rating		3	0
RTHC		4	1
Accommodation		5	2

Figure 3A: Pre and Post assessment Scores of Case III

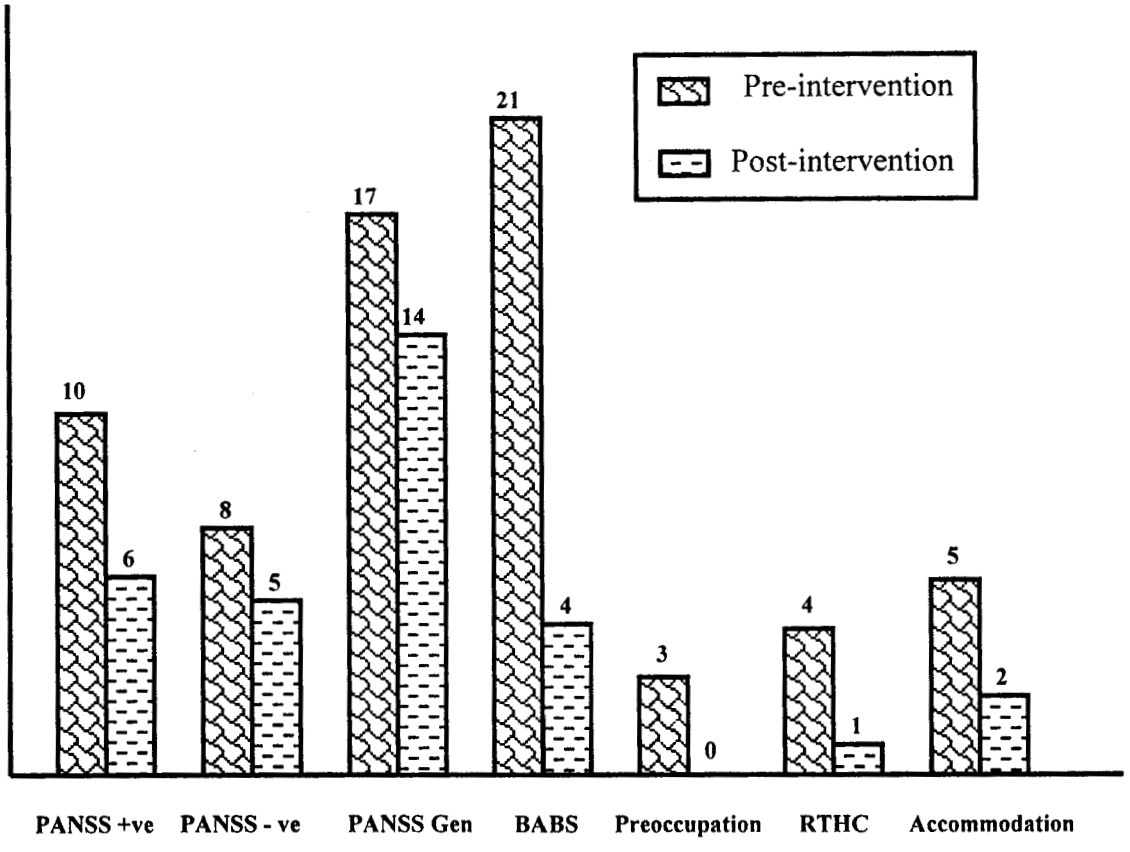
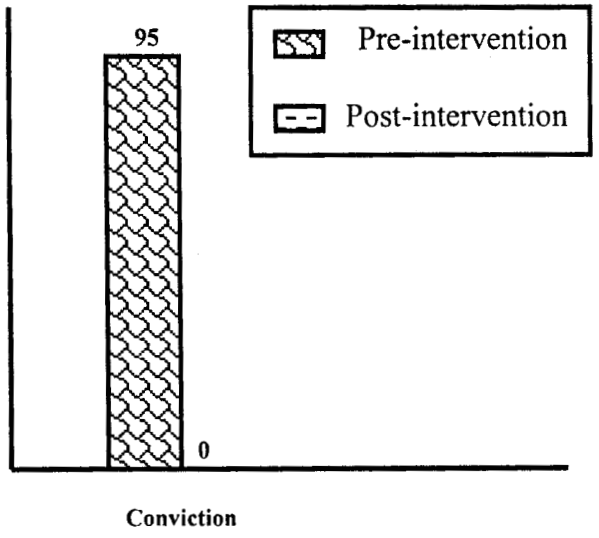


Figure 3B: Pre and Post assessment Scores of Case III



Case IV

Case History

Mrs. S.R., 52 year old literate lady who is a housewife and mother of two children, comes from a low socio-economic status and a rural background was presented with complaints of being suspicious about her husband having relationship outside marriage, being very irritable and angry especially towards husband, not able to sleep properly, for last 12 years. She was apparently normal till the age of 40 when she developed suspiciousness towards here husband. Her husband, who works as a mason, happened to go to help out in the next-door 65 year old lady who is paralyzed and bedridden. The husband mentioned about this as a help just out of humane concern, which his wife had misinterpreted as an illicit relation. The thought alienation phenomenon could be alienated with adequate dose of anti-psychotics

She also had a belief that her husband gets to know her thoughts without she verbalizing it to him and that is how he takes precautions not to leave any evidences behind. She believed that he gets to know the information through the pager he carries.

She was seen by a psychiatrist and appropriate drug treatment was advised which she continued for last one year. Her sleep improved and anger had reduced to an extent but the suspiciousness regarding the husband continued. She continued to believe that her husband is still continuing that relationship.

The diagnosis of Paranoid Schizophrenia was made.

On mental status examination, the thought content revealed delusion of infidelity.

The patient was taken up for cognitive therapy and intervention session started on 12/8/2002 was terminated on 19/4/2003 with 20 sessions altogether in number.

Assessment

- On BABS, the patient scored 18, indicating "poor insight" about the delusional belief in her.
- On PANSS she obtained a score of 11, 6 & 14 on positive, negative and general psychopathology scales respectively, indicating the "below average index".
- On delusional conviction rating, she has given a percentage of 80.
- On the ordinal scale for preoccupation her score was 2 indicating that she gets thoughts about the belief everyday.
- On the scale of RTHC and accommodation her scores were 4 &5 indicating the situation being ignored, dismissed or persistently denied as being possible and no instances given having any effect on the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Prioritizing the problem list
  - Symptom - Delusion of infidelity
  - Life Goals - Improve interpersonal relationships and marital quality.
- Verbal Challenging
- Psycho Education.

Intervention

More number of sessions needed to establish rapport and build a therapeutic alliance with the client, as she was very suspicious whether her husband influenced the therapist. The patient was clearly explained the delusional belief (that her husband still continue to have an illicit relationship with another lady) and also the activating situation, which has, lead to the formation and development of such a belief in her. Reality testing techniques were used to make the client able to view her own thoughts as just thoughts and belief and not as facts.

The client was encouraged to review the existing evidences for the belief she holds. Challenging of the evidences, which she holds that had been facilitating her suspiciousness, were introduced over further sessions. The client was asked to have a check on opinions and views of all the other significant persons in her and her husband's life, including the children. Then it was pointed out to her in a non-confrontation manner, the irrationality of her belief system. She was asked questions like "would it make sense for things to be as you say they are", which facilitated further, more direct challenging of her beliefs.

She was advised and helped to derive specific inferences than vague suspiciousness from the views of all other significant persons, regarding the same issue. She was helped to draw conclusions about the belief from the information she had collected in collaboration with the therapist.

In the light of lack of adequate evidences, the therapist also spelled out the disadvantages of having such a belief, which nobody else seemed to agree upon. Over the subsequent sessions, therapist explained the advantages of having the distressing belief replaced by another less threatening beliefs.

She was explained, how such beliefs (delusions) once formed, would influence and guide the interpretation of all the events and experiences which come on the way and how it would build on and on in a misguiding manner.

Towards the end of the therapy, the patient could challenge the thoughts on her own and nullify the effects.

- On post treatment assessment the BABS score was 8 indicating "fair insight" in the patient.

- On Post Treatment Assessment, PANSS score of hers were 7, 5, &11 on positive, negative and general psychopathology scales indicating a 'much below average' index.

- The conviction rating dropped to 10%

- On ordinal scale for preoccupation she rated 1, suggesting that she gets suspicious thoughts 3 or 4 times a week.

- On RTHC and accommodation her scores were 2 & 3, suggesting that the belief changes in conviction but not content and also that she has accommodated changes in conviction and not in content.

On her follow up to the therapist after the therapy had been terminated she never reported a rise in the conviction rate.

Results and Discussion

BABS score on post treatment assessment was reduced to 8 from 18 indicating "fair insight" in the patient.

The ratings became 7, 5 & 11 on positive, negative and general psychopathology scales of PANSS rating from 11, 6 & 14. The interpretation

index also became 'much below average' in post therapeutic assessment. The conviction rate of the delusional belief was reduced to 10% from 80%. Also the preoccupation with the thoughts associated with the belief became 3-4 times a week, reflected from the score of 1 in the post assessment session. The scores on the scales of RTHC & accommodation became 2 and 3 indicating that the patient could accommodate the belief only by bringing down the conviction but with no alteration in the content.

As a result of the therapy, there was a decrease in conviction rate of the delusional belief but the content remained the same. However there was a significant reduction in psychopathology and conviction rates.

Summary

A 52 year old married lady, who is literate and homemaker, was presented with a history of 14 years of ill ness where she had continued to hold the belief that the husband is unfaithful to her despite treatment with anti psychotics. She was taken for a long 20 sessions of cognitive therapy where in mainly psycho-education and verbal challenging of evidences for belief and the challenging of belief directly was made use of testing reality was not possible as the situation was dicey. With the therapy, she was encouraged and she could challenge the belief and busy in reduction in preoccupation but the content remained unchanged.

As inference, cognitive therapy could help the patient by reducing her distress by bringing down the conviction and preoccupation levels of the delusional belief.

Table 4: Pre and Post assessment Scores of Case IV

Number of sessions conducted		20	
Duration of Therapy		12-8-2002 to 19-4-2003	
Scales		**Pre Assessment**	**Post Assessment**
PANSS	Positive	11	7
	Negative	6	5
	General	14	11
BABS Score		18	8
Conviction Rating		80	10
Preoccupation Rating		2	1
RTHC		4	2
Accommodation		5	3

