The research problem and research questions are central in a research project. Therefore, it is very important to select a relevant research problem and a good set of research questions. There are many problem situations that may give rise to research. Three sources usually contribute to problem identification. Own experience or the experience of others may be a source of problem supply. A second source could be scientific literature. You may read about certain findings and notice that a certain field was not covered. This could lead to a research problem. Theories could be a third source. Shortcomings in theories could be researched. Research can thus be aimed at clarifying or substantiating an existing theory, at clarifying contradictory findings, at correcting a faulty methodology, at correcting the inadequate or unsuitable use of statistical techniques, at reconciling conflicting opinions, or at solving existing practical problems.

On the basis of the literature review in which several studies have been conducted about the efficacy of various interventions in the treatment of anxiety disorders and CBT was found to be gold standard treatment in the meta-analytic and systematic reviews of the treatment of anxiety disorders. But little is known about the mechanism through which patients treated with the CBT anxiety disorders have long and sustained relief in symptoms from follow up studies. Longmore and Worrell (2007) in his recent review highlighted the major issues regarding the current research and practice using CBT. Cognitive behavior therapy (CBT) emphasizes the primacy of cognition in mediating psychological disorder. It aims to alleviate distress by modifying cognitive content and process, realigning thinking with reality. Recently, various authors have questioned the need for CBT therapists to use logico-rational strategies to
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directly challenge maladaptive thoughts. Hayes has identified three empirical anomalies in the research literature. Firstly, treatment component analyzes have failed to show that cognitive interventions provide significant added value to the therapy. Secondly, CBT treatments have been associated with a rapid symptomatic improvement prior to the introduction of specific cognitive interventions. Thirdly, there is a paucity of data that changes in cognitive mediators instigate symptomatic change. This study critically reviews the empirical literature that addresses these significant challenges to CBT. A comprehensive review of component studies finds little evidence that specific cognitive interventions significantly increase the effectiveness of the therapy. Although evidence for the early rapid response phenomenon is lacking, there is little empirical support for the role of cognitive change as causal in the symptomatic improvements achieved in CBT. Garratt et al. (2007) studied the central theoretical principle guiding cognitive therapy is that mediation by cognitive processes is linked to the successful treatment of depression. The most recent review of the literature on this question is over a decade old and was suggestive of cognitive mediation for cognitive therapy, but was not conclusive. Since this review, a number of studies have been published that address cognitive mediation. The mediation hypothesis can be broadly defined as encompassing two related questions: cognitive mediation framed as “are cognitive changes associated with therapeutic improvement,” and cognitive specificity from the perspective of “are changes in cognition specific to cognitive therapy?” This latter question is particularly important when cognitive therapy is compared to pharmacotherapy. The review indicates that the current body of research generally supports cognitive mediation, but is considerably more mixed for cognitive specificity. However, some evidence suggests that cognitive changes associated with pharmacotherapy are more superficial than those associated with cognitive therapy. Specifically, no study for mediation study was found in generalized anxiety disorder. Therefore,
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Current research is taken up with the problem to investigate the cognitive mediation by assessing the cognitive factors in the form of negative automatic thoughts, dysfunctional attitudes, cognitions pertaining to anxiety and depression at pre to post intervention and to clarify that whether these factors are responsive to a specific intervention or not. From the current literature review and keeping the research problem in mind present study is proposed with the following aim, objectives and hypotheses.

Aim of this study was to study the mediating role of cognitive factors following cognitive behaviour therapy (alone) as compared with pharmacotherapy therapy (alone) and cognitive behaviour therapy along pharmacotherapy (combination therapy) of anxiety disorders.

The present investigation has been taken up with these objectives:

1) To assess the baseline anxiety (BAI), automatic thoughts frequency (ATQ-F) automatic thoughts beliefs (ATQ-B), cognitions related to anxiety (CCL-A) and cognitions related to depression (CCL-D) and dysfunctional attitudes (DAS) in patients suffering from anxiety disorders.

2) To study the changes in anxiety (BAI), automatic thoughts frequency (ATQ-F) automatic thoughts beliefs (ATQ-B), cognitions related to anxiety (CCL-A) and cognitions related to depression (CCL-D) and dysfunctional attitudes (DAS) from pre to post intervention in cognitive behaviour therapy, pharmacotherapy and cognitive behaviour therapy plus pharmacotherapy intervention groups.

3) To examine and compare the changes in three interventions groups at post treatment for analyzing the effectiveness of interventions for anxiety reduction.
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4) To examine the mediational role of automatic thoughts frequency (ATQ-F) automatic thoughts beliefs (ATQ-B), cognitions related to anxiety (CCL-A) and cognitions related to depression (CCL-D) and dysfunctional attitudes (DAS) on anxiety.

Research hypotheses are the specific testable predictions made about the independent and dependent variables in the study. Usually the literature review has given background material that justifies the particular hypotheses that are to be tested. Hypotheses are couched in terms of the particular independent and dependent variables that are going to be used in the study. The hypothesis is a clear statement of what is intended to be investigated. It should be specified before research is conducted and openly stated in reporting the results. A problem cannot be scientifically solved unless it is reduced to hypothesis form. It is a powerful tool of advancement of knowledge, consistent with existing knowledge and conducive to further enquiry. There are two types of hypotheses: null hypotheses designated by: \( H_0 \) or \( H_N \) and alternative hypotheses designated by: \( H_1 \) or \( H_A \). The null hypothesis represents a theory that has been put forward, either because it is believed to be true or because it is to be used as a basis for argument, but has not been proved. Has serious outcome if incorrect decision is made! The alternative hypothesis is a statement of what a hypothesis test is set up to establish, opposite of Null Hypothesis. Frequently “alternative” is actual desired conclusion of the researcher.

To accomplish the above objectives following hypotheses were formulated:

Hypotheses:

1. There would be significant reduction in anxiety (BAI), automatic thoughts frequency (ATQ-F) automatic thoughts beliefs (ATQ-B), cognitions related to anxiety (CCL-A) and cognitions related to depression (CCL-D) and dysfunctional attitudes (DAS) in cognitive behavior therapy intervention group.
2. There would not be significant reduction in anxiety (BAI), automatic thoughts frequency (ATQ-F) automatic thoughts beliefs (ATQ-B), cognitions related to anxiety (CCL-A) and cognitions related to depression (CCL-D) and dysfunctional attitudes (DAS) in pharmacotherapy intervention group.

3. There will be significant reduction in anxiety (BAI), automatic thoughts frequency (ATQ-F) automatic thoughts beliefs (ATQ-B), cognitions related to anxiety (CCL-A) and cognitions related to depression (CCL-D) and dysfunctional attitudes (DAS) in cognitive behavior therapy plus pharmacotherapy (in combination).

4. Cognitive behavior therapy would be more efficacious than pharmacotherapy in anxiety reduction.

5. Cognitive behavior therapy plus pharmacotherapy would be more efficacious than pharmacotherapy in anxiety reduction.

6. Cognitive behavior therapy plus pharmacotherapy would be more efficacious than cognitive behavior therapy in anxiety reduction.

7. Cognitive factors would significantly mediate the reduction in anxiety in CBT and CBT+PT intervention group in comparison to pharmacotherapy intervention group.

The design and methodology to accomplish the above objectives and to test the hypotheses has been elaborated in the chapter IV.

We may now pass onto the next chapter dealing with Design and Methodology.