A CROSS SECTIONAL STUDY TO ASSESS PSYCHOPATHOLOGY IN CHILDREN OF MALE PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND THEIR FAMILY FUNCTIONING

DISSERTATION SUBMITTED TO

THE TAMIL NADU DR. M. G. R MEDICAL UNIVERSITY

IN PARTIAL FULFILLMENT OF THE

DEGREE OF MD IN PSYCHIATRY

FINAL EXAMINATION, APRIL 2017

CERTIFICATE

I hereby declare that this dissertation titled “A cross sectional study to assess psychopathology in children of male patients with alcohol dependence syndrome and their family functioning.” is a bonafide work done by Dr. Ranjit Krishnadas at the Department of Psychiatry, Christian Medical College. This work has not been submitted to any University in part or full.

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CERTIFICATE

I hereby declare that this dissertation titled “A cross sectional study to assess psychopathology in children of male patients with alcohol dependence syndrome and their family functioning.” is a bonafide work done by Dr. Ranjit Krishnadas under my guidance at the Department of Psychiatry, Christian Medical College. This work has not been submitted to any University in part or full.

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DECLARATION

I hereby declare that this dissertation titled “A cross sectional study to assess psychopathology in children of male patients with alcohol dependence syndrome and their family functioning.” is a bonafide work done by me under the guidance of Dr. Priya Mammen, Professor of Psychiatry, Christian Medical College. This work has not been submitted to any University in part or full.

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A cross sectional study to assess psychopathology in children of male patients with alcohol dependence syndrome and their family functioning.
Dr. Ranjit Krishnadas (Employment Number:33078), PG Registrar – Psychiatry, Dr. Priya Mammen(Employment Number:28176), Child and Adolescent Psychiatry unit, Dr. Sherab Tsheringla (emp no 28855), Child and Adolescent Psychiatry Unit, Dr. Paul S.S. Russell (Emp 12208), Child and Adolescent Psychiatry Unit, Dr. Visalakshi (Emp no:31093), Biostatistics, Ms. Sushila Russell (Emp No. 12098), Child and Adolescent Psychiatry Unit, Dr. Satya Raj (Emp 20365) , Child and Adolescent Psychiatry Unit, Dr. Shonima Raj (Emp No. 31459), Child and Adolescent Psychiatry Unit, Dr. Minju K A (Emp No. 20476), Child and Adolescent Psychiatry Unit, Dr. Venkateswaran (Emp No. 33401), Child and Adolescent Psychiatry Unit, Ms. Merlin Thanka (emp no. 30929), Child and Adolescent Psychiatry Unit.

Ref: IRB Min No: 9767 [OBSERVE] dated 03.12.2015

Dear Dr. Ranjit Krishnadas,,

I enclose the following documents:-

1. Institutional Review Board approval 2. Agreement

Could you please sign the agreement and send it to Dr. Biju George, Addl. Vice Principal (Research), so that the grant money can be released.

With best wishes,

Dr. Biju George,
Secretary (Ethics Committee)
Institutional Review Board

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Cc: Dr Priya Mammen, Dept. of Psychiatry, CMC

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Ref: IRB Min No: 9767 [OBSERVE] dated 03.12.2015

Dear Dr. Ranjit Krishnadas,

The Institutional Review Board (Blue, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project titled "A cross sectional study to assess psychopathology in children of male patients with alcohol dependence syndrome and their family functioning" on December 03rd 2015.

The Committee reviewed the following documents:

1. IRB Application format
2. Patient Information Sheet, Informed Consent Form and Assent Form (English, Tamil, Hindi)
3. Addiction Severity Index
4. McMaster Family Assessment Device (FAD) (Subscales
5. Syndrome Scales

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6. Kuppuswamy's Socioeconomic Status Scale
7. Sociodemographic and Clinical Data Sheet
8. Ms. Merlin Thanka, Dr. Minju K A, Dr. Venkateswaran, Dr. Priya Mammen, Sherab Tsheringla, Paul S.S. Russell, Dr. Visalakshi, Ms. Sushila Russell, Shonima Raj, Satya Raj
9. No. of documents 1 – 8

The following Institutional Review Board (Blue, Research & Ethics Committee) members were present at the meeting held on December 03rd 2015 in the CREST/SACN Conference Room, Christian Medical College, Bagayam, Vellore 632002.

Name	Qualification	Designation	Affiliation
Dr. Nihal Thomas	MD, MNAMS, DNB(Endo), FRACP (Endo) FRCP(Edin) FRCP (Glasg)	Professor & Head, Endocrinology. Additional Vice Principal (Research), Deputy Chairperson(Research Chairperson), Member Secretary (Ethics Committee), IRB. CMC, Vellore	Internal, Clinician
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Mr. Samuel Abraham	MA, PGDBA, PGDPM, M. Phil, BL.	Sr. Legal Officer, CMC, Vellore	Internal, Legal Expert
Dr. Jayaprakash Muliyil	BSc, MBBS, MD, MPH, Dr PH (Epid), DMHC	Retired Professor, CMC, V	External, Scientist &Epidem
Mrs. Emily Daniel	MSc Nursing	Professor, Medical Surgica Nursing, CMC, Vellore	Internal, Nurse
Mrs. Sheela Durai	MSc Nursing	Professor, Medical Surgical Nursing, CMC, Vellore	Internal, Nurse
Mr. C. Sampath	BSc, BL	Advocate, Vellore	External, Legal Expert
Dr. Anuradha Rose	MBBS, MD, MHSC (Bioethics)	Associate Professor, Comn Health, CMC, Vellore	Internal, Clinician

We approve the project to be conducted as presented.

Kindly provide the total number of patients enrolled in your study and the total number of withdrawals for the study entitled: "A cross sectional study to assess psychopathology in children of male patients with alcohol dependence syndrome and their family functioning" on a monthly basis. Please send copies of this to the Research Office (research@cmcvellore.ac.in)

Fluid Grant Allocation:
A sum of Rs.2,500/- INR (Rupees Two Thousand five hundred Only) will be granted for 12 months

Yours sincerely

Dr. Biju George
Secretary (Ethics Committee)
Institutional Review Board

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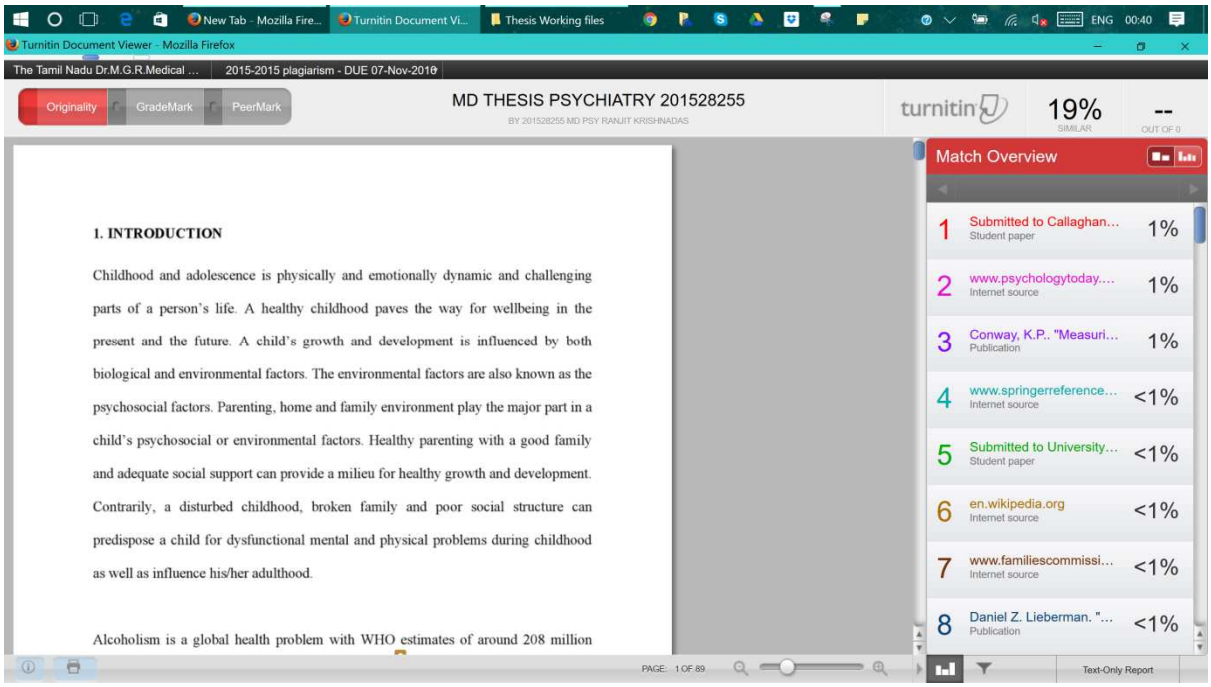
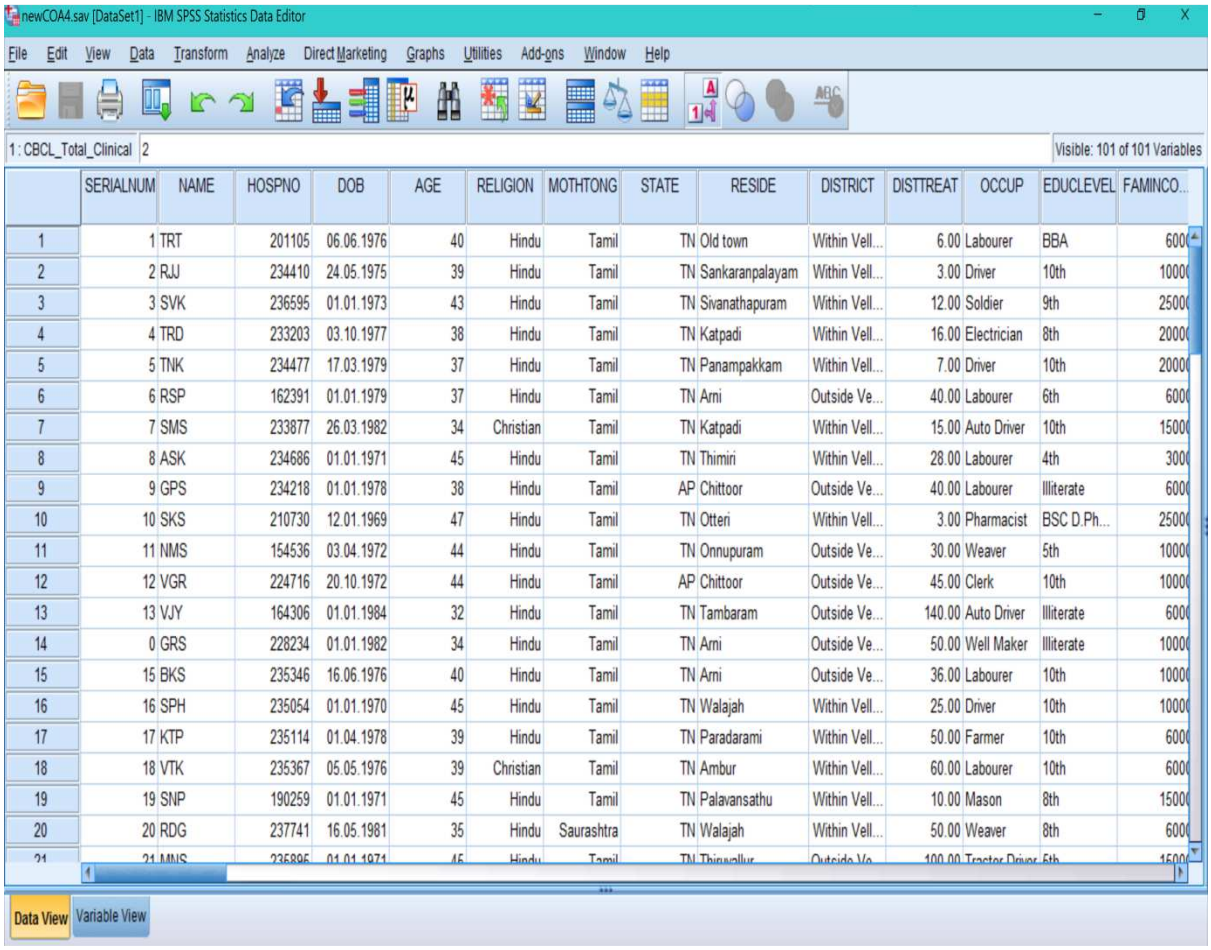
To all the patients and their families who wholeheartedly consented to participate in this study without whom this work would not have been possible.

PLAGIARISM CERTIFICATE



SPSS DATA SHEET



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File Edit View Data Transform Analyze Direct Marketing Graphs Utilities Add-ons Window Help

1 : CBCL_Total_Clinical 2

Visible: 101 of 101 Variables

	SERIALNUM	NAME	HOSPNO	DOB	AGE	RELIGION	MOTHTONG	STATE	RESIDE	DISTRICT	DISTTREAT	OCCUP	EDUCLEVEL	FAMINCO...
1	1	TRT	201105	06.06.1976	40	Hindu	Tamil	TN	Old town	Within Vell...	6.00	Labourer	BBA	600
2	2	RJJ	234410	24.05.1975	39	Hindu	Tamil	TN	Sankaranpalayam	Within Vell...	3.00	Driver	10th	1000
3	3	SVK	236595	01.01.1973	43	Hindu	Tamil	TN	Sivanathapuram	Within Vell...	12.00	Soldier	9th	2500
4	4	TRD	233203	03.10.1977	38	Hindu	Tamil	TN	Katpadi	Within Vell...	16.00	Electrician	8th	2000
5	5	TNK	234477	17.03.1979	37	Hindu	Tamil	TN	Panampakkam	Within Vell...	7.00	Driver	10th	2000
6	6	RSP	162391	01.01.1979	37	Hindu	Tamil	TN	Arni	Outside Ve...	40.00	Labourer	6th	600
7	7	SMS	233877	26.03.1982	34	Christian	Tamil	TN	Katpadi	Within Vell...	15.00	Auto Driver	10th	1500
8	8	ASK	234686	01.01.1971	45	Hindu	Tamil	TN	Thimiri	Within Vell...	28.00	Labourer	4th	300
9	9	GPS	234218	01.01.1978	38	Hindu	Tamil	AP	Chittoor	Outside Ve...	40.00	Labourer	Illiterate	600
10	10	SKS	210730	12.01.1969	47	Hindu	Tamil	TN	Otteri	Within Vell...	3.00	Pharmacist	BSC D.Ph...	2500
11	11	NMS	154536	03.04.1972	44	Hindu	Tamil	TN	Onnupuram	Outside Ve...	30.00	Weaver	5th	1000
12	12	VGR	224716	20.10.1972	44	Hindu	Tamil	AP	Chittoor	Outside Ve...	45.00	Clerk	10th	1000
13	13	VJY	164306	01.01.1984	32	Hindu	Tamil	TN	Tambaram	Outside Ve...	140.00	Auto Driver	Illiterate	600
14	0	GRS	228234	01.01.1982	34	Hindu	Tamil	TN	Arni	Outside Ve...	50.00	Well Maker	Illiterate	1000
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16	16	SPH	235054	01.01.1970	45	Hindu	Tamil	TN	Walajah	Within Vell...	25.00	Driver	10th	1000
17	17	KTP	235114	01.04.1978	39	Hindu	Tamil	TN	Paradarami	Within Vell...	50.00	Farmer	10th	600
18	18	VTK	235367	05.05.1976	39	Christian	Tamil	TN	Ambur	Within Vell...	60.00	Labourer	10th	600
19	19	SNP	190259	01.01.1971	45	Hindu	Tamil	TN	Palavansathu	Within Vell...	10.00	Mason	8th	1500
20	20	RDG	237741	16.05.1981	35	Hindu	Saurashtra	TN	Walajah	Within Vell...	50.00	Weaver	8th	600
21	21	MNS	236895	01.01.1971	45	Hindu	Tamil	TN	Thiruvallur	Outside Ve...	100.00	Tractor Driver	5th	1500

Data View Variable View

INDEX

1. INTRODUCTION

Childhood and adolescence is a physically and emotionally dynamic and challenging part of a person's life. A healthy childhood paves the way for wellbeing in the present and the future. A child's growth and development is influenced by both biological and environmental factors. The environmental factors are also known as the psychosocial factors. Parenting, home and family environment play the major part in a child's psychosocial or environmental factors. Healthy parenting with a good family and adequate social support can provide a milieu for healthy growth and development. Contrarily, a disturbed childhood, broken family and poor social structure can predispose a child for dysfunctional mental and physical problems during childhood, as well as influence his/her adulthood.

Alcoholism is a global health problem with WHO estimates of around 208 million people affected around the world. This constitutes 4.1% of the population above 15 years of age (1). Alcoholism not only affects the individual, but disrupts the functioning of his entire family and the environment around the person. Living with a non-recovering alcoholic can be a constant source of stress for the whole family. It can affect each individual differently. Children born and raised in a family with an alcoholic tend to have life experiences quite different from those born in a family without. Therefore, children of alcoholics may be unable to grow in developmentally healthy ways.

There is strong scientific evidence for alcoholism running in families and the genetic factors which influence the growth and development of children with alcoholic family members. Children of Alcoholics (COAs) have four times the chance of developing alcoholism compared to children of non-alcoholics. It has also been seen that almost a third of all alcoholics have had at least one parent who is or was an alcoholic. The capability of the non-alcoholic spouse to recover quickly from difficulties and overall functional ability can be an important factor influencing the effect of problems affecting children.

COAs (Children of Alcoholics) have more chances to be the targets of physical abuse and be witness to family violence. Compared to non-alcoholic families, alcoholic families seemingly have poorer problem-solving abilities, both among the parents and within the family as a whole. Lack of cohesion and increased conflict develop through mechanisms of these poor communication and problem-solving skills and escalate in alcoholic families. Children of alcoholics have been described to be prone to higher degrees of psychopathology in both externalizing and internalizing symptom domains. This may be a result of the low self-esteem seen across all such individuals. Impulsiveness, sensation seeking and aggression may result in disruptive behavioural problems. They also tend to be more self-conscious which can result in a spectrum of symptoms of anxiety and depression. This can manifest itself as bed wetting, loneliness, nightmares, reluctance to attend school, poor social interactions and relationships. Hoarding, perfectionism and phobias may be symptoms seen in teenagers who are COAs (2).

COAs have more chances of being raised in an environment lacking adequate stimulation and their parents may be lacking skills or cognitive abilities to provide a nurturing environment. This could lead to poor scholastic and social adaptive behaviours in such children. Children of alcoholics may benefit from efforts and adequate intervention from adults to avoid dysfunctional developmental patterns. They can be helped to be self-sufficient and independent. Developing better social skills and orientation can in turn assist them in facing emotionally hazardous experiences and develop better long-term coping strategies. COAs can be safeguarded from the deleterious effects of a family member with alcoholism if there are consistent significant others in the family, and an adequate family functioning can be maintained. Many times the family can cope up with these stresses and can function well. This minimises the adverse impact on the growth and development of the child from the family and social fronts. However, if the family resources are not able to keep up with the stress demanded by the presence of an alcoholic, the family environment becomes unhealthy and puts the child into further emotional and social stress.

This research aims to understand the effect of alcoholism on a child's behaviour, the various addiction-related and psychosocial factors involved and to look into the relationships between alcoholism, family functioning and dysfunctional child behaviour, in order to generate more effective strategies to counter the various domains of child health affected by alcoholism.

2. REVIEW OF LITERATURE

2.1 History of Alcoholism

Humans have consumed psychoactive substances from prehistoric times. However, addiction may not have begun until humans developed agriculture and farming (about thirteen thousand years ago). Before that time hunter-gatherer groups did not have access to psychoactive substances in necessary quantities to cause addiction or dependence. Once humans became able to produce alcohol and cultivate other addictive substances (peyote, marijuana, opium) in greater quantities it then became possible for addiction to ascend. Alcohol consumption has been a part of human life since very long and has probably been the most extensively available addictive substance. There is no clear proof as to when humans started manufacturing or consuming alcohol. Honey or berries may have been used to prepare the most primitive alcoholic drinks (ethyl alcohol or ethanol). Stone-age beer containers unearthed, dating as back as 8000 BCE establishes that humans have been preparing alcoholic beverages for at least 10 millennia. (3). There is further proof of fermented drinks existing in early Egyptian civilization. The Chinese had alcoholic drinks as early as 7000BCE. Indians consumed an alcoholic drink extracted from rice called Sura, in the 3rd century BCE(4).

Babylonians worshipped a wine goddess as early as 2700 BCE. A fermented beverage made from honey and water was one of the first alcoholic drinks in Greece to gain regard, called Mead. Literature from Greece during the period was full of warnings and advice against abuse of alcohol. Several Native American civilizations produced

alcoholic beverages before the arrival of Christopher Columbus in America in 1492. “Chicha” is an assortment of fermented beverages from the Andes region of South America, produced from corn, grapes or apples. Alcohol (called “spirits”) was used mainly for medicinal purposes in the sixteenth century. The British government passed a law encouraging the use of grain for distilling spirits in the beginning of the 18th century. This led to a surge in quantities of cheap alcohol in the market and resulted in gin drinking reaching up to 18 million gallons. This paved the way for widespread alcoholism.

The 29th century saw a gradual change in attitudes and approaches to alcohol. Temperance movement which typically criticized excessive indulgence in alcohol, gained popularity and slowly resulted in a drive for total prohibition.

Manufacture, sale, import and export of alcohol was made illegal in USA in 1920. This led to an exponential rise of illegal trade and the prohibition had to be cancelled in 1933(5). Currently, alcohol is not prohibited in most countries except for Muslim-Majority nations and some regions in India.

Therefore, in the history of human civilization, alcohol has played a key role in spirituality and religion; providing energy and nutrition; delivering analgesic, disinfectant and medicinal uses; relieving thirst; providing relaxation; promoting hospitality and societal organization; expanding the delight of eating; offering pharmacological hedonism; and in general enriching the pleasures and quality of life. It has often been unclear what function(s) in society alcoholic drinks should have, and this has been a subject of great deliberation. This is demonstrated by the launch and later withdrawal of the ban of alcohol in many countries in the past century. To date,

there persists a difference in opinion as to whether alcohol is an ‘attractive elixir’ or a ‘dangerous poison’(6). Although addiction cannot be considered a new problem, some people have advocated that it is a growing problem; a problem of contemporary society. Historically, addiction to chemical substances seems to rise and fall in phases. Some cultures seem to have lesser problems with addiction than do others. For example, the Greek, Jewish, Italian, Spanish, French, and Chinese have a lower possibility for alcoholism and other addictions than do the citizens of America. Some people would claim this is an indication of a genetic basis for addiction. However, there are other equally satisfactory explanations for the differences observed between cultures(7).

2.2 Diagnosis of Alcoholism

The definitions for diagnosis have changed over time. Misuse, problem use, abuse, and heavy use refer to inappropriate use of alcohol which may produce moral, physical or social consequences to the consumer. Binge drinking is defined by National Institute on Alcohol Abuse and Alcoholism (NIAAA) as the quantity of alcohol leading to a blood alcohol content (BAC) of 0.08, which would be reached by drinking five drinks for men or four for women over a period of 2 hours, for most adults. According to them, if their alcohol intake exceeds 14 standard drinks per week or 4 drinks per day, men may be at risk for alcohol-related problems, and women can be at risk if they have more than 3 drinks per day or 7 standard drinks per week. A standard drink is defined as one 5-ounce glass of wine, 1.5 ounces of distilled alcohol

or one 12-ounce bottle of beer. A report in the National Survey on Drug Use and Health in 2014 found that only 10% of either binge drinkers or heavy drinkers, according to the above criteria met the criteria for alcohol dependence, while only 1.3% of non-binge drinkers met this criterion, despite the risks. A conclusion drawn from this study is that evidence-based policies and clinical preventive amenities may effectively decrease binge drinking without needing addiction treatment in most cases.(8)The National Council on Alcoholism and Drug Dependence, Inc. (NCADD) and the American Society of Addiction Medicine(ASAM) in 1992 defined alcoholism as "a primary, chronic disease characterized by diminished control over drinking, obsession with the drug - alcohol, use of alcohol in spite of adverse consequences, and variations in thought."(9). In the past, disease concepts of alcoholism came from the works of Jellinek(10) and the clinical syndrome was described in detail by Edwards and Gross(11). ICD-10 published by the WHO defines Dependence Syndrome to any psychoactive substance as “an assembly of physiological, cognitive and behavioural phenomena in which the use of a substance or a class of substances takes on a greater priority for a given individual than other behaviours that once had higher value.” ICD-10 endorses that a definite diagnosis of dependence should typically be made only if three or more of the following have been existing together at some time during the last year:

(a) A strong craving or sense of compulsion to consume the substance;

(b) Difficulty in controlling substance-taking behavior in terms of its onset,

cessation, or levels of usage;

(c) A state of physiological withdrawal when substance consumption has stopped or been decreased, as shown by: the distinctive withdrawal syndrome for the substance; or use of the same or a closely related substance with the aim of getting rid of or evading withdrawal symptoms;

(d) Evidence of tolerance, such that greater doses of the psychoactive substances are essential in order to attain effects formerly produced by lower doses

(e) Progressive disregard of alternate pleasures or interests because of psychoactive substance use, greater amount of time necessary to obtain or consume the substance or to recuperate from its effects;

(f) Persisting with substance use regardless of clear evidence of obviously harmful consequences (12).

DSM-IV categories of substance abuse and substance dependence are combined into a single disorder called Substance use disorder in DSM-5 published in 2013, measured on a continuum from mild to severe. The eleven symptoms listed include:

1. Alcohol is often taken in higher amounts or over a lengthier period than was intended.
2. There is a persistent yearning or futile efforts to decrease or control alcohol use.
3. A great deal of time is spent in actions necessary to acquire alcohol, consume alcohol, or recuperate from its effects.
4. Craving, or a strong yearning or urge to use alcohol.
5. Repeated alcohol use resulting in a failure to fulfil major role commitments at work, school, or home.

6. Continued alcohol consumption despite having persistent or recurrent social or interpersonal problems caused or worsened by the effects of alcohol use.
7. Significant social, work-related, or recreational activities are given up or decreased because of alcohol use.
8. Repeated alcohol use in situations in which it is physically hazardous.
9. Alcohol use is sustained despite knowledge of having a persistent or continuing physical or psychological problem that is likely to have been caused or worsened by alcohol.
10. Tolerance, as defined by either of the following: a) A need for markedly higher amounts of alcohol to achieve inebriation or desired effect b) A markedly diminished effect with persistent use of the same amount of alcohol.
11. Withdrawal, as demonstrated by either of the following: a) The characteristic withdrawal pattern for alcohol b) Alcohol (or a closely related substance, like as a benzodiazepine) is taken to get rid of or avoid withdrawal symptoms.

The presence of at least 2 of these symptoms point to an alcohol use disorder (AUD). The severity of an AUD is graded *mild, moderate*, or *severe*:

- Mild: 2-3 symptoms present.
- Moderate: 4-5 symptoms present.
- Severe: 6 or more symptoms present.

Disorder state — Modifiers for diagnosis include:

- In early remission — After full criteria for alcohol use disorder were formerly met, none of the criteria for alcohol use disorder have been met (with the exception of craving) for at least 3 months but less than 12 months.
- In sustained remission — After full criteria for alcohol use disorder were formerly met, none of the criteria for alcohol use disorder have been met (with the exception of craving) during a period of 12 months or longer.
- In a controlled environment — The person is in a situation where access to alcohol is restricted.

The diagnostic criteria changes in DSM 5 from DSM-IV included removing of separate categories for diagnosis of alcohol abuse and dependence. The DSM-5 also removed legal problems, but added craving as one of the eleven symptoms of Alcohol Use Disorder(13).

2.3 Classification of Alcohol Use and methods to quantify severity.

Considerable evidence has been gathered on the reliability and validity of contemporary classifications of alcohol dependence and abuse/harmful use. The data comes from research conducted in clinical, general population, and participants and family samples in genetics studies, from US as well as samples from around the globe. The evidence is very uniform regarding the classification of alcohol dependence(14).