Figure 4A: Pre and Post assessment Scores of Case IV

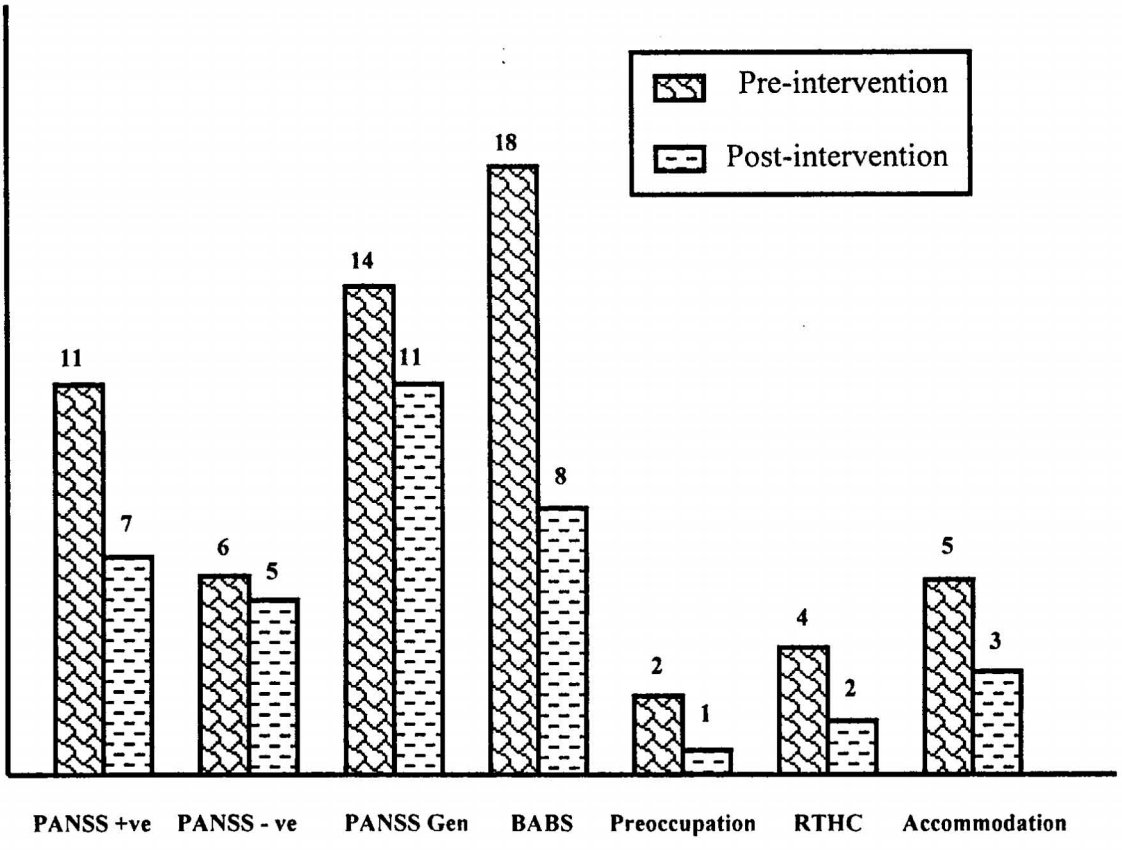
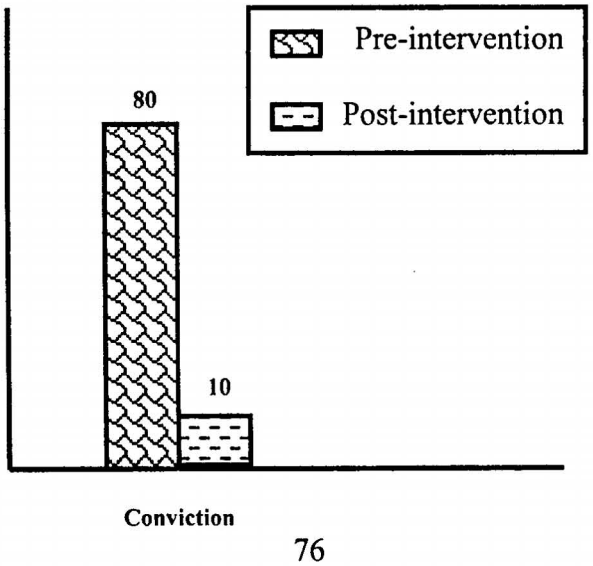


Figure 4B: Pre and Post assessment Scores of Case IV



Case V

Case History

Mr. R.K., 50 yrs old person a diploma holder from ITI, works in a latex company, with a rural background and middle socioeconomic status, came to the therapist as he was having suspiciousness regarding his wife for last five years. His wife is a 45 year old school teacher and they have two children. His wife reported that he constantly gets into arguments and fights with her suggesting that she engages in sexual relationship with someone outside and she gets the opportunity as she goes for work. He checks her bag, her clothes and at times even follows her to find out what she does, to whom she talks etc. All these were happening for last five years. The patient says that he has lost all his peace of mind due his concern in this regard and is very distressed due to this. Also thinks that wife is trying to poison him and or he makes the wife eat whatever is been cooked in the house before he takes it.

His in-laws took him to a psychiatrist and he took drug treatment for about a year and had been very compliant. Says that then his sleep problems became better his suspicion about being poisoned was eradicated but he remains anxious and he still doubts his wife and given an instance would like to do the checking. Also the family member reported about his anger outbursts and behavioral problems (like throwing things, pulling out all the things from shelves), whenever he gets such thoughts. And they move finding it very difficult to manage.

On mental status examination, the thought content reveals delusion of infidelity.

The patient was taken up for Cognitive therapy and underwent 22 sessions of therapy for a period of 6 months started from 3/7/2002 to 14/1/2003.

Assessment

- The BABS score of the patient was 22 indicating, "lack of insight" in the patient.
- On PANSS, his scores were 9, 5 &9 on positive, negative and general psychopathology scales respectively "Below Average" Index.
- On delusional conviction rating, the percentage rating given by him was 100%
- Score on ordinal scale for preoccupation was 3, suggesting that he gets the thoughts many times a day.
- On the scale of RTHC and accommodation her scores were 4 &5 indicating the situation being ignore, dismissed or persistently denied as being possible and no instances given having any effect on the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Prioritizing the problem list
  - Symptom - Delusion of infidelity
  - Life Goals - Management of anger, Improve the interpersonal relationship with spouse.
- Verbal challenging to modify the delusional belief.

- ❖ Normalizing rationale
- ❖ Psycho-education

Intervention

With the initial 2-3 sessions of therapy, the therapist could establish a strong alliance with the client. The focus of all the problems was explained to the client. The client was suggested to consider it as belief than the actual reality. The therapist used Socratic questioning in further sessions to elicit views and ideas to resolve the problem as well as the evidences and justification the client had for holding on to such a belief. This way the client was made to have more confidence in his abilities. Priority was given to the modification of beliefs before tackling the delusion of infidelity. The therapist drew pie charts (pie-diagrams) to show the client, the amount of support he has been receiving from the significant family members, his colleagues, friends as well as from the therapist and suggested that it is contrary to the few his belief that he is totally unlovable. Thus therapy progressed by helping encouraging the client to find alternatives for such core beliefs and replaces them with alternative. Family members were called upon and was explained the symptoms as part of his psychopathology thereby normalizing the rationale.

Subsequent sessions of therapy focused mainly on pointing out the irrationality and inconsistency of the evidences, which he had collected 7 verbalized to the therapist as supporting to the delusional belief. Hence the therapist had to explain about the cognitive errors and how it leads to cognitive distortions. How such thinking has colored these inferences regarding his wife, while no other significant persons seem to be agreeing on his belief?

This particular procedure helped the client challenging of the belief more easy. Then the client was helped to explore the "bad" consequences of his assumptions, how it hampers. His interpersonal and marital relationship and how it leaves him emotionally distressed and how management of emotions becomes difficult (as there is history of anger outbursts).

On winding up the therapy, the client was able to identify his thoughts, derived from the belief and nullify them by active, directive challenging. Also he could control his emotional over reaction, as there was significant reduction in emotional reasoning.

- Post treatment assessment on BABS, patient obtained a score of 5 indicating "irrelevant insight" in the patient.
- On post Treatment Assessment, PANSS score was 6, 4 &7 on positive, negative and general psychopathology scales respectively indicating "Much Below Average" Index.
- On the rate of conviction the client reported it as 5%.
- On the scale for preoccupation his score was zero.
- On scales of RTHC and accommodation, the score was 1 & 2 indicating the belief being dropped in face of contradictory evidence and also the belief not replaced due to some objective event.

On follow up period of 2 months, there were no reports of hike in conviction rates or no reports any development of new belief.

Results and Discussion

The patient's score on BABS scale o n post treatment assessment descended to 5 from 22 suggesting the development of "excellent insight" in the patient.

The PANSS rating was found to be 6, 4 and 7 on positive, negative and general psychopathology scales and the index of interpretation was 'much below average', both reflecting the significant reduction of symptoms. The conviction rate the patient used to hold as 100% was reduced to 5% after the completion of therapy. The preoccupation rate also became zero from 3, which suggests that the patient is no more bothered by getting pre-occupied with the belief. The scores on scales of RTHC and accommodation was obtained as 1 & 2 suggesting the belief being dropped in face of contradictory evidence and also not been replaced by any other morbid beliefs through out the follow up.

Good therapeutic alliance with the client, with a very empathetic and nonjudgmental attitude on the part of the therapist has been crucial in the implementation of strategies. Though the belief conviction did not clear completely, the person was able to make successful attempts in identifying and challenging the thoughts associated in the belief with psycho-education patient was able to accept his delusional belief as inappropriate. Family members were also counseled regarding the same. With a countable drop in pre-occupation rate, his distress anger associated, all came down subjectively there was a sense of greater control over the behavior in general.

Summary

A 50 year old person who is a diploma holder from ITI, works in a latex company was presented to us with a history of illness for 8 years, where in for a year he had been treated with adequate dosage of anti psychotics still

persisted to have delusion of infidelity. He was given a 22 sessions of cognitive therapy of which the initial one month the therapist had seen him twice a week as he had major anger outbursts. He benefited with the psycho-education, Anger Management, Verbal challenging to modify the delusional belief and family members were also included and the technique of normalizing rational was also used.

As a result, with cognitive Therapy, the client was made to drop the belief and not to replace it with other equally pathological beliefs and also the distress could be reduced as the preoccupation could be brought down to zero. His conviction rate remained 5% as it is expected of any case of delusion of infidelity, the complete extinction of which is hardly possible.

Table 5: Pre and Post assessment Scores of Case V

Number of sessions conducted		22	
Duration of Therapy		3-7-2002 to 14-1-2003	
Scales		**Pre Assessment**	**Post Assessment**
PANSS	**Positive**	9	6
	Negative	5	4
	General	9	7
BABS Score		22	5
Conviction Rating		100	5
Preoccupation Rating		3	0
RTHC		4	1
Accommodation		5	2

Figure 5A: Pre and Post assessment Scores of Case V

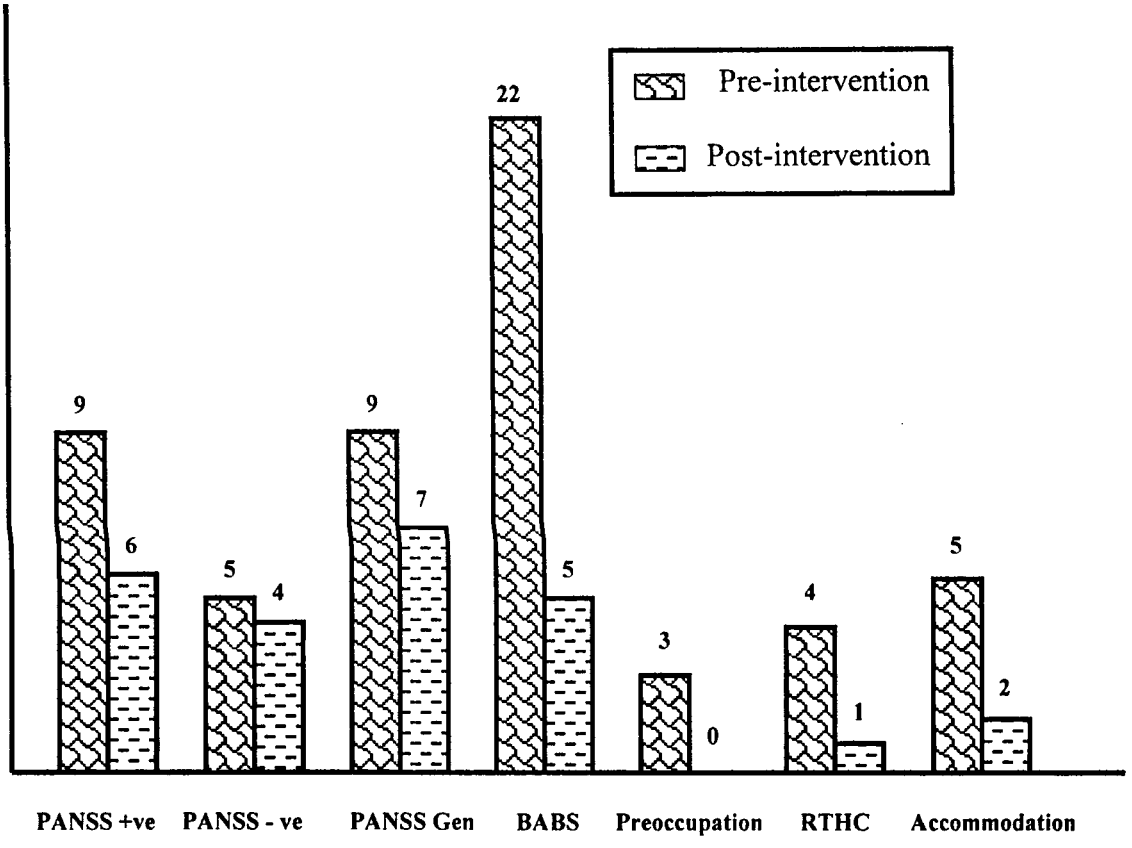
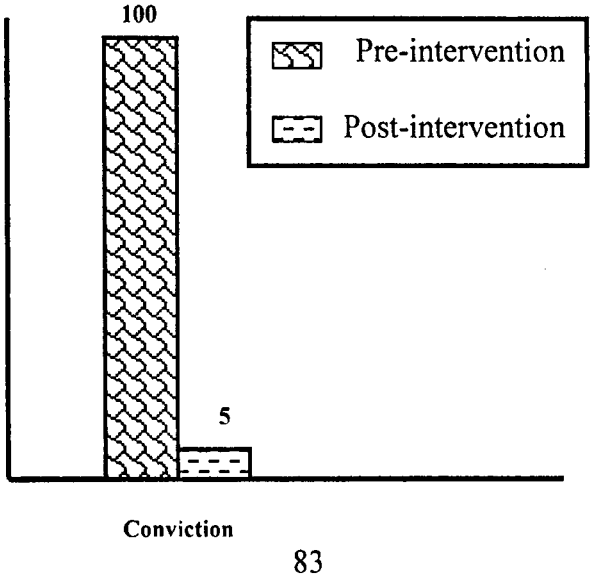


Figure 5B: Pre and Post assessment of Conviction Scores of Case V



Case VI

Case History

Mr. M.K., 38 year old Hindu, male from an urban background, comes from a joint family of middle socio-economic status, is single and used to work as a priest (poojari) in the temple, despite being a graduate. He was presented with complaints of getting, intrusive, recurrent images in his mind, which are blasphemous in content (like him having intercourse with eh God' idol, him smearing fecal matter on the idol etc.) for last 3 years. He also expressed hearing a male voice commanding him to eat the fecal matter for last 1½ years. On history clarification, was found to have a past history of an episode of depression 5 years back, which was diagnosed and treated by a psychiatrist, and the informant reported as the patient having reached pre-morbid level of functioning after this.

