ASSESSMENT OF MENTAL HEALTH & CONJUGAL SATISFACTION AMONG SPOUSES OF MEN WITH ALCOHOL USE DISORDER: A CROSS SECTIONAL STUDY.

Dr. KARAN. LALWANI

Dissertation submitted to

BLDE (Deemed to be University) Vijayapur, Karnataka

In partial fulfillment of the requirements for the degree of

DOCTOR OF MEDICINE

IN

PSYCHIATRY

Under the guidance of

Dr.S.P. CHOUKIMATH

PROFESSOR

DEPARTMENTOF PSYCHIATRY

BLDE (Deemed to be University)

SHRIB.M.PATILMEDICALCOLLEGE

HOSPITAL & RESEARCH CENTRE, VIJAYAPUR

KARNATAKA

2020

Assessment of mental health & conjugal satisfaction, among spouses of men with alcohol use disorder: A cross sectional study

MD

IN

Psychiatry

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

Wopa – Wives of person with alcoholism

Lr – low resilience

GMHAT-PC - Global mental health assessment tool-primary care

DV – Domestic violence

WHO – World Health Organization

SADQ – Severity of alcohol dependence questionnaire

DrInC – Drinker's inventory of Consequences

CSI – Coping Strategies inventory

CDRS – Connor Davidson Resilience scale

ICD – International classification of Disease

SUD – Substance use disorder

ABSTRACT

BACKGROUND:

Alcohol dependence syndrome is a disorder affecting not only the individual but also its immediate family and most importantly, spouse given their nature of the intimate relationship. Alcohol dependence can cause intrafamilial conflicts and incur financial hardships because of patient's urge to spend their savings on alcohol, which will have negative consequences on the familial environment. Alcohol use disorder present in the male partner is associated with poor mental health and marital discord among spouses in India with spouses being at greater risk of suffering from psychiatric morbidities such as depression, anxiety, and somatic complaints and verbal as well as physical abuse and higher levels of stress but still in the Indian subcontinent, it is relatively uncommon for a spouse of alcohol-dependent men to walk out of marriage despite great deal of suffering. Till date many Western studies have been conducted on the harmful impact of the consumption of the alcohol on the spouse but not many Indian studies have focused upon the functioning (in terms of coping strategies and resilience) of spouses of alcohol-dependent men in context to their local cultural life.

AIM AND OBJECTIVES:

- To assess the severity of alcohol dependence and associated problems in alcohol-dependent men.
- To assess the mental health and the degree of conjugal satisfaction among the spouses of men diagnosed with alcohol dependent syndrome.
- To investigate the association between mental health, conjugal satisfaction in spouses with the severity of alcohol dependence in patients
- To assess the resilience factor and identify the coping strategies adopted by the spouse of men diagnosed with alcohol dependent syndrome

MATERIALS AND METHODS:

This cross-sectional study is carried out after taking institutional ethical committee clearance. Spouse aged between 18-64 years who were willing to give informed consent were included in this study and spouses having pre-existing mental illness and cognitive impairment were excluded from the study.

Severity of Alcohol Dependence Questionnaire was used to assess the severity of alcohol dependence, DrINC was used to assess adverse consequences of alcohol consumption, Marital Adjustment test was used to assess Marital Satisfaction, coping strategies inventory was used to assess coping strategies, Connor Davidson Resilience scale 10 was used to assess resilience among spouses of men diagnosed with alcohol dependence syndrome

RESULTS:

Our study found that 18% of men suffered from mild dependence, 38% had moderate dependence, 44% had severe Dependence, while assessing psychiatric morbidity our study found that majority of the women were suffering from anxiety and mood disorders i.e. 13 women were suffering from GAD, 10 women were suffering from Depressive disorder, 7 women were suffering from Dysthymia, 3 women were suffering from panic disorder, 1 woman was suffering from Suicidality, in our study we found that there is statistically significant association between psychiatric morbidity and severity of alcohol dependence, moroever marital satisfaction was found to be inversely proportional to severity of alcohol dependence i.e. as severity of alcohol dependence increases then marital satisfaction decreases, while assessing coping strategies in our study we found that most common coping strategies employed in our study my majority of the spouses was problem focused and emotion focused engagement strategies, while assessing resilience we found that majority of spouses in our study scored in lowest quartile range followed by (16%) of women scored in second quartile

range, 27% of women scored in third quartile range, and very few (8%) of women scored in top quartile range.