This diagnosis, as denoted in DSM–III–R, DSM–IV, and ICD–10, has unswervingly been shown to be reliable and valid (15). While formal diagnostic criteria usually identify separate categories of alcohol abuse and dependence, several studies have employed various statistical methods which consistently suggest as many as four homogeneous types of alcoholism: 1) a chronic/severe type, 2) an anxious/depressed type, 3) a mildly affected type and 4) an antisocial type (16). Shared central characteristics have been studied extensively in order to identify subtypes of alcoholics. This helps in matching each of them to the most specialized treatment strategy. Articles which have reviewed the comprehensive history of the literature on subtypes of alcohol dependence found that the earliest of attempts for this was made by Jellinek (17). The successively more complex classifications as well as the binary models are equated most closely with Cloninger and Babor (17). Planning and executing treatment for alcoholics, especially in making decisions on use of medications, can be helped with such classifications. However, there is contrasting evidence that such typological classifications could be oversimplifying the factors involved and affecting the treatment of alcoholism. To summarize, such classifications are best used in helping to create ascertainment criteria in research on psychological and pharmacological treatment interventions (17). Conway *et al* reviewed the various instruments available to quantify predisposition to and severity of addiction, based on the testable assumption that these paradigms can be plotted onto the same domain of liability to addiction. They commented that many assessment instruments which are used today have confirmed utility, reliability, and validity, but they are of limited use for evaluating individual differences in propensity and severity. Suggestions were put

forward that new technologies should be used in developing more effective assessment tools which can look into individual differences and attributes which may be hidden or missed (18). Sweetman *et al* identified and reviewed the currently available comprehensive assessment tools. They found that no single tool was adequate enough to evaluate all properties. They commented that it is better to refine small number of tools which can be applied broadly than create completely new packages. Another strategy they suggested, which could be effective, was using custom-built ones from time-tested and proven single construct scales than using 'off-the-shelf' ones (19). A summary of the various tools widely used in measuring severity of alcohol use are listed below:

Instrument	What it Measures	Operationalization of Severity	Item-Selection Methodology
Addiction Severity Instrument (ASI)	Severity of alcohol and drug use	Need for treatment across 6 domains	Clinical judgment
Alcohol Dependence Scale (ADS)	Severity of alcohol dependence	DSM symptomatology, loss of control, obsessive drinking style, two aspects of withdrawal	Clinical judgment, item/factor correlation
Chemical Use, Abuse, and Dependence Scale (CUAD)	Severity of alcohol and drug use	DSM symptomatology	Clinical judgment
Drug Use Screening Inventory (DUSI)	Severity of alcohol and drug use	Consequences of drug use	Clinical judgment

Instrument	What it Measures	Operationalization of Severity	Item-Selection Methodology
Global Appraisal of Individual Needs (GAIN)	Severity of alcohol and drug use	DSM symptomatology, substance use frequency, behavioral complexity	Clinical judgment
Severity of Alcohol Dependence Questionnaire (SADQ)	Severity of alcohol dependence	DSM symptomatology, three aspects of withdrawal, rapidity of reinstatement after abstinence	Clinical judgment, item/factor correlation
Severity of Dependence Scale (SDS)	Severity of drug dependence	DSM symptomatology, compulsivity of drug use	Clinical judgment, item/factor correlation
Substance Dependence Severity Scale (SDSS)	Severity of drug dependence	DSM symptomatology	Clinical judgment

Table 1: Summary of the various tools widely used in measuring severity of alcohol use

2.4 Epidemiology of Alcoholism in Worldwide Population

The World Health Organization estimates that there are 208 million people with alcoholism worldwide as of 2010. This constitutes 4.1% of the population over 15 years of age (20,21). The overall effect of alcohol is unfavourable when health parameters are taken into account. Alcohol is related to 3.8% of deaths worldwide and 4.6% of worldwide disability-adjusted life years. The total burden of disease is associated with the average amount of alcohol consumed. This association is worse for poor people and those who suffer from social exclusion. The alcohol related expenses add up to more than 1% of GNP in high and middle income countries. The cost of social problems created by alcohol adds on to the health cost in a major way.

(22). Alcohol consumption is one of world's leading risk factors for morbidity, disability and mortality. More than 200 conditions listed in ICD-10 have alcohol as a causal component. It causes 3.3 million deaths annually. This is even after adjusting for some beneficial effect of alcohol use in low amounts described in some diseases. The number of deaths related to alcohol is higher than those described for HIV/AIDS, violence or tuberculosis(20). In addition to Alcohol Use Disorders and foetal alcohol syndrome, which are completely attributed to alcohol, there is high degree of attribution to alcohol in hepatic diseases like hepatic cirrhosis. Alcohol related liver disease is one of the top 20 causes of death worldwide. (23,24). There are other illnesses in addition to the above which have less than 20% of the corresponding disease burden attributable to alcohol for most alcohol-attributable causes of mortality or burden of disease categories. It adds on to the worldwide disease burden in cancers, tuberculosis, CVA, epileptic illnesses and hypertension-related cardiac illness (20). The relative effect of alcohol consumption on disease burden from neuropsychiatric disorders is far more pronounced than its effect on mortality. About a quarter of all alcohol-attributable DALYs are due to neuropsychiatric disorders contrasted with 4% for all alcohol-attributable deaths. This is mainly due to AUDs, which cause more disability than mortality compared to other chronic diseases (23).

2.5 Epidemiology of Alcoholism in Indian population

India is a lower middle income country with a population of 1.2 billion. More than 70 percent of the population is aged 15 and above. 30 percent of the Indian population live in urban areas. According to WHO statistics from 2010, total per capita

consumption of pure alcohol was 4.3 litres in total in the period 2008-2010. Considering only males, per capita consumption was 8 litres compared to 0.5 litres in women. The total consumption between 2003 to 2005 was 3.6 litres. 93% of the alcohol consumed were spirits, 7% was beer and less than 1% was wine.

Taking into consideration only people who drink, per capita consumption was 32.1 litres for males, 10.6 litres for females and 28.7 litres for both combined. Prevalence of heavy episodic drinking (defined as consumption of pure alcohol, at least 60 grams or more not less than on one occasion in the past 30 days) was 1.7% in the total population and 11% among drinkers only (3.2% males in total population and 12.9% among drinkers; females <0.1 in population and 0.7 % among drinkers). The 1-year prevalence rate of alcohol use disorders and alcohol dependence in 2010 was 2.6% (4.5% males and 0.6% females). 2.1% fulfilled criteria for AUDs (3.8% males and 0.4 % females). These figures were higher than the total figures in South East Asia (2.2% AUDs and 1.7% Alcohol dependence) as reported by WHO (20).

Age Standardized Death Rates (ADSR) per 100,000 populations due to liver cirrhosis was 39.5 for males and 19.6 for females. Out of this, Alcohol-Attributable Fractions were 62.9% and 33.2% respectively. ADSR for road traffic accidents were 41.0 for males and 11.4 for females. Out of this AAF was 33.1% and 2.1% respectively. India scored 3/5 in the Patterns of drinking score in 2010 and 4/5 in Years of Life Lost (YLL) Score in 2012. India lacks a clearly written National Policy or National Action plan for alcohol. The nation enforces excise tax on beer, wine and spirits. National legal off-premise and on-premise sales of alcoholic beverages are decided at the State level. Most states have varying restrictions on the sale of alcohol. The maximum

Blood Alcohol Concentration (BAC) limit anyone can have while driving an automobile is 0.03%. There are legally binding guidelines on alcohol advertising and marketing, product placement, sponsorship of alcohol and sales promotion. Companies are also legally required to exhibit health warnings on alcohol advertisements or containers. However even though the National Government support of community action and National Monitoring systems are in place, alcohol consumption and prevalence of AUDs are steadily on the rise compared to developed countries (20).

Murthy *et al* in their review of substance use and addiction research in India, reported the prevalence rates of various types of alcohol use. Alcohol use/abuse ranged from 167 to 370/1000 population, addiction/alcoholism ranged between 2.36 to 24.5/1000 and alcohol along with other drug use/abuse was 21.4 to 28.8/1000 (25). Reddy *et al* conducted a meta-analysis in which they reported prevalence of overall substance use in India as 6.9/1000. The urban rates were 5.8/1000 and rural were 7.3/1000. The prevalence in males was 11.9% compared to 1.7% in females (26). Multiple regional studies showed comparable prevalence rates (27–29).

The National Household Survey of Drug Use in India was the first systematic effort to document the nation-wide prevalence of drug use. It found that alcohol (21.4%) was the primary substance used (apart from tobacco) followed by cannabis (3.0%) and opioids (0.7%). 17 to 26% of alcohol users qualified for ICD- 10 diagnosis of dependence, converting to an average prevalence of about 4%. Different states of India showed marked variation in alcohol use prevalence. Current use was lowest in

Gujarat at 7% and highest (75%) in Arunachal Pradesh. Tobacco use prevalence was high at 55.8% among males, with maximum use in the age group 41-50 years (30).

The National Family Health Survey(NFHS) provided insights on changing trends in substance use reflecting increasing alcohol use among males between NFHS2 and NFHS3. Increasing trends on Alcohol use by females was revealed in the GENACIS study where close to 6 % of females reported alcohol use in the past one year (31).

Studies have reported the implication of alcohol use with brain injury (20%) and all injuries in casualty setting (60%) (32). Of total psychiatric emergencies, substance related ones formed 1.6% (33).

Bhowmick *et al* reported that co-dependency in spouses of alcoholics had significant correlation with severity scores of substance use (34). Various studies from India have examined coping behaviour, personality and risk factors for deliberate self-harm in spouses of alcoholics and found significant associations and correlations (35–37).

Singh and Balhara compiled a review of Indian research on co-occurring psychiatric disorders and alcohol use disorders in 2016. A total of 35 relevant studies were included in the review. The majority of the studies were done among males with only one being entirely conducted among female subjects. Also females, even when included, formed only a small fraction of the overall sample except for the studies among relatives of individuals with substance use disorders, where females have represented a substantial proportion of study subjects. Likewise, all the studies comprised of adult subjects, and no study reported was performed among children, adolescents or elderly. Almost all the studies have been conducted among treatment

seeking populations. Only few have explored dual disorders in the general population (38).

In addition, these studies have investigated only a limited geographical region. A cross-sectional observational design has been used in the majority of the published studies with only a few studies which used a case-control design. Some studies have followed up study subjects prospectively. Case reports are only a handful and only one RCT, the findings of which are yet to be published. There are no comprehensive reviews, and the reviews which have been published have examined only selected issues related to dual disorders (39).

2.6 Studies on alcohol use disorders and comorbid psychiatric disorders from India

Studies on patients with co-occurring alcohol use disorders and psychiatric disorders have concentrated mainly on the prevalence of various psychiatric disorders among alcoholics. Alcohol use disorders have been shown to have remarkably high rate of psychiatric comorbidity. It is commonly reported that alcohol dependence is co-prevalent with mood disorders, anxiety spectrum disorders and sexual dysfunction. Most studies have reported on specific psychiatric disorders such as ADHD, psychosis, mood disorders, anxiety spectrum disorders and sexual dysfunction, others have explored the prevalence of more than one psychiatric disorder. Generally, it is seen that those who abuse alcohol lead more stressful lives and suffer from cognitive impairment. Studies done on diverse population groups have uniformly noted such impairment on assessment. Multiple comorbidities are diagnosed frequently. The

prevalence of mood disorders ranged from 26% to 71% across reviewed studies. Depressive disorders were reported as a commonly associated comorbidity. The presentation of anxiety spectrum disorders ranged between 10% and 45.8% and contained agoraphobia and panic disorders. Psychosexual disorders are prevalent in patients with alcohol dependence and individuals frequently reported multiple complaints of sexual dysfunction. It has also been observed that symptoms of depression, anxiety and stress have existed before the onset of alcohol use. Vulnerability to developing alcohol use disorders in individuals with ADHD and ADD have been demonstrated through retrospective analysis. A variable course has been reported regarding alcoholic hallucinosis along with a large constellation of symptoms, which are different from those of schizophrenia. Studies have also plotted the course of schizophrenia and substance use among patients with dual disorders and have discovered a significant association between the two (39).

Vohra *et al* evaluated alcoholics in a tertiary care centre and found a prevalence of 76% of comorbidity. Of the cases, 52.1% had major depression, 58.3% had cluster B personality disorder and 21.7% had alcohol induced psychosis (40). Singh *et al* conducted a case control study of 100 alcoholics and reported 92% prevalence of comorbidity. Depression was present in 26% followed by ASPD in 21% and phobia in 16% (41). In 2010, Kumar *et al* reported a prevalence of 64.8% which included other psychoactive substance abuse (54.2%); mood disorder (50.0%); anxiety disorder (45.8%); and psychotic disorder (25.0%).

2.7 Epidemiology of Child Psychopathology

2.7.1 International Studies

Up to 2 out of 10 children are affected by mental health problems worldwide. Between 15 to 30% of Disability Adjusted Life Years are lost in the first 30 years of life, contributed by neuropsychiatric disorders (42). A systematic review of worldwide, community-based research done by Merikangas *et al* revealed a prevalence of approximately 25% in the last year prevalence and 33 % lifetime prevalence of mental disorders in children and adolescents(43). Another comprehensive review revealed that the number of observations in population-based studies in children increased 4-fold in studies between 1993-2002 when they compared those published between 1980-1993. They also suggested that 25-33% of young people are projected to have psychiatric disorders in their life time, according to DSM (44,45). Rates of approximately 10% have been reported to meet the Substance Abuse and Mental Health Services Administration (SAMHSA) criteria for a Serious Emotional Disturbance (SRD)(45,46).

Depressive Disorders: Though studies before 2004 have shown a wide prevalence rate of major depression (0.2% to 17%, median = 4%) newer studies show it to be somewhere between 0.6 to 3.0% (43). Some follow-up studies of children in the community have shown rates as high as 23.2 to 43.3%. The prevalence of sub-threshold disorders like minor depression and depression, not otherwise specified was found to be higher than major depression. However, rates of dysthymia reported were comparatively lower than major depression. While most studies have described no differences between boys and girls of preadolescent age in prevalence of depression,

some have shown higher rates in preadolescent boys. In contrast, depression is higher in adolescent girls than boys. This difference continues till middle adulthood. The average age of onset of MDD and depressive disorder, reported in longitudinal studies is between 11 to 14 years. Increased prevalence of MDD after 11 years of age is substantiated by evidence from prospective research. Data from the Oregon Adolescent Depression Project reported incidence of depression to increase from 1 to 2% at age 13 to 3 to 7% at age 15. This increase is reflected throughout early adult life. No differences between either sexes were seen in average age of onset in the National Comorbidity Survey (43,47). Significant differences and associations between social class and ethnicity have been reported in various studies (48).

Bipolar Disorder: The lifetime prevalence in children from community samples have been reported as ranging from 0 to 2.1% for BPAD and 0.2 to 0.4% for hypomania (43). These rates are similar in males and females. The current/1-year prevalence in children between 14-18 years in the community was reported to between 0 to 0.9% (44,49). Lewinsohn *et al* reported that incidence of BPAD is highest at 14 years of age for both boys and girls. This rate gradually decreases later in age (50). Soutullo *et al* reported incidence rates ranging from 1.7 to 2.2 per 100,000 per year (51). Strong associations of BPAD with other childhood disorders (ADHD, ODD, Conduct, disruptive and anxiety disorder) have been observed in prominent studies (43,50).

Anxiety Disorders: Costello *et al* reviewed all anxiety disorders in children and found a wide prevalence range (2 to 24% median = 8%)(52). Generalized Anxiety Disorder and Social Anxiety Disorder are the most prevalent disorders in children compared to panic disorder and obsessive compulsive disorder, which are seen rarely below 12

years of age. Girls are found to have more anxiety disorder across all age ranges. This is similar to what is seen in adults. No substantial differences in age of onset is seen between boys and girls (43). However, rates of anxiety disorders increase sharply in girls starting at 5 years and continues going up through adolescence. Boys show a rather gradual increase which levels off later in adolescence. Therefore, higher degrees of anxiety are seen in girls by age 6. No significant differences attributed to social class or ethnicity is reported in anxiety disorders (53).

Behavior Disorders

ADHD: Costello *et al* reported a point prevalence ranging from 1.7 to 17.8% in ADHD (median = 4%)(45). ADHD is undoubtedly more common in boys than girls. This has been observed by multiple studies (44,54–56). Froehlich *et al* found that poorer children are twice as likely to have ADHD than wealthier ones (54).

Conduct and oppositional disorder : Costello *et al* reported the 12 month prevalence of disruptive behaviour disorders to range between 5-14% (median = 6%) (44). Conduct disorder is clearly more prevalent in boys compared to girls, with as much as 3 to 4 times higher rates reported in many studies. In contrast, such a difference is unclear in the case of oppositional defiant disorder with some studies showing higher rates in boys and some others showing similar prevalence (57). Younger onset of disruptive disorders show poorer prognosis with younger age of onset associated with more aggressive behaviours (58). Community-based studies show high occurrence of ADHD along with conduct disorder. Boys with ADHD are likely to have early age of onset of conduct disorder as well. Similarly, mood and anxiety disorders also seem to have a strong association with disruptive behavior disorders (57).

Substance Use Disorders: Costello *et al* reports that the prevalence of alcohol/drug use in community-based research of adolescents ranges between 1 to 24% (median = 5%) (44). Studies show variable gender differences of substance use. While Angold *et al* reported equal rates in males and females (59), Roberts *et al* observed higher rates in males (60). Merikangas *et al* reported SUDs (Substance Use Disorders) to be more common in white youths and distributed equally by social class of parents (61).

2.7.2 Indian Studies

India has a large population of children. According to the census in 2011, about 160 million children are between 0 to 6 years of age. This constitutes close to 15 % of the population. Children between 0 to 14 years form 30% of the total population. About 25% of India's population are adolescents. 35-50% of the total global population is constituted by children and adolescents from Low and Middle Income Countries (LAMIC). Up to 50% of all psychiatric disorders in lifetime is found to start before the age of 14(62,63).

Malhotra and Patra in their meta-analysis found the average prevalence rate of child and adolescent psychiatric illness in India to be 6.46% in the community and 23.33% in the school population(62). Hackett et all in their study in 1999, found a projected prevalence of 9.4 %. They found disorders to be associated with male sex, muslim religion, lower socioeconomic status, poor education of parents, poor academic performance and reading and vocabulary deficits. They did not find associations with malnutrition or perinatal problems (64). Malhotra *et al* studied 963 students of school going age (4-11years) and found 6.33% prevalence of psychiatric illness. Teachers

and parents' assessment rated the prevalence higher at 10.17 and 7.48% respectively. Enuresis was the most common disorder found (65).

Srinath *et al* studied 2064 children in Bangalore aged 0-16 years who were selected by stratified random sampling from urban middle-class, urban slum and rural areas. Total prevalence of psychiatric disorders found was 12.5% (13.8% on 0-3 years and 12.0% in 4-16years). Differences between children from various living areas were insignificant. The described the frequencies of common disorders found in the age group. Only 37.5% of families recognized problems in their children. Physical abuse and psychiatric disorder in parents showed positive associations with disorders in children (66).

Malhotra *et al* reported the annual incidence of psychiatric problems as 18per 1000 per year. Children with and without disorders on follow-up did not differ significantly in their sociodemographic or psychological characteristics at the time of enrolling for the study (67). Multiple epidemiological studies looked at psychiatric morbidity of children in various populations and settings and found that conduct disorder, enuresis and ADHD were the most commonly diagnosed (68–71)

Depression: Srinath *et al* reported that depressive episodes occurred in 0.1% of children in the 4 to 16 year age group (66). A cross sectional study of 1120 adolescent students showed that adolescents who had academic stress were at 2.4 times higher chance of depression than adolescents without similar stress (72). MK Nair reports the prevalence of depression among adolescents among primary-care child health services setting in India as 11.2%(73).

Anxiety: Nair *et al* reported the prevalence for all anxiety disorders in children of a rural community population in India. They used multiple criteria for prevalence including international and DSM. The prevalence rate using different measures ranged between 8.6% to 25.8%. Prevalence was uniformly higher in girls. All anxiety disorders, separation anxiety disorder and social anxiety disorder showed significant gender differences. Panic disorder and generalized anxiety were significantly higher in older children (74).

ADHD: Gada reported a study of 321 primary school children between 5-10 years of age. The prevalence of ADHD was found to be 8.1 %. The ratio of boys to girls was 7.6:1. ADHD was significantly associated with age group 8 to 10 years in boys and in the total sample. The ADHD had significantly more first-born children (75).

Conduct Disorder: The prevalence of conduct disorder varies among the Indian studies, with Deivasigamani *et al* finding prevalence rates of 11.13%,(68) and Sarkar *et al*. 7.1% (73). Malhothra *et al* had reported a prevalence of 4.94% in a retrospective clinical study (74). Srinath *et al* had found a low prevalence of 0.2% in an epidemiological study (64). In a school going population, Sarkhel *et al* had reported a prevalence rate of 4.58% (75). Jayaprakash *et al* reported 7.5 times higher prevalence of CD in boys (88%) compared to girls. Comorbid hyperkinetic disorder was found in 45% of children. 70% of them had childhood onset of the illness and of them 66.7% had presence of comorbidity. The childhood onset group also had higher severity of symptoms, family history of psychopathology and impairment of functioning (76).

Substance use: Systematic review of 15 studies across India aged 13-15 yrs. showed a median prevalence of tobacco use (ever users) to be 18.2 per cent; 14 per cent among males and 6.3 per cent among females (77). Data from the National Household Survey (NHS) by United Nations Office on Drugs and Crime (UNODC) in 2002 encompassing urban and rural areas of 24 States of India, revealed a prevalence of 21.4 per cent of alcohol use among men aged 12 to 18 yrs. (78).

2.8 Risk Factors affecting Childhood Psychopathology

Merikangas in their comprehensive review of epidemiology of childhood psychiatric illness enumerated an array of risk factors which can be broadly classified as child characteristics, family and parent characteristics and neighbourhood and broader contextual influences. Child characteristics include various sociodemographic factors, ethnicity, neurocognitive capacity, medical comorbidity, pregnancy and birth-related exposure to illness, nutritional status, exposure to toxins, and adverse life events. Family and parent characteristics described include various demographic characteristics, like age, education, socioeconomic status, parental psychiatric and medical morbidity of parent, type of family and family functioning. Parental psychiatric morbidity constitutes one of the most important risk factors and significant predictors of child psychopathology. Some studies have also shown aggregation of broad categories of psychiatric disorders in families(43).

2.9 Psychopathology in children of people with mental illness

A number of studies in the psychiatrically ill have shown that, children of patients with mental illness are at higher risk of developing major mental illness or exhibiting behavioral problems during childhood (79). Mattejat and Remschmidt discussed how the higher risk of mental illness in children of mentally ill parents is attributable to both genetic factors and the dysfunctional interaction between parent and child due to the parental disorder. These families have higher risk of child abuse and face more adverse factors. Genetic and psychosocial factors interact in a bidirectional manner. Genetic factors have a role in regulating the effect of adverse environments factors (80). Growing up with a mentally ill parent creates a major quantitative and qualitative risk for children that is connected with multiple mental and developmental risks in children. Examples of such outcomes include a higher infant mortality risk, insecure infant attachment, developmental delays and disorders, internalizing and externalizing disorders , negative long-term outcome and the development of severe psychiatric disorders (81). Connell and Goodman examined the relative strength of the association between psychopathology in mothers versus fathers and the existence of internalizing and externalizing disorders in children. Associations were stronger between maternal than paternal psychopathology and the presence of internalizing (but not externalizing) problems in children. Relations were regulated by variables that highlight theoretically relevant differences between psychopathology in mothers versus fathers (e.g., age of children studied, type of parental psychopathology) and by variables linked to methodological dissimilarities across studies (e.g., method of

assessing psychopathology in parents and children, type of sample recruited and familial composition) (82).

2.10 Psychopathology in Children of Alcoholics

2.10.1 International Studies

Children who live with non-recovering alcoholics experience greater amounts of discord within the family. The prevalence of alcoholism among adults over 18 years of age is approximately 7%. Still, most COAs do not develop alcoholism or other substance abuse problems, and most of them do not develop any kind of behavioral problems or psychiatric illness at all. This discovery has led to an intense interest in identifying risk factors or pathways that lead to either psychopathology or health, so that valuable prevention and treatment strategies can be developed (83). COAs score poorly on measures of intellectual-cultural orientation, independence, family cohesion and, active-recreational orientation. Many children of alcoholics (COAs) encounter other family members as distant and non-communicative. Children of alcoholics may be disadvantaged by their inability to grow in developmentally healthy ways(84–87).

In as early as 1983, Anderson and Quast identified risk for the development of mental health and chemical dependency in children of alcoholic families and described innovative intervention/prevention strategies employing cognitive behavior modification principles to understand and overcome upsetting feelings (88). West and Prinz reviewed studies on children of alcoholic parents published between 1975 and 1985, to explain the association between parental alcohol dependence and child psychopathology. They identified methodological problems in this body of literature and categorized their substantive results around eight areas of outcome: (a) substance

abuse, truancy and delinquency; (b) hyperactivity and conduct disorder; (c) cognitive functioning; (d) somatic problems; (e) dysfunctional family interactions (f) depressive and anxiety symptoms; (g) physical abuse; and (h) social inadequacy. The literature as a whole maintained the argument that parental alcoholism is linked with an amplified incidence of child symptoms of psychopathology, in contrast with no increased incidence in offspring of non-disturbed parents (89).

Sher *et al* in 1991, concluded that COAs reported more alcohol and drug problems, higher alcohol expectancies, greater levels of behavioral under-control and neuroticism, and more psychiatric distress in relation to non-COAs. Compared to non-COAs they also showed lower scholastic accomplishment and poorer verbal ability. COAs were given Diagnostic Interview Schedule alcohol diagnoses in more frequency than non-COAs. Behavioral under-control and alcohol expectancies mediated the relationship between paternal alcoholism and offspring alcohol involvement. There were few gender vs. family history interactions, even though gender differences were found. The effects of family history of alcoholism were similar for men and women. Greater family history effects for women was shown when gender effects were found. (90).

Steinhausen, Johnson and Leff reviewed the extensive available literature on children of alcoholics and concluded regarding the various risk factors the children of alcoholics face and the implications and vulnerability to various behavioural problems of their own. COAs are at risk for a variety of problems that may comprise of behavioral, psychological, neurocognitive deficits (91,92).

Leiberman updated the review of literature on children of alcoholics. One of four children in the United States lives in a family where the child is exposed to alcoholism. He reported that children of alcoholics (COAs) are at risk of developing alcoholism, 2 to 10 times more than non-COAs (83). Studies that have attempted to identify risk factors that facilitate the raised vulnerability and the protective factors that control the risk have been reviewed in this paper. Factors involved include antisocial personality disorder in parent, externalizing behavior, internalizing symptoms, positive and negative alcohol-related expectancies and differential response to the influences of alcohol.

Christensen and Bilenberg in their study in Danish children of alcoholics found that in the subjects scored higher on symptoms on 17 out of the 118 items on CBCL. Girl children had higher scores than boys in most items. Girls showed higher scores for internalizing disorders and depression when the mother was the alcoholic. When the father was the alcoholic, it was the boys who showed higher scores on the same domains. These children demonstrated higher risk of having clinically significant scores on depression, internalizing and social deviance. Half of the children performed comparably well as the average reference population. Overall the study suggests how even though the children of alcoholics are clearly a high risk group, they might have diverse consequences due to the effects of alcoholism in parents (93).

However, Schuckit *et al* found no significant relationship between a family history of alcoholism and childhood diagnoses of oppositional, conduct or attention deficit disorders or with behavioral checklist summary scores. However, they found that

children with alcoholic relatives apparently have a slightly larger propensity for drug abuse or dependence than those without relatives who consume alcohol (94). Dube *et al* reported that the adjusted odds ratio for each category of Adverse Childhood Experiences (ACE) was approximately 2 to 13 times higher if either the father, mother, or both parents abused alcohol compared to persons who grew up with no parental alcohol abuse. Those who grew up with both parents as alcoholics had the highest chance of ACEs. The mean number of Adverse Childhood Experiences for persons with no parental alcohol abuse was 1.4. Those with alcohol abuse in father only had 2.6. Children with alcohol abuse in mother had 3.2. When they had both parents as alcoholics the number was 3.8 (95)

Ohannessian *et al* measured psychological symptomatology and clinical diagnosis in adolescents with alcoholic parents with and without comorbid drug use/psychopathology. They found that when parental psychopathology was absent, the adolescents with parents with only alcohol use did not show higher psychopathology than children with parents with no psychopathology. However, those who had parents with alcoholism along with drug use or depression showed higher psychopathology. When all 3 were present the risk of psychopathology was highest (96).

Casas-gil *et al* found that COAs were at higher risk of lower intelligence, failing a grade, poor academic performance, skipping school days, and dropping out of school (97). McGrath demonstrated that COAs received lower school grades than did their non-COA peers. COAs with two alcoholic parents and COAs with at least one parent diagnosed alcohol dependence showed particularly low grades. Parental alcohol

dependence was also associated with lower math achievement scores. Evidence indicated that adolescents' task orientation mediated the relation between parental alcohol dependence and adolescent grades, and between parental alcohol dependence and adolescent math achievement (98)

2.10.2 Indian Studies

Narang *et al* in 1997 looked at temperamental characteristics and psychopathology of children of alcoholics and found statistically significant differences between children of alcoholics and non-alcoholics. There was significantly higher conduct disorder, physical illness with emotional problems, anxiety, somatization in COAs. On the temperament measurement schedule, rhythmicity, mood and persistence had significant negative correlations with psychopathology whereas distractibility and activity had positive correlations (98). Rao *et al* found that children of alcoholics had higher rates of malnutrition and chances of physical abuse compared to normal children (99). Cognitive deficits in COAs were assessed by Silva *et al* and they found higher scores in higher risk children in areas of hyperactivity, impulsivity, inattention, conduct, oppositional defiant disorder (ODD), attention-deficit hyperactivity disorder (ADHD) and total externalizing symptoms score. They found significantly lower P300 amplitudes in frontal leads of high risk individuals, which led to speculation of higher externalizing or disinhibitory/disruptive behaviours (100). Muralidharan *et al* described dysfunctional electrophysiological functioning in the cerebral cortex of high-risk patients and found that they had considerably greater mean externalizing symptoms scores (ESS) than lower risk subjects, and there was a significant negative correlation between iSP (ipsilateral silent periods following single-pulse TMS)

duration and ESS. These preliminary findings suggested that high risk subjects have relative impairments in cortico-cortical and transcallosal inhibitory mechanisms. The resulting condition of CNS hyper excitability may be etiologically related to the excess of externalizing behaviors noted in this population, which might be a predisposition to a higher risk of developing early-onset alcoholism (101). Mahato *et al* compared the parent and child relationship in COAs and non-alcoholic parents. Substantial difference was found in parent-child relationship, in the domains of symbolic punishment, rejecting, objective punishment, demanding, indifference, symbolic incentive, love, and neglect for father. In the child's relationship with mother, significant difference was found in the domains of symbolic sentence, rejecting, object punishment, indifference and neglect (102). Stanley and Vanitha compared adolescent COAs and non-COAs for self-esteem and adjustment. COAs had poorer self-esteem. and poorer adjustment in all domains than non-COAs. This differences in the authors' opinion was probably due to higher stress and dysfunctional domestic environment in families of COAs. They recommended better psychosocial intervention in population of COAs (103).