He was seen by a psychiatrist and was on atypical anti-psychotics for about one year. Though the images that he used to get, doesn't occur now and the voice is n o more heard, the belief that he is being controlled persisted. Also believes that it is to harm him purposefully, and it happens from an unknown source. That's why he was brought to the therapist.

On interviewing the patient appeared to be very distressed regarding the issue mentioned. Thought content revealed helplessness, as he thinks he is no more under his will, with mood being sad and affect being depressed.

On mental status examination, the patient was found to have delusion of control in his thought content.

He was taken up for cognitive therapy, which lasted from 7/4/2002 to 23/11/2002 and was extended in 22 sessions.

Assessment

- The BABS score was obtained as 20 indicating "poor insight" in the patient 12, 8 &10
- On PANSS, his scores were on positive, negative and general psychopathology scales respectively indicating a "below Average Index".
- The patient on the conviction rating scale rated 90% conviction.
- Ordinal scale score for preoccupation was 3, reflecting that he gets the thoughts many times a day.
- On the scale of RTHC and accommodation, his scores were 4 &5 indicating situation being ignored, dismissed or persistently denied as being possible and no instances given having any effect on the accommodation of the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Prioritizing the problem list
    - Symptom -Delusions of Control and Persecution
    - Life Goals - Managing of emotional distress, improving the self-esteem, reducing the socio-occupational dysfunctioning.
- Psycho education
- Verbal challenging.

Intervention

Rapport could be established in the initial session itself with much of genuineness and empathy from the therapist and the client readily accepted it, as he perceived himself as a helpless person on earth. Since there were no voices heard, but only the belief that somebody is trying to harm him and control him persisted, major focus was the delusions itself. His condition and the delusional beliefs he held were defined to the client in a manner, which was appropriate for his psychological sophistication, to comprehend.

The therapist and the client also had a mutual understanding of setting up an empirical test situation, wherein he can verify, in the presence of the therapist, whether his belief was reality or just a thought and also whether he is faced with the consequences he expects to face.

Because he was getting blasphemous thought, he was all the more distressed. He was explained the *"though-action-fusion"* mechanism, which needs work in evoking the distress, followed by such thoughts that getting such thoughts are not equivalent to doing the same action. Through he was described how such thoughts had been instrumental in the development of the belief that it is not his thoughts, but somebody else was controlling from outside and also that person wants to harm him, as such thoughts were ego-dystonic for the client.

In the succeeding sessions, the therapist assigned tasks to him verbally and in a written format, which he followed. This was done basically aiming to bring into the client's notice the fact that he is able to exert control over his will. With few practice sessions, the therapist was successful in making the client analyze the situation exactly and inferring from it that there was neither outsider control, which hindered his performances, nor he was harmed as was anticipated.

Based on these facts, the client was challenged verbally regarding the beliefs and lack of evidence for it in a much directive way. Over sessions, with the decrease in frequency of thoughts regarding delusional beliefs, his distress also came down. As he was asked to initiate small-scale activities at home, his perceived self-efficacy improved which resulted in lifting of his self-esteem as well as lifting of his depressed affect. With move and move perceived control over his behavior, his helplessness cognitions slowly cleared off. By the end of the therapeutic sessions, he was able to get back to work.

- The BABS score after treatment was 9 indicating "good insight" in the patient.
- On Post treatment assessment, his PANSS scores were 8, 7 &9 on positive, negative and general psychopathology scales respectively indicating "much below average" Index.
- The client's conviction rate reduced up to 10% and his score on the ordinal scale for preoccupation of beliefs was zero.
- On scales of RTHC and accommodation, were 1 & 2 suggesting the belief being dropped in the face of contradictory evidence and it not being replaced due to demonstration of some objective event.

On a two month follow up period the patient reported that thoughts regarding the belief had occurred in a significantly in frequent manner and he experienced no distress associated with it.

Results and Discussion

On post treatment Assessment, the BABS score had come down to 9 from 20 indicating 'good insight' in the patient.

PANSS rating obtained scores of 8, 7&9 on positive, negative and general psychopathology scales and the index of interpretation was 'much below average' level of total psychopathology. There is significant difference in the PANSS scores as it was 12, 8 & 10 in the beginning. The conviction rate regarding the delusional belief, which was 90%, was 10% after the intervention. The patient used to be so preoccupied with the thoughts that he scored 3 in the pre treatment assessment of preoccupation, became zero, indicating that he is not preoccupied with such thoughts anymore. The scores on the scales for RTHC and accommodation also came down to 1 & 2 from 4 & 5 suggesting that the belief being dropped in the face of contradictory evidences.

The improvement in the patient's coping repertoire and change in the delusional beliefs were the gains of the therapy. This resulted in reduction in distress as well as associated problems. The perception of self-efficacy boosted up his confidence level and get back to work towards the end of the follow up sessions. With psycho education the patient was able to accept the belief as not appropriate in the fact of reality. The strengthened copying strategies enabled him to use the cognitive strategies more consistently and effectively.

Summary

A 30 year old Hindu male Mr. M.K. who was been working as a Poojari in the temple was presented to us with a history of 4 years of illness despite being an adequate dosage of antipsychotics. His belief regarding him being controlled and persecuted persisted over time at a delusional level. He was taken up for intervention with cognitive therapy, which included psycho-education, verbal challenging, and also techniques to improvise his self-esteem, and was treated in 22 sessions. There was a significant reduction in the general psychopathology level and conviction rate of the belief and also the preoccupation with the belief was also lessened. His emotional distresses were

handled effectively and he was able to get back to proper socio-occupational functioning.

So, with cognitive therapy, the patient could attain a greater sense of control over his own behavior, which resulted in a better quality of life.

Table 6: Pre and Post assessment Scores of Case VI

Number of sessions conducted		22	
Duration of Therapy		7-4-2002 to 23-11-2003	
Scales		Pre Assessment	Post Assessment
PANSS	Positive	12	8
	Negative	8	7
	General	10	9
BABS Score		20	9
Conviction Rating		90	10
Preoccupation Rating		3	0
RTHC		4	1
Accommodation		5	2

Figure 6A: Pre and Post assessment Scores of Case VI

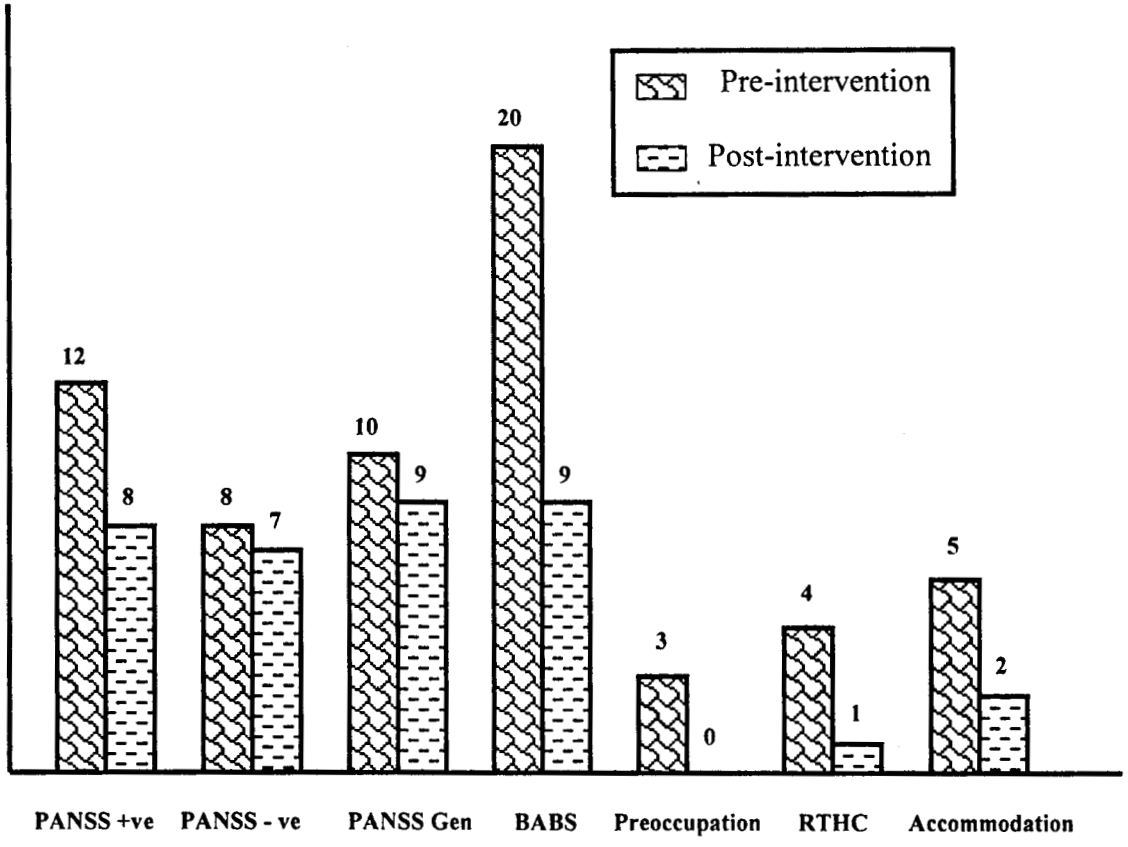
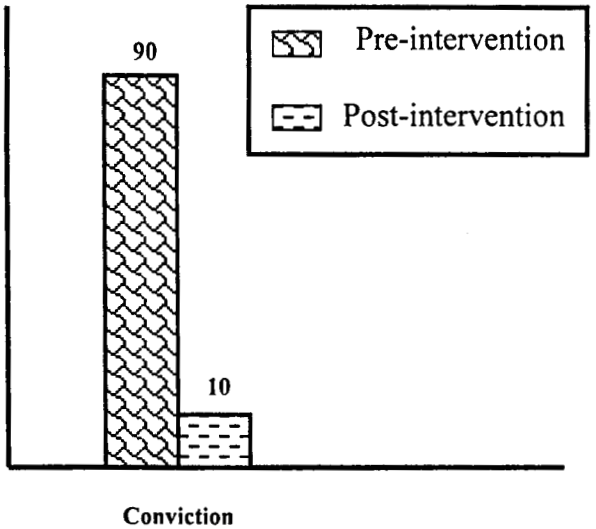


Figure 6B: Pre and Post assessment Scores of Case VI



Case VII

Case History

Mr. G.S. 44 year old businessman from higher socio-economic status and urban background lives in a nuclear family, with a Masters degree in business administration. He was apparently normal till 4 years back when he was diagnosed as having hypertension, following which he had started to experience difficulty in sustaining erection, suddenly got thoughts about his habit of masturbation which he started at the age of 15 and continued till he got married at the age of 26 and would do it every alternative day. He started thinking that the current problem that he faces is due to his excessive masturbation practices. Was feeling very guilty over it would get very sad and would cry thinking about it again and again. He used to hear voices calling him a "sinner". He could not concentrate in his business activities, had faced lot of problems in his business interactions, would not talk to anyone, and slowly became withdrawn and stopped going for work. He became very suspicious of family members who would come and ask questions to him frequently, started thinking that they all know about his problems with erection, also as due to his excessive masturbation practices and stopped talking to people, stopped taking food from home. Then the family members forced him to a psychiatrist and he was put on anti-psychotics. His mood improved and he stopped hearing voices along with the withdrawal he had, he started going for work, though not full time. But his guilt regarding his masturbatory practices persisted, he also remained suspicious that other family members knew about this and believes that they talk about it still.