CONCLUSION:

Wives of alcohol dependent men suffer more commonly from GAD, depressive disorder, dysthymia, panic disorder which are usually neglected, Increasing severity of alcohol dependence is associated with marital dissatisfaction, Severity of alcohol dependence in husband is associated with development of psychiatric morbidity in spouses, Spouses of alcohol dependent men adopted problem focused engagement and emotion focused engagement coping strategies to deal with distress caused by their husband, Wives adopted same coping mechanism irrespective of the severity of alcohol dependence in men, Increased severity of alcohol dependence in men was associated with decreased resilience in women

Introduction

The most serious and enduring health issue in our nation is alcoholism[1]. It is characterized by a heightened tolerance for and physical dependence on alcohol, which reduces one's ability to appropriately regulate alcohol consumption.[2] Alcoholism is a condition with serious negative effects on one's physical, psychological, and social well-being.

The progression from problem-free drinking to excessive alcohol use to alcohol dependency, or alcoholism, is known as the "natural history."[2]

The World Health Organization (WHO) has released data showing that people over 15 years of age consume an average of 6.2 Liters of pure alcohol per year, or 13.5 g of pure alcohol each day.[3]

Burden of disease caused by alcohol usage

a) At the global level: The eastern Mediterranean region, which encompasses Afghanistan, Bahrain, and Egypt, has the lowest frequency of AUDs (6.5%) and in Europe, it is at its peak (7.5%).

At the national level:

In India, the prevalence of AUDs over a 12-month period in 2010 was 2.6%, while the prevalence of alcohol dependence was 2.1%. According to India's National Mental Health Survey from 2015–16, 9% of adult men have Alcohol use disorder AUDs.[3]

One of the largest Study done at the National level by National drug dependence treatment center, AIIMS New Delhi titled, "Magnitude of substance use in India" conveys that about 14.6% of the population (between 10 and 75 year of age) uses alcohol and, as many as 19% of current users of alcohol consume alcohol in a dependent pattern.

The prevalence of dependent pattern of alcohol use in the general population (10-75 years) is estimated to be 2.7%, or 2.9 crore individuals[4]

AUDs could be brought on by a variety of variables, including genetic, psychological, and environmental ones. The identification of genetic risk alleles, engaged in alcohol-related phenotypes, is complicated by a number of circumstances. Up until recently, candidate genes were the main focus of gene discovery activities. In addition to genetic variables, other factors also affect the phenotypes associated with alcohol use for e.g. unfavorable life conditions, such as early stress and difficult life events (e.g., death of a loved one, divorce). Poor life satisfaction along with stress has been linked to heavy drinking and alcohol consumption. AUDs are frequently co-occurring with psychiatric illness in people with these conditions.[5]

One might classify Alcohol Dependence Syndrome as a familial disorder. It has negative effects on the patient with alcohol dependence syndrome as well as the family members. It is often said and known that the life of the family members living with an alcoholic person is challenging in every aspect of their lives. Alcoholism affects not only the one who consumes but also those who fall within his surrounding area[6] . A person who abuses alcohol has a complicated relationship with his family. In most cases, the wives of alcohol dependent men make up the

core of the family and are severely affected because of the closeness of their bond and the continual exposure to the behavior of alcohol dependent men. They are more susceptible to physical, social, and psychological issues like divorce, hostility, criticism, and domestic abuse, all of which can result in depression, adjustment disorder, anxiety, and somatization, which can in turn lower quality of life and compromise psychological health.[7]

The nature of their coping behaviour depends on their personality, the severity of her husband's alcoholism, and the length of their marriage.

THE SPOUSES OF ALCOHOL DEPENDENT MEN

Many theories have postulated that the wives of alcoholic have a very disturbed personality which also leads to rising psychopathology seen in them.

Whalen et al. (1953) explained about four types of women one can see in a family.[8]

- Suffering Susan –masochistic trends are seen in wife.
- Controlling Catherine – the one who needs control
- Wavering Winnifred – the one who struggles with ambivalence
- Punitive Polly –the one who conflicts with aggression.

Co-dependency is the most frequently used term when it comes to the topic of spouses of alcoholics. The term co-dependency was initially brought by Al-Anon wives. This was similar to the topic of perspectives about personality. Co-dependency is definite term used for wives of alcoholics, especially important in creating and maintaining symptoms of the alcoholic husband. It is also attributed as primary disease in spouses of alcoholics.[9] Codependency is an unconscious

addiction to another person's deviant behaviour, which can cause sadness, emotional issues, suicidal thoughts, and loneliness .

