1.1 methodology and Work plan

As asserted by the literature reviewed in the previous section and other scientific evidences, individuals in the age group of 17 to 30 are perceived to be among the most vulnerable of groups to alcohol use & misuse and other drug dependencies because of the scientific phenomenon of pre-frontal cortex developing after the mid-twenties which impairs the judgment and other decision making processes among the young individuals and other factors being lack of knowledge about the effects of alcohol and drug substances on their mental health and other domains of life such as social and personal along with various stress related studies, anxiety and depression issues, family, career, environment and money. The study thus aims to find out specific behavioral problems in relation to specific substances addiction and also develop a behavioral modification protocol for them. Thus, the study shall combine the research methodology of both primary and secondary databases, which shall also include substantive quantitative analysis for the sample age group of 17 to 30 years particularly those who are presently addicted or have a history of addiction. Further in depth interviews and survey shall also be conducted with key informant groups who indulge in the treatments of the patients with such addiction disorders to arrive at key findings on how such trends can be curbed and what all measures can be developed for an effective management of this social problem together with also deriving conclusions for an effective drug policy that the nation can implement among other individual and social measures that are required to deal with this phenomenon.

1.1.1 Sample Technique

There are two sampling techniques, i.e. probability sampling and non-probability sampling. In the present research the researcher will adopt probability, purposive sampling to collect the data based on purpose i.e. to determine the behavioral patterns of drug addiction patients in the age group of 17-30.
1.1.2 Sample Size

A sample will be extracted from the entire population of visitors of the De addiction center in the city of Bhopal will be studied out of which a further non-randomized sample of individuals in the age group of 17-30 years (600 sample size, that can be 300 pre + 300 post-test sample also will be selected who are at various levels of their de-addiction process. Further, it will also be examined that the sample contains people with addiction to different substances in order to study the causes and behavioral outcomes of the addictions from various substance uses.

1.1.3 Variables

The behavioral pattern of patients will be studied with respect to different variables i.e. gender, educational background, drug or alcohol to which the patient was addicted to, and time since they are being treated at the de-addiction center. Other variables will be identified during the course of study.

1.1.4 Tools for Data Collection

Open ended questionnaire will be developed to collect responses from attendants, supervisors, doctors at De-addiction centers in Bhopal to determine measures which are undertaken at these centers to treat patients also to determine specific behaviors among the patients. Close-ended questionnaire including the following instruments will be developed to gather data from drug-addiction patients from different de-addiction centers in Bhopal.

Following instruments shall further be developed for the analysis process:

1. Scale/Checklist to identify specific behavioral problems
2. Behavioral Modification Protocol

In order to ensure the validity of measuring instrument, a non-randomized or a quasi-experimental study design will be adopted given the infeasibility of conducting a randomized control trial to establish the causality between the intervention and the desired outcome. The
approach of quasi-experiment without the control groups will be incorporated. The study design shall further comprise of the one group pretest and post-test only design to arrive at a valid contribution of the intervention being proposed.

1.1.5 Statistical Techniques

Quantitative and Qualitative analysis of the causes and behavioral responses of people with such addictive tendencies will be studies through the technique of purposive sampling based on the specified criteria of person falling in the age group of 17 to 30 years and holds addiction to various substances will be conducted. The quantitative data will then be analyzed to confirm or reject the proposed hypothesis with the use of various statistical tests and other quantitative data analysis techniques using SPSS 21.0. Both descriptive and inferential analysis will be applied to analyze the data collected. Qualitative data collected from interviews among the staff of de-addiction centers will be analyzed using content analysis procedures wherein key themes were identified based on the behavioral patterns.

1.2 Possible Outcomes

With the basic aim to assess the extent and magnitude of problem of drug and other substance addiction in the city of Bhopal, various tools will be utilized to elicit the required information to examine and illustrate the current and past trends this process. In particular, the extensive primary research will be done with efficiently framed questionnaires to throw light on the following grounds of drug abuse problem in the city of Bhopal.

1. The trend of drug abuse among various age groups specifically among the survey sample in the age bracket of 17-30 years.
2. Socio-economic status and other demographic characteristics of the sample under study and their association with Drug substance usage.
3. Behavioral consequences specific to consumption of alcohol and other drugs to be studied.
4. The existence of rehabilitation and other measures to combat the problem of drug addiction in the city.
5. The mechanisms being followed at the private and governmental De-addiction centers to examine and evaluate their effectiveness in meeting their stated objectives.
6. Effective insights to develop behavioral modification protocol and examine its effectiveness at before and after application intervals.
7. Policy recommendations in framing effective guidelines on prevention and control of substance addiction.

1.3 Chapterization Plan

The report has been categorized into following chapters in order to cover various aspects of the study and presenting it in a well-framed manner:

**Chapter 1: Introduction**: This is the first chapter and briefly introduces the background of the study. Apart from the background on which the foundation of the analysis in the study lay, The chapter will also enlists various aims and objectives of the study, the problem statement and the hypothesis of the study based on which the results of the study will be tested and presented.

**Chapter 2: Review of Literature**: This chapter presents the crux of the studies already available in the literature and critically assesses the work of research scholars and eminent researchers and practitioners.

**Chapter 3: Research Methodology**: This chapter discusses the research methodology which has been adopted in the give a shape to the aims and objectives elaborated in chapter 1. The chapter will focus on conceptual framework for the study, research philosophy, research design strategy, data collection tools and procedures, ethical considerations of the study, and how credibility of research data will be maintained.
Chapter 4: Data analysis: This chapter shall present the quantitative analysis of the data collected for the research. The results will be estimated using the Statistical software package of SPSS and to make them presentable and easily understandable to the readers, the results will be presented in tabular and graphical formats.

Chapter 5: Findings, Conclusion and Recommendations: This chapter presents the conclusion from the study conducted which summarizes the entire research and presents the key recommendations.

References: At the end, the scholar also acknowledges the eminent researchers whose work has been instrumental in the conduct of this study.