Raman *et al* looked in to psychopathology, neurodevelopment and family environment of children of alcoholic parents and found that they had higher externalizing than internalizing scores. COAs had worse scores on neurocognitive assessments. The family environment of COAs were also described to be higher in dysfunctional features in multiple domains (104). In a case-control study on school dropouts in children of alcoholics, the number of school dropouts was significantly higher (45.31%) in the children of alcohol-dependent men in contrast to 22.47% in the

teetotallers/social drinkers' children. In the study group, there was an elevated number of school dropouts among boys (52.73%) as compared to girls (35.37%). Parental illiteracy and school dropout children showed significant statistical association in both the groups (105).

2.11 Conclusion

Alcohol use and disorders are a leading public health problem. Alcohol misuse in poor and deprived communities is particularly deleterious as the scant financial incomes of the family needed for food, health care, and education are diverted to alcohol. Alcoholism is a disease – one that involves and influences every member of the family in a devastating way. As the entire family revolves around the alcoholics' actions and deeds, the COAs are often second best, and the children's problems are often invisible. One in four children is exposed to family alcohol abuse or dependence. A widespread volume of research has been shown on the psychosocial correlates, cognitive, behavioral, and emotional aspects, psychological functioning, nutritional neglect and physical abuse, social competence, dysfunctional family environment, and alcohol abuse in children of alcoholics, although fairly few studies have talked about the severity of alcohol use and its relationship with childhood psychopathology while looking into family functioning in families with alcoholism. Alcoholism and its effect on patients, families and society continue to remain a challenging area which requires further exploration as well as intervention.

3. AIMS AND OBJECTIVES

3.1 Aim: To assess the psychopathology and family functioning among children of male patients with alcohol dependence

3.2 Objectives:

1. To estimate the prevalence of psychopathology in children of male patients with alcohol dependence
2. To assess the family functioning in families of alcohol dependent patients
3. To assess the sociodemographic and substance abuse related factors associated with child psychopathology in families of patients with alcohol dependence
4. To compare the family functioning in children with and without psychopathology in families of alcohol dependent patients.

3.3 Hypothesis:

1. Child psychopathology is associated with specific socio-demographic and substance abuse related factors in families of patients with alcohol dependence.
2. There is poorer family functioning in children with psychopathology in families of alcohol dependent patients

3.4 Null Hypothesis

1. There is no significant association between child psychopathology and specific socio-socio-demographic and substance abuse related factors in families of patients with alcohol dependence.
2. There is no significant difference in the family functioning in children with and without psychopathology in families of alcohol dependent patients.

4. MATERIALS AND METHODS

The study was done in the Department of Psychiatry of Christian Medical College, Vellore. Approval for the study was obtained from the Institutional Review Board Research and Ethics Committee of Christian Medical College, Vellore, Tamil Nadu.

4.1 Setting

The participants of the study were enrolled from the department of Psychiatry of CMC, Vellore. The department offers treatment for various psychiatric disorders including alcohol dependence syndrome. The age group of patients attending the clinic is above 18 years. The patients mainly hail from Vellore and adjoining areas, various parts of Tamil Nadu, nearby states of Kerala, Andhra Pradesh and Karnataka. as well as from distant North Indian states like West Bengal, Jharkhand, Assam and Chhattisgarh. Some patients come from foreign countries like Bhutan, Nepal, Bangladesh and the countries from the Middle East. The diagnosis and treatment is offered by the consultant Psychiatrists and the trainee doctors, with the help of Psychologists, Occupational therapists and Nurses.

4.2 Study Design

A cross sectional observational study design was followed for this study.

4.3 Participants

4.3.1 Inclusion Criteria

4.3.1.1 Parent:

Father: Diagnosed with Alcohol Dependence Syndrome according to ICD-10 clinical criteria:

Three or more of the following have been existing together at some time through the preceding year:

(a) A strong craving or sense of compulsion to consume the substance;

(b) Difficulty in controlling substance-taking behavior in terms of its onset, cessation, or levels of use

(c) A physiological withdrawal state when substance consumption has stopped or been decreased, as shown by: the characteristic withdrawal syndrome for the substance; or consumption of the same or a closely related substance with the aim of getting rid of or evading withdrawal symptoms

(d) Evidence of tolerance, such that greater doses of the psychoactive substances are essential in order to attain effects formerly produced by lower doses

(e) Progressive disregard of alternative pleasures or interests because of psychoactive substance use, greater amount of time necessary to obtain or consume the substance or to recuperate from its effects

(f) Persisting with substance use regardless of clear evidence of obviously harmful consequences.

Mother: staying with child for at least past 6 months

4.3.1.2 Child:

1. Children of age group 6 to 18 years (Random selection, by picking lots, if multiple children in specified age group in same family)
2. Children with their primary caregivers (parents)
3. Child staying with mother for the past 6 months (and not in hostel)

All participants conversant in either English, Tamil or Hindi

4.3.2 Exclusion Criteria

1. Presence of severe sensory special sensory impairment, organic impairment or below moderate level of intellectual disability in child assessed clinically.
2. Informed consent/assent not obtained.
3. Current major mental illness in mother.

4.4 Sampling Technique

The sampling technique used for this study was purposive sampling technique. Consecutive patients presenting in the Psychiatry OPD with Alcohol Dependence Syndrome were identified. Those who fulfilled the criteria after the inclusion and exclusion criteria were applied were recruited for the study.

4.5 Sample Size

The required sample size to show that the prevalence of psychopathology among children whose father was alcoholic was found to be 110 children with 7.5% precision and 95% confidence limits

Prevalence

Single Proportion – Absolute Precision

Expected proportion	0.18
Precision	7.5
Desired confidence level (1- alpha) %	95
Required sample size	110

Risk Factors

Regression Methods – Multiple Logistic Regression

Proportion of disease	0.18
Anticipated odds ratio	2.5
Power (1- beta) %	80
Alpha error (%)	5
1 or 2 sided	2
Multiple correlation coefficient of the exposure	0.2
Required sample size	108

4.6. Variables Studied

4.6.1 *Dependent Variable:* Psychopathology as assessed by Child Behaviour Check List (CBCL)

4.6.2 *Independent variables:*

1. Socio-demographic variables of child and family members: age, gender, religion, socio-economic status, residence, educational level, occupation of primary caregiver, type of family (nuclear/ joint), number, age and gender of siblings, birth order of the child.
2. Alcohol related variables: Presence of comorbidity, severity index, duration of alcohol dependence, current use, periods of abstinence,
3. Family functioning variable as assessed by McMaster Family Assessment Device (MFAD)

4.7 Data Measures

The following Instruments were used to collect data:

4.7.1 Sociodemographic and Clinical Data Form (vide annexure 1)

4.7.2 Modified Kuppuswamy Scale (vide annexure 2)

4.7.3 McMaster Family Assessment Device (vide Annexure 3)

4.7.4 Child Behavior Check List (CBCL) (vide annexure 4)

4.7.5 Addiction Severity Index (vide annexure 5)

4.7.1 Sociodemographic and clinical data form

A sociodemographic and clinical data form was designed in a semi-structured format to gather the various sociodemographic and clinical details of the patient with alcohol dependence syndrome and family members for the study. In the initial part, the patient particulars were entered like the study serial number, name, hospital number, age, date of birth, religion, mother tongue, residence, occupation, educational level, marital status, number of children, type of family, family size, socioeconomic status and distance from treatment setting. In the second part, clinical information was recorded, which included duration of alcohol dependence, periods of abstinence, current use, previous/ current hospitalizations, presence of psychiatric comorbidity/ additional substance abuse and presence of medical comorbidity. The third part was child-related information which included age, gender, birth order, current educational level, presence of previously diagnosed psychiatric problem and presence of any psychiatric illness in the family. In the fourth part, information related to the mother was

recorded. This included age, educational level, occupation, period of time mother was staying with the child and presence of any previously diagnosed psychiatric illness in mother. The approximate time required for collecting data for sociodemographic and clinical data was about 15 minutes.

Socioeconomic status

4.7.2 The Modified Kuppuswamy scale (with revised income ranges for 2014).

This scaledetermines the socioeconomic status of the family based on the education, occupation of head of the family and per capita income per month. Originally created by Kuppuswamy in 1976 (99), the form underwent revisions in 2003, 2007, 2012 and 2014. Each of the three domains has seven items arranged in decreasing order of score. One item is selected from each domain, and the corresponding scores are added to give a total score, which is graded in 5 levels to represent socioeconomic status from lower (score of less than 5) to upper (score of 26 to 29) (100).

Family Functioning

4.7.3 McMaster Family Assessment Device:

The McMaster Family Assessment Device (MFAD) (101) is a 60-item self-report instrument intended to evaluate a number of characteristics of family relationships established based on the McMaster model view of family functioning(102). Items are phrased to represent both effective (e.g., “We feel accepted for what we are.”) and problematic family functioning (e.g., “There are lots of bad feelings in the family”). Those taking the interview rate how well each statement describes their family;

response options comprise of *strongly disagree*, *disagree*, *agree*, and *strongly agree*. Items are reverse scored as needed, such that higher the score worse is the family functioning. The FAD general functioning scale was scored and according to Ryan *et al* a score of 2.00 or above indicates problematic family functioning. The higher the score, the more problematic the family member perceives the family's overall functioning (103). In addition to a General Functioning Index, the MFAD generates scores on six dimensions namely problem solving, communication, roles, affective responsiveness, affective involvement, and behavioral control.

The MFAD has been widely used in research as well as and clinical practice. Uses include: (1) screening to detect families experiencing problems, (2) recognizing specific domains in which families are experiencing problems, and (3) evaluating change following treatment.

Child psychopathology

4.7.4 Child Behaviour Checklist (CBCL):

CBCL was developed by Thomas A. Achenbach for assessment of problem behavior in children. The latest version was published in 2001. It is divided into two parts – one for the age group of one and a half to five years and second from six to eighteen years. CBCL for the age group between 6-18 years has 113 questions with Likert scoring options. A score of 0 coding for ‘not true’, 1 coding for ‘somewhat or sometimes true’ and 2 coding for ‘very true or often true’. It has a male and female scoring sheet. The raw scores are added up to obtain the domains of anxious, withdrawn depressed, somatic complaints, social problems, thought problems, attention problems, rule

breaking behavior, aggressive behavior, other problems. It is also divided into Internalizing and Externalizing behavior along with a total score indicating presence or absence of any psychopathology. The CBCL 6-18years version also has an option of DSM –IV oriented scales. The six DSM-Oriented Scales include: (1) Affective Problems (major depressive disorders and Dysthymia), (2) Anxiety Problems [Generalized Anxiety Disorder (GAD), Separation Anxiety Disorder (SAD), and Specific Phobia], (3) Attention Deficit Hyperactivity Problems (Hyperactive-Impulsive and Inattentive subtypes), (4) Conduct Problems [Conduct Disorder (CD)], (5) Oppositional Defiant Problems [Oppositional Defiant Disorder (ODD)], and (6) Somatic Problems (Somatization and Somatoform Disorders).

Severity index for alcohol dependence

4.7.5 Addiction Severity Index:

Addiction Severity Index (ASI) was developed by McLellan and co-workers in 1980 (104), the ASI has been translated into seventeen languages and was designed to be administered by a skilled assessor. The version currently in use is the 5th edition which was published in 1992 (105). This is a semi structured interview intended to provide vital information about characteristics of the life of patients that may influence their substance-abuse problems. It has been shown to be useful especially in diagnosis and treatment of alcohol use problems.

The Addiction Severity Index (ASI) delivers a comprehensive summary of substance-related problems instead of focussing on one specific area. It has 200 queries on 7 subscales/subdomains. The sub domains are medical status, employment and support, other drug use, alcohol use, legal status, family/social status, and psychiatric status.

These functional areas have been extensively validated to be associated with substance use and are central to understanding alcohol dependence. In each domain, individual data is collected regarding frequency, duration and severity. ASI takes into consideration the various aspects of each subscale for its characteristic over the lifetime and in the 30-day period before the interview. This is based on the knowledge that severity of substance related problems are best reflected when life events before, during and subsequent to substance use are taken into consideration. Within each subdomain, ASI provides 2 ratings. First is a 10-point severity rating determined by the interviewer. This is a rating of lifetime problems. Second, is a multi-item, composite score which can be calculated manually or can be computer-generated (106). This is a rating of severity of problems in the past 30 days.

The ASI has been used extensively in both clinical as well as research setting. Clinically, ASI can help in creating an excellent patient profile at the time of admission, which the treating team can use for monitoring progress and planning treatment. Researchers have used ASI for calculating the mean and composite scores along with individual variables for assessing measures of improvement over time within groups and between groups. It is also used at follow up points for assessing outcomes of treatment. ASI has shown excellent validity and reliability across diverse patients and treatment setting worldwide. Reliability has been shown to decrease when patients have severe psychiatric illness (107). ASI has also been found to be more cost effective, less formal and a better problem-directed approach compared to Structured Clinical Interview for DSM-III-R (SCID) (108).

4.8 Data Collection Procedure

All data were collected by the primary investigator, except for the alcohol-related clinical variables which were collected by an independent assessor. The sources of information were, the father with alcohol dependence syndrome, mother of the child and occasionally the child. The patients were diagnosed as having Alcohol Dependence Syndrome by the Psychiatrists using the ICD-10 criteria. They were then referred to the primary investigator by the treating Psychiatrist. Inclusion and exclusion criteria were applied and suitable candidates were recruited for the study after obtaining the consent from the parents and assent from the child when feasible. To reduce bias, the data were collected in the following order. At first the Sociodemographic and clinical data sheet was applied, followed by the Modified Kuppuswamy Scale, then the Child Behavior Checklist(CBCL), followed by McMaster Family assessment device and then the Addiction Severity Index. The conversion of the CBCL raw scores to T score to determine caseness, was done by an independent assessor after data collection, in order to reduce bias. The time taken to complete each case was between 40 minutes to 1 hour.

4.9 Statistical Method

All the quantitative variables were summarized using mean with standard deviation. Mean scores of family functioning and mean and composite scores of various domains addiction severity were calculated. Correlation analysis was done between the mean scores and the composite scores. Bivariate analysis was done to assess the association between the independent variables and the presence of child psychopathology using chi- test for categorical variables and the student t-test or Mann-Whitney U test for

continuous variables. Univariate logistic regression was done for variables found to be significant in the bivariate analysis. All data was analysed using SPSS version 17.

4.10 Ethical issues

The study was conducted only after it was approved and accepted by the Institutional Review Board and Ethics Committee of Christian Medical College, Vellore.

Written informed consent from the patients and written assent from the child was taken before proceeding to recruit the child for the study.

4.11 Algorithm

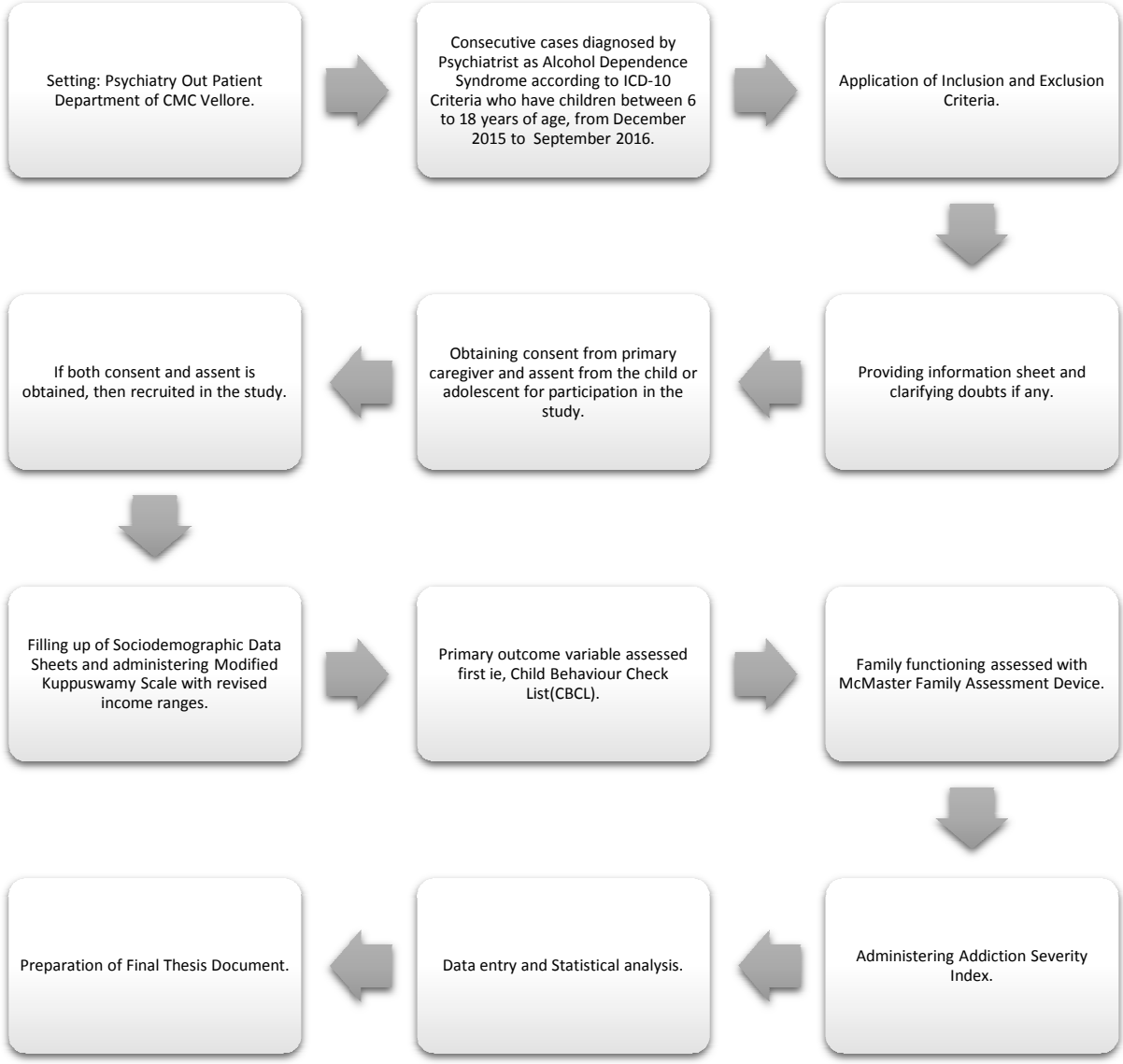
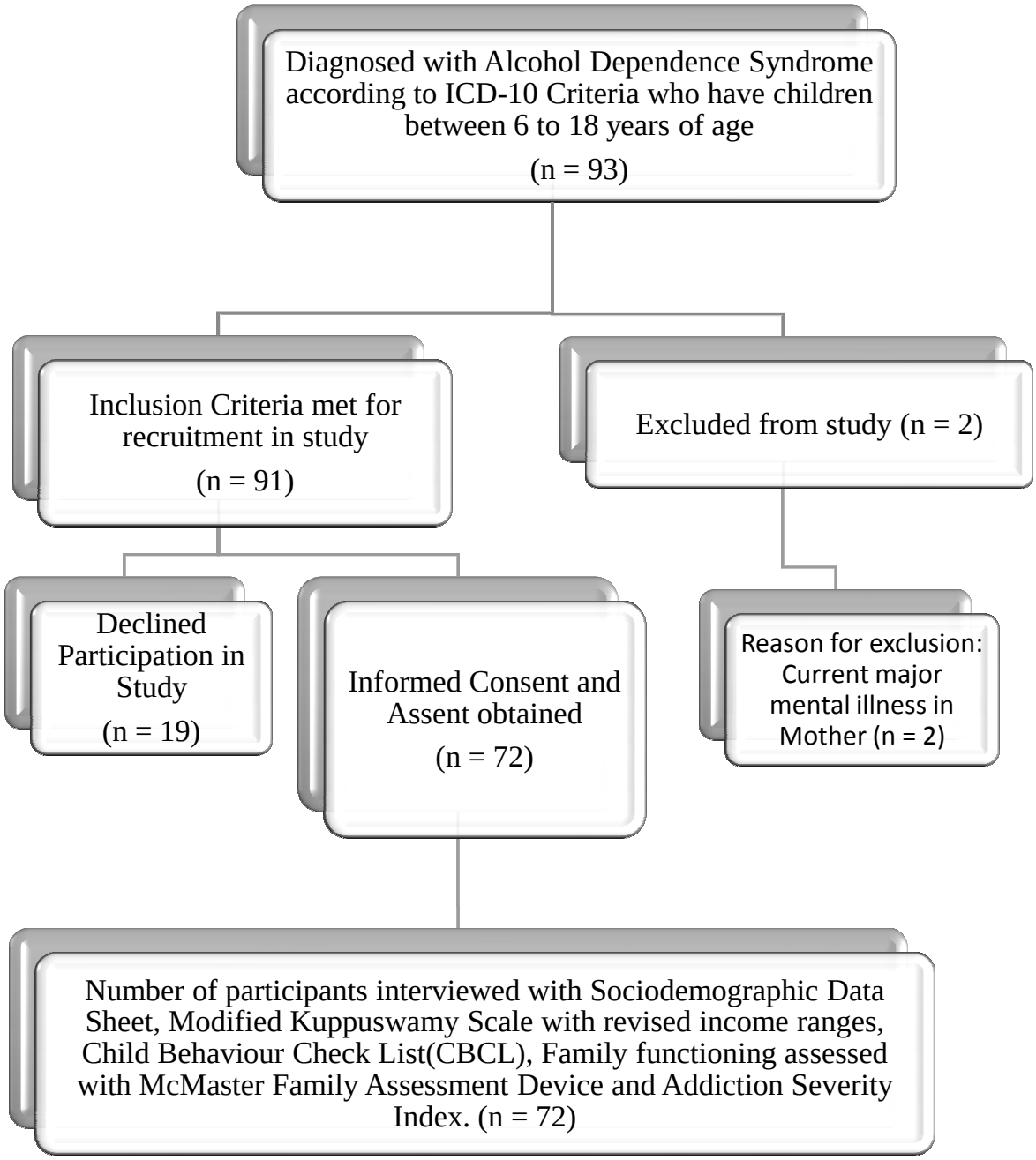


Figure 1. Algorithm Showing Methodology

5. RESULTS

The cross-sectional study was done in the Psychiatry department of Christian Medical College, Vellore, India from March 2016 to September 2016. A total sample of 72 patients with alcohol dependence syndrome along with their spouse and child were recruited during the study period.

Strobe diagram of the study



5.1 PATIENT DEMOGRAPHICS

Table 1: Socio demographic characteristics of patient diagnosed with alcohol dependence syndrome.

Variable	Frequency (n)	Percentage %
Religion		
Hindu	58	80.6
Christian	11	15.3
Muslim	3	4.2
Mother Tongue		
Tamil	62	86.1
Hindi	1	1.4
Telugu	7	9.7
Saurashtra	1	1.4
Urdu	1	1.4
State		
Tamil Nadu	66	91.7
Andhra Pradesh	6	8.3
District		
Within Vellore District	44	61.1
Outside Vellore District	28	38.9
Education		
Illiterate	5	6.9
Primary School	4	5.6
Middle School	26	36.1
High School	22	30.6
Intermediate or post High School	5	6.9
Graduate or Post Graduate	10	13.9

Occupation		
Unskilled worker	17	23.6
Semiskilled worker	6	8.3
Skilled worker	27	37.5
Clerical, Shop Owner, Farmer	15	20.8
Semi-Profession	1	1.4
Profession	6	8.3
Income		
Rs. 1866-4446	8	11.1
Rs. 4447-9248	27	37.5
Rs. 9249-13873	19	26.4
Rs. 13874-18497	8	11.1
Rs. 18498-36996	7	9.7
>/= Rs.36997	3	4.2
Socio-Economic Status		
Upper	2	2.8
Upper-Middle	13	18.1
Middle/Lower-Middle	27	37.5
Lower/Upper-Lower	30	41.7
Variable	**Mean**	**Standard Deviation**
Age of Patient (years)	40.14	5.70

Most patients (80.6%) came from a Hindu background and majority of them (86.1%) were from Tamil-speaking families. 91.7% of patients in the study were from Tamil Nadu and the rest were from Andhra Pradesh, most of them from within Vellore district (61.1%). Patients were mostly educated up to middle school or high school and were predominantly skilled workers, clerical job holders, shop owners or farmers. The largest group of patients were from a Lower/Upper lower socioeconomic status family followed by Middle/Lower-middle socioeconomic status

5.2 CLINICAL CHARACTERISTICS OF PATIENT

Table 2a: Clinical Characteristics of the patient with alcohol dependence

Variable	Mean	Standard Deviation
Duration of alcohol dependence (years)	12.19	6.68
	Frequency (n)	**Percentage (%)**
Presence of psychiatric morbidity		
Present	30	41.7
Absent	42	58.3
Group of psychiatric morbidity if present*		
Mood Disorder	2	6.7
Psychosis	12	40.0
Other Substance Use	12	40.0
Others	4	13.3
Presence of Medical Comorbidity		
Present	18	25.0
Absent	54	75.0
OP/IP Status		
OP	61	84.7
IP	11	15.3
Past Treatment for Alcohol Dependence		
Yes	20	27.8
No	52	72.2
Recent Alcohol Use in the last 30 days		
Present	71	98.6
Absent	1	1.4
Frequent Intoxication		
More than 15 out of 30 days	68	94.4

Less than 15 out of 30 days	4	5.6
Number of Delirium Tremens		
0	58	80.6
1	13	18.1
2	1	1.4
Comorbid Nicotine Dependence		
Present	17	23.6
Absent	55	76.4

*n only of patients with psychiatric morbidity

The mean age of patients in the sample was 40.14 (SD 5.70). They had a mean duration of 12.19 years (SD 6.68) of alcohol dependence. Majority of patients did not have any psychiatric comorbidity. Of the patients who had psychiatric morbidity, psychosis and other substance use formed the major disorders. Only 25% of patients had comorbid medical problems. Most of the patients were treated as outpatients. However, 72% of them never had any past treatment for alcohol dependence. Almost all the patients seen had consumed alcohol in the last 30 days and most of them had taken alcohol to the point of intoxication more than 15 days in the last month. 19.5% of the patients had an episode of delirium tremens for which they had to seek medical help. Comorbid nicotine dependence was present in 23.6 % of all patients.

Table 2b: Addiction Severity Index Scores- Composite scores and Interviewer rated mean scores

Variable	Mean	Median	SD
Composite Medical ASI	0.11	0.00	0.24
Composite Employment/Support ASI	0.42	0.29	0.28
Composite Alcohol ASI	0.67	0.7!	0.17
Composite Drug ASI	0.01	0.00	0.06
Composite Legal ASI	0.41	0.00	0.14
Composite Family/Social ASI	0.31	0.30	0.23
Composite Psychiatric ASI	0.13	0.00	0.24
Mean Medical Status Interviewer rating ASI	1.11	0.00	2.26
Mean Employment/Support Status Interviewer rating ASI	2.74	2.00	2.76
Mean Alcohol Status Interviewer rating ASI	6.46	7.00	1.83
Mean Drug Status Interviewer rating ASI	0.11	0.00	0.94
Mean Legal Status Interviewer rating ASI	0.58	0.00	1.82
Mean Family/Social Status Interviewer rating ASI	2.79	3.00	2.04
Mean Psychiatric Status Interviewer rating ASI	1.42	0.00	2.55

All patients were interviewed to rate on the Addiction Severity Index which has both composite scores as well as Interviewer rated scores for each subdomain. The mean, median and standard deviation for each of these scores are depicted in Table 2b. All the scores had a non-parametric distribution.