Recognising and addressing the mental health issues of alcoholic spouses is likely to relieve their burden, enhance their coping skills, and generally improving their quality of life, and would have an effect on how alcoholism is treated and how well it turns out for those who suffer from it . Coping has been defined as "continuously changing behavioral or cognitive efforts to meet inner and/or outer demands which compel subjective limits of the person or exceed his/her self-resources."[10] Engaged coping is a type of coping in which the alcoholic spouse becomes actively involved with the alcoholic partner. This may include arguing with the partner to encourage them to quit, throwing away their drinks, and informing the user that their actions were negatively affecting them. Avoiding the drinker, being involved actively in other self-regulating activities, and developing independence are all components of the withdrawal coping strategy. By accepting the issue, tolerant coping is passive coping[11]. A coping mechanism is something that enables a person to manage a challenging situation. While all coping strategies offer the individual employing them a real or perceived advantage, certain coping strategies have more unfavorable side effects[11]. Varied coping strategies help one to overcome stress and have positive outcomes in day-to day life. Whether a coping strategy is effective or not is directly dependent on numerous factors such as how one perceives the stressor, are enough coping strategies available and how is the outcome of that very coping strategy used.[12] As a result, addressing and recognizing the mental health issues of alcoholic spouses will not only lower their burden, better their coping skills, and generally improve their quality of life, but it

is also likely to have an effect on the course of treatment and outcome for alcoholics.[13]

In order to better understand the protective factors within the family, researchers in the field of substance use disorders have started to look into the impact of resilience. There are several protective variables that lessen or cancel out the negative impacts of adversity and aid in good coping.[14]

According to numerous academics, resilience is a type of cognitive strength to overcome risks or a type of problem-solving ability to face upcoming challenges in a realistic and assured way.

According to the definition of resilience, it is the capacity of an individual to tolerate stressors without displaying psychological dysfunction while dealing with intense stress and trauma, or more simply, the capacity to recover from adversity.[14] Few studies have tried to investigate the variables that affect resilience and the relationship between resilience and marital quality. To increase our understanding of the relationship between resiliency and marital quality, more study is required.[14] Therefore, this study aims at assessing mental health, marital satisfaction, coping strategies, resilience among spouses of men diagnosed with alcohol dependence syndrome in order to lessen their stress and enhance general quality of life.

OBJECTIVE OF THE STUDY

OBJECTIVE OF THE STUDY

- To assess the severity of alcohol dependence and associated problems in alcohol-dependent men.
- To assess the mental health and the degree of conjugal satisfaction among the spouses of men diagnosed with alcohol dependent syndrome.
- To investigate the association between mental health, conjugal satisfaction in spouses with the severity of alcohol dependence in patients
- To assess the resilience factor and identify the coping strategies adopted by the spouse of men diagnosed with alcohol dependent syndrome

REVIEW OF LITERATURE

Review of literature

Alcoholism is a significant global public health issue. Given that India has the second-largest population in the world and that 33% of its citizens drink alcohol, the scope of the issue in our nation is significant.[15] In addition, the World Health Organization's most recent report expresses concern about the significant annual increase in consumption. [16]

In the past, research on alcohol-related issues has primarily focused on the drinker. However, in recent years, worries about the alcohol intake have grown. In spite of this, there are surprisingly few research studies on the effect of alcohol on spouses in psychiatric literature, despite the fact that it has been covered in the media.[17]

Alcoholism is regarded as a constant source of stress for both the alcoholic and their family members.[18,19] Due to their close relationship and ongoing exposure to the alcoholic's behaviour, spouses are especially affected.[20] Alcohol consumption's negative social repercussions and stressful life events may set off psychological, biological, and behavioral reactions that work together to reduce a person's capacity for adaptation, which increases the chance of psychological issues.[21]

"It is commonly known that alcoholic spouses frequently suffer from domestic abuse, which can take the form of physical, verbal, or sexual assault".[22] Along with financial stress and social stigma, the spouses also face other serious problems, including low marital satisfaction, inappropriate coping skills, and a lack of social support.[23–27] Surprisingly, relatively few studies in either Western or Indian research have specifically looked into the connection between these attributes and high levels of psychological suffering. In those studies that examined these

variables, high rates of psychiatric morbidity particularly mood and anxiety disorders in spouses were discovered.[28,29] The peace of the family is adversely affected when a spouse's psychological health is compromised since they are more likely to struggle to cope, which will have an impact on their social and functional duties as a mother, sister, housekeeper, etc.[30] In addition to decreasing their load, enhancing their coping mechanisms, and enhancing their general quality of life, resolving the mental health of alcoholics' spouses will undoubtedly affect how they are treated and how well they recover.[31]