On mental status examination, thought content revealed Delusions of Reference and as well as Delusional Guilt.

He was taken up for Cognitive Therapy. Therapy was completed in 18 sessions within a time period of 15/8/2002 to 12/3/2003.

Assessment

- The BABS score was 24 suggesting, "lack of insight" in the patient.
- On PANSS, the ratings were 12, 7 &10 on positive, negative and general psychopathology scales, indicating 'Below Average' Index.
- The conviction rating by the patient was 100% (percentage)
- '3' was the rating on Ordinal Scale for Pre-occupation suggesting that the patient was getting thought associated with his belief many a times a day.
- On scales of RTHC and accommodation were 4 & 5 indicating the situation being ignored, dismissed or persistently denied as being possible and no instances given having any effect on the accommodation of the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Prioritizing the problem list
    - Symptom -Delusions of Reference, and Guilt.
    - Life Goals- Managing distress.
- Psycho Education
- Verbal Challenging

❖ Normalizing Rationale

Intervention

Establishing rapport was a difficult task for the therapist, which took about 3 sessions, as the patient's affect was depressed. Also all the sessions had to be initiated with a mood check of the patient. In the sessions, which followed the establishment of therapeutic alliance, Socratic questioning method was initiated. Thus patient was helped to bring out the thoughts related with the guilt and to check on the irrationality of it by objectively verifying it, taking the opinion of others into consideration, especially it was emphasized that no other person seemed to agree with his belief.

The patient was then assisted in identifying the original experiences, which proceeded delusional beliefs. Also he was described, how such beliefs, once formed would influence and lead to misinterpretations of further experiences. Soon after this patient was asked to find evidences for the belief and when he did, was asked to review existing evidence for the predicted outcome. When the client repeatedly failed to find concrete evidences, the technique of active verbal challenging was introduced.

The next task was, moving on the delusion of reference, as the therapist became successful in making the client understand completely that what he used to consider as real before (delusional reference) is nothing but a thought which was exaggerated due to psycho-pathology and not a fact.

Similar method of verbal challenging was used to challenge his beliefs that others are talking bad about him. Towards the middle phase of the therapeutic sessions, the client was able to identify his thoughts, and to challenge them. Thereby he was able to lessen the distress.

The client was encouraged to go and work, to talk to other family members than withdrawing himself from them, so that he perceives and receives social support from their side which would act contrary to the belief that others talk bad about him. He was made to approach the family members more often than previous for various purposes.

At the end of the therapy sessions, his mood improved and he was able to manage the delusional thoughts by engaging in active challenging.

Family members were explained the symptoms with use of normalizing rationale. They were explained the psychopathology by showing the role of stress in the onset of his symptoms such as problems with erection was the major stressor.

- The BABS score on post treatment assessment was 11 indicating the presence of "fair insight" in the patient.
- On post treatment assessment, his score on PANSS were 8, 6 & 9 on positive, negative and general psychopathology scales respectively indicating a "much below average index".
- The conviction rating came down to 20% and the rating of preoccupation was 1 indicating, that he gets thoughts only 3 or 4 times a week.
- The scores on RTHC & accommodation scales were 2 and 3 respectively, indicating that his belief changed in conviction but not in content.

On a follow up of 2 months, he reported getting such thoughts 3-4 times a week, but never reported strongly believing it or becoming preoccupied with it in such a way that it interferes with his daily life.

Results and Discussion

The BABS score on Post treatment assessment was dropped to 11 from 24 suggesting "fair insight" in the patient.

The PANSS ratings on positive, negative and general psychopathology scales were 8, 6 & 9 respectively after the therapy was completed. There was also a reduction in the index of interpretation suggesting 'much below average' level of psychopathology. The conviction rate of the delusional beliefs, which was 100%, could be brought down to 20% with therapy. There was also reduction in the pre-occupational rate. In the RTHC and accommodation scales the scores became 2 & 3 from 4 &5, suggesting a change in conviction but no change in the content of belief.

The findings on post therapeutic assessment reflect the gains of the therapy. His cognitive abilities and higher level of education would have been contributory factors in the successful implementation of cognitive strategies. Though the beliefs did not clear completely at the level of their conviction, there was an appreciable reduction in the symptoms, handling of emotional distress as well as improvement of self-esteem. On the whole there was a reduction in the parameters of delusion. This facilitated the subjective well being of the patient.

Summary

A 44 year old business man, who is a MBA, was brought to with a 5 years history of illness after treatment with adequate dose of anti psychotics but continued to be firm on delusions of reference. He was given cognitive therapy in 18 sessions. The components of the therapy were psycho-education, verbal challenging, normalizing rationale, stress management, increasing the self-esteem and family therapy. With therapy, there was a significant change in

positive direction considering the level of psychopathology. Also there was reduction in conviction and pre-occupation rates of the delusional beliefs after the therapy.

Thus, with cognitive therapy, the parameters of delusional beliefs could be minimized and the individual could function with improved socio-occupational functioning.

Table 7: Pre and Post assessment Scores of Case VII

Number of sessions conducted		18	
Duration of Therapy		15-8-2002 to 12-3-2003	
Scales		Pre Assessment	Post Assessment
PANSS	Positive	12	8
	Negative	7	6
	General	10	9
BABS Score		24	11
Conviction Rating		100	20
Preoccupation Rating		3	1
RTHC		4	2
Accommodation		5	3

Figure 7A: Pre and Post assessment Scores of Case VII

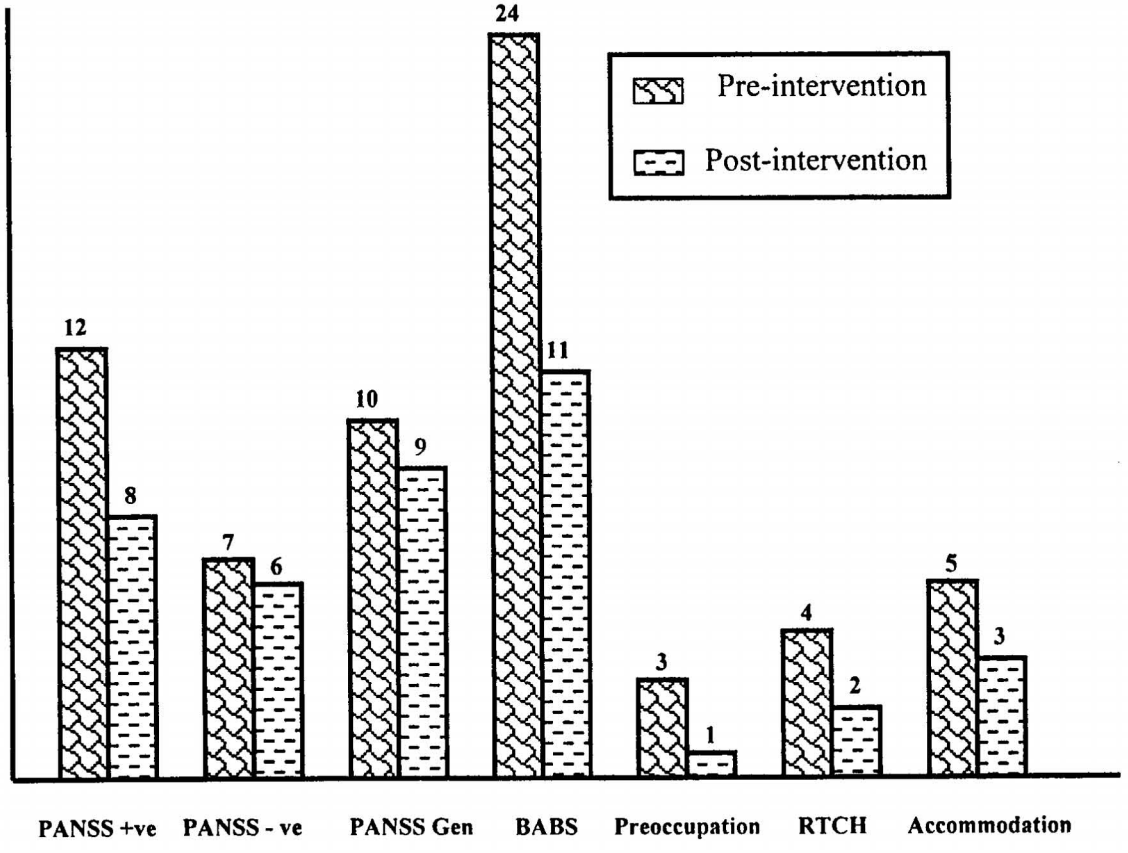
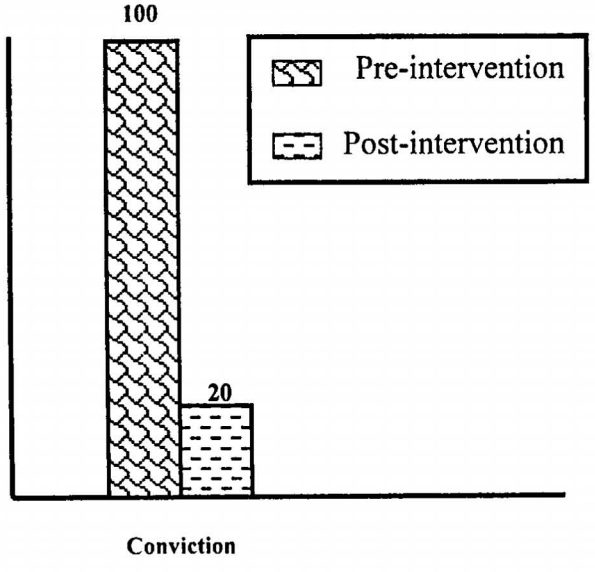


Figure 7B: Pre and Post assessment Scores of Case VII



Case VIII

Case History

Miss. R.K a 21 year old unmarried girl, educated up to +2 from middle socio-economic status, lives in a nuclear family was apparently normal 3 years back. She suddenly developed a belief that the person living next door was controlling her thoughts actions and feelings through the Internet. Since then she became very fearful, reduced talking to other family members and slowly became withdrawn and stopped coming out of her bedroom. She would not take care of her personal hygiene or take food in time or ask for it. If she is asked to do these things, she would express her fear regarding the next door neighbor who captures her thoughts and influences feelings and behavior. With these complaints, she was taken to a psychiatrist and was on anti-psychotics for about a year. Her personal care and mood improved but the belief that the neighbor is trying to harm her through the Internet remained unchanged.

She, however was ignorant about the ways to access the Internet and did not even know what is Internet, but had ideas in mind that computer and Internet are equivalent. She also has not seen anybody operating a computer ever before.

On mental status examination, thought content revealed delusion of persecution and delusion of control. The patient was taken up for cognitive therapy. It took 16 sessions within a time period of 14/12/2002 to 7/6/2003.

Assessment

- The BABS score of the patient was 19 indicating, "Lack of insight" in the patient.

- PANSS rating scale scores of the patient score 8, 5 & 9 on positive, negative and general psychopathology rating scales indicating 'Below Average Index.
- On conviction, rating was 90%.
- On ordinal scale for preoccupation; her rating was 3, suggesting that she was getting thoughts 3 - 4 times a day.
- On RTHC & accommodation scales, the scores were 4 &5 indicating the situation being ignored, dismissed or persistently denied as being possible and no instances given having any effect on the accommodation of the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Prioritizing the problem list
    - Symptom - Delusions of persecution
        - Delusion of Control
    - Life Goals - Managing emotional distress
        - Enhancing Inter-personnel relationship.
- Psycho-education
- Testing of Reality
- Verbal Challenging
- Normalizing Rationale

Intervention

Initial sessions were mainly aimed at the establishment of therapeutic alliance, as she was very fearful due to the delusional beliefs of control and persecution.

In the further sessions, the patient was taken up for belief modification. For that the patient and the therapist mutually agreed on testing the reality of the belief she held. Her belief regarding the Internet was exactly put across to her as delusional. She was encouraged to have a constant check on the expected catastrophizing happenings once the neighbour captures her thoughts and controls her. But she was not able to provide any evidence to the therapist or any other significant person, over a period of 3 weeks. At this stage the verbal challenging of the evidences (or lack of evidences) was initiated.