Table 2c: Correlation of ASI means and composite scores

Variable	Mean Scores (means)	Composite scores (means)	Spearmans rho	p value
Medical ASI	1.11	0.12	0.99	0.000
Employment/Support ASI	2.74	0.42	0.71	0.000
Alcohol ASI	6.46	0.68	0.79	0.000
Drug ASI	0.11	0.01	0.57	0.000
Legal ASI	0.58	0.41	0.94	0.000
Family/Social ASI	2.79	0.311	0.83	0.000
Composite Psychiatric ASI	1.42	0.13	0.98	0.000

p value taken significant at <0.05

There was significant correlation between the interviewer rated means and the composite scores for all subdomains

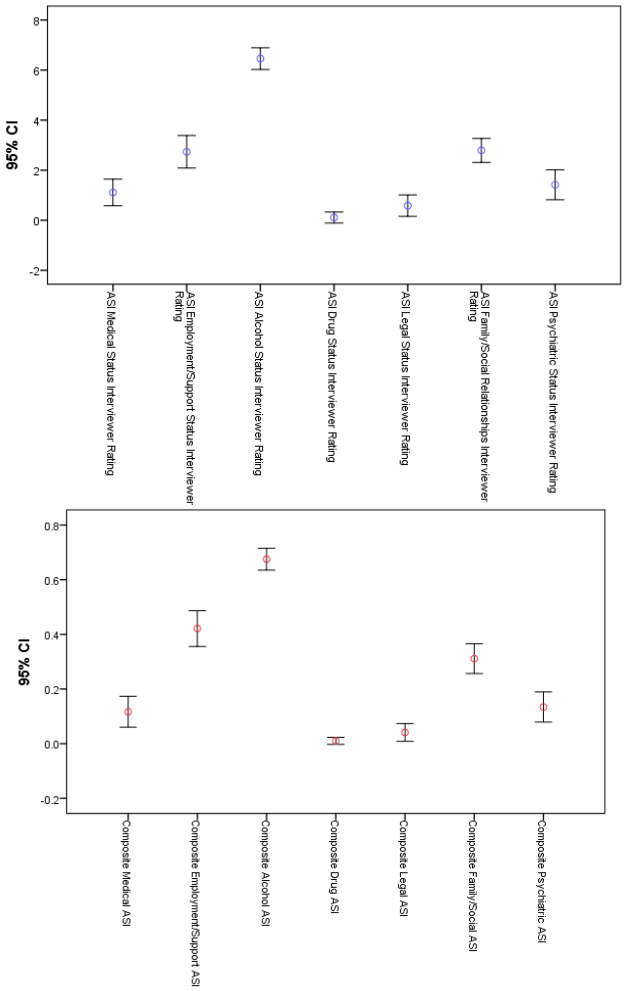


Figure 1: The distribution of means scores and composite scores of ASI

5.3 CHILD DEMOGRAPHICS

Table 3: Sociodemographic characteristics of children of patients with alcohol dependence

Variable	Mean	Standard Deviation
Age of Child (years)	11.69	3.56
Variable	**Frequency (n)**	**Percentage (%)**
Gender of child		
Male	41	56.9
Female	31	43.1
Birth Order		
1	40	55.6
2	24	33.3
3	8	11.1
Child Education		
Primary School (1-4)	25	34.7
Middle School (5-7)	15	20.8
High School (8-10)	23	31.9
Intermediate (11 & 12)	9	12.5

The mean age of children was 11.69 (SD 3.56) and the study population had more boys than girls. Majority of them selected by random selection were the first born in their family. Their educational status was fairly equally distributed among primary middle, high school and intermediate levels. Majority of them had psychiatric illnesses in their extended family, dominated by substance use, followed by psychotic illnesses.

5.4 MOTHER AND FAMILY RELATED VARIABLES

Table 4: Characteristics of the mothers of children in study

Variable	Mean	Standard Deviation
Mother's Age (years)	34.07	5.30
Period of time Mother currently staying with Child (years)	11.57	3.53
	Frequency (n)	**Percentage (%)**
Mother's Education		
Illiterate	5	6.9
Primary School	12	16.7
Middle School	20	27.8
High School	23	31.9
Intermediate or Post-High School	7	9.7
Graduate or Post-graduate	5	6.9
Mother's Occupation		
Unemployed/Homemaker	36	50.0
Unskilled worker	15	20.8
Semi-skilled worker	8	11.1
Skilled worker	5	6.9
Clerical, Shop owner, Farmer	4	5.6
Semi-profession	1	1.4
Profession	3	4.2
Type of family		
Joint	12	16.7
Nuclear	39	54.2
Extended	21	29.2

Number of Children		
1	4	5.6
2	47	65.3
3	20	27.8
4	1	1.4
Psychiatric Morbidity in extended family		
Present	40	55.6
Absent	32	44.4
Group of Psychiatric illness in family		
Psychosis	4	10.0
Substance Use	36	90.0

The mean age of the mothers was 34.07 (SD 5.30). On an average they had stayed 11.57 years (SD 3.53) with the child. Majority of the mothers were educated up to middle or high school. Half of them were either unemployed or homemakers. Majority of families were nuclear and consisted of 2 children. There was psychiatric morbidity noted in more than half of the extended family, with the most common comorbidity being substance use.

5.5. ASSESSMENT OF FAMILY FUNCTIONING

Family functioning was assessed using McMaster's Family Assessment Device (MFAD). It is a 60 item self-report questionnaire aimed at evaluating a number of aspects of family relationships based on McMaster model of family functioning. The rating is done on a Likert scale from 1 to 4. The FAD general functioning scale was scored and a score of 2.00 or above indicates problematic family functioning. The higher the score, the more problematic the family member perceives the family's overall functioning. Mean, median and standard deviation are described.

Table 5a: FAD General Functioning Score

Variable	Mean	Median	Standard Deviation
FAD General Functioning Score	2.43	2.30	0.79

Figure 2: Distribution of General Functioning Scores in the study population

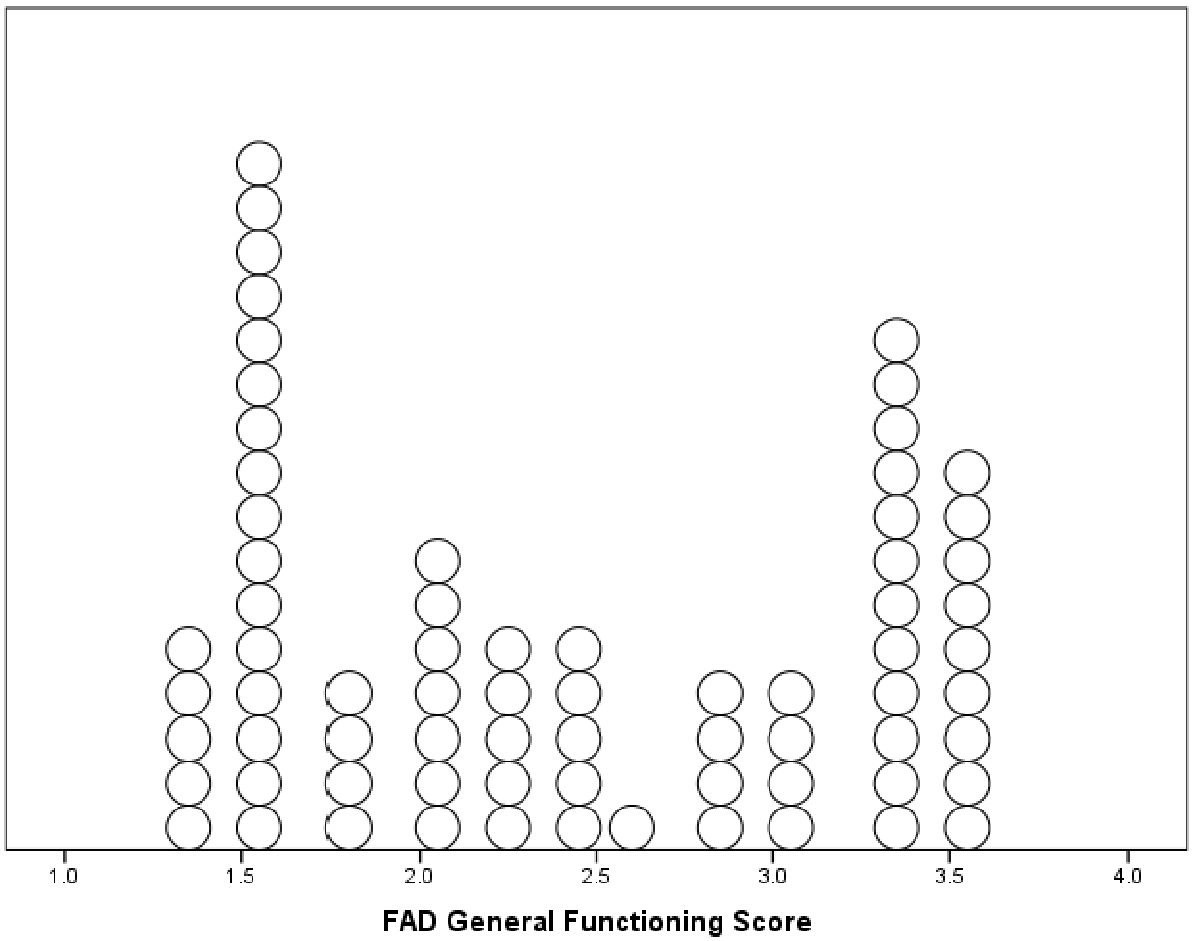
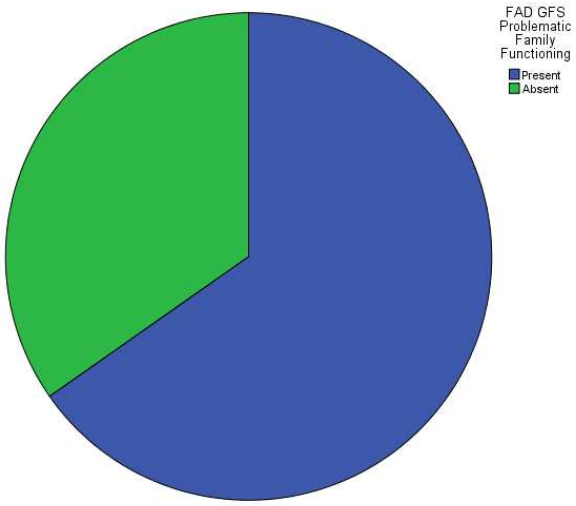


Table5b:

FAD General Functioning Score	Number (n)	Percentage (%)
Problematic family functioning (G F Score ≥2.00)	47	65.3
Non-problematic family functioning (G F Score <2.00	25	35.7

Almost 2/3rd of the study population had problematic family functioning as rated by the general functioning score.

Figure 3: Pie Chart showing proportion of problematic and non-problematic family functioning in study population



5.6 PSYCHOPATHOLOGY IN CHILDREN IN SAMPLE POPULATION

Child psychopathology was assessed by using Child Behaviour Checklist (CBCL) for children aged from 6 to 18.

Table 6: CBCL domains and Psychopathology

CBCL Domain	**Psychopathology Present (n/%)**	**Psychopathology Absent (n/%)**
Anxious/Depressed	7 (9.7%)	65 (90.3%)
Withdrawn/Depressed	8 (11.1%)	64 (88.9%)
Somatic Complaints	1 (1.4%)	71 (98.6%)
Social Problems	5 (6.9%)	67 (93.1%)
Thought Problems	0 (0%)	72 (100%)
Attention problems	3 (4.2%)	69 (95.8%)
Rule-Breaking Behaviour	6 (8.3%)	66 (91.7%)
Aggressive Behaviour	4 (5.6%)	68 (94.4%)
Internalizing Problem	8 (11.1%)	64 (88.9%)
Externalizing problem	6 (8.3%)	66 (91.7%)
Total Problem Behaviour	**10 (13.9%)**	**62 (86.1%)**

The children of alcoholics predominantly showed psychopathology in the subdomains of anxious/depressed, social problems, rule-breaking behaviour and aggressive behaviour. 11.1 % of children had clinically significant internalizing behavioural problems and 8.3 % of children had externalizing behavioural problems. 13.9% of children had clinically significant overall problem behaviours. There were no children with substance abuse in the sample as noted by specific questions in this regard on the CBCL.

5.7 ACCEPTABILITY OF DATA FOR PARAMETRIC ANALYSIS

The acceptability of the continuous variables for parametric analysis was initially carried out and has been depicted in table 7. For the variables found not to have a normal distribution, Non – parametric analysis (Mann-Whitney U) was conducted for the continuous variables.

Table 7: Frequency distribution of continuous variables

Variable	Mean	Median	SD	Skewness	Standard error of skewness	Kurtosis	Standard error of kurtosis
Age of patient in Years	40.14	39.00	5.70	0.750	0.283	0.880	0.559
Monthly Family Income in Rs.	11986.11	10000.00	9651.67	2.409	0.283	6.299	0.559
Distance from treatment centre in Kms	56.9167	40.00	68.39	2.786	0.283	9.967	0.559
Family Income Score	4.54	4.00	2.69	1.678	0.283	1.556	0.559
Duration of alcohol dependence in years	12.19	12.00	6.68	0.007	0.283	-1.133	0.559
Maximum period of abstinence in months	3.04	0.00	7.75	3.035	0.283	9.094	0.559
Age of Child	11.69	11.50	3.56	0.152	0.283	-1.326	0.559
Age of mother	34.07	34.00	5.30	1.026	0.283	2.264	0.559
Period of time mother Staying with child	11.57	11.00	3.53	0.220	0.283	-1.278	0.559

p value taken as significant for <0.05

5.8 COMPARATIVE ANALYSIS

The dependent variable in our study was Psychopathology as assessed by Child Behaviour Check List (CBCL). Comparative analysis was done with the Total CBCL clinical and non-clinical groups with the following variables.

1. Socio-demographic variables of patient, mother and family, and child variables
2. Alcohol related variables
3. Family functioning

Sociodemographic variables of patient

Table 8a: Comparison of categorical sociodemographic variables of patient with Clinical and Non-clinical groups of child psychopathology (CBCL)

Variables	CBCL Total Clinical				
	Clinical		Non clinical		P value
	N	%	N	%	
Religion					
Hindu	9	90.0	49	79.0	
Christian	1	10.0	10	16.1	0.662
Muslim	0	0	3	4.8	
Mother Tongue					
Tamil	8	80.0	54	87.1	
Hindi	0	0	1	1.6	0.160
Telugu	1	10.0	6	9.7	
Saurashtra	1	10.0	0	0	
Urdu	0	0	1	1.6	
State					
Tamil Nadu	10	100	56	90.3	
Andhra Pradesh	0	0	6	9.7	0.304
District					
Within Vellore District	6	60.0	38	61.3	
Outside Vellore District	4	40.0	24	38.7	0.938

Patient Education					
Illiterate	0	0	5	8.1	
Primary School	0	0	4	6.5	
Middle School	6	60.0	20	32.3	0.409
High School	3	30.0	19	30.6	
Intermediate or Post High School Diploma	1	10.0	4	6.5	
Graduate or Post Graduate	0	0	10	16.1	
Patient Occupation					
Unskilled Worker	1	10.0	16	25.8	
Semi-Skilled Worker	2	20.0	4	6.5	
Skilled Worker	5	50.0	22	35.5	0.490
Clerical, Shop Owner, Farmer	2	20.0	13	21.0	
Semi-Profession	0	0	1	1.6	
Profession	0	0	6	9.7	
Patient Psychiatric Morbidity					
Morbidity present	7	70.0	23	37.1	**0.050**
Morbidity absent	3	30.0	39	62.9	
Patient medical comorbidity					
Present	3	30.0	15	24.2	0.694
Absent	7	70.0	47	75.8	

p value taken as significant for <0.05

For the sociodemographic variables of patients with alcohol dependence, the presence of psychiatric morbidity in patient was found to be associated with child psychopathology (p value 0.050). There were 2 patients with mood disorders, 4 patients with psychosis and 1 patient with comorbid other substance use in the group of patients with alcohol dependence who had a child with psychopathology. Since the numbers of each of the individual psychiatric disorders was small, further analysis was not done.

Table 8b: Comparison of categorical sociodemographic variables of mother, family and child with Clinical and Non-clinical groups of child psychopathology (CBCL)

Variables	CBCL Total Clinical				
	Clinical		Non clinical		P value
	N	%	N	%	
Mother's Education					
Illiterate	0	0	5	8.1	
Primary School	2	20	10	16.1	
Middle School	2	20	18	29.0	0.680
High School	5	50	18	29.0	
Intermediate or Post High School Diploma	1	10	6	9.7	
Graduate or Post Graduate	0	0	5	8.1	
Mother's Occupation					
Unemployed	8	80	28	45.2	
Unskilled worker	1	10	14	22.6	
Semi-skilled Worker	0	0	8	12.9	0.435
Skilled Worker	0	0	5	8.1	
Clerical, Shop Owner, Farmer	1	10	3	4.8	
Semi-Profession	0	0	1	1.6	
Profession	0	0	3	4.8	
Type of family					0.228
Joint	3	30	9	14.5	
Nuclear	3	30	36	58.1	
Extended	4	40	17	27.4	
Family psychiatric morbidity					
Present	5	50	35	56.5	0.703
Absent	5	50	27	43.5	
Group of psychiatric illness in family					0.426
Psychosis	1	20	3	8.6	
Substance Use	4	80	32	91.4	

Socio-Economic Status					
Upper	0	0	2	3.2	
Upper Middle	1	10	12	19.4	0.442
Middle/Lower Middle	6	60	21	33.9	
Lower/ Upper Lower	3	30	27	43.5	
Family Income					
Rs. 1866-4446	1	10	7	11.3	
Rs. 5547-9248	4	40	23	37.1	
Rs. 9249-13873	3	30	16	25.8	0.772
Rs. 13874-18497	2	20	6	9.7	
Rs. 18498-36996	0	0	7	11.3	
>/= Rs.36997	0	0	3	4.8	
Gender of Child					
Male	6	60	35	56.5	0.833
Female	4	40	27	43.5	
Child education					
Primary (1-4)	5	50	20	32.3	0.681
Middle (5-7)	1	10	14	22.6	
High School (8 -10)	3	30	20	32.3	
Intermediate (11 & 12)	1	10	8	12.9	

p value taken as significant for <0.05

For the sociodemographic variables of mother, family and child compared with clinically significant psychopathology in CBCL, there were no significant variables.

Table 8c: Comparison of continuous sociodemographic variables of patient, mother and family with Clinical and Non-clinical groups of child psychopathology (CBCL)

Variables	CBCL Total Clinical				p value
	Clinical		Non clinical		
	Mean	Standard Deviation	Mean	Standard Deviation	
Age of patient in years	41.40	5.91	39.94	5.69	0.455
Monthly Family Income in Rs.	9300	3622.46	12419	10252.63	0.347
Family Size	7	2	5	2	**0.017***
Duration of Alcohol Dependence in years	14.80	5.88	11.77	6.75	0.156*
Age of Child in years	11.1	3.7	11.8	3.6	0.573
Age of Mother in years	35.00	3.92	33.92	5.50	0.554
Period of time mother currently staying with child in years	11.00	3.77	11.66	3.52	0.586

Note: * sign, p value given using non-parametric Mann Whitney U test

p value taken as significant for <0.05

For the continuous sociodemographic variables of the patient, child and mother, there was significant association found between family size and child psychopathology. No other variable was found to be significant with child psychopathology.

Alcohol related variables (ASI)

Table 9a: Comparison of mean ASI scores with Clinical and Non-clinical groups of child psychopathology (CBCL)

Variable	Clinical (mean rank)	Non-Clinical (mean rank)	U statistic	p value
Mean Medical Status Interviewer rating ASI	0.70	1.18	295.00	0.737
Mean Employment/Support Status Interviewer rating ASI	3.70	2.58	250.00	0.315
Mean Alcohol Status Interviewer rating ASI	7.20	6.34	214.500	0.112
Mean Drug Status Interviewer rating ASI	0.00	0.13	305.00	0.688
Mean Legal Status Interviewer rating ASI	0.30	0.63	304.000	0.858
Mean Family/Social Status Interviewer rating ASI	4.50	2.52	144.500	**0.006**
Mean Psychiatric Status Interviewer rating ASI	3.50	1.08	159.000	**0.002**

p value taken as significant for <0.05

The interviewer rated mean values of ASI domains showed significant association with child psychopathology in Family/social and Psychiatric domains. Other variables were not found to be significant with child psychopathology.

Table 9b: Comparison of composite ASI scores with Clinical and Non-clinical groups of child psychopathology (CBCL)

	Clinical (mean rank)	**Non-Clinical (mean rank)**	**U statistic**	**p value**
Composite Medical ASI	0.0580	0.1263	290.000	0.654
Composite Employment/Support ASI	0.5332	0.4032	236.500	0.229
Composite Alcohol ASI	0.7693	0.6599	148.500	**0.008**
Composite Drug ASI	0.0400	0.0055	288.000	0.301
Composite Legal ASI	0.0000	0.0477	275.000	0.268
Composite Family/Social ASI	0.4730	0.2850	166.500	**0.019**
Composite Psychiatric ASI	0.3406	0.1009	152.500	**0.001**

p value taken as significant for <0.05

There was significant association of clinical cases of child psychopathology in composite scores of ASI in Alcohol, Family/social and Psychiatric domains. No other variables were found to be significant with child psychopathology.

Family Functioning assessed by MFAD

A comparative analysis was done for Total CBCL clinical and non-clinical groups with the FAD problematic and non-problematic family functioning groups.

Table 10: Total CBCL clinical and non-clinical groups with the FAD problematic and non-problematic family functioning groups

Variable	Problematic Family Functioning Absent	Problematic Family Functioning Present	X^2	p
	n	n		
Total CBCL				
Clinical	0	10	6.177	**0.013**
Non-Clinical	25	37		

p value taken as significant for <0.05

Problematic family functioning was seen in 10 cases with child psychopathology. Chi-square test showed value of 6.177 which had a significant p value at 0.013.

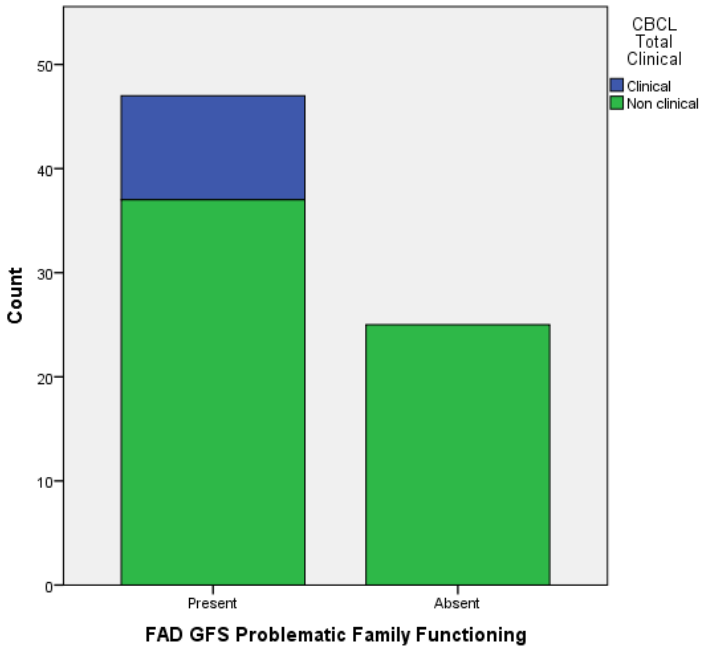


Figure 3: Distribution of cases with problematic family functioning and non-problematic family functioning

5.8 UNIVARIATE LOGISTIC REGRESSION ANALYSIS

Table 11 Univariate logistic regression analysis for factors significant on comparative analysis associated with child psychopathology

p value taken as significant for <0.05

Variable	OR	95% CI for OR		p-value
		Lower	Upper	
Family size	1.23	0.96	1.57	0.106
Paternal psychiatric morbidity	3.96	0.93	16.82	0.063
Composite Alcohol ASI	262.8	0.65	107177	0.06
Composite Family/Social ASI	39.42	1.65	940.8	0.023
Composite Psychiatric ASI	33.04	2.66	409.39	0.006
Mean Alcohol ASI	1.37	0.87	2.17	0.175
Mean Family/Social ASI	1.64	1.13	2.38	**0.010**
Mean Psychiatric ASI	1.35	1.07	1.70	**0.010**
FAD score	33.78	2.29	499.40	0.01

Constant added in equation

The variables which were found to be significant in the initial comparative analysis were analysed further using logistic regression. In the univariate logistic regression, we found that the mean ASI scores for Psychiatric domain and Family/Social continued to show significant associations with child psychopathology, with an estimated one and a half times higher chance of child psychopathology if these domains were more affected. While the similar ASI composite scores and FAD showed extremely high odds ratio which appeared significant, based on the extreme rates and wide confidence intervals, this was most likely explained by the inadequate sample size of cases and score variance ranging from zero to one. In view of this, a further multivariate regression was not attempted. The other variables like family size lost their significance.

6. DISCUSSION

The study aimed to look into the prevalence of psychopathology in children of alcoholic patients. It also aimed to assess the family functioning in families of alcohol dependent patients. Various factors associated with child psychopathology and how sociodemographic factors, substance abuse related factors and family functioning in these families were assessed. The findings of the study will be discussed under the headings of sociodemographic characteristics, child psychopathology and associated sociodemographic factors, child psychopathology and addiction related factors and finally association of child psychopathology and family functioning.

6.1 Sociodemographic and clinical characteristics

As the participants were selected from the psychiatry department of a tertiary referral hospital. The religious, language and state-wise distribution of the sample was representative of the population presenting to this centre. All patients were married gentlemen with at least one child who was between 6-18 years of age, as defined by the inclusion criteria of the study. Majority of them came from lower/upper-lower or Middle/lower-middle socioeconomic status. The mean age of alcoholic patients was 40.14 years (SD 5.70) and the mean duration of alcohol dependence was 12.19 years (SD 6.68). 41 percent of patients had comorbid psychiatric morbidity. Of the patients with psychiatric morbidity 40 % had psychosis, 40% had other substance use and 6.7 percent had mood disorder. The overall prevalence of psychiatric morbidity and specific types of morbidity appeared lower than that found in other studies.

Comparing with similar studies, Ross *et al* looked into lifetime and current psychiatric comorbidity in 501alcoholic patients an addiction research and treatment facility and found them to be 78% and 65 % respectively (109). Penick *et al* found a lifetime prevalence of 62% psychiatric comorbidity in male alcoholics under treatment in a medical centre. 36% had depression, antisocial personality in 24%, other substance uses and mania both at 17% (110). In India, Vohra *et al* evaluated alcoholics in a tertiary care centre and found a prevalence of 76% of comorbidity. Of the cases, 52.1% had major depression, 58.3% had cluster B personality disorder and 21.7% had alcohol induced psychosis (40). Singh *et al* conducted a case control study of 100 alcoholics and reported 92% prevalence of comorbidity. Depression was present in 26% followed by ASPD in 21% and phobia in 16% (41). In 2010, Kumar *et al* reported a prevalence of 64.8% which included other psychoactive substance abuse (54.2%); mood disorder (50.0%); anxiety disorder (45.8%); and psychotic disorder (25. 0%).The difference in prevalence rates in our study could possibly be attributed to the inclusion criteria for married men with children.

25 % of patients in our study had medical comorbidities in contrast to 65% prevalence found by Chandini and Mathai in a group of alcoholics admitted as inpatient in a deaddiction centre in a tertiary hospital(111).

84% of patients were treated as outpatients and 15% were treated as inpatients. Majority of the patients (72%) never had any past treatment for alcohol dependence. All patients except one seen in the study had alcohol use in the last 30 days. 94% of them consumed alcohol till intoxication in more than 15 days in the last one month. 14

out of 72 patients (19.5%) had experienced at least one episode of Delirium Tremens for which they had to seek medical help. Almost 1/4th of patients (23.6%) had comorbid nicotine dependence.

The severity of substance dependence in the patient was assessed using Addiction Severity Index. The scores revealed high values on the alcohol, employment/support and family/ social domains and comparatively lower scores on the medical drug and legal domains which reflected the prevalent patterns of substance use domains in the population under study. Rathod *et al* analysed alcohol use severity using AUDIT in a population based cross sectional study and found that having at least one child, high-quality housing, urban residence, suicidal ideation, tobacco use and disability were all positively associated with AUDIT scores, whereas land ownership, out-of-pocket healthcare expenditure and participation in the national employment programme were negatively associated with AUDIT scores (112).

The children of alcoholic patients were almost equally distributed with 56.9% males and 43.1% females. Their mean age was 11.69 (SD 3.56) All children were attending school and were distributed majorly in primary 934.7%) or high school classes (31. 9%).The mean age of mothers of COAs was 34.07 (SD). 50% of them were either unemployed or homemakers.

Most families (54.2%) were nuclear and had mostly 2 children (65.3%). Most families (55.6%) had psychiatric morbidity in their extended family. Comorbid substance use was the most prevalent problem (90%) in their family, predominantly Alcohol dependence in paternal and maternal grandfathers. Sarkar *et al* showed comparable

figures of prevalence (73.26%) of family history of alcohol dependence in patients having alcohol-related disorders attending the de-addiction center at a tertiary centre (113). However in a study done on substance abusers attending de-addiction center only 26.1% gave family history of substance use in family members (114). Johnson *et al* described a family history prevalence of 61.5% in patients with alcohol-related problems admitted in an urban teaching hospital. They also found that family history density and severity of alcoholism were positively correlated (115).