Addiction treatment trials often use the International Statistical Classification Of disease 10th Revision (ICD 10) definition of alcohol dependence syndrome to choose study subjects (however in our study we have used ICD 11 to diagnose alcohol dependence syndrome). The ICD 10 defines criteria required to diagnose alcohol dependency, at least three out of the six target conditions must occur repeatedly over the course of one year. These dependence symptoms include Strong desire to take alcohol, impairment in the capacity to control alcohol taking behavior, tolerance, withdrawal, increased amounts of alcohol consumed over time; interference with personal or professional life, increased amount of time being spent in acquiring, consuming alcohol and recovering from its effects and continuing alcohol use despite negative effects.[32] Also, persons with alcohol use disorders show impaired social or occupational functioning because of alcohol use (e.g., violence while intoxicated, absence from work, job loss), legal difficulties (e.g., arrest for intoxicated behavior and traffic accidents while intoxicated), and arguments or difficulties with family members or friends about excessive alcohol consumption.[33]

The process of becoming dependent on alcohol is dynamic and complex. Motivation to drink is influenced by several neurobiological and environmental factors[34,35]. The beginning and regulation of intake are governed by memories linked with the rewarding and unpleasant effects of alcohol as well as learnt correlations between these internal states and relevant environmental cues or settings. The development of expectations regarding the effects of alcohol consumption is largely influenced by these experiential elements, as well as biological, environmental, and social forces. A person's decision to drink is consequently influenced by these expectations. Even though many people abuse alcohol without meeting the criteria for alcohol dependence, but it is only continued excess consumption of alcohol which leads to dependency. It is believed that the change from social drinking pattern to dependence pattern is influenced by neuroadaptive changes in the brain such as tolerance.[36]

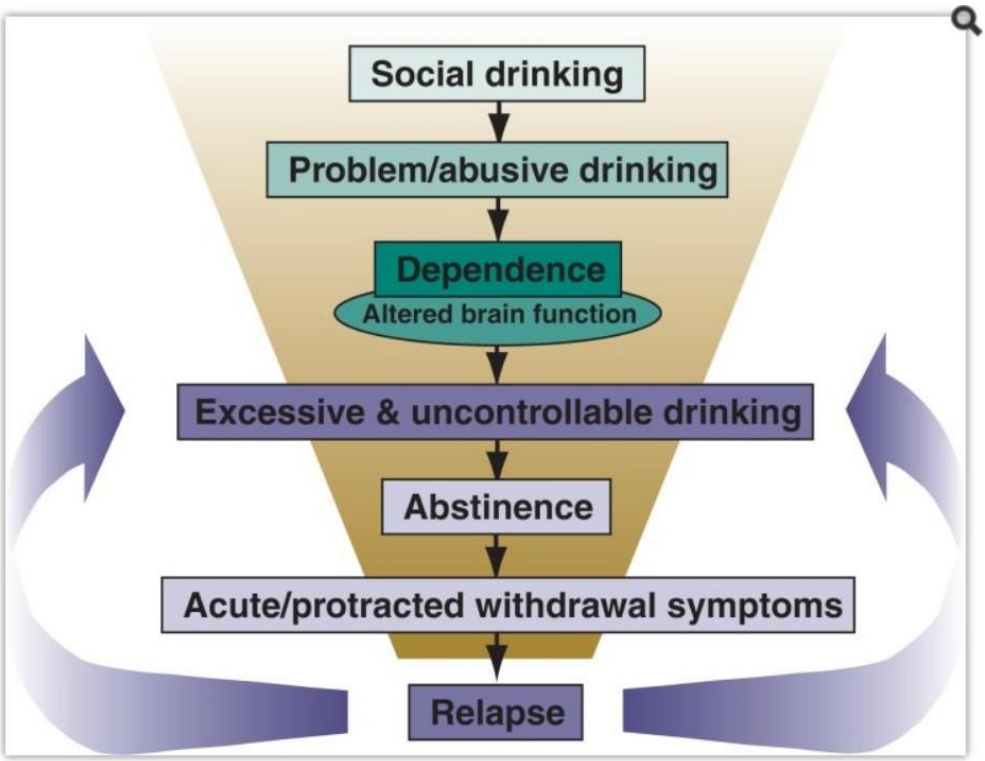


Figure illustrates how a drinking habit can lead to dependence, frequent withdrawal symptoms, and increased vulnerability to relapse [37]

Kamal Solati at el[38] in 2017 examined the relationship between SUD and psychiatric illness in the family. Depression was the most common disorder identified (40.5%), followed by generalised anxiety disorder (21%), interpersonal and child behavioural issues (15%), hysteria (8%). Significant correlations were seen between substance use disorder (SUDs) in the patient's spouses, children, and other family members and gender, marital status, and occupation, but not with place of residence or level of education. SUDs in their families were linked to the psychiatric diseases that patients referred to the research institution. Addiction in the family has a significant impact on the emergence or development of psychiatric disorders in other family members.