Wish progress in therapy, she was familiarized with computer and internet and its utility and working which was instrumental in eradicating her misconceptions regarding the use of both computers and internet facility. She was given a demonstration about the working of both systems. She was also asked to keep a check of whether the expected worse consequences were happening when she was exposed to the computer and Internet. As she was not experiencing any such problems, she had to distance herself from the delusional beliefs as she had agreed in advance with the therapist that if proven otherwise she would consider the beliefs as not true.

She was described in the further sessions, along with psycho-education, that the fearfulness she had been experiencing is not independent but just a consequence of the delusional beliefs. She was also enabled to observe the changes in the distress associated, which was coming down with the advancing of therapy.

Her family members were also called for psycho-education. Because of the delusional beliefs they happened to have severe inter-personal conflicts with their neighbours, which left an ambience of constant tension and stress in their house. Normalizing rationale was made use of to make both the patient and the family members to consider the delusional beliefs as a phenomenon that had arisen out of the psychopathology or illness.

Towards the end of the therapy, she was completely free of the delusional beliefs.

- On post treatment assessment, the BABS score was 4 suggesting the development of "excellent insight" in the patient.
- On PANSS rating scale, she obtained scenes of 6, 4 & 7respectively on positive, negative and general psychopathology scales. The interpretational index was 'much below average' level.
- On the scale for rating conviction, her rating was 'zero'. Suggesting that there was no more conviction on the delusional beliefs.
- On the scale for preoccupation, also her score was 'zero' suggesting that she is hardly ever preoccupied with the thoughts associated with the delusional beliefs.
- The scores on RTHC and accommodation scales were 1 & 2 indicating the belief being dropped in the face of contradictory evidence fits not been replaced by any other morbid beliefs as the demonstration of events were objectively conducted.

In a period of two months follow up, the patient never experienced any of the delusional beliefs and there were no reports of any distress on her part to continue to live in the same house and relate with people.

Results and Discussion

The Patient obtained a BABS score of 4 in the place of 19 on post treatment assessment indicating "excellent insight" in the patient.

On the PANSS rating her scores lessened to 6,4 & 7 on positive, negative and general psycho-pathology scales from 8, 5 & 9 and the interpretational index showed a 'much below average' level of psychopathology. The conviction rate as well as the preoccupation rate were dropped to an absolute nil significant level. The scores on RTHC & accommodation also reduced to 1 & 2 from 4 & 5 suggesting the dropping of belief with no development of any new pathological beliefs.

The findings made it evident that with advancement of communication media and technology, there could be changes in the content of the morbid beliefs, but irrespective of the content, they are transitory in nature and hence are amenable to change with proper use of cognitive techniques. Reality testing and proper psycho-education as well as familiarizing the patient with newer developments in technology was very useful in alleviating the misconcepts, the threat perceived and also the fearfulness, which followed these both. The psycho-education given to the family members were also equally helpful in the success of therapy. As it is in a way a preventive measure for the delusion becoming more systematized with their support due to ignorance and also useful in hindering the chances of the development of a shared delusion (folic a'deno')

Summary

A 21 year old single girl, who has studied up to 2, was presented to us with a 4 years history of illness, as she continued to have delusion of control and persecution despite receiving treatment with anti-psychotics for a year.

She was given 16 sessions of cognitive therapy, which included Testing of Reality, challenging evidence, psycho-education and normalizing the rationale. With therapy there was a complete drop on the major parameters of delusions i.e., conviction and preoccupation. Also there was alleviation of distress associated with the belief.

Cognitive Therapy was found to be effective in dealing with Internet delusion, which is comparatively new in content category as well as controlling the related behaviors.

Table 8: Pre and Post assessment Scores of Case VIII

Number of sessions conducted		16	
Duration of Therapy		14-12-2002 to 7-6-2003	
Scales		**Pre Assessment**	**Post Assessment**
PANSS	**Positive**	8	6
	Negative	5	4
	General	9	7
BABS Score		19	4
Conviction Rating		90	0
Preoccupation Rating		3	0
RTHC		4	1
Accommodation		5	2

Figure 8A: Pre and Post assessment Scores of Case VIII

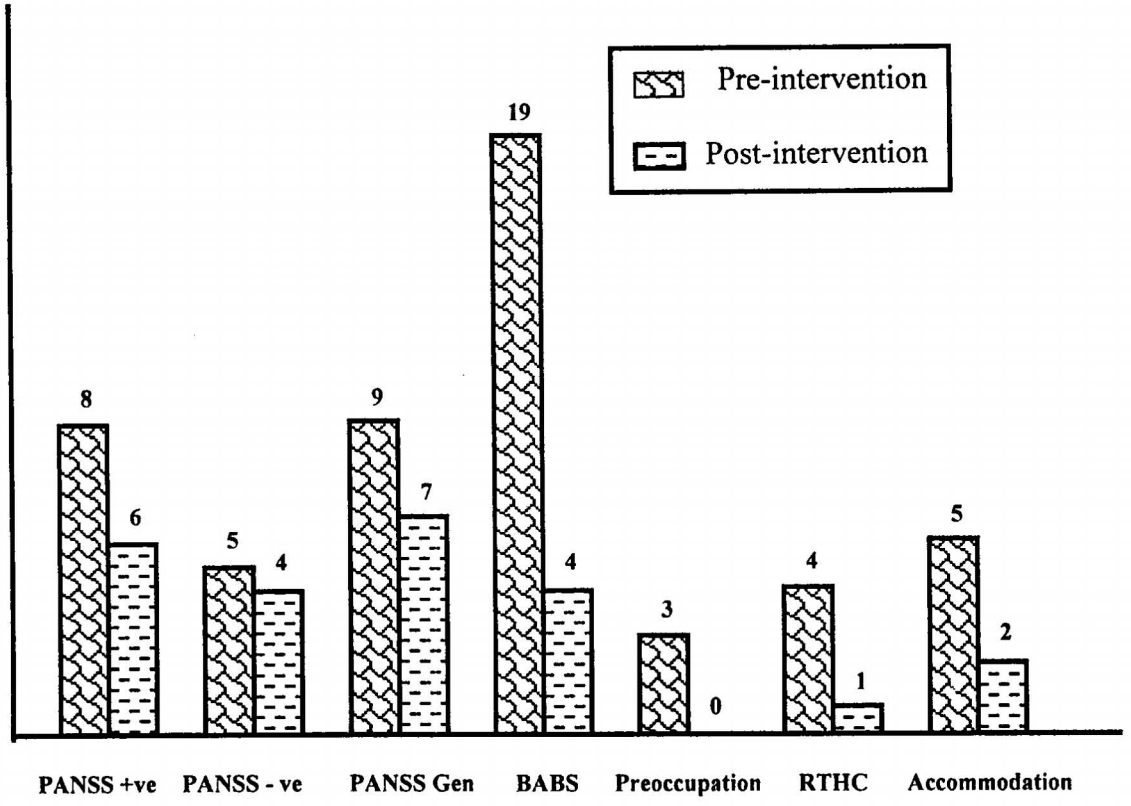
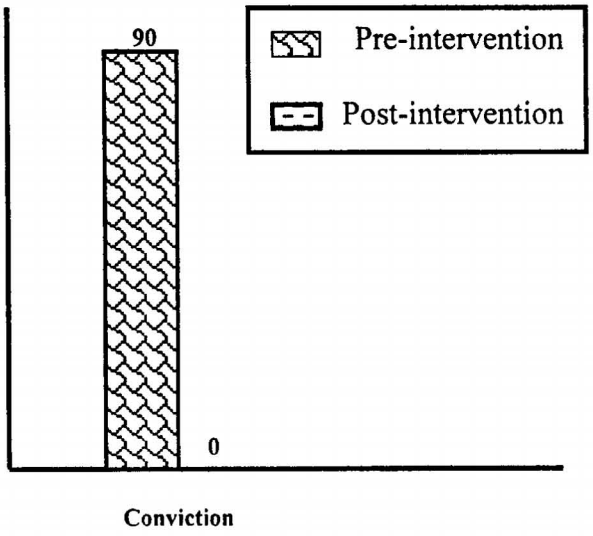


Figure 8B: Pre and Post assessment Scores of Case VIII



Case IX

Case History

Mr. R.L. a 21 year old boy, who is in the 3rd year of B. tech, comes from a middle socio-economic status, suburban background from a nuclear family had been apparently normal 3 years back. He developed a belief gradually following the ragging sessions in the first 3 months of first year in his hostel life. He started thinking that others; those whoever comes his way, are talking some thing bad about him. He alienated himself from others thinking that they all want him to die. He believed that the senior students, his batch mates and the lecturers have all joined hands to fail him in exams and to throw him out of the college. He started hearing voices of many people including males and females telling him whatever activities he was doing (running commentary). He became very irritated, suspicious and distressed due to these issues. He was not able to sleep properly and kept himself away from friends.

He was taken to a psychiatrist who treated him for a year with adequate dose of anti-psychotics with which the running commentaries that he used to hear stopped and his sleep improved. But he continued to believe that all the other people in his college are engaging in activities to make his future life a hell. This is how he was brought to the therapist.

A diagnosis of Paranoid schizophrenia was made.

On mental status examination, thought content revealed delusion of persecution and the mood was predominantly fearful with anxious affect.

The patient was taken up for cognitive therapy. It was extended over a period of 13/11/2002 to 9/5/2003 and was completed in 18 sessions.

Assessment

- The BABS the patients score was 21 indicating the "lack of insight" in the patient.
- PANSS rating scale scores of the patient were 10, 6 & 9 on positive, negative and general psychopathology rating scales indicating 'Below Average' Index.
- The rating of conviction of the delusional belief was 99%
- The preoccupation with delusional belief and related thoughts was rated as 3 indicating that he gets such thoughts 3 -4 time a day.
- On RTHC and accommodation scales, the scores were 4 & 5 indicating the situation being ignored, dismissed or persistently denied as being possible and no instances given having any effect on the accommodate of the belief.

Therapeutic Programme

- Establishing therapeutic alliance
- Psycho-education
- Prioritizing the Problem List
  - Symptom - Delusion of Persecution.
  - Life Goals - Improve social and occupational functioning
- Verbal Challenging
- Normalizing rationale

Intervention

Therapist focused on establishing a strong therapeutic alliance in the initial sessions as the patient was quite suspicious about anybody who comes on his way.

Further sessions were mainly aimed at distancing the person from the delusional belief and making him consider it as just a thought and not truth. For this Socratic Questioning method was used. He was asked, "Do other people seem to agree with you regarding this?" When the patient responded "no", then therapist proceeded by asking, "How do we account for that". This procedure leads nicely into dialogue to consider the evidence upon which the belief is based.

Subsequent sessions were focused mainly on challenging the evidence, which the client stated as supportive to his belief. He believed that they tried to purposefully fail him. Hence again the therapist asked the client to reconsider all his academic results, wherein he had never failed in any subject. In this phase, the therapist could move on to directly challenge his belief, suggesting that the lecturers also came and gave lecturers in the same class he was in. There were no incidents in the past where they have isolated him or sent him out of the class to deprive him of the information. With the sessions of direct verbal challenging of his belief, the client could consider that how far is reality away from his belief when it was suggested by the therapist in a non-confrontational manner.

In the next session, the patient was considering why he had such a belief, why he was thinking differently from others. Then, the therapist introduced the procedure of normalizing rationale. He was explained in a very positive way that all these were out of the psycho-pathology he had and he is not the only one to get such thoughts and to go through periods of immense

distress At this point along with normalizing rationale therapist also initiated psycho-education for which his family members were also called for. They were also explained how the stressors in life such as ragging could precipitate such symptoms.

Towards the terminal sessions of therapy, the patient was encouraged to go to the college and deliberately make attempts to talk to his classmates and ask for help to the lecturers and observe how he is being helped out. The experience was totally contradictory to the belief he held.

When the therapy was terminated, his belief conviction came down and he started interacting with people and started going to college.

- On post treatment assessment, the BABS score was 4 suggesting the presence of "good insight" in the patient.
- On PANSS, he scored 7, 5 &7 on positive, negative and general psychopathology scales and the index of interpretation was 'much below average'.
- On the scale for conviction rating, his rating was 5%.
- On ordinal scale for preoccupation, he rated 1, suggesting that he gets such thought only 3 - 4 times a week.
- The scores on RTHC and accommodation scales were 2 & 3 indicating that he could accommodate the changes in the delusion by alteration in conviction but not with content.