6.2 Prevalence of psychopathology in children of alcoholics.

Child psychopathology was assessed using Child Behaviour Checklist (CBCL). The total prevalence of problem behaviours which were clinically significant in the study population was 13.9%. The prevalence rate of psychopathology in children and adolescents has been found to range between 1% to nearly 51% with an estimated mean prevalence of 15.8% (116). While the prevalence of psychopathology in COAs in our study was comparable to this, there was limited research available comparing overall prevalence rates of psychopathology in COAs. However, most studies have addressed specific types of child psychopathology in these patients. 11.1% of children in our study were found to have clinically significant Internalizing disorder and 8.3% had Externalizing disorder. These children predominantly showed psychopathology in domains of anxious/depressed (9.7%), withdrawn/depressed (11.1%), rule-breaking-behaviour (8.3%), somatic complaints (1.4%), attention problems (4.2%), social problem (6.9%) and aggressive behaviour (5.6%). This result is comparable to the findings by Christensen and Bilenberg in Danish children of alcoholics, where they

found that COAs demonstrated higher risk of having clinically significant scores on depression, internalizing and social deviance. Overall the subjects scored higher on symptoms on 17 out of the 118 items on CBCL (93). This is also comparable to the study by Narang eta al who found significantly higher conduct disorder, physical illness with emotional problems, anxiety, somatization in COAs (117). Silva *et al* also found significant hyperactivity, impulsivity, inattention, conduct, oppositional defiant disorder (ODD), attention-deficit hyperactivity disorder (ADHD), and total externalizing symptoms score in COAs (118). Raman *et al* also looked in to psychopathology of children of alcoholic parents. However, they found that the children had higher externalizing than internalizing scores (119). Our study failed to find any children with substance abuse in this population. This is in contrast to many other studies which have found a strong link between development of substance abuse in COAs with risks being 2 to 10 fold higher than in non-COAs (2,83). The absence of substance abuse in the COAs in our study is probably explained by the age group in the sample (mean = 11.69) and the likelihood of substance abuse emerging at later ages.

6.3. Family dysfunction in the sample population

As per the family functioning assessment done by McMaster FAD, the General functioning domain had a mean score of 2.432 with a SD of 0.7970. 65 percent of the families in this study rated high on the scale with score 2.00 or above, which is indicative of problematic family functioning. This data shows a high prevalence of family dysfunction in families of alcoholics which might be a reflection of the

bidirectional relationship family functioning can have with both substance use disorders as well as child psychopathology. Jacob and Johnson reported that poor family functioning in alcoholics have been shown to demonstrate poorer problem-solving abilities, both among the parents and within the family as a whole, compared with non-alcoholic families. These communication problems many contribute to the escalation of conflicts in alcoholic families (120). Liepman *et al* evaluated family functioning in male alcoholics and their female partners during periods of drinking and abstinence using MFAD and found that perceived family functioning to be better during abstinent than drinking periods. This points towards a biphasic family functioning, oscillating between drinking and abstinent periods (121). However, our study being cross-sectional in nature and most of our patients having recent significant alcohol abuse, could be predisposing towards high family dysfunction scores. Further longitudinal studies are required to further assess this aspect.

6.4 Factors associated with psychopathology in children of alcoholics

Comparative analysis was done with total CBCL clinical and non-clinical groups with the various sociodemographic variables, alcohol related variables and family functioning.

Sociodemographic variables: Among the various sociodemographic variables studied in this sample family size was the only factor associated with child psychopathology in the bivariate analysis. It was noted that a larger family size had a significant association with a positive CBCL total score. This could be postulated by higher number of family members under one roof contributing to higher levels of discord.

Other studies which have looked into sociodemographic variables associated with psychopathology in COAs have found associations between child gender, child age, educational level of parents, lower socioeconomic status, parental age and unemployment (43). However, these factors were not reflected in our study population.

Addiction Severity: The mean ASI score for Alcohol domain, which reflects severity of alcohol use, was found to be significant in the bivariate analysis in our study sample. In a similar study by Burns et al, who used treatment history as indicator for addiction severity, children of parents with higher addiction severity showed higher somatization scores, greater withdrawal, and greater attention problems (122). In contrast, Hser *et al* did a 10-year prospective study on substance abusing mothers, which used Addiction Severity Index at intake and CBCL for their children during follow up, and found that neither alcohol nor drug use among mothers was predictive of child problem behavior. However, their results suggested that children of substance-abusing mothers have elevated CBCL scores compared with norms, both boys and girls are equally affected and that maternal mental health and family relationship were strong predictors of children's reported problem behaviors (123). As our study did not have any mothers with substance abuse in the sample, this factor could not be studied.

Parental psychopathology: In our study there was a significant association between presence of psychopathology in the alcoholic father and a positive CBCL total score in the child. Comparable results have been found in similar sample populations. As

noted by Merikangas *et al* parental history of mental disorders forms one of the most, consistent and powerful risk factors for the development of mental disorders in children (43). This is also substantiated with the results from the WHO World Mental Health Surveys which showed that parents having comorbid disorder had association with disorders in children. They reported that the population-attributable risk proportions for parent disorders were 12.4% across all disorders in children. This was consistently higher for behaviour (11.0-19.9%) than other (7.1-14.0%) disorders (124). The development of child psychopathology is even more highlighted in parents with alcoholism and comorbid mental illness (96). In our study, 70% of children who had clinical levels of psychopathology had psychiatric morbidity in their fathers. This association was found to be statistically significant (p value 0.050). In addition, the mean and composite scores of the psychiatric domain of the Addiction Severity Index were found to be significantly associated with child psychopathology in both the bivariate analysis and univariate logistic regression. There are various studies which suggest that it may not be the alcohol factors themselves but the associated comorbid psychiatric disorders in the alcoholic parent which contributes to child psychopathology. For example, Ohannessian *et al* measured psychological symptomatology and clinical diagnosis in adolescents with alcoholic parents with and without comorbid drug use/psychopathology. They found that adolescents with parents with only alcohol use did not show higher psychopathology than children of parents with no psychopathology. However, those who had parents with alcoholism along with drug use or depression showed higher psychopathology. When all three were present the risk of psychopathology was highest (96). In our study also, while the

alcohol severity domain in the ASI failed to show significant association with child psychopathology in the univariate logistic regression, the presence of psychopathology in the father with alcohol dependence as assessed on the ASI psychiatric domain continued to have a significant association. Other studies have also shown the higher prevalence of childhood substance abuse with parental alcohol dependence (94). Our study did not find an association between comorbid substance abuse in the father and child psychopathology. This is in contrast to other studies which have shown that adolescents who had parents diagnosed with alcohol dependence, depression, and addiction to other drugs, had higher risk of psychopathology (96). This is likely explained by the extremely low prevalence of comorbid drug dependence in our study sample (1.38%).

Family functioning: In our study sample the comparative analysis done between child psychopathology and family functioning showed significant association. In the General Functioning Score of the McMaster Family Assessment Device, problematic family functioning (≥ 2.00) was seen in all 10 cases with child psychopathology which was found to be statistically significant (p value 0.013). The family/social domain of the ASI was also found to be associated with child psychopathology in both the bivariate and univariate logistic regression analysis done,with an estimated one and a half times higher chance of child psychopathology if this domain was affected. Multiple studies have similarly emphasized the association of family dysfunction in alcoholics and the development of child psychopathology (91). Alcoholism significantly affects family homeostasis and family functioning and leads to altered patterns of parenting and marital conflict (120). Leonard *et al* discusses in their review

about how marital conflict moderates the relationship between alcohol use and child psychopathology (125). While our study found an association as noted, a multivariate analysis could not be carried out to study the strength of this association due to limitations of our sample size.

While various studies have looked into child, parent, family and suprasystem variables associated with psychiatric illnesses in children of alcoholics, all the postulated factors could not be assessed due to limitations of sample size and duration of study. Despite the limitations, our study has shown that there are significant associations between specific sociodemographic, alcohol-related and family functioning variables with child psychopathology in patients with alcohol dependence.

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7. STRENGTHS AND LIMITATIONS

There are only a limited number of studies from India which have attempted to assess the psychopathology in children of alcoholic patients. This study not only tried to examine the various sociodemographic factors affecting child psychopathology, but also assessed the substance-abuse related factors and family functioning in families of alcohol dependent patients.

The study was conducted in a tertiary care centre which caters to a large local population as well as a population from neighbouring states and distant parts of India. The sample consisted of a fairly diverse demographic background consisting of different socioeconomic, language and cultural backgrounds. The study aimed at looking into many sociodemographic factors of this representative population, which would not be possible in many places.

Nonetheless, this study has its own limitations. One of the first limitations was the cross sectional study design. Child psychopathology, alcoholism and family functioning are dynamic concepts which change over time. Therefore, a cross-sectional design of study may not be able to pick up the true nature of all the variables which were studied and causal assumptions cannot be made.

Secondly, the calculated sample size for the study was 110. But only a sample of 72 could be reached during the time of analysis. This could therefore limit the scope of statistical analysis, as they were not powered enough to show statistical differences, as seen in the univariate logistic regression for specific variables in the analysis. A

multivariate analysis also could therefore not be done, which may have been possible if the prevalence of cases and total sample size had been larger.

Another limitation was that all the data except for alcohol-related clinical variables were collected by the primary investigator, which could result in possible interviewer bias. However, in order to overcome this, the data were collected in the following order: At first the Sociodemographic and clinical data sheet was applied, followed by the Modified Kuppuswamy Scale, then the Child Behavior Checklist(CBCL), followed by McMaster Family assessment device and then the Addiction Severity Index. In addition, the determination of 'caseness' as assessed on the CBCL, was assessed independently after the data was collected and prior to analysis.

The CBCL interview and family functioning assessment was given by the mother. Our study is limited in assessing child psychopathology as a structured diagnostic clinical interview of the child was not done. The family assessment was made with information provided from only one family member which can affect the reliability and validity of the assessment scale.

Finally, as the study was done in a tertiary care centre, the results of our study may not be generalized in the community or to primary care facilities where patients with alcohol dependence usually have first contact and are treated.

8. SUMMARY AND CONCLUSIONS

This study was a cross-sectional observational study aimed at assessing the psychopathology of children of alcoholic patients receiving care from the department of Psychiatry in a tertiary care hospital. It also aimed at assessing the patient, child, mother and family related predictive factors of child psychopathology. The study also aimed at assessing the family functioning in families of alcoholic patients.

Initially, clearance from the Institutional Review Board and the ethics committee was obtained. Following this cases were recruited after obtaining consent from family members and assent from the child. 72 patients with alcohol dependence syndrome along with their spouse and child were recruited during the study period of 5 months. All data were collected by the primary investigator, except for the alcohol-related clinical variables which were collected by an independent assessor. The sources of information were, the father with alcohol dependence syndrome, mother of the child and occasionally the child. The patients were diagnosed as having Alcohol Dependence Syndrome by the Psychiatrists using the ICD-10 criteria. They were then referred to the primary investigator by the treating Psychiatrist. Inclusion and exclusion criteria were applied and suitable candidates were recruited for the study after obtaining the consent from the parents and assent from the child when feasible. To reduce bias, the data were collected in the following order: At first the Sociodemographic and clinical data sheet was applied, followed by the Modified Kuppuswamy Scale to assess the socioeconomic status, then the Child Behavior Checklist(CBCL) to assess child psychopathology, followed by McMaster Family

assessment device to assess family functioning and then the Addiction Severity Index to assess the substance abuse related variables.

Most patients (80.6%) came from a Hindu background and majority of them (86.1%) were from Tamil-speaking families. 91.7% of patients in the study were from Tamil Nadu and the rest were from Andhra Pradesh, most of them from within Vellore district (61.1%). Patients were mostly educated up to middle school or high school and were predominantly skilled workers, clerical job holders, shop owners or farmers. The largest group of patients were from a Lower/Upper lower socioeconomic status family followed by Middle/Lower-middle socioeconomic status. The mean age of patients in the sample was 40.14 (SD 5.70). They had a mean duration of 12.19 years (SD 6.68) of alcohol dependence. Majority of patients did not have any psychiatric comorbidity. Of the patients who had psychiatric morbidity, psychosis and other substance use formed the major disorders. Only 25% of patients had comorbid medical problems. Most of the patients were treated as outpatients. However, 72% of them never had any past treatment for alcohol dependence. Almost all the patients seen had consumed alcohol in the last 30 days and most of them had taken alcohol to the point of intoxication more than 15 days in the last month. 19.5% of the patients had an episode of delirium tremens for which they had to seek medical help. Comorbid nicotine dependence was present in 23.6 % of all patients. All patients were interviewed to rate on the Addiction Severity Index which has both composite scores as well as Interviewer rated scores for each subdomain. There was significant correlation between the interviewer rated means and the composite scores for all subdomains

The mean age of children was 11.69 (SD 3.56) and the study population had more boys than girls. Majority of them selected by random selection were the first born in their family. Their educational status was fairly equally distributed among primary middle, high school and intermediate levels. Majority of them had psychiatric illnesses in their extended family, dominated by substance use, followed by psychotic illnesses. The mean age of the mothers was 34.07 (SD 5.30). On an average they had stayed 11.57 years (SD 3.53) with the child. Majority of the mothers were educated up to middle or high school. Half of them were either unemployed or homemakers. The mean family income was around Rs. 12,000 and most families were from lower/upper-lower or middle/lower-middle socio-economic status. Majority of families were nuclear and consisted of 2 children.

Family functioning was assessed using McMaster's Family Assessment Device (MFAD). The FAD general functioning scale was scored and a score of 2.00 or above indicates problematic family functioning. The higher the score, the more problematic the family's overall functioning. Almost 2/3rd of the study population had problematic family functioning as rated by the general functioning score.

Child psychopathology was assessed by using Child Behaviour Checklist (CBCL) for children aged from 6 to 18. The children of alcoholics predominantly showed psychopathology in the subdomains of anxious/depressed, social problems, rule-breaking behaviour and aggressive behaviour. 11.1 % of children had clinically significant internalizing behavioural problems and 8.3 % of children had externalizing behavioural problems. The prevalence of children having clinically significant overall psychopathology was 13.9%.

The dependent variable in our study was Psychopathology as assessed by Child Behaviour Check List (CBCL). Comparative analysis was done with the Total CBCL clinical and non-clinical groups with the socio-demographic variables of patient, mother, family and child, alcohol related variables and family functioning.

For the clinical variables of patients with alcohol dependence, the presence of psychiatric morbidity in the father was found to be associated with child psychopathology (p value 0.05). There were 2 patients with mood disorders, 4 with psychosis and 1 with comorbid other substance use in the group of patients with alcohol dependence who had a child with psychopathology. Since the numbers of each of the individual psychiatric disorders was small, further analysis was not done. However, for the sociodemographic variables of mother, family and child compared with clinically significant psychopathology in CBCL, there were no significant variablesexcept for a significant association found between family size and child psychopathology (p value 0.02).

In the assessment of substance abuse related variables with child psychopathology, the interviewer rated mean values of ASI domains showed significant association with child psychopathology in the mean Family/social (p value 0.006) and Psychiatric domains (p value 0.002). There was significant association between clinical cases of child psychopathology and the composite scores of ASI in Alcohol (p value 0.008), Family/social (p value 0.019) and Psychiatric domains (p value 0.001) in the bivariate analysis.

In the comparative analysis done for Total CBCL clinical and non-clinical groups with the FAD problematic and non-problematic family functioning groups, problematic

family functioning was seen in 10 cases with child psychopathology. Chi-square test showed value of 6.177 which had a significant p value at 0.013.

The variables which were found to be significant in the initial comparative analysis were analysed further using logistic regression. In the univariate logistic regression, we found that the mean ASI score for psychiatric domain and Family/social continued to show significant association with child psychopathology.

As a final point, it may be concluded that psychopathology is seen in children of alcoholic patients and it is significantly associated with specific socio-demographic and substance abuse related factors in families of patients with alcohol dependence. It can also be said that there is poorer family functioning in families of alcoholic patients. Subsequently, there is significant family dysfunction in the children with psychopathology in these families. There is lack of studies in this region on various factors associated with psychopathology and family functioning in children of alcoholics. Further longitudinal studies are required in this field.

Recommendations and future directions

Our study has demonstrated the high prevalence of psychopathology in children of alcoholic patients and the association of child psychopathology with psychiatric comorbidity in patient, family size, addiction severity domains of alcohol, family/social and psychiatric status as well as family functioning. It is recommended that patients with substance-use disorders are routinely screened for family dysfunction as well as psychopathology in their children. An effective referral system for further evaluation and management of child-related issues and family related

issues should be put in place. An active interaction between the adult psychiatric and child and adolescent mental health services is essential. During such exercise, issues like stigma should be kept in mind. The approach should be non-judgemental and empathetic. It also must be borne in mind that the patients themselves may have comorbid psychiatric issues which require further assessment and help. Further studies should consider a longitudinal design to assess long term outcomes of addiction severity, family functioning and child psychopathology.

9. BIBLIOGRAPHY

1. WHO | Global information system on alcohol and health [Internet]. WHO. [cited 2016 Aug 14]. Available from: http://www.who.int/gho/alcohol/en/

2. Sher KJ. Psychological characteristics of children of alcoholics. Alcohol Health Res World. 1997;21:247–254.

3. Charles H, Patrick; Durham, NC (1952). Alcohol, Culture, and Society. Duke University Press (reprint edition by AMS Pres.

4. Dasgupta, Amitava (2011). The Science of Drinking: How Alcohol Affects Your Body and Mind. Rowman & Littlefield.

5. Blocker JS. Did prohibition really work? Alcohol prohibition as a public health innovation. Am J Public Health. 2006 Feb;96(2):233–43.

6. Hanson DJ. Historical evolution of alcohol consumption in society. In: Boyle P, Boffetta P, Lowenfels AB, Burns H, Brawley O, Zatonski W, et al., editors. Alcohol. Oxford University Press; 2013. p. 3–12.

7. A. Tom Horvath, Ph.D., ABPP, Kaushik Misra, Ph.D., Amy K. Epner, Ph.D., and Galen Morgan Cooper, Ph.D. , edited by C. E. Zupanick, Psy.D. A Brief History of Alcoholism - Addictions.

8. Esser MB, Hedden SL, Kanny D, Brewer RD, Gfroerer JC, Naimi TS. Prevalence of Alcohol Dependence Among US Adult Drinkers, 2009–2011. Prev Chronic Dis [Internet]. 2014 Nov 20 [cited 2016 Aug 14];11. Available from: http://www.cdc.gov/pcd/issues/2014/14_0329.htm

9. Morse RM, Flavin DK. The definition of alcoholism. JAMA. 1992 Aug 26;268(8):1012–4.

10. Jellinek, E. M. The disease concept of alcoholism. Vol. ix. Oxford, England: Hillhouse; 1960. 246 p.

11. Edwards G, Gross MM. Alcohol dependence: provisional description of a clinical syndrome. Br Med J. 1976 May 1;1(6017):1058–61.

12. Grant BF. ICD-10 harmful use of alcohol and the alcohol dependence syndrome: prevalence and implications. Addict Abingdon Engl. 1993 Mar;88(3):413–20.

13. Hasin DS, O'Brien CP, Auriacombe M, Borges G, Bucholz K, Budney A, et al. DSM-5 criteria for substance use disorders: recommendations and rationale. Am J Psychiatry [Internet]. 2013 [cited 2016 Aug 14]; Available from: http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2013.12060782

14. Hasin DS, Schuckit MA, Martin CS, Grant BF, Bucholz KK, Helzer JE. The validity of DSM-IV alcohol dependence: what do we know and what do we need to know? Alcohol Clin Exp Res. 2003 Feb;27(2):244–52.

15. Hasin D. Classification of alcohol use disorders. Alcohol Res Health. 2003;27(1):5–17.

16. Hesselbrock VM, Hesselbrock MN. Are there empirically supported and clinically useful subtypes of alcohol dependence? Addiction. 2006 Sep;101:97–103.

17. Leggio L, Kenna GA, Fenton M, Bonenfant E, Swift RM. Typologies of Alcohol Dependence. From Jellinek to Genetics and Beyond. Neuropsychol Rev. 2009 Jan 31;19(1):115–29.

18. Conway KP, Levy J, Vanyukov M, Chandler R, Rutter J, Swan GE, et al. Measuring Addiction Propensity and Severity: The Need for a New Instrument. Drug Alcohol Depend. 2010 Sep 1;111(1–2):4–12.

19. Sweetman J, Raistrick D, Mdege ND, Crosby H. A systematic review of substance misuse assessment packages: A review of assessment packages. Drug Alcohol Rev. 2013 Jul;32(4):347–55.

20. Global status report on alcohol and health, 2014 [Internet]. World health Organization; 2014 [cited 2016 Aug 14]. Available from: http://apps.who.int/iris/bitstream/10665/112736/1/9789240692763_eng.pdf?ua=1

21. Street 1615 L., NW, Washington S 800, Inquiries D 20036 202 419 4300 | M 202 419 4349 | F 202 419 4372 | M. Global Population Estimates by Age, 1950-2050 [Internet]. Pew Research Center's Global Attitudes Project. 2014 [cited 2016 Aug 14]. Available from: http://www.pewglobal.org/2014/01/30/global-population/

22. Rehm J, Mathers C, Popova S, Thavorncharoensap M, Teerawattananon Y, Patra J. Global burden of disease and injury and economic cost attributable to alcohol use and alcohol-use disorders. Lancet Lond Engl. 2009 Jun 27;373(9682):2223–33.

23. Shield KD, Parry C, Rehm J. Chronic diseases and conditions related to alcohol use. Alcohol Res Curr Rev. 2013;35(2):155–73.

24. Rehm J, Samokhvalov AV, Shield KD. Global burden of alcoholic liver diseases. J Hepatol. 2013 Jul;59(1):160–8.

25. Murthy P, Manjunatha N, Subodh BN, Chand PK, Benegal V. Substance use and addiction research in India. Indian J Psychiatry. 2010 Jan;52(Suppl1):S189–99.

26. Reddy VM, Chandrashekar CR. Prevalence of mental and behavioural disorders in India : a meta-analysis. Indian J Psychiatry. 1998 Apr;40(2):149–57.

27. John A, Barman A, Bal D, Chandy G, Samuel J, Thokchom M, et al. Hazardous alcohol use in rural southern India: nature, prevalence and risk factors. Natl Med J India. 2009 Jun;22(3):123–5.

28. Sampath SK, Chand PK, Murthy P. Problem drinking among male inpatients in a rural general hospital. Indian J Community M.

29. Mohan D, Chopra A, Sethi H. Incidence estimates of substance use disorders in a cohort from Delhi, India. Indian J Med Res. 2002 Mar;115:128–35.

30. Ray R. The Extent, Pattern and Trends Of Drug Abuse In India, National Survey, Ministry Of Social Justice and Empowermen.

31. Benegal V. India: alcohol and public health. Addict Abingdon Engl. 2005 Aug;100(8):1051–6.

32. Gururaj G. Alcohol and road traffic injuries in South Asia: challenges for prevention. J Coll Physicians Surg--Pak JCPSP. 2004 Dec;14(12):713–8.

33. Bhalla A, Dutta S, Chakrabarti A. A profile of substance abusers using the emergency services in a tertiary care hospital in Sikkim. Indian J Psychiatry. 2006 Oct;48(4):243–7.

34. Bhowmick P, Tripathi BM, Jhingan HP, Pandey RM. Social support, coping resources and codependence in spouses of individuals with alcohol and drug dependence. Indian J Psychiatry. 2001 Jul;43(3):219–24.

35. Rao TS, Kuruvilla K. A study on the coping behaviours of wives of alcoholics. Indian J Psychiatry. 1992 Oct;34(4):359–65.

36. Rao TS, Kuruvilla K. A study on the personality characteristics of wives of alcoholics. Indian J Psychiatry. 1991 Jul;33(3):180–6.

37. Ponnudurai R, Uma TS, Rajarathinam S, Krishnan VS. Determinants of suicidal attempts of wives of substance abusers. Indian J Psychiatry. 2001 Jul;43(3):230–4.

38. Singh S, Balhara YPS. A Review of Indian Research on Co-occurring Psychiatric Disorders and Alcohol use Disorders. Indian J Psychol Med. 2016;38(1):10–9.

39. Singh S, Balhara YPS. A Review of Indian Research on Co-occurring Psychiatric Disorders and Alcohol use Disorders. Indian J Psychol Med. 2016;38(1):10–9.

40. Vohra AK, Yadav BS, Khurana H. A STUDY OF PSYCHIATRIC COMORBIDITY IN ALCOHOL DEPENDENCE. Indian J Psychiatry. 2003;45(4):247–50.

41. Heramani Singh N, Sharma SG, Pasweth AM. Psychiatric co-morbidity among alcohol dependants. Indian J Psychiatry. 2005;47(4):222–4.

42. Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O, et al. Child and adolescent mental health worldwide: evidence for action. The Lancet. 2011;378(9801):1515–1525.

43. Merikangas KR, Nakamura EF, Kessler RC. Epidemiology of mental disorders in children and adolescents. Dialogues Clin Neurosci. 2009 Mar;11(1):7–20.

44. E. Jane Costello, PhD; Sarah Mustillo, PhD; Alaattin Erkanli, PhD; Gordon Keeler, MS; Adrian Angold, MRCPsych. Prevalence and Development of Psychiatric Disorders in Childhood and Adolescence | Aug 01, 2003 | JAMA Psychiatry | JAMA Network [Internet]. [cited 2016 Aug 15]. Available from: http://archpsyc.jamanetwork.com/article.aspx?articleid=207725

45. Costello EJ, Egger H, Angold A. 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. J Am Acad Child Adolesc Psychiatry. 2005 Oct;44(10):972–86.

46. Brauner CB, Stephens CB. Estimating the Prevalence of Early Childhood Serious Emotional/Behavioral Disorders: Challenges and Recommendations. Public Health Rep. 2006;121(3):303–10.

47. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005 Jun;62(6):593–602.

48. Twenge JM, Nolen-Hoeksema S. Age, gender, race, socioeconomic status, and birth cohort differences on the children's depression inventory: a meta-analysis. J Abnorm Psychol. 2002 Nov;111(4):578–88.

49. Lewinsohn PM, Rohde P, Seeley JR, Fischer SA. Age-cohort changes in the lifetime occurrence of depression and other mental disorders. J Abnorm Psychol. 1993 Feb;102(1):110–20.

50. Lewinsohn PM, Seeley JR, Buckley ME, Klein DN. Bipolar disorder in adolescence and young adulthood. Child Adolesc Psychiatr Clin N Am. 2002 Jul;11(3):461–475, vii.

51. Soutullo CA, Chang KD, Díez-Suárez A, Figueroa-Quintana A, Escamilla-Canales I, Rapado-Castro M, et al. Bipolar disorder in children and adolescents: international perspective on epidemiology and phenomenology. Bipolar Disord. 2005 Dec;7(6):497–506.

52. Costello EJ, Egger HL, Angold A. The Developmental Epidemiology of Anxiety Disorders: Phenomenology, Prevalence, and Comorbidity. Child Adolesc Psychiatr Clin. 2005 Oct 1;14(4):631–48.

53. Merikangas KR, Avenevoli S, Dierker L, Grillon C. Vulnerability factors among children at risk for anxiety disorders. Biol Psychiatry. 1999 Dec 1;46(11):1523–35.

54. Froehlich TE, Lanphear BP, Epstein JN, Barbaresi WJ, Katusic SK, Kahn RS. Prevalence, recognition, and treatment of attention-deficit/hyperactivity disorder in a national sample of US children. Arch Pediatr Adolesc Med. 2007 Sep;161(9):857–64.

55. Ford T, Goodman R, Meltzer H. The British Child and Adolescent Mental Health Survey 1999: the prevalence of DSM-IV disorders. J Am Acad Child Adolesc Psychiatry. 2003 Oct;42(10):1203–11.

56. Canino G, Shrout PE, Rubio-Stipec M, Bird HR, Bravo M, Ramirez R, et al. The DSM-IV rates of child and adolescent disorders in Puerto Rico: prevalence, correlates, service use, and the effects of impairment. Arch Gen Psychiatry. 2004 Jan;61(1):85–93.

57. Loeber R, Burke JD, Lahey BB, Winters A, Zera M. Oppositional defiant and conduct disorder: a review of the past 10 years, part I. J Am Acad Child Adolesc Psychiatry. 2000 Dec;39(12):1468–84.

58. Lahey BB, Loeber R, Quay HC, Applegate B, Shaffer D, Waldman I, et al. Validity of DSM-IV subtypes of conduct disorder based on age of onset. J Am Acad Child Adolesc Psychiatry. 1998 Apr;37(4):435–42.

59. Angold A, Erkanli A, Farmer EMZ, Fairbank JA, Burns BJ, Keeler G, et al. Psychiatric disorder, impairment, and service use in rural African American and white youth. Arch Gen Psychiatry. 2002 Oct;59(10):893–901.

60. Roberts RE, Roberts CR, Xing Y. Rates of DSM-IV psychiatric disorders among adolescents in a large metropolitan area. J Psychiatr Res. 2007 Dec;41(11):959–67.

61. Merikangas KR, Avenevoli S. Implications of genetic epidemiology for the prevention of substance use disorders. Addict Behav. 2000 Dec;25(6):807–20.

62. Malhotra S, Patra BN. Prevalence of child and adolescent psychiatric disorders in India: a systematic review and meta-analysis. Child Adolesc Psychiatry Ment Health. 2014 Jul 21;8:22.

63. Patel V, Flisher AJ, Hetrick S, McGorry P. Mental health of young people: a global public-health challenge. The Lancet. 2007;369(9569):1302–1313.

64. Hackett R, Hackett L, Bhakta P, Gowers S. The prevalence and associations of psychiatric disorder in children in Kerala, South India. J Child Psychol Psychiatry. 1999 Jul;40(5):801–7.