Vagner F DO Nascimento et al[39] in 2019 conducted a study “Daily life of women with alcoholic companions and the provided care”. The purpose of the study was to understand the everyday life of women who lived with alcoholic companions and the care that was given to them. The thematic oral history method served as the foundation for this thorough, interpretive investigation. Data collection occurred by semi-structured interview. The King's Theory of Goal Attainment was used to guide the content analysis of the empirical data. In addition to feeling criticised by society, women are annoyed and terrified by their alcoholic companion's behaviour and lifestyle. The family care they build focuses on preserving the family and guarding against additional harm. The study found that these women are ill as a result of their companions' alcoholism, and that although even after providing some form of family care, they are unable to stop the impacts of alcohol on their families.

Rudolf H Moos et al[40] in 2010 studied Spouses of older adults with late-life drinking problems: health, family, and social functioning. The study focuses on the health, family, and social functioning of spouses of late-life remitted and continuing problem drinkers, and on predictors of spouses' alcohol-related functioning and depressive symptoms. At the outset, compared with spouses of problem-free people, spouses of older persons whose drinking issues later abated reported more alcohol consumption, worse health, more depressive symptoms, and less involvement in household chores, social, and religious activities. At the 10-year follow-up, wives of problem drinkers who had stopped drinking were equivalent to those of issue-free people, but those of continuing problem drinkers consumed more alcohol, suffered more repercussions from drinking, and had more friends who supported drinking. The study's conclusion was, “spouses of older persons with persistent late-life drinking problems continue to endure certain ongoing deficiencies where as Spouses of older adults whose late-life drinking problems abate can return to normal functioning”.

Rozhnova TM et al[41] in 2007 studied the forms of matrimonial relationships and individual traits of married couples in the homes of alcoholic men. The family of a patient with alcoholism was examined from the perspectives of systemic analysis, which enabled the identification of the key traits of married couples. Alcoholism in men is characterised by a lack of willpower, a propensity for dependence, a disregard for social norms in behaviour, an increase in excitability and a propensity for frustration, as well as a high level of aggression against a backdrop of diminished masculinity and predominating feminine traits. In contrast to the strong indices of both femininity and masculinity, co-dependent wives of alcoholic husbands exhibit dominance, compliance of social norms, pronounced auto-

aggression, and a tendency toward masculine qualities. The foundation for the formation of dysfunctional relationships in a family of an alcoholic man is this confluence of the personal traits of married couples. The control group consisted of households where neither the husband nor the wife consumed alcohol and had harmonious functional relationships.

M. Kishor et al[42] in 2013, conducted a study **"**Psychiatric morbidity and marital satisfaction among spouses of men with alcohol dependence". 60 spouses of wives with alcohol use disorder had their psychiatric illness assessed out of which 65% of the partners suffered from a mental illness. Primarily mood and anxiety disorder were present. 43% of people had major depressive disorder. It was discovered that there was a significant correlation between psychiatric illness, low marital satisfaction in wives, and higher negative effects of alcohol use disorder in their spouses. They came to the conclusion that marital satisfaction is low and that wives of the men suffering from alcohol use disorder experience high levels of psychological distress and psychiatric illness. As wives are known to play an important role in the treatment of men suffering from alcohol use disorder, addressing these difficulties will be therapeutic.

Raymond Tempier et al[43] in 2006 studied "Psychological distress among female partners of male who are at-risk drinkers". On the basis of data from a Quebec community health survey, a retrospective analysis was carried out. In this investigation, there were two main goals. The first objective was to evaluate the 'psychiatric morbidity in the female partners who were living with a male lifetime at risk drinker'. The second objective was to investigate 'the association between psychological distress experienced by the non-drinking female spouses and the male lifetime at-risk drinkers (aged 30-54 years)'. For the purposes of this study,

having at least two affirmative responses on the CAGE questionnaire was considered lifetime at-risk drinking. The control group consisted of couples with either 0 or 1 positive response on the CAGE instrument, indicating that neither spouse was at risk for problem drinking The Indice de Détresse Psychologique de l'EnquêteSanté Québec was used to quantify psychological distress. It assesses aggression, depressive, anxious, and cognitive symptoms. High levels of psychological distress were indicated by scores greater than or equal to 22 (out of 100). This study confirmed that "female spouses of male lifetime at risk drinkers in the general population have higher levels of psychological distress".[43]