In a period of two months follow up, the patient neither reported of any intensification in the conviction rating nor reported the development of any new belief.

Results and Discussion

The BABS score on post treatment assessment was reduced to 4 from 21 suggesting the development of "good insight" in the patient.

On PANSS rating, the Patients score became 7, 5 & 7 respectively on positive, negative and general psychopathology scales and the index of interpretation became 'much below average'. The conviction rate changed and reached 5% from 99%. There was also notable reduction in the preoccupation rate which became 1 from 3, indicating that in the place of begetting thought many times a day, after therapy he gets only 3-4 times a week. There was also a significant descendance in the scores on the scales of RTHC and accommodation suggesting, belief being accommodated not by changing the content but by changing the conviction rate.

These findings speak for the effectiveness of cognition therapy in this client. Though the patient was functioning fairly well (academically) introduction of the cognitive activities helped him to distance himself as much possible as from the belief as reality. The patient could drop some of the ineffective strategies he was using to cope. The ability of the patient was facilitated and he was encouraged to engage in meaningful interpersonal relationships, which would make it easier for him to adjust in his study and college atmosphere.

Summary

A 21 year old single boy doing B Tech. was brought to the therapist with a history of 3 years of illness, as he persisted to have persecutory delusion despite receiving conventional treatment with anti - psychotics. He was given 18 sessions of cognitive therapy, with psycho-education, Verbal Challenging and Normalizing Rationale. With therapy there was significant reduction in

the parameters of his delusional belief viz, conviction and preoccupation and there was also a significant reduction in the distress associated which was contributing and maintaining his anxious affect.

Cognitive therapy was found fruitful in dealing with the persecutory delusion and related behaviors.

Table 9: Pre and Post assessment Scores of Case IX

Number of sessions conducted		18	
Duration of Therapy		13-11-2002 to 9-5-2003	
Scales		Pre Assessment	Post Assessment
PANSS	Positive	10	7
	Negative	6	5
	General	9	7
BABS Score		21	4
Conviction Rating		99	5
Preoccupation Rating		3	1
RTHC		4	2
Accommodation		5	3

Figure 9A: Pre and Post assessment Scores of Case IX

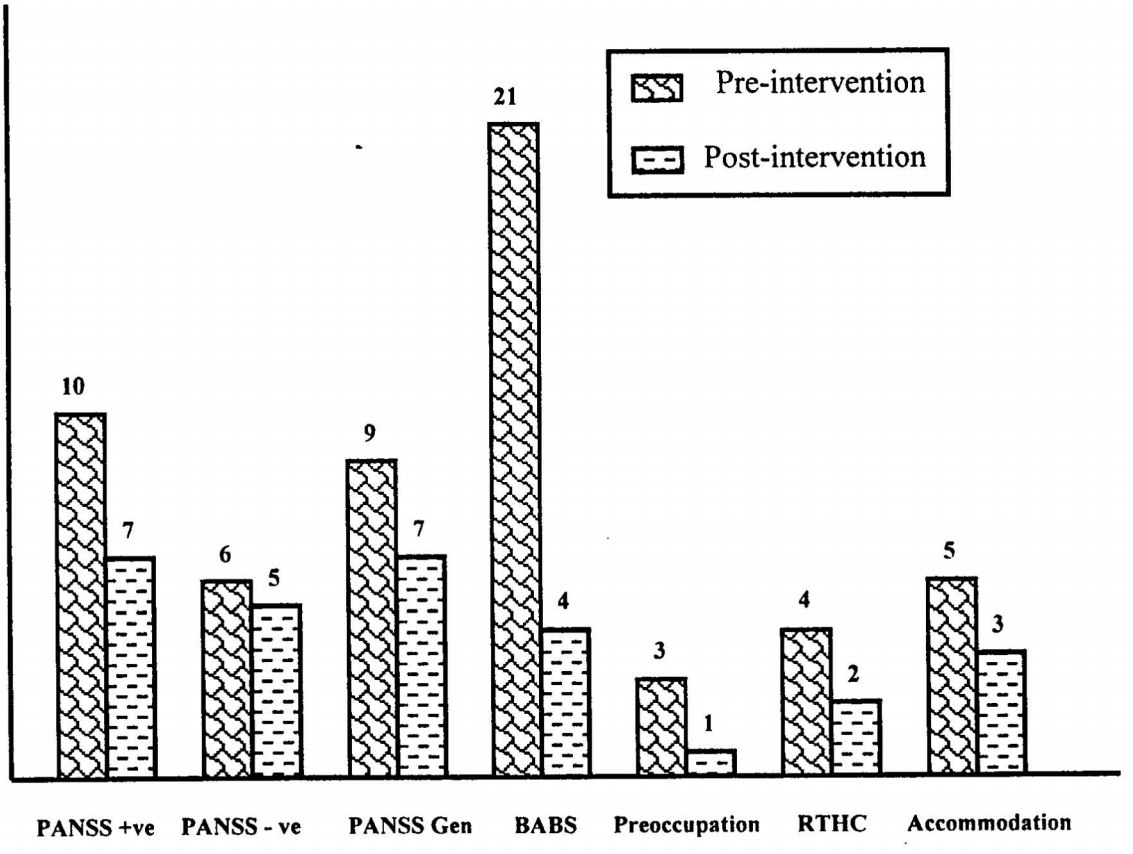
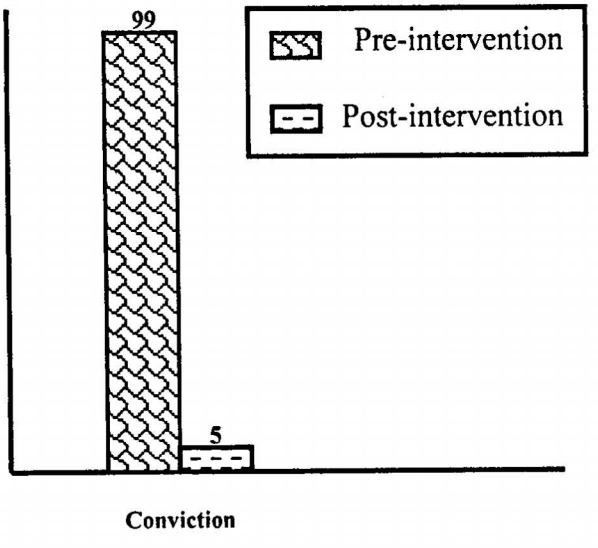


Figure 9B: Pre and Post assessment Scores of Case IX



Case X

Case History

A 42 year old married man, who is a lecturer, hails from an urban background, is a post - graduate in Hindi was presented with complaints of getting anger outburst very frequently. He was apparently normal till 5 years back, and then he suddenly developed suspiciousness about his wife trying to put an end to his life. This was immediately after the wife's mother had shifted to live in their house. He became suspicious that both of them had joined hands together and was plotting against him. By the time he developed varicose vein in his legs. He started blaming and fighting with wife and mother-in-law, telling that the toxins they have been adding in his food were responsible for the varicose veins. He was taken to a psychiatrist as he left his job and was staying at home all through out the day observing the movements of both wife and the mother-in-law. He was given pharmacological treatment with anti-psychotics for a period of one year. His belief that mother-in-law gets to know his thoughts was cleared with the medication but he persisted on the belief that both of them were trying to kill him.

A diagnosis of Paranoid Schizophrenia was made.

On mental status examination, the though content revealed delusion of persecution, mood was anxious with tensed affect. Patient was taken up for cognitive therapy and was given 14 sessions during the period 3/9/2002 to 17/4/2003.

Assessment

- On BABS, the patient's score was 24 indicating lack of insight (i.e.; delusional) in him.

- On PANSS rating scale, his scores were 11, 8 & 9 on positive, negative and general psychopathology scales respectively. And the index of interpretation was 'Below Average"

- On the rating of conviction he reported of 100%.

- On the preoccupation rating scale, his score was 3 suggesting that he was getting the thoughts regarding his belief many times in a day.

- On scales for RTHC and accommodation his scores were 4 & 5 indicating the situation being ignored, dismissed or persistently denied as being possible and no instances given having any effect on the belief.

Therapeutic Programme

- Establishing therapeutic alliance

- Socratic Questioning

- Psycho-Education

- Verbal challenging for belief modification

- Prioritizing the problem list

    - Symptom - Delusion of Persecution

    - Life Goals - Improving the quality of marital life, interpersonal relations and occupational functioning.

- Normalizing Rationale

Intervention

Therapist could establish rapport within the first 2 sessions. Socratic Questioning was initiated by the therapist to make the client realize that all the significant others in his life disagree with his belief. Then in further sessions, client was asked to review the evidences, which he thought would substantiate his belief. When the client came up with the issue of varicose vein, he was made to receive a module of awareness program regarding the symptomatology, etiology and factors related to the medical condition from a medical person.

With these efforts the therapist could point out the irrationality in his belief. Gradually the therapist could proceed to challenge his beliefs more directly but in a non-confrontational manner. Client was encouraged to review the evidences and challenge them on his own as and when they appear. In this way the belief modification procedure continued for a few more sessions.

In subsequent sessions, the normalizing rational was used, and for this his family members were also called upon. There were also psycho-educated that all the problems that had been happening were nothing but the symptoms of psychopathology. They were explained how such false belief can influence a persons perceptions in life and how if gets systematized.

The delusions were labeled as just inferences and asked to consider alternative beliefs by stating the disadvantages and adverse consequences of holding such beliefs. Marital conflicts and occupational dysfunctioning were highlighted among the adverse consequences.

In each session till the winding up session, mood check was done by the therapist. The client was also made to realize how preoccupation with such beliefs could create distress in people.

At the end of the therapy, the client was euthymic and was less convinced about the belief and became less preoccupied with the thoughts regarding the beliefs. He could get back to his work.

- On post treatment assessment the BABS score was '7' indicating "good insight" in the patient.
- On PANSS, his scores were 8, 6 & 6 on positive, negative and general psychopathology scales respectively and the index of interpretation was 'below average' level.
- The conviction rating was 20% by the patient.
- On the ordinal scale for preoccupation, his rating was 10 indicating that he gets thoughts only 3-4 times a week.
- The scores on scales of RTHC and accommodation were 2 & 3 indicating the change in the conviction of the belief and not in the content.

The patient was followed up for 2 months, in which there was no hike in his conviction as well as the distress associated with his belief. Also there was betterment in his interpersonal and marital relationship.

Results and Discussion

On Post treatment assessment, the BABS score reduced from 24 to 7 indicating "good insight" in the patient.

On PANSS rating scale, his scores became 8, 6&6 from the pre rating which was 11, 8 & 9 on positive, negative and general psychopathology scales and the index of interpretation also became 'much below average'. The conviction rate came down to 20% from the previous rating of 100%. Also the rate of preoccupation the thoughts was rated as 1, suggesting that he gets

thoughts much less frequently than he would before the therapy. There was also a reduction in the scores of scales of RTHC & accommodation which became 2 & 3 from 4 & 5 indicating the belief being accommodated by charging the conviction and not charging the content.

The above-mentioned findings substantiate the effectiveness of cognitive therapy in the delusion of Persecution. Though the belief did not clear in content, there was a significant reduction in the conviction and preoccupation levels and the patient was able to make quite successful attempts to challenge his thoughts and nullify the distress. However, the marked reduction in distress has also helped the patient to come into terms with the discord he had earlier with his wife due to the belief. The familial involvement might be helpful in maintaining the gains of the therapy.

Summary

A 42 year old married man, who is a lecturer, was presented to the therapist with a 5 years history of illness as the continued to be firm on the persecutory delusion that his wife and mother-in-law are trying to kill him, even after receiving treatment with adequate dose of anti-psychotics. He was given cognitive therapy of 14 sessions in which techniques of Socratic Questioning, Verbal Challenge, Psycho-education and Normalizing Rationale were used. With therapy there was significant minimization in the conviction rate and preoccupation rate of the delusional belief, which left the patient with less distress and also helped him in improving his marital life and occupational functioning. Thus, with Cognitive Therapy, the severity of the symptoms could be minimized and related behaviors could be effectively dealt.