65. Malhotra S, Kohli A, Arun P. Prevalence of psychiatric disorders in school children in Chandigarh, India. Indian J Med Res. 2002 Jul;116:21–8.

66. Srinath S, Girimaji SC, Gururaj G, Seshadri S, Subbakrishna DK, Bhola P, et al. Epidemiological study of child & adolescent psychiatric disorders in urban & rural areas of Bangalore, India. Indian J Med Res. 2005 Jul;122(1):67–79.

67. Malhotra S, Kohli A, Kapoor M, Pradhan B. Incidence of childhood psychiatric disorders in India. Indian J Psychiatry. 2009;51(2):101–7.

68. Deivasigamani TR. Psychiatric morbidity in primary school children - an epidemiological study. Indian J Psychiatry. 1990 Jul;32(3):235–40.

69. Khairkar P, Pathak C, Lakhkar B, Sarode R, Vagha J, Jagzape T, et al. A 5-year hospital prevalence of child and adolescent psychiatric disorders from central India. Indian J Pediatr. 2013 Oct;80(10):826–31.

70. Patil RN, Nagaonkar SN, Shah NB, Bhat TS. A Cross-sectional Study of Common Psychiatric Morbidity in Children Aged 5 to 14 Years in an Urban Slum. J Fam Med Prim Care. 2013 Apr;2(2):164–8.

71. Banerjee T. PSYCHIATRIC MORBIDITY AMONG RURAL PRIMARY SCHOOL CHILDREN IN WEST BENGAL. Indian J Psychiatry. 1997;39(2):130–5.

72. Jayanthi P, Thirunavukarasu M, Rajkumar R. Academic stress and depression among adolescents: a cross-sectional study. Indian Pediatr. 2015 Mar 8;52(3):217–9.

73. Nair MKC, Paul MK, John R. Prevalence of depression among adolescents. Indian J Pediatr. 2004 Jun;71(6):523–4.

74. Nair MKC, Russell PSS, Mammen P, Abhiram Chandran R, Krishnan R, Nazeema S, et al. ADad 3: the epidemiology of Anxiety Disorders among adolescents in a rural community population in India. Indian J Pediatr. 2013 Nov;80 Suppl 2:S144-148.

75. Gada M. A STUDY OF PREVALENCE AND PATTERN OF ATTENTION DEFICIT DISORDER WITH HYPERACTIVITY IN PRIMARY SCHOOL CHILDREN. Indian J Psychiatry. 1987;29(2):113–8.

76. Jayaprakash R, Rajamohanan K, Anil P. Determinants of symptom profile and severity of conduct disorder in a tertiary level pediatric care set up: A pilot study. Indian J Psychiatry. 2014;56(4):330–6.

77. Pal R, Tsering D. Tobacco use in Indian high-school students. Int J Green Pharm IJGP [Internet]. 2009 [cited 2016 Sep 19];3(4). Available from: http://www.greenpharmacy.info/index.php/ijgp/article/view/109

78. Pal H, Srivastava A, Dwivedi SN, Pandey A, Nath J. Prevalence of Drug Abuse in India through a National Household Survey. 2015 [cited 2016 Sep 19]; Available from: http://www.currentsciencejournal.info/issuespdf/SND-AIIMS.pdf

79. Reupert AE, J Maybery D, Kowalenko NM. Children whose parents have a mental illness: prevalence, need and treatment. Med J Aust. 2013 Aug 5;199(3 Suppl):S7-9.

80. Mattejat F, Remschmidt H. The Children of Mentally Ill Parents. Dtsch Ärztebl Int. 2008 Jun;105(23):413–8.

81. Wille N, Bettge S, Ravens-Sieberer U, BELLA study group. Risk and protective factors for children's and adolescents' mental health: results of the BELLA study. Eur Child Adolesc Psychiatry. 2008 Dec;17 Suppl 1:133–47.

82. Connell AM, Goodman SH. The association between psychopathology in fathers versus mothers and children's internalizing and externalizing behavior problems: a meta-analysis. Psychol Bull. 2002 Sep;128(5):746–73.

83. Lieberman DZ. Children of alcoholics: an update. Curr Opin Pediatr. 2000 Aug;12(4):336–40.

84. Chafetz ME, Blane HT, Hill MJ. Children of alcoholics. Observations in a child guidance clinic. Q J Stud Alcohol. 1971 Sep;32(3):687–98.

85. Moos RH, Billings AG. Children of alcoholics during the recovery process: alcoholic and matched control families. Addict Behav. 1982;7(2):155–63.

86. Wilson C, Orford J. Children of alcoholics: report of a preliminary study and comments on the literature. Int J Rehabil Res Int Z Für Rehabil Rev Int Rech Réadapt. 1980;3(1):94–6.

87. Windle M. Concepts and issues in COA research. Alcohol Health Res World. 1997;21(3):185–91.

88. Anderson EE, Quast W. Young children in alcoholic families: A mental health needs-Assessment and an intervention/prevention strategy. J Prim Prev. 1983 Dec;3(3):174–87.

89. West MO, Prinz RJ. Parental alcoholism and childhood psychopathology. Psychol Bull. 1987 Sep;102(2):204–18.

90. Sher KJ, Walitzer KS, Wood PK, Brent EE. Characteristics of children of alcoholics: putative risk factors, substance use and abuse, and psychopathology. J Abnorm Psychol. 1991 Nov;100(4):427–48.

91. Steinhausen HC. Children of alcoholic parents. A review. Eur Child Adolesc Psychiatry. 1995 Jul;4(3):143–52.

92. Johnson JL, Leff M. Children of substance abusers: overview of research findings. Pediatrics. 1999 May;103(5 Pt 2):1085–99.

93. Christensen HB, Bilenberg N. Behavioural and emotional problems in children of alcoholic mothers and fathers. Eur Child Adolesc Psychiatry. 2000 Sep;9(3):219–26.

94. Schuckit MA, Smith TL, Radziminski S, Heyneman EK. Behavioral symptoms and psychiatric diagnoses among 162 children in nonalcoholic or alcoholic families. Am J Psychiatry. 2000 Nov;157(11):1881–3.

95. Dube SR, Anda RF, Felitti VJ, Croft JB, Edwards VJ, Giles WH. Growing up with parental alcohol abuse: exposure to childhood abuse, neglect, and household dysfunction. Child Abuse Negl. 2001 Dec;25(12):1627–40.

96. Ohannessian CM, Hesselbrock VM, Kramer J, Kuperman S, Bucholz KK, Schuckit MA, et al. The relationship between parental alcoholism and adolescent psychopathology: a systematic examination of parental comorbid psychopathology. J Abnorm Child Psychol. 2004 Oct;32(5):519–33.

97. Casas-Gil MJ, Navarro-Guzman JI. School characteristics among children of alcoholic parents. Psychol Rep. 2002 Feb;90(1):341–8.

98. McGrath CE, Watson AL, Chassin L. Academic achievement in adolescent children of alcoholics. J Stud Alcohol. 1999 Jan;60(1):18–26.

99. Kuppuswamy B. Manual of Socioeconomic Status (Urban). 1 st ed. Manasayan Delhi. 1981;66–72.

100. Oberoi SS. Updating income ranges for Kuppuswamy's socio-economic status scale for the year 2014. Indian J Public Health. 2015 Jun;59(2):156–7.

101. Epstein NB, Baldwin LM, Bishop DS. THE McMASTER FAMILY ASSESSMENT DEVICE*. J Marital Fam Ther. 1983 Apr 1;9(2):171–80.

102. Epstein, N. B. Bishop, D., Ryan, C., Miller, & Keitner, G., (1993). The McMaster Model View of Healthy Family Functioning. In: Normal Family Processes. Froma Walsh. The Guilford Press: New York/London; p. 138–60.

103. Christine E. Ryan, Nathan B. Epstein, Gabor I. Keitner, Ivan W. Miller, Duane S. Bishop. Evaluating and treating families: The McMaster Approach. New York: Routledge; 2005.

104. McLellan AT, Luborsky L, Woody GE, O'Brien CP. An improved diagnostic evaluation instrument for substance abuse patients. The Addiction Severity Index. J Nerv Ment Dis. 1980 Jan;168(1):26–33.

105. McLellan AT, Kushner H, Metzger D, Peters R, Smith I, Grissom G, et al. The Fifth Edition of the Addiction Severity Index. J Subst Abuse Treat. 1992;9(3):199–213.

106. McGahan PL, Griffith JA, Parente R, McLellann AT. Composite Scores Manual. [cited 2016 Oct 7]; Available from: http://www.tresearch.org/wp-content/uploads/2012/09/CompositeManual.pdf

107. McLellan AT, Luborsky L, Cacciola J, Griffith J, Evans F, Barr HL, et al. New data from the Addiction Severity Index. Reliability and validity in three centers. J Nerv Ment Dis. 1985 Jul;173(7):412–23.

108. Samet S, Waxman R, Hatzenbuehler M, Hasin DS. Assessing Addiction: Concepts and Instruments. Addict Sci Clin Pract. 2007 Dec;4(1):19–31.

109. Ross HE, Glaser FB, Germanson T. The prevalence of psychiatric disorders in patients with alcohol and other drug problems. Arch Gen Psychiatry. 1988 Nov;45(11):1023–31.

110. Penick EC, Powell BJ, Nickel EJ, Bingham SF, Riesenmy KR, Read MR, et al. Co-morbidity of lifetime psychiatric disorder among male alcoholic patients. Alcohol Clin Exp Res. 1994 Dec;18(6):1289–93.

111. Chandini S, Mathai Pj. Prevalence of medical comorbidity in alcohol dependence syndrome. Muller J Med Sci Res. 2013;4(2):68.

112. Rathod SD, Nadkarni A, Bhana A, Shidhaye R. Epidemiological features of alcohol use in rural India: a population-based cross-sectional study. BMJ Open. 2015;5(12):e009802.

113. Sarkar A, Sen S, Mondal S, Singh O, Chakraborty A, Swaika B. A study on socio-demographic characteristics of alcoholics attending the de-addiction center at Burdwan medical college and hospital in West Bengal. Indian J Public Health. 2013;57(1):33.

114. Kadri AM, Bhagyalaxmi A, Kedia G, others. A study of socio-demographic profile of substance abusers attending a de-addiction centre in Ahmedabad city. Indian J Community Med [Internet]. 2003 [cited 2016 Oct 5];28(2). Available from: http://medind.nic.in/iaj/t03/i2/iajt03i2p74o.pdf

115. Johnson PR, Banu S, Ashok MV. Severity of alcoholism in Indian males: Correlation with age of onset and family history of alcoholism. Indian J Psychiatry. 2010;52(3):243–9.

116. Roberts RE, Attkisson CC, Rosenblatt A. Prevalence of Psychopathology Among Children and Adolescents. Am J Psychiatry. 1998 Jun 1;155(6):715–25.

117. Narang RL, Gupta R, Mishra BP, Mahajan R. Temperamental characteristics and psychopathology among children of alcoholics. Indian J Psychiatry. 1997 Jul;39(3):226–31.

118. Silva MC, Benegal V, Devi M, Mukundan CR. Cognitive deficits in children of alcoholics: At risk before the first sip! Indian J Psychiatry. 2007 Jul;49(3):182–8.

119. Raman V, Prasad S, Appaya MP. Children of men with alcohol dependence: Psychopathology, neurodevelopment and family environment. Indian J Psychiatry. 2010;52(4):360–6.

120. Jacob T, Johnson S. Parenting influences on the development of alcohol abuse and dependence. Alcohol Res Health. 1997;21(3):204.

121. Liepman MR, Nirenberg TD, Doolittle RH, Begin AM, Broffman TE, Babich ME. Family functioning of male alcoholics and their female partners during periods of drinking and abstinence. Fam Process. 1989 Jun;28(2):239–49.

122. Burns AR, Solis JM, Shadur JM, Hussong AM. Comparing Psychiatric Symptoms among Children of Substance-Abusing Parents With Different Treatment Histories. Vulnerable Child Youth Stud [Internet]. 2013 [cited 2016 Oct 5];8(3). Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3832943/

123. Hser Y, Evans E, Li L, Metchik A, Messina N. Children of Treated Substance-abusing Mothers: A 10-year Prospective Study. Clin Child Psychol Psychiatry. 2014 Apr;19(2):217–32.

124. McLaughlin KA, Gadermann AM, Hwang I, Sampson NA, Al-Hamzawi A, Andrade LH, et al. Parent psychopathology and offspring mental disorders: results from the WHO World Mental Health Surveys. Br J Psychiatry. 2012 Apr;200(4):290–9.

125. Leonard KE, Eiden RD. Marital and family processes in the context of alcohol use and alcohol disorders. Annu Rev Clin Psychol. 2007;3:285–310.

10. ANNEXURES

Annexure 1

Department of Psychiatry
Christian Medical College, Vellore

Serial No: Date of entry:

Sociodemographic and Clinical Data Sheet

Name: (initials) Hospital No:
Date of Birth: Age: Yrs.
Religion: Mother Tongue:
Residence: Socio-economic Status:
Occupation: Educationallevel:
Marital Status: Number of Children:
Type of Family: Family Size:
Distance from treatment setting:

- Patient illness related information:
  1. Duration of Alcohol Dependence:
  2. Presence of Psychiatric comorbidity:
  3. Presence of Medical comorbidity:
  4. Addiction Severity Index:
- Child related information:
  1. Age:
  2. Gender:
  3. Birth order of child:
  4. Current educational level:
  5. Presence of previously diagnosed psychiatric problem:
  6. Any other psychiatric illness diagnosed in family:
     Paternal:
     Maternal:
- Mother related information:
  1. Age:
  2. Educational level:
  3. Occupation:
  4. Period of time Mother currently staying with Child:
  5. Presence of previously diagnosed psychiatric illness in Mother:

Annexure 2

Kuppuswamy's Socioeconomic Status Scale

(A) Education Score		
1	Profession or Honours	7
2	Graduate or post graduate	6
3	Intermediate or post high school diploma	5
4	High school certificate	4
5	Middle school certificate	3
6	Primary school certificate	2
7	Illiterate	1
(B) Occupation Score		
1	Profession	10
2	Semi-Profession	6
3	Clerical, Shop-owner, Farmer	5
4	Skilled worker	4
5	Semi-skilled worker	3
6	Unskilled worker	2
7	Unemployed	1

	(C) Monthly family income in Rs	**Score**	**Modified for 1998 in Rs.**	**Modified for 2014 in Rs**
1	2000	12	13500	>=36997
2	1000-1999	10	6750 - 13499	18498-36996
3	750-999	6	5050 - 6749	13874-18497
4	500-749	4	3375 - 5049	9249-13873
5	300499	3	2025 - 3374	4447-9248
6	101-299	2	676 - 2024	1866-4446
7	100	1	675	<=1865

Total Score	**Socioeconomic class**
26-29	Upper (l)
16-25	Upper Middle (Il)
11-15	Middle/Lower middle (Ill)
5-10	Lower/Upper lower (IV)
<5	Lower (V)

Annexure 3

McMaster Family Assessment Device (FAD) (Subscales)

Response categories:

Strongly agree

Agree

Disagree

Strongly disagree

Problem Solving

1. We usually act on our decisions regarding problems.
2. After our family tries to solve a problem, we usually discuss whether it worked or not.
3. We resolve most emotional upsets that come up.
4. We confront problems involving feelings.
5. We try to think of different ways to solve problems.

Communication

1. When someone is upset the others know why.
2. You can't tell how a person is feeling from what they are saying.
3. People come right out and say things instead of hinting at them.
4. We are frank with each other.
5. We don't talk to each other when we are angry.
6. When we don't like what someone has done, we tell them.

Roles

1. We you ask someone to do something, you have to check that they did it.
2. We make sure members meet their family responsibilities.
3. Family tasks don’t get spread around enough.
4. We have trouble meeting our bills.
5. There’s little time to explore personal interests.
6. We discuss who is to do household jobs.
7. If people are asked to do something, then need reminding.
8. We are generally dissatisfied with the family duties assigned to us.

Affective Responsiveness

1. We are reluctant to show our affection for each other.
2. Some of us just don't respond emotionally.
3. We don't show our love for each other.
4. Tenderness takes second place to other things in our family.
5. We express tenderness.
6. We cry openly.

Affective Involvement

1. If someone is in trouble, the others become too involved.
2. You only get the interest of others when something is important to them.
3. We are too self-centred.
4. We get involved with each other only when something interests us.
5. We show interest in each other only when they can get something out of it personally.
6. Our family shows interest in each other only when they can get something out of it.
7. Even though we mean well, we intrude too much into each other's lives.

Behavior Control

1. We don't know what to do when an emergency comes up.
2. You can easily get away with breaking the rules.
3. We know what to do in an emergency.
4. We have no clear expectations about toilet habits.
5. We have rules about hitting people.
6. We don't hold any rules or standards.
7. If the rules are broken, we don't know what to expect.
8. Anything goes in our family.
9. There are rules about dangerous situations.

General Functioning

1. Planning family activities is difficult because we misunderstand each other.
2. In time of crisis we can turn to each other for support.
3. We cannot talk to each other about sadness we feel.
4. Individuals are accepted for what they are.
5. We avoid discussing our fears and concerns.
6. We can express feelings to each other.
7. There are lots of bad feelings in the family.
8. We feel accepted for what we are.
9. Making decisions is a problem for our family.
10. We are able to make decisions about how to solve problems.
11. We don't get along well together.
12. We confide in each other.

Annexure 4

Child Behaviour Checklist for 6-18 years

Please print. Be sure to answer all items.

Below is a list of items that describe children and youths. For each item that describes your child ***now or within the past 6 months***, please circle the ***2*** if the item is ***very true or often true*** of your child. Circle the ***1*** if the item is ***somewhat or sometimes true*** of your child. If the item is ***not true*** of your child, circle the ***0***. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know) **1 = Somewhat or Sometimes True** **2 = Very True or Often True**

0 1 2 1. Acts too young for his/her age
0 1 2 2. Drinks alcohol without parents' approval (describe):_____
0 1 2 3. Argues a lot
0 1 2 4. Fails to finish things he/she starts
0 1 2 5. There is very little he/she enjoys
0 1 2 6. Bowel movements outside toilet
0 1 2 7. Bragging, boasting
0 1 2 8. Can't concentrate, can't pay attention for long
0 1 2 9. Can't get his/her mind off certain thoughts; obsessions (describe): _____
0 1 2 10. Can't sit still, restless, or hyperactive
0 1 2 11. Clings to adults or too dependent
0 1 2 12. Complains of loneliness
0 1 2 13. Confused or seems to be in a fog
0 1 2 14. Cries a lot
0 1 2 15. Cruel to animals
0 1 2 16. Cruelty, bullying, or meanness to others
0 1 2 17. Daydreams or gets lost in his/her thoughts
0 1 2 18. Deliberately harms self or attempts suicide
0 1 2 19. Demands a lot of attention
0 1 2 20. Destroys his/her own things
0 1 2 21. Destroys things belonging to his/her family or others
0 1 2 22. Disobedient at home
0 1 2 23. Disobedient at school
0 1 2 24. Doesn't eat well
0 1 2 25. Doesn't get along with other kids
0 1 2 26. Doesn't seem to feel guilty after misbehaving
0 1 2 27. Easily jealous
0 1 2 28. Breaks rules at home, school, or elsewhere
0 1 2 29. Fears certain animals, situations, or places, other than school (describe): _____
0 1 2 30. Fears going to school
0 1 2 31. Fears he/she might think or do something bad
0 1 2 32. Feels he/she has to be perfect
0 1 2 33. Feels or complains that no one loves him/her
0 1 2 34. Feels others are out to get him/her
0 1 2 35. Feels worthless or inferior
0 1 2 36. Gets hurt a lot, accident-prone
0 1 2 37. Gets in many fights
0 1 2 38. Gets teased a lot
0 1 2 39. Hangs around with others who get in trouble
0 1 2 40. Hears sounds or voices that aren't there (describe): _____
0 1 2 41. Impulsive or acts without thinking
0 1 2 42. Would rather be alone than with others
0 1 2 43. Lying or cheating
0 1 2 44. Bites fingernails
0 1 2 45. Nervous, highstrung, or tense
0 1 2 46. Nervous movements or twitching (describe): _____
0 1 2 47. Nightmares
0 1 2 48. Not liked by other kids
0 1 2 49. Constipated, doesn't move bowels
0 1 2 50. Too fearful or anxious
0 1 2 51. Feels dizzy or lightheaded
0 1 2 52. Feels too guilty
0 1 2 53. Overeating
0 1 2 54. Overtired without good reason
0 1 2 55. Overweight
56. Physical problems ***without known medical cause:***
0 1 2 a. Aches or pains (***not*** stomach or headaches)
0 1 2 b. Headaches
0 1 2 c. Nausea, feels sick
0 1 2 d. Problems with eyes (***not*** if corrected by glasses) (describe): _____
0 1 2 e. Rashes or other skin problems
0 1 2 f. Stomachaches
0 1 2 g. Vomiting, throwing up
0 1 2 h. Other (describe): _____

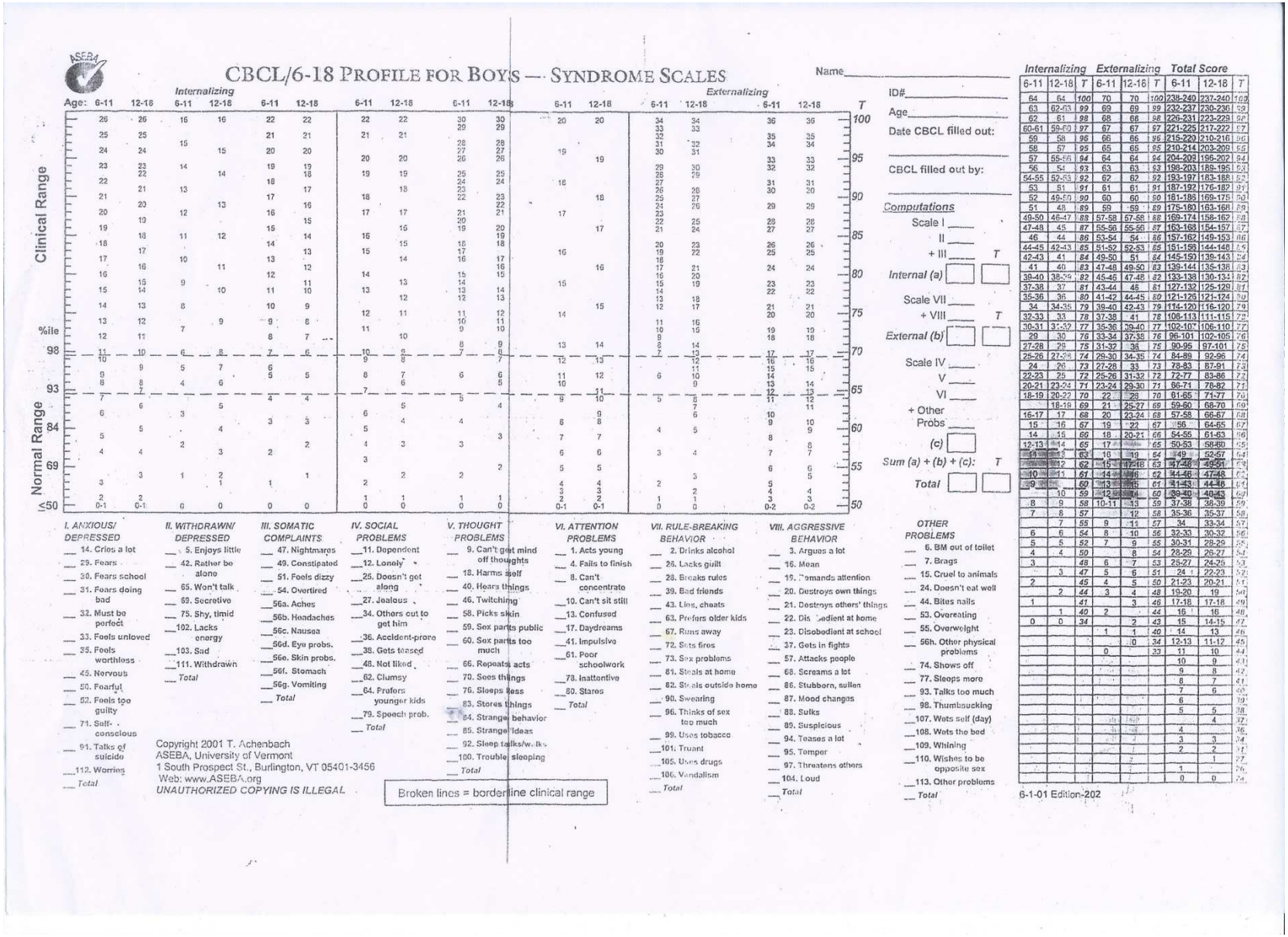
PAGE 3 *Be sure you answered all items. Then see other side.*

Please print. Be sure to answer all items.

0 = Not True (as far as you know) 1 = Somewhat or Sometimes True 2 = Very True or Often True

0 1 2 57. Physically attacks people
0 1 2 58. Picks nose, skin, or other parts of body (describe): _____
0 1 2 59. Plays with own sex parts in public
0 1 2 60. Plays with own sex parts too much
0 1 2 61. Poor school work
0 1 2 62. Poorly coordinated or clumsy
0 1 2 63. Prefers being with older kids
0 1 2 64. Prefers being with younger kids
0 1 2 65. Refuses to talk
0 1 2 66. Repeats certain acts over and over; compulsions (describe): _____
0 1 2 67. Runs away from home
0 1 2 68. Screams a lot
0 1 2 69. Secretive, keeps things to self
0 1 2 70. Sees things that aren't there (describe): _____
0 1 2 71. Self-conscious or easily embarrassed
0 1 2 72. Sets fires
0 1 2 73. Sexual problems (describe): _____
0 1 2 74. Showing off or clowning
0 1 2 75. Too shy or timid
0 1 2 76. Sleeps less than most kids
0 1 2 77. Sleeps more than most kids during day and/or night (describe): _____
0 1 2 78. Inattentive or easily distracted
0 1 2 79. Speech problem (describe): _____
0 1 2 80. Stares blankly
0 1 2 81. Steals at home
0 1 2 82. Steals outside the home
0 1 2 83. Stores up too many things he/she doesn't need (describe): _____
0 1 2 84. Strange behavior (describe): _____
0 1 2 85. Strange ideas (describe): _____
0 1 2 86. Stubborn, sullen, or irritable
0 1 2 87. Sudden changes in mood or feelings
0 1 2 88. Sulks a lot
0 1 2 89. Suspicious
0 1 2 90. Swearing or obscene language
0 1 2 91. Talks about killing self
0 1 2 92. Talks or walks in sleep (describe): _____
0 1 2 93. Talks too much
0 1 2 94. Teases a lot
0 1 2 95. Temper tantrums or hot temper
0 1 2 96. Thinks about sex too much
0 1 2 97. Threatens people
0 1 2 98. Thumb-sucking
0 1 2 99. Smokes, chews, or sniffs tobacco
0 1 2 100. Trouble sleeping (describe): _____
0 1 2 101. Truancy, skips school
0 1 2 102. Underactive, slow moving, or lacks energy
0 1 2 103. Unhappy, sad, or depressed
0 1 2 104. Unusually loud
0 1 2 105. Uses drugs for nonmedical purposes (*don't* include alcohol or tobacco) (describe): _____
0 1 2 106. Vandalism
0 1 2 107. Wets self during the day
0 1 2 108. Wets the bed
0 1 2 109. Whining
0 1 2 110. Wishes to be of opposite sex
0 1 2 111. Withdrawn, doesn't get involved with others
0 1 2 112. Worries
113. Please write in any problems your child has that were not listed above:
0 1 2 _____
0 1 2 _____
0 1 2 _____

Please be sure you answered all items.