A study was conducted by Sara Dolan et al[44] in 2013, on 'urge specific and lifestyle coping strategies' of alcoholics. Numerous behavioural and cognitive coping strategies, including 13 urge-specific and 18 general lifestyle coping strategies, were significantly associated with drinking outcomes, while other coping strategies were not. Focusing on these particular strategies may help treatment since they are more likely to prevent relapse than other strategies are. Since results may be limited to this population, replication is needed in more diverse settings and without medication.

A study was done on the "Psychological impact of adult alcoholism on their spouses and children"[45] by Darpan Kaur et al[45]. There have been studies that assessed many factors, including the caregiver burden, coping, the mental health of couples, relationship violence, and parentification of children. The family of an alcoholic may have a "hostile, critical, and rejecting atmosphere" that "ultimately passes on to their own children," differentiating it from other families. The person with alcohol use disorder shows poor coping skills while interacting with his wife and kids, and there may be evidence of unhappiness and apathy in the interpersonal

relationship. Even though there were few evaluations in our study, it is evident that the family of the person with alcohol use disorder exhibited problematic behaviour and poor adaption. Therefore, it is crucial that the requirements of the family be given special consideration while managing alcohol dependence.

In two rural areas of Srilanka study was conducted to investigate the prevalence of MDD among spouses of men who consume alcohol by Dewasmika Ariyasingh et al[46], and 'to determine if the presence of alcohol-related domestic violence and the severity of alcohol-related problems (ARPs) in men are linked to MDD in these women' . In the sample, the point prevalence of MDD was 33.3%. After adjusting for other variables, the spouse's morning drinking and increasing age significantly increased the risks of MDD. There was a trend, albeit it was not statistically significant, that being the target of domestic violence or arguments was related to MDD in women.

M Grubisić-Ilićat et al[47] conducted a study in 1998 titled Personality Dimensions and Psychiatric Treatment of Alcoholics Wives to examine the fundamental personality traits of alcoholic wives in comparison to non-alcoholic wives and to compare both groups according to the frequency of psychiatric treatment . The study found no differences in the two other major personality traits of neuroticism and psychoticism between the spouses of alcoholics and non-alcoholics, but they did find that the wives of alcoholics were less extraverted than the wives of non-alcoholics. According to the "stressed wife" theory, spouses of alcoholics may have more psychiatric interventions during their marriage.[47]

"As per the study Nagesh V. A. et al[48] in 2015, For the purpose of collecting data from sixty spouses of men with alcohol use disorder admitted to de-addiction

centre in the Mysore District, a non-probability convenience sampling technique was used. Descriptive and inferential statistics were used to analyse the data. The mean score of ways of coping for women of alcoholics was 101.88, the scores ranged from 68-136 and the median score was 102.5 with a standard deviation of 15.18876 . The mean stress score for wives of alcoholics was 27.38, while the values ranged from 21-33 and the median score was 28 with a standard deviation of 2.96147 . According to the study's findings, all of the wives of alcoholics experienced moderate levels of stress (20–39), while none of them experienced mild or severe stress . However, when it came to coping strategies, 98.33% of them were able to manage to cope to some extent (67-132). While only 0% were unable to cope (0-66), 1.66 percent were able to cope effectively (133-198). Chi-square was computed to find the association between the variables and the selected personal variables, the results revealed that wives of alcoholics stress had significant association with age and designation at <0.05 levels of significance. Chi-square was used to determine the relationship between perceived stress and a number of personal variables and at < 0.05 level of significance, the results showed that only age was significantly correlated with perceived stress. To determine the relationship between the participants' coping skills and their personal variables, the chi-square was computed. At < 0.05 level, a significant association between family type, marital status, and any other substance abuse was discovered. A nurse is essential in both hospital and community settings for enhancing patient health, so research must concentrate on the effects of stress and coping on health. Nursing needs to start implementing novel strategies in this area."