Table 10: Pre and Post assessment Scores of Case X

Number of sessions conducted		14	
Duration of Therapy		13-9-2002 to 17-4-2003	
Scales		**Pre Assessment**	**Post Assessment**
PANSS	Positive	11	8
	Negative	8	6
	General	9	6
BABS Score		24	7
Conviction Rating		100	20
Preoccupation Rating		3	1
RTHC		4	2
Accommodation		5	3

Figure 10A: Pre and Post assessment Scores of Case X

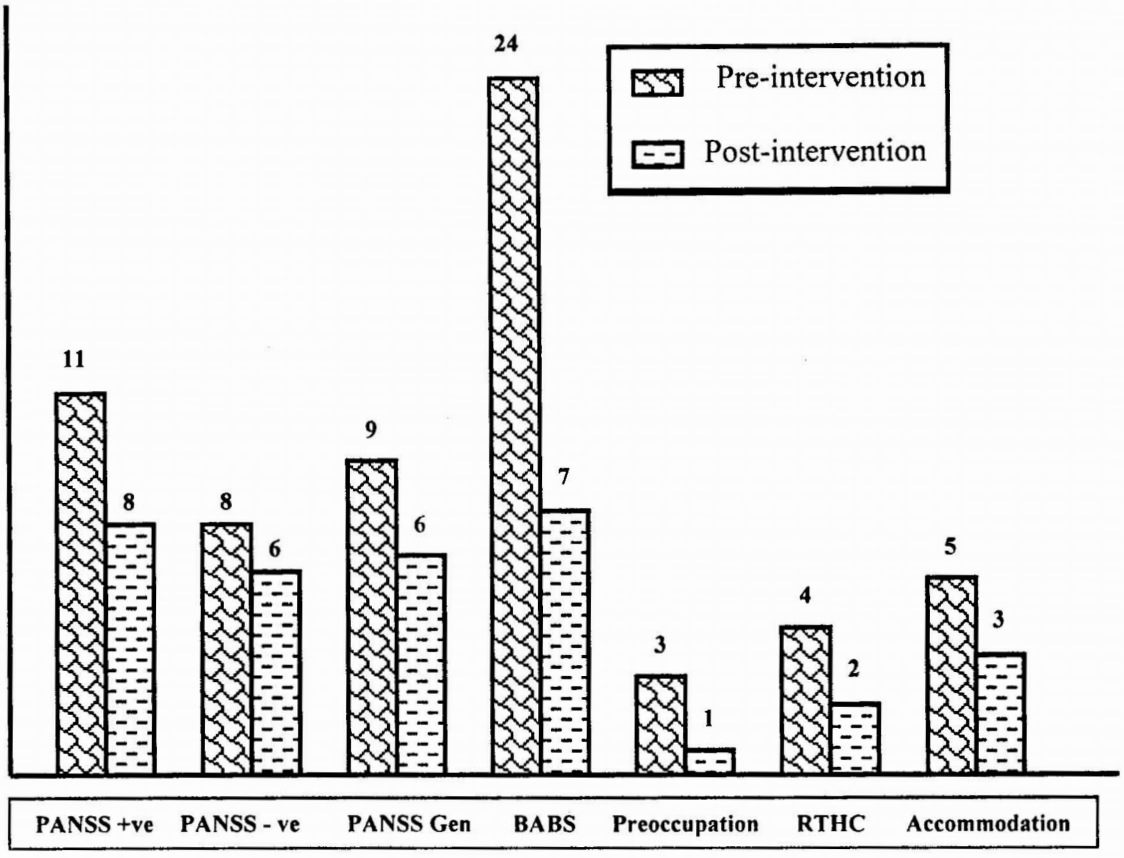
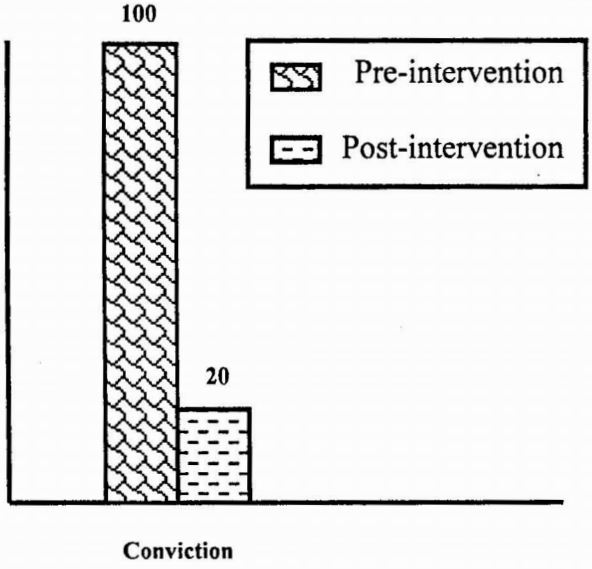


Figure 10B: Pre and Post assessment Scores of Case X



SECTION-II

The group trends will be presented first, followed by the group discussion.

Group Outcome Trends

Table11: Socio Demographic and Clinical Data of the Group

Patient	1	2	3	4	5	6	7	8	9	10
Age (in Years)	25	38	35	52	50	38	44	21	21	42
Sex	Female	Female	Male	Female	Male	Male	Male	Female	Male	Male
Education	PhD	Graduate	Secondary	Secondary	Diploma	Graduate	Masters	+II	B.Tech	Masters
Occupation	Student	Nil	Business	Nil	Pvt	Priest	Business	Nil	Student	Lecturer
Socio-economic Status	MSES	MSES	LSES	LSES	MSES	MSES	MSES	MSES	MSES	MSES
Marital status	Single	Married	Married	Married	Married	Single	Married	Single	Single	Married
Duration of illness	3 yrs	4 yrs	2 Yrs	12 Yrs	5 yrs	3 Yrs	4 Yrs	3 Yrs	3 Yrs	5 Yrs
No. of sessions	22	21	18	20	22	22	18	16	18	14
Duration of therapy	8 mths	8 mths	7 mths	8 mths	6 mths	7 mths	7 mths	6 mths	6 mths	7 mths

The final sample constituted of 10 patients, in the age range of 21 to 52 years. 4 of them were females. Education ranged between Secondary and PhD Scholar. Employment status varied from being a housewife to professional. Duration of illness ranged between 2 years and 12 years. All the patients were out housed patients contacted the therapist for the treatment of their distress. A package programme of cognitive intervention was administered with appropriate changes made to make it individually tailored to each of these patients, including components like normalizing rationale, reality testing, psycho-education and verbal challenge. The number of sessions ranged between 16 and 22 and the duration of the therapy ranged between 6 to 8 months.

An area wise investigation of the group outcome trends indicates the following:

1. Parameters of delusions

Table 12: Pre and Post intervention scores on the parameters of Delusions

Patient	Conviction		Preoccupation		Reaction To Hypothetical Contradiction (RTHC)		Accommodation	
	Pre-assessment	Post-assessment	Pre-assessment	Post-assessment	Pre-assessment	Post-assessment	Pre-assessment	Post-assessment
1	95	35	3	1	4	3	5	4
2	100	0	3	0	4	1	5	2
3	95	0	3	0	4	1	5	2
4	80	10	2	1	4	2	5	3
5	100	5	3	0	4	1	5	2
6	90	10	3	0	4	1	5	2
7	100	20	3	1	4	2	5	3
8	90	0	3	0	4	1	5	2
9	99	5	3	1	4	2	5	3
10	100	20	3	1	4	2	5	3

Table 13: t-value of Pre and Post intervention scores on the parameters of Delusions

Parameters of Delusions	t-value	Significance level
Conviction	21.010	0.0001
Preoccupation	10.854	0.0001
Reaction to Hypothetical Contradiction	10.854	0.0001
Accommodation	10.854	0.0001

The changes on the various parameters of delusion were as follows:

a. Conviction

Conviction of the delusions decreased in all the patients significantly. Among the patients who experienced improvement, there was a reduction in conviction to 0% in 3 patients (from 90-100% to 0%). In total the post intervention assessment rating had come down from 80-100% to 35-0%. In

order to understand whether the difference is statistically significant, paired t-test was done. The result of the analysis indicates that the difference is statistically significant at 0.0001 level (t = 21.0).

b. Preoccupation

Preoccupation in delusion reduced significantly in all the patients, and there was a reduction in three points in 5 patients (from 3 to 0). There was a reduction in 2 points in 4 patients (from 3 to 1) and reduction of 1 point in 1 patient (from 2 to 1). Paired t-test shows that the difference due to cognitive intervention in the preoccupation parameter is statistically significant (t = 10.9, p = 0.0001).

c. Reaction To Hypothetical Contradiction (RTHC)

Reaction to hypothetical contradiction reduced in all the 10 patients. In 5 f the patients, the reduction was by 3 points (from 5 to 2) and in 2 of them it was by 2 points (from 4 to 2). There was a reduction in 1 point in 1 patient. In order to understand whether the difference is statistically significant, paired t-test was done. The result of the analysis indicates that the difference is statistically significant at 0.0001 level (t = 10.9).

d. Accommodation

Accommodation in delusional belief reduced in all the 10 patients, and the reduction was 3 points in 5 patients (from 5 to 2). There was a reduction in 2 points in 4 patients (from 5 to 3) and reduction of 1 point in 1 patient (from 5 to 4). Paired t-test shows that the difference due to cognitive intervention in the preoccupation parameter is statistically significant (t = 10.9, p = 0.0001).

Thus there was a reduction on all parameters of delusion in all the patients following cognitive intervention.

2. Insight about delusional belief - BABS rating.

Table 14: Pre and post intervention scores on insight about delusional belief

Patients	Pre-Intervention	Post-intervention	t-value	significance
1	20	8	16.28	0.000
2	23	6		
3	21	4		
4	18	8		
5	22	5		
6	20	9		
7	24	11		
8	19	4		
9	21	4		
10	24	7		

Thus there was a modification in the beliefs resulting in improvement of insight. In all the cases, they had a positive change in insight about the beliefs and did not feel convince about the content of delusions. This has become evidenced in the change of insight from 'Lack of insight' to 'good insight' in people participated in the study. Paired t-test shows that the difference due to cognitive intervention in the patient's insight about the delusional belief is statistically significant ($t = 16.28$, $p = 0.000$).

3. Positive and Negative Syndrome Scale (PANSS)

Table 14: Positive and Negative Syndrome Scale (PANSS) scores

Patient	Positive				Negative				General			
	Pre	Post	t	sig	Pre	Post	t	sig	Pre	Post	t	sig
1	10	7	15.46	0.000	7	6	6.09	0.000	9	7	4.26	0.002
2	11	8			7	6			18	10		
3	10	6			8	5			17	14		
4	11	7			6	5			14	11		
5	9	6			5	4			9	7		
6	12	8			8	7			10	9		
7	12	8			7	6			10	9		
8	8	6			5	4			9	7		
9	10	7			6	5			9	7		
10	11	8			8	6			9	6		

There was a fall in positive scale, negative scales and general psychopathology scale scores in all the 10 patients from 8-12 to 6-8 in positive scale, from 5-8 to 4-7 in negative scale and from 9-18 to 7-14 in general psychopathology scale. In order to understand whether the difference is statistically significant, paired t-test was done. The result of the analysis indicates that the difference is statistically significant in positive scale ($t = 15.46$, $p = .000$), negative scale ($t = 6.09$, $p = 0.000$) and general psychopathology scale ($t = 4.26$, $p = 0.002$). Thus there was an improvement in the positive, negative and general psychopathology scale of the patients after intervention for persistent delusions.

To summarize the group trends, there has been a change in the parameters of delusions in all the patients. They developed insight about the beliefs of the delusions. There has also been significant improvement in positive symptoms, negative symptoms and general psychopathology of the patients participated in the present study.

Group Discussion

1. Impact of cognitive intervention on delusions in Paranoid Schizophrenia

The group data indicated that the cognitive intervention has resulted in the reduction of the various parameters of delusion, a modification of beliefs contents of delusions. Cognitive therapy techniques like verbal challenging, reality testing, and normalizing rationale have been instrumental in bringing about these changes.

These findings have been supported by studies, which have shown that delusions are influenced by reality testing and verbal challenging (Chadwick, Birchwood, 1994; Bentall et al., 1994).

2. Effect of Cognitive intervention for delusions on insight about delusional beliefs in Paranoid Schizophrenia

Group data indicate that there was modification in the delusions, resulting in improvement of insight about delusional beliefs and they did not feel convince about the content of delusions. This is evident from the change of insight from 'Lack of insight' to 'good insight' in the people participated in the study.

3. Effect of cognitive intervention for persistent delusions on other symptoms of Paranoid Schizophrenia

There have been improvements on the positive and negative scale scores of all the patients of the group. Thus it may be concluded that cognitive interventions for the amelioration of delusions bring about improvements in overall psychopathology.