CBCL/6-18 PROFILE FOR BOYS — SYNDROME SCALES

Name_____

ID#_____

Age_____

Date CBCL filled out:

CBCL filled out by:

Internalizing | Externalizing | Total Score

Clinical Range / Normal Range / %ile

Broken lines = borderline clinical range

Computations

Scale I ____
II ____
+ III ____ T
Internal (a)

Scale VII ____
+ VIII ____ T
External (b)

Scale IV ____
V ____
VI ____
+ Other Probs ____
(c)
Sum (a) + (b) + (c): T
Total

I. ANXIOUS/DEPRESSED
- 14. Cries a lot
- 29. Fears
- 30. Fears school
- 31. Fears doing bad
- 32. Must be perfect
- 33. Feels unloved
- 35. Feels worthless
- 45. Nervous
- 50. Fearful
- 52. Feels too guilty
- 71. Self-conscious
- 91. Talks of suicide
- 112. Worries
- *Total*

II. WITHDRAWN/DEPRESSED
- 5. Enjoys little
- 42. Rather be alone
- 65. Won't talk
- 69. Secretive
- 75. Shy, timid
- 102. Lacks energy
- 103. Sad
- 111. Withdrawn
- *Total*

III. SOMATIC COMPLAINTS
- 47. Nightmares
- 49. Constipated
- 51. Feels dizzy
- 54. Overtired
- 56a. Aches
- 56b. Headaches
- 56c. Nausea
- 56d. Eye probs.
- 56e. Skin probs.
- 56f. Stomach
- 56g. Vomiting
- *Total*

IV. SOCIAL PROBLEMS
- 11. Dependent
- 12. Lonely
- 25. Doesn't get along
- 27. Jealous
- 34. Others out to get him
- 36. Accident-prone
- 38. Gets teased
- 48. Not liked
- 62. Clumsy
- 64. Prefers younger kids
- 79. Speech prob.
- *Total*

V. THOUGHT PROBLEMS
- 9. Can't get mind off thoughts
- 18. Harms self
- 40. Hears things
- 46. Twitching
- 58. Picks skin
- 59. Sex parts public
- 60. Sex parts too much
- 66. Repeats acts
- 70. Sees things
- 76. Sleeps less
- 83. Stores things
- 84. Strange behavior
- 85. Strange ideas
- 92. Sleep talks/w. ltk
- 100. Trouble sleeping
- *Total*

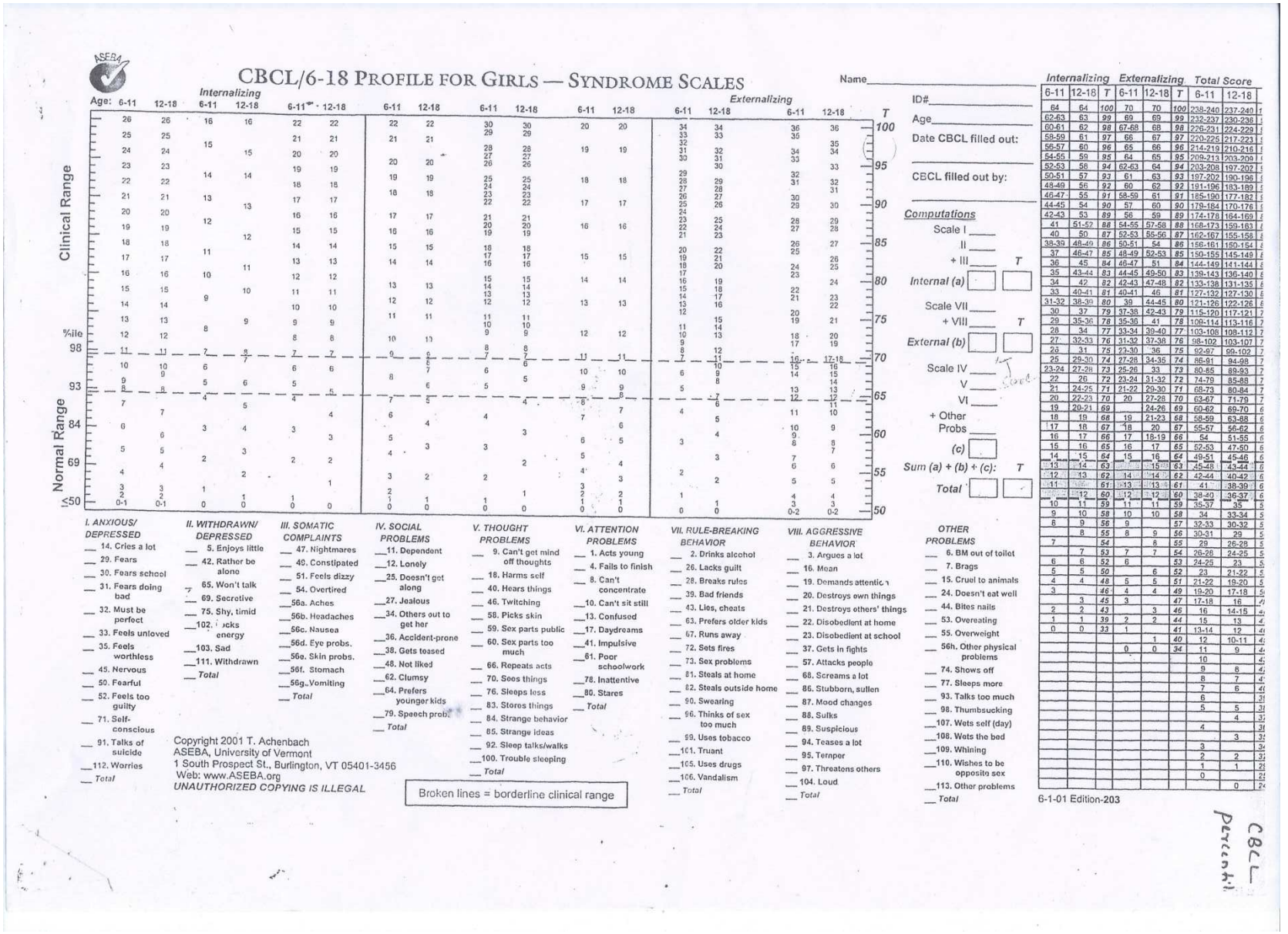
VI. ATTENTION PROBLEMS
- 1. Acts young
- 4. Fails to finish
- 8. Can't concentrate
- 10. Can't sit still
- 13. Confused
- 17. Daydreams
- 41. Impulsive
- 61. Poor schoolwork
- 78. Inattentive
- 80. Stares
- *Total*

VII. RULE-BREAKING BEHAVIOR
- 2. Drinks alcohol
- 26. Lacks guilt
- 28. Breaks rules
- 39. Bad friends
- 43. Lies, cheats
- 63. Prefers older kids
- 67. Runs away
- 72. Sets fires
- 73. Sex problems
- 81. Steals at home
- 82. Steals outside home
- 90. Swearing
- 96. Thinks of sex too much
- 99. Uses tobacco
- 101. Truant
- 105. Uses drugs
- 106. Vandalism
- *Total*

VIII. AGGRESSIVE BEHAVIOR
- 3. Argues a lot
- 16. Mean
- 19. Demands attention
- 20. Destroys own things
- 21. Destroys others' things
- 22. Disobedient at home
- 23. Disobedient at school
- 37. Gets in fights
- 57. Attacks people
- 68. Screams a lot
- 86. Stubborn, sullen
- 87. Mood changes
- 88. Sulks
- 89. Suspicious
- 94. Teases a lot
- 95. Temper
- 97. Threatens others
- 104. Loud
- *Total*

OTHER PROBLEMS
- 6. BM out of toilet
- 7. Brags
- 15. Cruel to animals
- 24. Doesn't eat well
- 44. Bites nails
- 53. Overeating
- 55. Overweight
- 56h. Other physical problems
- 74. Shows off
- 77. Sleeps more
- 93. Talks too much
- 98. Thumbsucking
- 107. Wets self (day)
- 108. Wets the bed
- 109. Whining
- 110. Wishes to be opposite sex
- 113. Other problems
- *Total*

6-1-01 Edition-202



CBCL/6-18 PROFILE FOR GIRLS — SYNDROME SCALES

Name_____

ID#_____

Age_____

Date CBCL filled out:_____

CBCL filled out by:_____

Internalizing | Externalizing

Clinical Range / Normal Range

%ile: 98, 93, 84, 69, ≤50

T: 100, 95, 90, 85, 80, 75, 70, 65, 60, 55, 50

I. ANXIOUS/DEPRESSED
- 14. Cries a lot
- 29. Fears
- 30. Fears school
- 31. Fears doing bad
- 32. Must be perfect
- 33. Feels unloved
- 35. Feels worthless
- 45. Nervous
- 50. Fearful
- 52. Feels too guilty
- 71. Self-conscious
- 91. Talks of suicide
- 112. Worries
- *Total*

II. WITHDRAWN/DEPRESSED
- 5. Enjoys little
- 42. Rather be alone
- 65. Won't talk
- 69. Secretive
- 75. Shy, timid
- 102. [illegible] energy
- 103. Sad
- 111. Withdrawn
- *Total*

III. SOMATIC COMPLAINTS
- 47. Nightmares
- 49. Constipated
- 51. Feels dizzy
- 54. Overtired
- 56a. Aches
- 56b. Headaches
- 56c. Nausea
- 56d. Eye probs.
- 56e. Skin probs.
- 56f. Stomach
- 56g. Vomiting
- *Total*

IV. SOCIAL PROBLEMS
- 11. Dependent
- 12. Lonely
- 25. Doesn't get along
- 27. Jealous
- 34. Others out to get her
- 36. Accident-prone
- 38. Gets teased
- 48. Not liked
- 62. Clumsy
- 64. Prefers younger kids
- 79. Speech prob.
- *Total*

V. THOUGHT PROBLEMS
- 9. Can't get mind off thoughts
- 18. Harms self
- 40. Hears things
- 46. Twitching
- 58. Picks skin
- 59. Sex parts public
- 60. Sex parts too much
- 66. Repeats acts
- 70. Sees things
- 76. Sleeps less
- 83. Stores things
- 84. Strange behavior
- 85. Strange ideas
- 92. Sleep talks/walks
- 100. Trouble sleeping
- *Total*

VI. ATTENTION PROBLEMS
- 1. Acts young
- 4. Fails to finish
- 8. Can't concentrate
- 10. Can't sit still
- 13. Confused
- 17. Daydreams
- 41. Impulsive
- 61. Poor schoolwork
- 78. Inattentive
- 80. Stares
- *Total*

VII. RULE-BREAKING BEHAVIOR
- 2. Drinks alcohol
- 26. Lacks guilt
- 28. Breaks rules
- 39. Bad friends
- 43. Lies, cheats
- 63. Prefers older kids
- 67. Runs away
- 72. Sets fires
- 73. Sex problems
- 81. Steals at home
- 82. Steals outside home
- 90. Swearing
- 96. Thinks of sex too much
- 99. Uses tobacco
- 101. Truant
- 105. Uses drugs
- 106. Vandalism
- *Total*

VIII. AGGRESSIVE BEHAVIOR
- 3. Argues a lot
- 16. Mean
- 19. Demands attention
- 20. Destroys own things
- 21. Destroys others' things
- 22. Disobedient at home
- 23. Disobedient at school
- 37. Gets in fights
- 57. Attacks people
- 68. Screams a lot
- 86. Stubborn, sullen
- 87. Mood changes
- 88. Sulks
- 89. Suspicious
- 94. Teases a lot
- 95. Temper
- 97. Threatens others
- 104. Loud
- *Total*

OTHER PROBLEMS
- 6. BM out of toilet
- 7. Brags
- 15. Cruel to animals
- 24. Doesn't eat well
- 44. Bites nails
- 53. Overeating
- 55. Overweight
- 56h. Other physical problems
- 74. Shows off
- 77. Sleeps more
- 93. Talks too much
- 98. Thumbsucking
- 107. Wets self (day)
- 108. Wets the bed
- 109. Whining
- 110. Wishes to be opposite sex
- 113. Other problems
- *Total*

Computations

Scale I ____
II ____
+ III ____ T
Internal (a) ☐ ☐

Scale VII ____
+ VIII ____ T
External (b) ☐ ☐

Scale IV ____
V ____
VI ____
+ Other Probs ____
(c) ☐

Sum (a) + (b) + (c): T
Total ☐ ☐

Internalizing			Externalizing			Total Score	
6-11	12-18	T	6-11	12-18	T	6-11	12-18
64	64	100	70	70	100	238-240	237-240
62-63	63	99	69	69	99	232-237	230-236
60-61	62	98	67-68	68	98	226-231	224-229
58-59	61	97	66	67	97	220-225	217-223
56-57	60	96	65	66	96	214-219	210-216
54-55	59	95	64	65	95	209-213	203-209
52-53	58	94	62-63	64	94	203-208	197-202
50-51	57	93	61	63	93	197-202	190-196
48-49	56	92	60	62	92	191-196	183-189
46-47	55	91	58-59	61	91	185-190	177-182
44-45	54	90	57	60	90	179-184	170-176
42-43	53	89	56	59	89	174-178	164-169
41	51-52	88	54-55	57-58	88	168-173	159-163
40	50	87	52-53	55-56	87	162-167	155-158
38-39	48-49	86	50-51	54	86	156-161	150-154
37	46-47	85	48-49	52-53	85	150-155	145-149
36	45	84	46-47	51	84	144-149	141-144
35	43-44	83	44-45	49-50	83	139-143	136-140
34	42	82	42-43	47-48	82	133-138	131-135
33	40-41	81	40-41	46	81	127-132	127-130
31-32	38-39	80	39	44-45	80	121-126	122-126
30	37	79	37-38	42-43	79	115-120	117-121
29	35-36	78	35-36	41	78	109-114	113-116
28	34	77	33-34	39-40	77	103-108	108-112
27	32-33	76	31-32	37-38	76	98-102	103-107
26	31	75	29-30	36	75	92-97	99-102
25	29-30	74	27-28	34-35	74	86-91	94-98
23-24	27-28	73	25-26	33	73	80-85	89-93
22	26	72	23-24	31-32	72	74-79	85-88
21	24-25	71	21-22	29-30	71	68-73	80-84
20	22-23	70	20	27-28	70	63-67	71-79
19	20-21	69		24-26	69	60-62	69-70
18	19	68	19	21-23	68	58-59	63-68
17	18	67	18	20	67	55-57	56-62
16	17	66	17	18-19	66	54	51-55
15	16	65	16	17	65	52-53	47-50
14	15	64	15	16	64	49-51	45-46
13	14	63	14	15	63	45-48	43-44
12	13	62	13	14	62	42-44	40-42
11	12	61	12	13	61	41	38-39
10	11	60	11	12	60	38-40	36-37
9	10	59	10	11	59	35-37	35
8	9	58	9	10	58	34	33-34
7	8	57	8	9	57	32-33	30-32
6	7	56	7	8	56	30-31	29
5	6	55	6	7	55	29	26-28
4	5	54	5	6	54	26-28	24-25
3	4	53	4	5	53	24-25	23
2	3	52	3	4	52	23	21-22
1	2	51	2	3	51	21-22	19-20
0	1	50	1	2	50	19-20	17-18

6-1-01 Edition-203

Broken lines = borderline clinical range

CBCL Percentile

Annexure 5

Sample of Addiction Severity Index (Contact Primary Author for Full Version)

{Module Name} Module

Addiction Severity Index - 5th Edition

Clinical/Training Version

A. Thomas McLellan, Ph.D.
Deni Carise, Ph.D.
Thomas H. Coyne, MSW
T. Ron Jackson, MSW

Remember: This is an interview, not a test

≈Item numbers circled are to be asked at follow-up.≈
≈Items with an asterisk * are cumulative and should be rephrased at

INTRODUCING THE ASI: Introduce and explain the seven potential problem areas: Medical, Employment/Support Status, Alcohol, Drug, Legal, Family/Social, and Psychiatric. All clients receive this same standard interview. All information gathered is confidential; explain what that means in your facility; who has access to the information and the process for the release of information.
There are two time periods we will discuss:

1. The past 30 days
2. Lifetime

Patient Rating Scale: Patient input is important. For each area, I will ask you to use this scale to let me know how bothered you have been by any problems in each section. I will also ask you how important treatment is for you for the area being discussed.
The scale is: 0 - Not at all
1 - Slightly
2 - Moderately
3 - Considerably
4 - Extremely
Inform the client that he/she has the right to refuse to answer any question. If the client is uncomfortable or feels it is too personal or painful to give an answer, instruct the client not to answer. Explain the benefits and advantages of answering as many questions as possible in terms of developing a comprehensive and effective treatment plan to help them.

Please try not give inaccurate information!

INTERVIEWER INSTRUCTIONS:

1. Leave no blanks.
2. Make plenty of Comments (if another person reads this ASI, they should have a relatively complete picture of the client's perceptions of his/her problems).
3. -9 = Question not answered.
   -8 = Question not applicable.
4. Terminate interview if client misrepresents two or more sections.
5. When noting comments, please write the question number.

HALF TIME RULE: If a question asks the number of months, round up periods of 14 days or more to 1 month. Round up 6 months or more to 1 year.

CONFIDENCE RATINGS: ⇒ Last two items in each section.
⇒ Do not over-interpret.
⇒ Denial does not warrant misrepresentation.
⇒ Misrepresentation = overt contradiction in information.

Probe, cross-check and make plenty of comments!

HOLLINGSHEAD CATEGORIES:

1. Higher execs, major professionals, owners of large businesses.
2. Business managers if medium sized businesses, lesser professions, i.e., nurses, opticians, pharmacists, social workers, teachers.
3. Administrative personnel, managers, minor professionals, owners/ proprietors of small businesses, i.e., bakery, car dealership, engraving business, plumbing business, florist, decorator, actor, reporter, travel agent.
4. Clerical and sales, technicians, small businesses (bank teller, bookkeeper, clerk, draftsperson, timekeeper, secretary).
5. Skilled manual - usually having had training (baker, barber, brakeperson, chef, electrician, fireman, machinist, mechanic, paperhanger, painter, repairperson, tailor, welder, police, plumber).
6. Semi-skilled (hospital aide, painter, bartender, bus driver, cutter, cook, drill press, garage guard, checker, waiter, spot welder, machine operator).
7. Unskilled (attendant, janitor, construction helper, unspecified labor, porter, including unemployed).

LIST OF COMMONLY USED DRUGS:

Alcohol:	Beer, wine, liquor
Methadone:	Dolophine, LAAM
Opiates:	Pain killers = Morphine, Diluaudid, Demerol, Percocet, Darvon, Talwin, Codeine, Tylenol 2,3,4, Robitussin, Fentanyl
Barbiturates:	Nembutal, Seconal, Tuinol, Amytal, Pentobarbital, Secobarbital, Phenobarbital, Fiorinol
Sed/Hyp/Tranq:	Benzodiazepines = Valium, Librium, Ativan, Serax Tranxene, Xanax, Miltown, Other = ChloralHydrate (Noctex), Quaaludes Dalmane, Halcion
Cocaine:	Cocaine Crystal, Free-Base Cocaine or "Crack," and "Rock Cocaine"
Amphetamines:	Monster, Crank, Benzedrine, Dexedrine, Ritalin, Preludin, Methamphetamine, Speed, Ice, Crystal
Cannabis:	Marijuana, Hashish
Hallucinogens:	LSD (Acid), Mescaline, Mushrooms (Psilocybin), Peyote, Green, PCP (Phencyclidine), Angel Dust, Ecstacy
Inhalants:	Nitrous Oxide, Amyl Nitrate (Whippits, Poppers), Glue, Solvents, Gasoline, Toluene, Etc.

Just note if these are used: Antidepressants,
Ulcer Meds = Zantac, Tagamet
Asthma Meds = Ventoline Inhaler, Theodur
Other Meds = Antipsychotics, Lithium

ALCOHOL/DRUG USE INSTRUCTIONS:

The following questions refer to two time periods: the past 30 days and lifetime. Lifetime refers to the time prior to the last 30 days.

- ⇒ 30 day questions only require the number of days used.
- ⇒ Lifetime use is asked to determine extended periods of use.
- ⇒ Regular use = 3+ times per week, binges, or problematic irregular use in which normal activities are compromised.
- ⇒ Alcohol to intoxication does not necessarily mean "drunk", use the words "to feel or felt the effects", "got a buzz", "high", etc. instead of intoxication. As a rule of thumb, 3+ drinks in one sitting, or 5+ drinks in one day defines "intoxication".
- ⇒ How to ask these questions:
  - → "How many days in the past 30 have you used....?"
  - → "How many years in your life have you regularly used....?"

MEDICAL STATUS

M1.* **How many times in your life have you been hospitalized for medical problems?** ___ ___

*Include O.D.'s and D.T.'s. Exclude detox, alcohol/drug, psychiatric treatment and childbirth (if no complications). Enter the number of **overnight** hospitalizations for medical problems.*

M2. **How long ago was your last hospitalization for a physical problem?** __ __ / __ __ (YRS / MOS)

If no hospitalizations in Question M1, then code -8 / -8.

M3. **Do you have any chronic medical problems which continue to interfere with your life?** ___

0 - No 1 - Yes

If Yes, specify in comments.
A chronic medical condition is a serious physical condition that requires regular care (i.e., medication, dietary restriction) preventing full advantage of their abilities.

M4. **Are you taking any prescribed medication on a regular basis for a physical problem?** ___

0 - No 1 - Yes

If Yes, specify in comments.
*Medication prescribed by a MD for medical conditions; **not psychiatric medicines**. Include medicines prescribed whether or not the patient is currently taking them. The intent is to verify chronic medical problems.*

M5. **Do you receive a pension for a physical disability?** ___

0 - No 1 - Yes

If Yes, specify in comments.
Include Workers' compensation, exclude psychiatric disability.

M6. **How many days have you experienced medical problems in the past 30 days?** ___ ___

Include flu, colds, etc. Include serious ailments related to drugs/alcohol, which would continue even if the patient were abstinent (e.g., cirrhosis of liver, abscesses from needles, etc.).

For Questions M7 & M8, ask patient to use the Patient Rating Scale

M7. **How troubled or bothered have you been by these medical problems in the past 30 days?** ___

Restrict response to problem days in Question M6.

M8. **How important to you now is treatment for these medical problems?** ___

*If client is currently receiving medical treatment, refer to the need for **additional** medical treatment by the patient.*

INTERVIEWER SEVERITY RATING

M9. **How would you rate the patient's need for medical treatment?** ___

*Refers to the patient's need for **additional** medical treatment.*

CONFIDENCE RATINGS

Is the above information significantly distorted by:

M10. **Patient's misrepresentation?** ___

0 - No 1 - Yes

M11. **Patient's inability to understand?** ___

0 - No 1 - Yes

MEDICAL COMMENTS

(Include the question number with your notes)

PSYCHIATRIC STATUS (cont)

The following items are to be completed by the interviewer:

At the time of the interview, the patient was: 0 - No 1 - Yes

- (P15.) **Obviously depressed/withdrawn** ___
- (P16.) **Obviously hostile** ___
- (P17.) **Obviously anxious/nervous** ___
- (P18.) **Having trouble with reality testing, thought disorders, paranoid thinking** ___
- (P19.) **Having trouble comprehending, concentrating, remembering** ___
- (P20.) **Having suicidal thoughts** ___

INTERVIEWER SEVERITY RATING

P21. **How would you rate the patient's need for psychiatric/ psychological treatment?** ___

CONFIDENCE RATINGS

Is the above information significantly distorted by:

- (P22.) **Client's misrepresentation?** ___
  0 - No 1 - Yes
- (P23.) **Client's inability to understand?** ___
  0 - No 1 - Yes

PSYCHIATRIC STATUS COMMENTS

(Include the question number with your notes)

Annexure 6

Information Sheet, Informed Consent form and Child assent form - English

CHRISTIAN MEDICAL COLLEGE, VELLORE

DEPARTMENT OF PSYCHIATRY

A CROSS SECTIONAL STUDY TO ASSESS PSYCHOPATHOLOGY IN CHILDREN OF PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND THEIR FAMILY FUNCTIONING.

[A STUDY TO ASSESS MENTAL HEALTH ISSUES IN CHILDREN OF PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND THEIR FAMILY FUNCTIONING]

INFORMATION SHEET

We would like to invite you to participate in this original research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information

Research Aims:
Our current knowledge suggests that Children of Alcoholics are at higher risk for mental health problems and have higher degree of poor family functioning. This Study aims to see the presence of psychiatric disorder in children of parents with Alcohol Dependence, the risk factors associated with it and the family functioning in families of alcohol dependent fathers. This study would help us to identify the vulnerable children for psychiatric disorders and poor family functioning and take necessary steps for prevention or early diagnosis and treatment for the same in future.

Who Have We Asked to Participate?
This study requires the participation of 3 family members.

1. Patient who is diagnosed with Alcohol dependence syndrome in the out-patient department of Adult Psychiatry in CMC, Vellore
2. One child of the parent diagnosed with Alcohol Dependence Syndrome, who is within 6 to 18 years of age.
3. Mother of the child who has been staying with the child for at least the past 6 months.

Who Must We Exclude?

4. Children with severe sensory special sensory impairment, organic impairment or below moderate level of Intellectual Disability in child assessed clinically.
5. Family or patient refused consent and assent
6. Current major mental illness in mother.

When and Where Will the Study Take Place?

The study will take place in the Out-Patient Clinic of the Department of Psychiatry, CMC, Vellore

How Long Will the Study Last?

The whole process may take about 60-90 minutes

What Will You Be Asked to Do?

You will be asked to answer questions about your child's behaviour, his or her recent experiences of positive and negative life events, your child's relationship with you, your own (and, if relevant, your partner's) psychological well-being, behaviour, and substance use, and about your family situation more generally (e.g., questions about your own and, if relevant, your partner's education, employment status, family income, how many children and adults live in your house, etc.)

Can you withdraw from this study after it starts?
Your participation in this study is entirely voluntary and you or your caregivers are also free to decide to withdraw permission to participate in this study. If you do so, this will not affect your or your relative's usual treatment at this hospital in any way.

What will happen if you develop any study related injury?
As this study involves only asking questions, there is no scope for any study related injury. As part of this study, no blood tests or imaging techniques will be employed on you or your relative.

Will you have to pay for the study?
No, this study is absolutely free and you don't have to pay any money to be part of this study.

What happens after the study is over?

This is a onetime interview. Immediately after the interview is over, the investigator will be able to tell whether you or your relative who underwent the study has any problem. The investigator will also guide you to seek further investigation or treatment options if you need.

Will your personal details be kept confidential?
The results of this study will be published in a medical journal but you or your relative will not be identified by name in any publication or presentation of results. However, your medical notes may be reviewed by people associated with the study, without your additional permission, should you decide to participate in this study.

If you have any further questions, please ask Dr. Ranjit Krishnadas (Telephone no.: 0416-2284507. Mobile no-8220006963), email: ranjit.krishnadas@gmail.com

CHRISTIAN MEDICAL COLLEGE, VELLORE
DEPARTMENT OF PSYCHIATRY

A CROSS SECTIONAL STUDY TO ASSESS PSYCHOPATHOLOGY IN CHILDREN OF PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND THEIR FAMILY FUNCTIONING.

[A STUDY TO ASSESS MENTAL HEALTH ISSUES IN CHILDREN OF PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND THEIR FAMILY FUNCTIONING]

Informed consent form to participate in a research study

Study Number:

Subject's Initials: **Subject's Name:**

Date of Birth / Age:

(i) I confirm that I have read and understood the information sheet dated for the above study and have had the opportunity to ask questions.

(ii) I understand that mine and my ward's participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.

(iii)I understand that the Sponsor of the clinical trial, others working on the Sponsor's behalf, the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published.

(iv) I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s).

(v)I agree on mine and my ward's behalf to take part in the above study.

Signature (or Thumb impression) of the Subject/Legally Acceptable Representative:

Date: _____/_____/_____

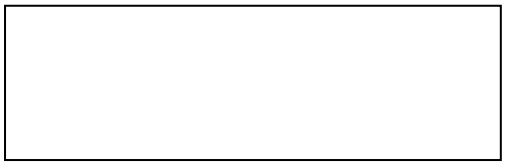
Signatory's Name: _____

Signature of the Investigator:

Date: _____/_____/_____

Study Investigator's Name: _____

Signature or thumb impression of the Witness:



Date: _____/_____/_____

Name & Address of the Witness: _____

CHILD ASSENT FORM

STUDY TITLE:

A STUDY TO ASSESS MENTAL HEALTH ISSUES IN CHILDREN OF PATIENTS WITH ALCOHOL DEPENDENCE SYNDROME AND THEIR FAMILY FUNCTIONING

I am Dr. Ranjit Krishnadas from Department of Psychiatry – CMC Vellore. I am doing a study to figure out the presence of any mental health problems and family functioning in children of parents with Alcohol Dependence

For this research, we will ask you some questions about yourself and related to your family. We will keep all your answers private, and will not show them to your family members or teachers. Only people who are working on the study will see them.

No additional injections or operations would be required for this study.

By participating in this study you will not get any extra benefit in terms of the cost of your treatment. However, if we diagnose any problems, we would give you the option of treatment from us. You should know that:

- You do not have to be in this study if you do not want to. You won't get into any trouble with the hospital, teacher, or the school if you say no.
- You may stop being in the study at any time. If there is a question you don't want to answer, just leave it blank.
- Your parent(s)/guardian(s) were asked if it is OK for you to be in this study. Even if they say it's OK, it is still your choice whether or not to take part.
- You can ask any questions you have, now or later. If you think of a question later, you or your parents can contact me at the following phone number or email address.
- Sign this form only if you:

1. Have understood what you will be doing for this study,
2. Have had all your questions answered,
3. Have talked to your parent(s)/legal guardian about this project, and
4. Agree to take part in this research

_____

Your Signature Printed Name Date

_____

Name of Parent(s) or Legal Guardian(s)

_____

Researcher explaining study
Signature Dr. Ranjit Krishnadas Date

Annexure 7

Information Sheet, Informed Consent form and Child assent form - Tamil

கிறிஸ்தவ் மருத்துவக் கல்லூரி, வேலூர்
மனநல மருத்துவமனை

ஆய்வின் தலைப்பு:
"மதுப்பழக்க நோயாளிகளின் குழந்தைகளுக்கு மனநல பிரச்சனைகள் வருவதைக் கண்டறியும் ஓர் ஒப்பிட்டு
நடத்தப்படும் ஆய்வு"
(மதுபழக்கத்திற்காக மனநல மருத்துவமனையில் சிகிச்சைபெறுபவரின் குழந்தைகளுக்கு ஏற்படும் மனநல பாதிப்புகள் மற்றும் அவர்களது நடவடிக்கைகள் மாற்றம் பற்றிய ஆராய்ச்சி)

ஆய்வின் முன்னுரை:
இந்த ஆய்வில் கலந்துகொள்ள உங்களை வரவேற்கின்றோம். நீங்கள் விருப்பப்பட்டால் மாத்திரமே இந்த ஆய்வில் கலந்துகொள்ளலாம். இதில் நீங்கள் கலந்துகொள்ளாமல் போனாலும் உங்களுக்கோ உங்கள் பிள்ளைக்கோ அளிக்கப்படும் சிகிச்சையில் எந்த பாதிப்பும் ஏற்படாது. இதில் நீங்கள் கலந்துகொள்வதற்கு முன்னால், எதற்காக இந்த ஆய்வு நடத்தப்படுகிறது, இதன் நோக்கம் என்ன, இதில் உங்கள் பங்கு என்ன போன்ற விளக்கங்களை தெளிவாக தெரிந்துகொள்வது நல்லது. எனவே, இந்த ஆய்வுபற்றிய தகவல் தாளை நன்றாக வாசித்து, மற்றவர்களிடம் வேண்டுமானாலும் விசாரித்து கலந்துகொள்ள வேண்டுகின்றோம். இதைப் பற்றிய சந்தேகங்கள் எதுவாக இருந்தாலும் அதை எங்களிடம் தாராளமாக கேட்டு தெரிந்துகொள்ள வேண்டுகின்றோம்.