"In the study by Debasree Bora et al[49] in 2017**,** conducted a study on Marital quality in spouses of persons with alcohol dependence syndrome. Using purposeful sample

collection, 30 wives of people with alcohol dependent syndrome as defined by the ICD-10 were chosen as the sample. The domain mean score of rejection, comprehension, decision-making, as well as the overall marital quality score, were high. Thus, results suggest that spouses of person with alcohol dependence have poorer quality of marital life. As a result, Alcohol dependence is strongly linked to poor marriage quality because the patient tends to adopt dysfunctional communication and behaviour patterns, which in turn causes poor adjustment, unhappiness, and a high level of relationship dissatisfaction. These considerations should be given primary attention while developing the treatment plan for this population."

"As per the study conducted by Nitasha Sharma et al[50] in 2016, Thirty spouses of alcohol use disorder patient seeking treatment were recruited. The research found that alcoholic wives had issues in the multiple domains like physical, psychological, and social. While issues with physical violence were less frequently reported and emotional issues were more frequently reported. Three main coping strategies employed by alcoholics' spouses were: engaged, tolerant, and withdrawal. Finding and implementing effective therapies to lessen suffering associated with being a spouse of an alcohol use disorder patient remains difficult despite the fact that the issues experienced by alcoholics have frequently captured society's attention."

"A cross sectional study was undertaken by Ruchi Soni et al[51] in 2016, conducted a study on Psychiatric morbidity, Quality of life and marital satisfaction among spouses of men diagnosed with alcohol dependence syndrome. 100 spouses of males with alcohol use disorder were tested for psychiatric morbidity. Using the SAD questionnaire, the husbands' severity of alcohol dependence was assessed.

According to data analysis, 79% of spouses had a mental illness. In 45% and 10% of individuals, respectively, mood and anxiety disorders were found. There was a highly significant difference between the cases and controls in terms of marital satisfaction (p=.0001) and quality of life, demonstrating that spouses of alcoholics had low marital satisfaction and a low quality of life. In conclusion, spouses of alcohol-dependent men experience high levels of psychological distress and psychiatric morbidity, as well as poor marriage quality and low marital satisfaction."

J D McLeod[52] in 1993 studied Spouse concordance for alcohol dependence and heavy drinking: evidence from a community sample. The study was conducted by using data from a community sample of 586 married couples, levels of spouse concordance for lifetime and current alcohol dependence and heavy drinking were estimated. Spouse concordance was significant for lifetime alcohol dependence and for both lifetime and current heavy drinking. Marital quality varied as a function of current heavy drinking and alcohol dependence such that members of couples in which neither spouse drank heavily reported better marital quality than other couples. Couples concordant for current heavy drinking consistently reported poorer marital quality than other couples.

J B Schaffer et al[53] in 1979 conducted a study in which "Coping with Drinking" questionnaire, was given to 124 Al-anon members, which identified nine distinct coping strategies. The general hypothesis that the ways in which wives of alcoholics cope with their husbands' drinking behaviour is supported by multiple regression analyses between three measures of sobriety and each of the nine styles of coping components. Additionally, the wife's ability to express her frustration and

distress to her alcoholic husband in a way that poses the least threat to him appears to be most positively correlated with his success in achieving sobriety.

As per the study by Sreeja Sreekumar et al[54] in 2016, on "elements associated with resilience in spouses of individuals with alcohol dependence syndrome"**.** Under this study eighty patients and their spouses were enrolled and assessed. The severity of alcohol dependence, the number of years of drinking in dependence pattern, the presence of domestic violence in the past, and the severity of depression in spouses were all inversely correlated to resilience. Being Involved in support groups was protective in nature. A wife's resilience should be evaluated, and those having low resilience should be addressed, in collaboration with their husband's treatment plan.

In the study by Aruna Dandu et al[55] in 2017 on "psychiatric morbidity in spouses of patients with alcohol related disorders". The age of the spouses of men with alcohol-dependent syndrome and of men with alcohol dependent syndrome ranged from 21–60 years (mean ± SD 35.04 ± 8.98) and 23-67 years (mean ± standard deviation [SD] 41.24 ± 10.101), respectively . In this study population, 43.6% of spouses and 36.6% of alcohol-dependent men belonged to 31-40 years of age group. Severity of alcohol dependence was statistically significantly associated with psychiatric illness in their wives ($P<0.05$). 44.6% of the study participants had depressive disorders, 18.8% had adjustment disorders, 3% had anxiety disorders, and 33.7% reported no psychiatric illness. In conclusion, the findings are consistent with earlier studies in which they show an association between the duration of a husband's alcohol abuse, marital life satisfaction, poor family support, and low socioeconomic status with psychological morbidities in those who are married to men with alcohol-related disorders. However, in order to determine the

impact of these key determinants, community studies with an adequate sample size are needed.