Implication of the study

One major disorder which until recently has remained largely outside the cognitive approach is "Schizophrenia". Thus historically schizophrenia has been 'psychology's forgotten child' (Bellack, 1986). This oversight reflects the sheer number and severity of problems associated with schizophrenia; people so diagnosed are thought to suffer a daunting range of significant primary and secondary psychological disturbances (Brichwood, Hallet & Preston, 1988). Bentall et al. (1988) call to study psychotic symptoms, not syndromes, has been the catalyst for psychological exploration. Since the mid 1980s, cognitive intervention in psychotic phenomena especially delusions and voices has flourished. In particular, the clinical cognitive approach has revealed much about how these symptoms are maintained and has offered an evidence-based intervention approach through the use of cognitive therapy.

Even with the arrival of newer anti-psychotics, the treatment efficacy of schizophrenic disorder has been far from satisfaction. Though the quality of life of persons with schizophrenia has become better with improved social and occupational functioning, the subjective well-being is still a matter of concern, due to the persistence of certain symptoms such as delusions and voices. Also in refractory clinical conditions, it has been found that the cognitive intervention can reduce the distress due to the experiences of delusional belief and voices (Bickwood et al, 1989; Lecompte and Petc, 1996). In the new millennium, there has been an unparalleled increase in the number of research studies undertaken in cognitive therapy for delusions. It is also been documented that cognitive interventions in delusions is an evidence-based therapy (Tarrier, Lewis & Haddock, 2004). Despite of this global trend, a scan on Indian scenario makes it clear that cognitive intervention in delusions and related symptoms, the research literature is scanty (Reshmi, 2001; Duggal, et al., 2002; Poornima et al., 2004). At the same time, cognitive therapy is a highly

cost-effective evidence-based intervention for the people with schizophrenia in developing countries. Hence, the present study not only dispels the myth of medical constructionism in mental health but also enhances human resource, reducing the disability adjusted life year by means of this intervention. The efficacy of the present study demands effectiveness of cognitive intervention to be supported with sufficient future attempts.

Summary and Conclusion

Summary

The aim of the present study was to find out the efficacy of cognitive therapy in persistent delusions in Paranoid Schizophrenia.

10 subjects ranging from the age of 21 to 52 years were included in the sample. They were with the diagnosis of paranoid schizophrenia and persisted to have delusions of different kinds despite at least one year of the conventional pharmacological treatment. Those with disorganized behavior and with co-morbid diagnosis of psychoactive substance use disorder were excluded in order to prevent the interference of extraneous variables.

A single case study design was adopted with pre and post intervention assessments carried out by an independent rater.

The tools used for the assessment included:

i. **Brown Assessment of Beliefs Scale:** which identified the level of different parameters of delusions, including conviction, fixity of Beliefs, Insight etc

ii. **Positive and Negative Syndrome Scale:** which rated the positive and negative symptoms as well as the general psychopathology in the patient.

iii. **A Percentage Rating For Conviction:** to rate the conviction of the delusional belief on the part of the subject.

iv. **Ordinal Scale of Preoccupation:** to assess the level of preoccupation with thoughts associated with the delusional belief in the patient.

v. **Reaction to Hypothetical Contradiction (RTHC) & Accommodation Scale:** to identify the degree of client's reactive and accommodation causing the delusional belief.

The therapeutic strategies were individually tailored to suit the symptoms, life goals and dysfunctions on the part of each patient. Therapy was implemented in 45 minutes session for numbers ranging from 14-22.

The major components of the therapy were:

i. Establishment of Therapeutic Alliance

ii. Psycho Education

iii. Testing of Reality

iv. Verbal Challenging

v. Normalizing Rationale

Results revealed that:

a. Most of the patients improved on parameters of delusion.

b. Dysfunctional beliefs were modified in most of them.

c. Positive symptoms, Negative symptoms and general psychopathology reduced in all the patients.

Conclusions:

The present study supports:

a. Efficacy of Cognitive intervention in reducing the severity of persistent delusion in Paranoid Schizophrenia.

b. Efficacy of Cognitive intervention in ameliorating distress associated with delusion.

c. Efficacy of Cognitive intervention in reducing the conviction as well as the preoccupation of the patient with delusion.

d. Efficacy of Cognitive intervention in reducing the severity of other symptoms associated with paranoid Schizophrenia.

Limitations of the Present Study

1. Small sample size, which limits the generalizabiliy of the results.
2. It is not a controlled study, and hence comparison is not possible.
3. Follow-up data could not be obtained because of time constraints.
4. The instruments used for measuring conviction and preoccupation were subjective in nature.

Suggestions for Further Research

1. A larger sample should be used for generalization of results.
2. A control group should be used for the purpose of comparison.
3. Follow-up data should be made available, to assess the long-term efficacy of the programme.
4. Future research should focus more on the process of therapeutic change and therapeutic ingredients in cognitive therapy.

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Appendices

Appendix-I

CONSENT FORM

I, ..., hereby voluntarily agree to participate in the study being carried out on Efficacy of Cognitive Therapy in Delusion. I have been informed that the purpose of the study is to develop a treatment package for delusions and there is no risk involved for me in the study. I also understand that the information I provide will be kept strictly confidential. I have the option to withdraw from the study at any point, if I choose to do so.

Date: Signature

SOCIODEMOGRAPHIC & CLINICAL DATA SHEET

Date:
ID No:
BMR No:

Identification Data –

Name:
Age:
Sex:
Education:
Occupation:
Marital Status:
Type of family: Nuclear / Joint / Extended
Rural / Urban:
Socio-economic Status:
Religion: Hindu / Muslim / Christian / Others (Specify)
Address & Phone number:

Clinical Information –

P/No:

Brief H/O Illness:

Nature and duration of delusion:

Medication History:

Current Medication:

Any other medical problems:

History of substance use / smoking:

Family History –

Family history of mental illness (describe relationship to the patient, and nature and duration of illness):

BROWN ASSESSMENT OF BELIEF SCALE (BABS)

Belief (describe principal belief(s) during the past week):

For each item, circle the number identifying the response that best characterizes the patient over the past week. The patient's specific belief can be incorporated into the question- For example "How convinced are you of this belief that touching doorknobs will make you ill?" Optional questions are indicated in parentheses; instructions to the interviewer are italicized.

1. Conviction

How convinced are you of these ideas/ beliefs? Are you certain your ideas / beliefs are accurate (What do you base your certainty on?)

0- Completely convinced beliefs are false (0% certainty)

1- Beliefs are probably not true, or substantial doubt exist

2- Beliefs may or may not be true, or unable to decide whether beliefs are true or not

3- Fairly convinced that beliefs are true but an element of doubt exist

4- Completely convinced about the reality of held beliefs (100% certainty)

2. Perception of other's views of Beliefs

What do you think other people (would) think of your beliefs? [PAUSE] How certain are you that <u>most</u> people think your beliefs make sense?

(Interviewer should clarify, if necessary, that the patient answers this question assuming that others are giving their <u>honest</u> opinion)

(Interviewer should make sure that the patient answers according to what MOST people think not as some people or selected people)

0- Completely certain that most people think these beliefs are unrealistic

1- Fairly certain that most people think these beliefs are unrealistic

2- Others may or may not think beliefs are unrealistic, or uncertain about other's view concerning these beliefs

3- Fairly certain that most people think these beliefs are realistic

4- Completely certain that most people think these beliefs are realistic

3. Explanation of differing views

You said that *(fill in response to item 1)*, but that *(fill in response to item 2)*. [PAUSE] How do you explain the difference between what you think and what others think about the accuracy of your beliefs? (Who is more likely to be right?)

(Interviewer should not ask this item if responses on item 1 and 2 are the same. In that case give the same score as items 1 & 2)

0- Completely certain that beliefs are unrealistic or absurd (e.g., my mind is playing tricks on me.")

1- Fairly certain that beliefs are unrealistic or absurd

2- Uncertain about why others don't agree- beliefs may or may not be true.

3- Fairly certain that beliefs are ; view of others is less accurate

4- Completely certain that beliefs are true; view of others is not accurate

4. Fixity of Ideas

If I were to question (or challenge) the accuracy of your beliefs, what would be your reaction be? [PAUSE] Could I convince you that you are wrong? [PAUSE] Would you consider the possibility?

(If necessary, supply a nonconfrontational example)

(Rate on the basis of whether the patient could be convinced, not whether s/he wishes s/he could be convinced)

0- Eager to consider the possibility that belief may be false; demonstrates no reluctance to entertain this possibility

1- Easily willing to consider the possibility that beliefs may be false; reluctance to do so is minimal.

2- Somewhat willing to consider the possibility that beliefs may be false; but moderate resistance is present

3- Clearly reluctant to consider the possibility that beliefs nay be false; reluctance is significant

4- Absolutely refuses to consider the possibility that beliefs may be false- i.e., beliefs are fixed

. Attempt to disapprove ideas

)ver the past week, how often have you tried o convince yourself that your beliefs are vrong?

Interviewer should rate attempts patient makes o talk himself f/ herself out of the belief, not ttempts to push the thoughts/ideas out of his/her iind or think about something else.)

0- Always involved in trying to disprove beliefs, or not necessary to disprove belief because beliefs are not true

1- Usually tries to disprove beliefs

2- Sometimes tries to disprove beliefs

3- Occasionally attempts to disprove beliefs

4- Makes no attempts to disprove beliefs

. Insight

Vhat do you think has caused you to have hese beliefs? {PAUSE} Do they have a sychiatric (or psychological) cause, or are hey actually true?

Interviewer should determine what the patient ctually believes, not what s/he has been told or opes is true. Psychological etiology should be onsidered equivalent to psychiatric illness)

Recognition that the thoughts are excessive – i.e. aking up too much time -or causing problems for he patient should <u>not</u> be considered equivalent to sychiatric/psychological etiology. Instead, rate atient's awareness that the source/cause of the eliefs is psychiatric/ psychological.)

0- Beliefs definitely have a psychiatric/ psychological cause.

1- Beliefs probably have a psychiatric/ psychological cause.

2- Beliefs possibly have a psychiatric/ psychological cause.

3- Beliefs probably do not have a psychiatric/ psychological cause.

4- Beliefs definitely do not have a psychiatric/ psychological cause.

ADDITIONAL ITEM:

. Ideas/delusions of reference

Does it ever seem that people are talking bout you or taking special notice of you ecause of *(fill in belief)*?

0- No, others definitely do not take special notice of me

1- Others probably do not take special notice of me

2- Others may or may not take special notice of me

3- Others probably do take special notice of me

4- others definitely do take special notice of me

OPTIONAL:

What about receiving special messages from your environment because of *(fill in belief)* (How certain are you of this?)

(This question pertains only to the beliefs being assessed by the BABS interviewer- not if patient thinks he /she is noticed for a reason unrelated to the beliefs being assessed. Interviewer should

NOT base answer on observable actions or compulsions; instead, rate core belief)

(Do not include in total score)

POSITIVE AND NEGATIVE SYNDROME SCALE (PANSS)

SCALE	SCORE
POSITIVE SCALE	
Delusions	
Conceptual disorganization	
Hallucinatory behaviour	
Excitement	
Grandiosity	
Suspiciousness	
Hostility	
Total Score	
NEGATIVE SCALE	
Blunted affect	
Emotional withdrawal	
Poor rapport	
Social withdrawal/apathy	
Difficulty with abstract thinking	
Lack of spontaneity	
Stereotyped thinking	
Total Score	
GENERAL PSYCHOPATHOLOGY CALE	
Somatic concern	
Anxiety	
Guilt feeling	
Tension	
Mannerism/posturing	
Depression	
Motor retardation	
Uncooperativeness	
Unusual thought content	
Disorientation	
Poor attention	
Lack of judgment and insight	
Disturbance of volition	
Poor impulse control	
Preoccupation	
(Active) social avoidance	
Total Score	

REACTION TO HYPOTHETICAL CONTRADICTION & ACCOMMODATION

Summary of Scales and Scoring for RTHC and Accommodation (adapted from Brett-Jones, Garely & Hemsley, 1987)

RTHC	Accommodation
Categorical (0 to 4)	Categorical (0 to 4)
Situation ignored, dismissed or persistently denied as being possible	No instance given or one given but no effect on belief
Situation accommodated by alternation in content	Content change or belief replaced by new belief
Belief changes in conviction but not content	Conviction changes but not content
Belief dropped in face of contradictory evidence.	Belief dropped and not replaced due to some objective event
	Change in preoccupation or interference but not content