ஆய்வின் நோக்கம்:
தற்போதுள்ள எங்கள் யூகத்தின் அடிப்படையில், மதுபழக்கத்திற்கு அடிமையாக உள்ளவர்களின் பிள்ளைகளுக்கு மனநல பாதிப்பு மற்றும் குடும்பத்தில் அப்படிப்பட்ட பிள்ளைகளின் நடவடிக்கைகளில் மாற்றம் ஏற்பட்டு அதிக பாதிப்புள்ளாகிறார்கள் என்பதை அறிகின்றோம்.
எனவே, இப்படிப்பட்ட பாதிப்பு ஏற்படுத்தும் காரணங்களையும் மனநல பாதிப்பு அறிகுறிகளின் ஆபத்து மற்றும் அவர்களின் குடும்பத்தில் அவர்களது நடவடிக்கைகளில் அதிக மாற்றங்களை ஏற்படுத்தும் நிலைகளையும் ஆரம்ப நிலையிலேயே கண்டறிந்து, அதற்கான முன்னெச்சரிக்கை சிகிச்சை மற்றும் ஆலோசனைகளை வழங்கவும் இந்த ஆராய்ச்சி நடத்தப்படுகிறது.

யார் இந்த ஆய்வில் கலந்துகொள்ள கேட்டுக்கொள்ளப்படுவார்கள்?
மூன்று குடும்ப அங்கத்தினர்கள் இந்த ஆய்வில் கலந்துகொள்ள கேட்டுக்கொள்ளப்படுவார்கள்.

1.வேலூர், சி.எம்.சி. மனநல மருத்துவமனையில் மதுபழக்கத்திற்காக சிகிச்சை பெறும் நோயாளி (தகப்பன்).
2.மதுபழக்கத்திற்காக சிகிச்சைபெறுபவரின் 6 வயது முதல் 18 வயதிற்குள்ளாக இருக்கும் பிள்ளை.
3.குறைந்தது 6 மாதங்களாவது இந்த பிள்ளையோடிருந்த தாயார்.

யார் இந்த ஆய்வில் கலந்துகொள்ள அனுமதிக்கப்படமாட்டார்?

1.தீவிர மனநலம் பாதிக்கப்பட்ட, மூளை வளர்ச்சி குன்றிய மற்றும் அதிக கட்டுப்பாட்டில் வைக்க முடியாத பிள்ளைகள்.
2.இந்த ஆய்வில் பங்குபெற விருப்பமில்லாத அல்லது ஒப்புதல் தராத குடும்பத்தினர்.
3.தீவிர மனநோயால் பாதிக்கப்பட்டுள்ள தாயார்.

எப்போது, எங்கு இந்த ஆய்வு நடத்தப்படும்?
வேலூர், சி.எம்.சி மனநல மருத்துவமனை, புறநோயாளிகள் பிரிவில் இந்த ஆய்வு நடைபெறும்.

எவ்வளவு நேரம் இந்த ஆய்வு நடத்தப்படும்?

சுமார் 60 முதல் 90 நிமிடங்கள் அதாவது சுமார் ஒன்று அல்லது ஒன்றரை மணி நேரம் இந்த ஆய்வு நடத்தப்படும்.

நீங்கள் என்ன செய்ய வேண்டும் என கேட்கப்படுவீர்கள்?
உங்கள் பிள்ளையின் பழக்க வழக்கம் சம்மந்தமாகவும், அவன் / அவள் நடவடிக்கைகளில் சாத்தியமான அல்லது அசாத்தியமான செயல்பாடுகள் பற்றியும், உங்களோடும் குடும்பத்தில் உள்ள மற்றவர்களோடும் அவர்களது நடந்துகொள்ளும் விதம் பற்றியும், மன வளர்ச்சி, ஒழுக்கமான நடவடிக்கைகள் அல்லது போதைப்பொருட்கள் உபயோகித்தல் போன்ற கெட்ட நடவடிக்கைகள் பற்றியும் மேலும் குடும்ப சூழல் மற்றும் குடும்ப அங்கத்தினர்களின் விபரங்கள் (உதாரணமாக குடும்ப பொருளாதார நிலை, வருமானம், கல்வி, தொழில்) பற்றியும் கேள்விகள் கேட்கப்படும்.

ஆய்வு தொடங்கியப் பிறகு இந்த ஆய்விலிருந்து நீங்கள் விலகிக்கொள்ள முடியுமா?
இந்த ஆய்வில் நீங்கள் உங்கள் முழு சம்மதத்துடன் கலந்து கொண்டிருக்கிறீர்கள். இது கட்டாயம் அல்ல. எப்போது வேண்டுமானாலும் இதிலிருந்து விலகிக்கொள்ள உங்களுக்கு முழு சுதந்திரம் உள்ளது. இப்படி நீங்கள் விலகிக்கொள்வதால், ஏற்கனவே, உங்களுக்கு அளிக்கப்படும் எங்கள் மருத்துவ சிகிச்சை எந்த விதத்திலும் பாதிக்கப்படமாட்டாது.

இந்த ஆய்வின்போது உங்களுக்கு ஏதாவது உடல் காயங்கள் ஏற்படுமா?
இந்த ஆய்வு முற்றிலும் வாய்மொழி கேள்விகள் மட்டும் கேட்கப்படுவதால், இதனால் எந்த விதமான ஆபத்துகளும் ஏற்பட வாய்ப்பில்லை. இந்த ஆய்விற்காக உங்களுக்கோ அல்லது உங்கள் உறவினருகோ இரத்தப்பரிசோதனைகளோ அல்லது உடல் நிழற்படங்களோ வேறு எந்த பரிசோதனைகளோ எடுக்கத்தேவையில்லை.

இந்த ஆய்விற்காக நீங்கள் ஏதாவது கட்டணம் செலுத்த வேண்டுமா?
இந்த ஆய்வு முற்றிலும் இலவசமாக நடத்தப்படுகிறது. எனவே, இதற்காக நீங்கள் எந்த கட்டணமும் செலுத்தத் தேவையில்லை.

இந்த ஆய்வு நடந்து முடிந்த பிறகு என்ன நடைபெறும்?
இந்த ஆய்வு ஒரே நேரத்தில் நடத்தி முடிக்கப்படுகிறது. எனவே, உடனடியாக உங்கள் மருத்துவர் உங்களுக்குள்ள நோய் தாக்கத்தின் தன்மை, அதனுடைய தற்போதைய பாதிப்பின் அளவு பற்றிய விபரங்களை தெரிவிக்க முடியும். தங்களுக்கு அதற்கான சிகிச்சை உதவி ஆலோசனைகளை தேவைப்படுமானால், அதற்கான விபரங்களை உங்களுக்கு அளிப்பார்.

இந்த ஆய்வுவில் நீங்கள் கலந்துகொள்வதால் உங்களைப்பற்றிய விபரங்கள் ரகசியமாக பாதுகாக்கப்படுமா?
ஆய்வில் கலந்துகொள்ளும் உங்கள் பெயர், குடும்ப விபரங்கள் அனைத்தும் ரகசியமாக பாதுகாக்கப்படும். இந்த ஆய்வின் அறிக்கைகள் மருத்துவ ஆராய்ச்சிப் புத்தகங்களில் வெளியிடப்படும். ஆனால் எந்த விதத்திலும் உங்கள் அனுமதியின்றி நோயாளியின் பெயர், குடும்ப அடையாள விபரங்கள் ஆகியவை மற்றவர்களுக்கு தெரிவிக்கப்படமாட்டாது.

மேலும் ஆய்வின் விபரங்களை அறிந்துகொள்ள தொடர்புகொள்ள வேண்டியவர்:
டாக்டர். ரஞ்சித் கிருஷ்ணதாஸ்,
மனநல மருத்துவமனை,
கிறிஸ்தவ மருத்துவக் கல்லூரி,
வேலூர் - 632 002

தொலைப்பேசி எண்: 0416 - 2284507; கைப்பேசி: 8220006963
மின் அஞ்சல்: ranjit.krishnadas@gmail.com

ஆய்வின் விளக்கம் தெரிவிக்கப்பட்டு கலந்துகொள்பவரின் ஒப்புதல் படிவம்

ஆய்வின் தலைப்பு:
"மன அழுத்தம், மனச்சோர்வு மற்றும் பதட்டம் அல்லது கவலையுடன் பிரசவ காலத்திற்கு முன்பாகவே பிரசவித்த குழந்தைகள், தீவிர சிகிச்சைக்காக குழந்தைகள் காப்பகப்பிரிவில் அனுமதிக்கப்பட்ட போது நடத்தப்பட்ட ஆய்வு"

ஆய்வின் எண்:

நோயாளியின் பெயர்:

பெற்றோர் / காப்பாளரின் பெயர்:

(i) ஆய்வு பற்றிய தகவல் தாள் எனக்கு கொடுக்கப்பட்டது. அதை நான் நன்றாக படித்து ஆய்வின் விளக்கங்களை தெரிந்துகொண்டேன். மேலும் ஆய்வு பற்றிய விபரங்ககளை கேட்பதற்கு வாய்ப்பு எனக்கு அளிக்கப்பட்டு நான் புரிந்துகொள்ளும் வகையில் எனக்கு தெளிவான விளக்கம் அளிக்கப்பட்டது.

(ii) நான் எனது முழு விருப்பத்துடன் இந்த ஆய்வில் கலந்து கொண்டுள்ளேன். இதனால் எனக்கு அளிக்கப்படும் சிகிச்சையில் எந்த தடையும் ஏற்படாமல், இந்த ஆய்விலிருந்து எப்போது வேண்டுமானாலும் விலகிக்கொள்ள எனக்கு முழு சுதந்திரம் தரப்பட்டுள்ளது.

(iii) நான் புரிந்து கொண்டது என்னவென்றால் மருத்துவ பரிசோதனைக்கு பண உதவி செய்பவர்கள் அல்லது அவர்களுக்கு பதிலாக பண உதவி செய்பவர்கள், நன்னடத்தை குழு, கட்டுப்பாட்டு அதிகாரிகள் ஆகியோருக்கு என்னுடைய உடல்நலம், மனநலம் பற்றிய மருத்துவக் குறிப்புகளைப் பார்ப்பதற்கு என்னுடைய அனுமதி தேவையில்லை என்பதும் நான் ஆய்வில் இருந்து விலகிக்கொண்டாலும் இப்பொழுதோ அல்லது எதிர்காலத்திலோ, என்னுடைய அனுமதி தேவையில்லை என்பதை அறிவேன். என்னுடைய மருதுவக் குறிப்புகளைப் பார்ப்பதற்கு சம்மதிகின்றேன். என்னுடைய பெயர் மற்றும் முகவரி மூன்றாவது மனிதர்களுக்கு தெரியப்படுத்தப்படமாட்டது என்பதை அறிவேன்.

(iv) இந்த ஆய்வின் கண்டுபிடிப்புகள் அறிவியல் நோக்கத்திற்காக பயன்படுத்தப்படுவதை நான் அனுமதிக்கின்றேன்.

(v) நான் இந்த ஆய்வில் கலந்துகொள்ள முழுமனதுடன் சம்மதிக்கின்றேன்.

பங்குகொள்பவரின் கையொப்பம்:
தேதி:

பங்குகொள்பவரின் பெயர்:

சட்டப்படியானபிரிதி:
தேதி:
பெயர்:

ஆய்வாளரின்கையொப்பம்:
தேதி:
பெயர்:

சாட்சியின் பெயர் & கையொப்பம்:
முகவரி:

தலைப்பு :-

மதுபழக்கத்தினால் அடிமையானவர்களின் குழந்தைகளுக்கு ஏற்படும் மனநல பாதிப்பு மற்றும் அவர்களின் குடும்ப செயல்பாடுகள்

நான் DR. ரஞ்சித் கிறிஸ்டினதான், நான் மன இயல் துறையின் மருத்துவர், நான் மதுபழக்கத்தினால் அடிமையானவர்களின் குழந்தைகளுக்கு ஏற்படும் மன நல பாதிப்புகள் மற்றும் குடும்ப செயல்பாடுகளின் விளைவுகளை ஆய்வு செய்ய விரும்புகிறேன்.

இந்த ஆராய்ச்சியில் நான் உங்களையும் உங்கள் குடும்ப பிரச்சனைகள் பற்றி சில கேள்விகளை கேட்பேன். உங்களுடைய பதில்கள் ரகசியமாக பாதுகாக்கப்படும். இது உங்கள் குடும்ப உறுப்பினருக்கோ, ஆசிரியர்கோ காண்பிக்க முடியாது. இந்த ஆய்வில் பங்கேற்பவர் மட்டுமே இதைப்பற்றி அறிய முடியும்.

இந்த ஆராய்ச்சியினால் உங்களுக்கு மிகப் பெரிய பாதிப்பு ஏதும் ஏற்படாது என்று கருதுகிறோம், ஆனால் உங்கள் பிரச்சனைகள் பற்றி கேட்கப்படும் பொழுது நீங்கள் கஷ்டமாக உணரலாம். உங்களுக்கு ஊதியமோ, அல்லது சிகிச்சையோ மேற்கொள்ளப்படாது.

நீங்கள் இந்த ஆய்வில் பங்கேற்பதால் உங்கள் சிகிச்சையில் வெளியிருந்து எந்த ஒரு தனி உதவியும் கிடைக்க வாய்ப்பில்லை. இருப்பினும் இதில் பங்கேற்பதன் மூலமாக உங்கள் உளவியல் பிரச்சனைகள் கண்டறியப்படும். அதற்குரிய சிகிச்சை விவரத்தை உங்களிடம் அளிக்கப்படும்

நீங்கள் அறிந்து கொள்ள வேண்டியது

* நீங்கள் இந்த ஆய்வில் பங்கேற்க விருப்பமில்லை என்றால் எவ்வித பாதிப்பும் இல்லை, இதனால் மருத்துவமனையிலோ, ஆசிரியராலோ, பள்ளியிலோ எவ்வித பிரச்சனையும் ஏற்படாது.

* நீங்கள் இந்த ஆய்வில் இருந்து எந்த நேரத்திலும் விலகி கொள்ளலாம், நீங்கள் ஏதேனும் கேள்விக்கு பதில் அளிக்க விருப்பமில்லை. என்றால் அதனை செய்ய வேண்டாம்.

* உங்களின் பெற்றோர் (அ) பாதுகாவலர் இந்த ஆய்வில் நீங்கள் பங்கேற்க அனுமதி அளித்தாலும் உங்களின் சுய விருப்பமே இறுதியானது.

* நீங்கள் இந்த ஆய்வில் இப்பொழுதோ (அ) எப்போது வேண்டுமானாலும் கேள்வி கேட்கலாம். உங்களது பெற்றோர் பின்வரும் தொலைபேசி எண் (அ) மின் அஞ்சல் முகவரியில் தொடர்பு கொள்ளலாம்

* நீங்கள் விரும்பினால் மட்டும் இந்த படிவத்தில் கையொப்பம் இடவும் __________.

* நான் எனக்கு இந்த ஆய்வு செய்யப்படுகிறது என்று அறிந்து கொண்டேன்.

* உங்கள் கேள்விகள் அனைத்திற்கும் பதில் இருந்தது

* இந்த ஆராய்ச்சி பற்றி உங்கள் பெற்றோர் (அ) பாதுகாவலரிடம் கூறலாம்.

* இந்த ஆராய்ச்சியில் பங்கு கொள்ள சம்மதம்.

__________ __________ __________

கையொப்பம் பெயர் தேதி

____

பெற்றோர் (அ) பாதுகாவலர் கையொப்பம்

____________________ __________

ஆய்வாளரின் கையொப்பம் தேதி

Annexure 8

Information Sheet, Informed Consent form and Child assent form - Hindi

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CHRISTIAN MEDICAL COLLEGE, VELLORE
DEPARTMENT OF PSYCHIATRY

शराब निर्भरता सिंड्रोम और उनके परिवार के कामकाज के साथ रोगियों के बच्चों में मनोविकृति आकलन करने के लिए एक क्रॉस अनुभागीय अध्ययन।

[शराब निर्भरता रोगियों के बच्चों में मानसिक स्वास्थ्य के मुद्दों और उनके परिवार के कामकाज का आकलन करने के एक अध्ययन]

सूचना पत्र

हम इस मूल अनुसंधान परियोजना में भाग लेने के लिए आपको आमंत्रित करना चाहते हैं।आप केवल पसंद करते हैं, तो ही आप भाग लेने चाहिए।अगर आप हिस्सा नहीं लेंगे, तो आपको किसी भी तरह से नुकसान नहीं होगा । आप भाग लेने फैसला करने से पहले यह आप समझने महत्वपूर्ण है, की क्यों यह अनुसंधान किया जा रहा है और अपनी भागीदारी क्या होगा। आप समय लेके और ध्यान से निम्नलिखित जानकारी पढ़ सकते हैं और आप यदि चाहें तो इसे दूसरों के साथ चर्चा कर सकते है। यदि यह स्पष्ट नहीं है या आप अधिक जानकारी चाहते हैं तो आप हमें पूछ सकते हैं।

अनुसंधान लक्ष्य:
हमारे वर्तमान ज्ञान पता चलता है की शराबियों के बच्चे को मानसिक स्वास्थ्य समस्याओं के लिए खतरा अधिक होता है और उनके परिवारों के कामकाज उतना अच्छा नहीं होता है। यह अध्ययन शराबियों के बच्चों में मानसिक समस्याओं , इसके साथ जुड़े जोखिम वाले कारकों, और शराबियों के परिवारों में कामकाज की उपस्थिति को देखने के लिए है। इस अध्ययन से हमें मानसिक रूप से कमजोर बच्चों और बुरे परिवार कामकाज की पहचान करने में मदद मिलेगी, और भविष्य में उसी के लिए रोकथाम या शीघ्र निदान और उपचार के लिए आवश्यक कदम उठाने में मदद मिलेगी।

हम किसको भाग लेने के लिए अनुरोध किया हैं?
इस अध्ययन के लिया परिवार के 3 सदस्यों की भागीदारी की आवश्यकता है।
1. मनोरोग विभाग में शराब की समस्या के इलाज के लिए आ रहा हुआ रोगी।
2. एक बच्चा जो 6 से 18 साल के बीच में हैं, जिसके पिता को शराब का बीमारी है।
3. बच्चे की माँ जो कम से कम पिछले 6 महीनों के लिए बच्चे के साथ रह रहा है।

हम किसको शामिल नहीं कर सकते?
1. मध्यम स्तर के नीचे बौद्धिक विकलांग बच्चों।
2. सहमति या सहमति इनकार करने वाला रोगी या परिवार।
3. वर्तमान में मां में मानसिक बीमारी।

जब और जहां अध्ययन होगा?
अध्ययन CMC, वेल्लोर के मनोरोग विभाग में हो जाएगा।

अध्ययन कितना समय लगेगा?
पूरी प्रक्रिया लगभग 60-90 मिनट लग सकते हैं।

आपको क्या करने के लिए कहा जाएगा?
आप अपने बच्चे के व्यवहार के बारे में सवालों का जवाब देने के लिए कहा जाएगा, जीवन की सकारात्मक और नकारात्मक घटनाओं के बारे में, उनकी हाल के अनुभवों, आप के साथ अपने बच्चे के रिश्ते, अपने खुद के (और, प्रासंगिक हैं, तो अपने पार्टनर की) मानसिक स्थिति, व्यवहार, और पदार्थ का उपयोग, और अपने परिवार की स्थिति के बारे में और अधिक आम तौर पर (जैसे, अपने खुद के बारे में सवाल और प्रासंगिक हैं, तो अपने पार्टनर की शिक्षा, रोजगार की स्थिति, परिवार की आय, कितने बच्चों और वयस्कोंअपने घर में रहते हैं,आदि) ।

यह शुरू होने के बाद क्या आप इस अध्ययन से पीछे हट सकते हैं?
इस अध्ययन में आपकी भागीदारी पूरी तरह स्वैच्छिक है और आप या अपने रिश्तेदारों को भी इस अध्ययन में भाग लेने के लिए अनुमति वापस लेने का फैसला करने के लिए स्वतंत्र हैं। यदि आप ऐसा करते हैं, तो यह किसी भी तरह से इस अस्पताल में अपने या अपने रिश्तेदार के सामान्य उपचार को प्रभावित नहीं करेगा।

यदि आपको अध्ययन संबंधित चोट है, तो क्या होगा?
इस अध्ययन से केवल सवाल पूछ शामिल है, किसी भी अध्ययन से संबंधित चोट के लिए कोई संभावना नहीं है। इस अध्ययन के हिस्से के रूप में, रक्त परीक्षण या इमेजिंग तकनीक के लिए आप या आपके रिश्तेदार पर नहीं किया जाएगा।

क्या आप इस अध्ययन के लिए पैसा खर्च करना होगा?
नहीं, इस अध्ययन बिल्कुल मुफ्त है और आप इस अध्ययन का हिस्सा बनने के लिए पैसा खर्च करने की जरूरत नहीं है।

अध्ययन समाप्त होने के बाद क्या होता है?
साक्षात्कार केवल एक बार ही होगा।
इंटरव्यू खत्म होने के बाद, अन्वेषक आप या आपके रिश्तेदार को किसी भी समस्या है या नहीं, आपको बता दें सकते हैं। यदि आवश्यक हो, तो अन्वेषक भी आगे की जांच या इलाज के विकल्प की तलाश करने के लिए मार्गदर्शन करेंगे।

क्या आपकी व्यक्तिगत जानकारी को गुप्त रखा जाएगा?
इस अध्ययन के परिणामों के एक मेडिकल जर्नल में प्रकाशित किया जाएगा लेकिन आप या आपके रिश्तेदार परिणामों के किसी भी प्रकाशन या प्रस्तुति में नाम से पहचान नहीं की जाएगी। हालांकि, अगर आप इस अध्ययन में भाग लेने का फैसला करते हैं, तो अपनी चिकित्सा नोट्स, अपने अतिरिक्त अनुमति के बिना अध्ययन के साथ जुड़े लोगों द्वारा समीक्षा की जा सकती है।

आपको आगे किसी भी प्रश्न हैं तो , आप कृपया **डॉ रंजीत कृष्णदास** से पूछ सकते हैं। (टेलीफोन नं .: 0416-2284507 मोबाइल नं 8220006963।) ईमेल: ranjit.krishnadas@gmail.com

CHRISTIAN MEDICAL COLLEGE, VELLORE
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शराब निर्भरता सिंड्रोम और उनके परिवार के कामकाज के साथ रोगियों के बच्चों में मनोविकृति आकलन करने के लिए एक क्रॉस अनुभागीय अध्ययन।

[शराब निर्भरता रोगियों के बच्चों में मानसिक स्वास्थ्य के मुद्दों और उनके परिवार के कामकाज का आकलन करने के एक अध्ययन]

शोध अध्ययन में भाग लेने के लिए सूचित सहमति फार्म

अध्ययन संख्या:

रोगी के नाम के पहले अक्षर: **रोगी के नाम:**

जन्मतिथि/आयु:

(i) अध्ययन के बारे में मैंने पढ़ा है और तारीख की जानकारी चादर समझ में आया और सवाल पूछने का मौका मिला है।.

(ii) मैं समझता हूँ कि अध्ययन में मेरा और मेरे बच्चे की भागीदारी स्वैच्छिक है और अपनी चिकित्सीय देखभाल या कानूनी अधिकार प्रभावित हुए बिना, मैं बिना कोई कारण बताए, किसी भी समय अध्ययन में भाग लेने से वापस करने केलिए स्वतंत्र हूँ।

(iii) मैं समझता हूँ कि यदि अब परीक्षण से वापस लेने के लिए मैं चुनते हैं, फिर भी, चिकित्सीय परीक्षण के प्रायोजक, उनकी ओर से काम कर रहे अन्य लोगों, आचार समिति और नियामक अधिकारी को, वर्तमान अध्ययन और किसी भी आगे अनुसंधान के संबंध में मेरे स्वास्थ्य के रिकॉर्ड को देखने के लिए मेरी अनुमति की जरूरत नहीं होगी। मैं इस का उपयोग करने के लिए सहमत हैं। हालांकि, मैं समझता हूँ मेरी पहचान किसी भी जारी सूचना में पता चला या प्रकाशित नहीं किया जाएगा.

(iv) इस अध्ययन से आने वाले किसी भी जानकारी या परिणाम के इस्तेमाल को प्रतिबंधित नहीं करने के लिए मैं सहमत हूँ । लेकिन इस तरह का इस्तेमाल केवल वैज्ञानिक उद्देश्य के लिए होना चाहिए।.

(v) मेरा और मेरे बच्चे की ओर से, मैं उपरोक्त अध्ययन में भाग लेने के लिए सहमत हैं।.

हस्ताक्षर (या अंगूठे का निशान)

तारीख: _____/_____/_____

हस्ताक्षरकर्ता का नाम: _____

अन्वेषक के हस्ताक्षर:

तारीख: _____/_____/_____
अध्ययन अन्वेषक का नाम: _____

गवाह का हस्ताक्षर या अंगूठे का निशान:

तारीख: _____/_____/_____

गवाह का नाम और पता: _____

बाल सहमति फार्म

अध्ययन शीर्षक:

शराब निर्भरता रोगियों के बच्चों में मानसिक स्वास्थ्य मुद्दों और उनके परिवार के कामकाज का आकलन करने के एक अध्ययन

मैं सी.एम.सी, वेल्लोर के मनोचिकित्सा विभाग के डॉ रंजीत कृष्णदास हूँ।शराबियों के बच्चों में किसी भी मानसिक स्वास्थ्य समस्याओं की उपस्थिति और उनके परिवार के कामकाज को समझने के लिए मैं एक अध्ययन कर रहा हूँ। इस शोध के लिए, हम आप और आपके परिवार के बारे में कुछ सवाल पूछना होगा।आपके सारे सवालों के जवाब गुप्त रखा जाएगा और अपने परिवार या शिक्षकों को नहीं दिखाया जाएगा।केवल जो लोगों अध्ययन पर काम कर रहे हैं, उन्हें देखना होगा।

अतिरिक्त इंजेक्शन या संचालन इस अध्ययन के लिए जरूरत नहीं होगी।

इस अध्ययन में भाग लेने से आप अपने इलाज का खर्च करने के मामले में किसी भी अतिरिक्त लाभ नहीं मिलेगा। लेकिन, हम किसी भी समस्याओं का निदान करते हैं, तो हम आप हम से उपचार का विकल्प दे देंगे।

आपको यह पता होना चाहिए:

- क्या आप नहीं करना चाहते हैं, तो इस अध्ययन में शामिल होने की जरूरत नहीं है।
- आप नहीं करना चाहते है, तो आप अस्पताल, शिक्षक, या स्कूल के साथ किसी भी समस्या में नहीं मिलेगा।
- आप किसी भी समय इस अध्ययन में शामिल होने से रोक सकती है। आप किसी एक सवाल का जवाब देने नहीं चाहते हैं, तो बस इसे खाली छोड़ दें।
- आपके माता-पिता / अभिभावक पूछा गया अगर आप इस अध्ययन में शामिल होने ठीक है या नहीं। वे ठीक कहे , फिर भी भाग लेने या नहीं अभी भी अपनी पसंद है। .
- अभी या बाद में, आप किसी भी सवाल पूछ सकते हैं आप बाद में एक सवाल के बारे में सोचना है, तो आप या आपके माता-पिता फोन नंबर या ई-मेल पते पर मुझसे संपर्क कर सकते हैं।
- इस फार्म पर हस्ताक्षर सिर्फ करना हे तब :

1. आपका समझ में आया है, इस अध्ययन के लिए आपको क्या करना होंगे।
2. आपके सभी सवालों के जवाब मिला है।
3. इस परियोजना के बारे में अपने माता-पिता / अभिभावक से बात की, और
4. इस शोध में भाग लेने के लिए सहमत हैं।

आपका हस्ताक्षर नाम तारीख

_____ माता

पिता या अभिभावक का नाम

अध्ययन के बारे में बताया जो शोधकर्ता

हस्ताक्षर डॉ रंजीत कृष्णदास तारीख