According to Aannapally Sadananda Reddy et al[56] in 2017 study conducted on Predictors of coping and perceived expressed emotions in person with alcohol dependence in India**.** Age of first intake of alcohol is an important predictor of coping and perceived expressed emotions in patients with ADS in an institutional setting. While lesser age at first intake of alcohol indicated better coping behaviour, older age at first intake of alcohol was associated with higher level of perceived expressed emotion

As per the study by Pradeep R Johnson et al[57] in 2018 on Resilience in Wives of person with alcoholism. The majority of wives of person with alcoholism (WopA) (82%) had low Resilience score on RSA scale. Compared to High Resilience (HR) WopA, Low Resilience (LR) WopA dramatically underperformed on every RSA factor except perception of the future. Furthermore, the LR WopA reported much worse marital quality. Resilience was typically low in most WopA. Additionally, LR WopA had very poor marital quality. These results need to be explored further in a larger population using culturally appropriate scales. The low scoring Resilience factors amongst WopA may be utilized in strength-based psychotherapeutic approaches. There is a need to improve the understanding of Resilience and its assessment in this population.

Verma Kanchan et al[58] in 2018 conducted a study on stress and coping strategies among the wives of alcoholics in selected community**.** In total 200 spouses of alcoholics were selected by door-to-door survey that fulfilled defined inclusion and exclusion criteria. All wives of alcoholics were administered with perceived stress

scale for assessing the stress and Coping questionnaire for assessing coping strategies among the wives of alcoholics. The results revealed that out of 200 wives of alcoholics, majority (168) of wives were having moderate stress (37) rest of them was having severe (27) and mild (5) stress. Most of the wives of alcoholics used engaged coping (72.32%), followed by the tolerant coping (67.27%) where as the least coping strategies adopted by the wives of alcoholics was withdrawal (53.64%). The relationship between stress and coping strategies among the wives of alcoholics which showed that stress had less mean score (37.94) as compare to coping strategies (79.74). In conclusion the wives of alcoholics had moderate stress level. The engaged type of coping strategies was mostly adopted by the wives of alcoholics. There was positive relationship between stresses and coping strategies, it means wives of alcoholics had stress and used coping strategies to overcome that stress. Furthermore, socio-demographic factors were not found to be significantly related with stress. In addition, the community health nurse will explain the coping strategies to overcome the stress among wives of alcoholics.

A study on "Psychiatric morbidity among spouses of men with alcohol dependence" was conducted by Vishal A Shah, et al[59] in 2019. In this study, 50 cases (both indoor and outdoor patients) whose husbands has been diagnosed with alcohol dependence were compared to 50 controls whose husbands had some other illness but no alcohol dependence. Out of 50 spouses of males with alcohol dependence syndrome, 23 (46%) were diagnosed by the GMHAT-PC as having no mental disease; nonetheless, they had some anxiety but not enough to be classified as having an anxiety disorder. Even among controls, 26% of spouses had anxiety scores to some extent. The risk of self-harm was evaluated using the GMHAT-PC self-harm scoring system. Three wives (six percent) had a mild

suicidal risk and one (two percent) had severe suicidal risk, where as in controls it was absent. They came to the conclusion that alcohol abuse is associated with increased risk of committing crimes. Individual who abuses alcohol can cause disruptions in family life. In majority of these cases, women are the primary care givers. Therefore, it is crucial to understand the mental health status of the spouses of alcohol dependent men. It can assist in the early detection of psychiatric morbidities and early intervention.

"According to Ramya RM et al[60] in 2019 study conducted on a comparative study to assess the resilience factors between wives of alcoholics and wives of non alcoholics in a selected hospital, Bangalore**.** A sample of 60 wives of alcoholics and 60 wives of non-alcoholics were identified using purposive sampling technique. They revealed that the wives of alcoholics had a lower resilience than wives of non-alcoholics and the difference was statistically significant at $p < 0.001$. Analysis of the subscales also showed significant difference in perception of future and family cohesion at $p<0.05$. Concluded that the study showed that there is a significant difference in the resilience factors between wives of alcoholics and non-alcoholics. Thereby the knowledge of a patient's resilience factors is effective in providing a quality care. The findings of the study will serve as a base in teaching the students to plan and give and overall support to both the patient and the caregivers, in preparing prospective nurses to deal with the psychological aspects of the illness."

"Barman Hiramoni et al[61] in 2019 conducted a study on "Coping strategies used by wives of patients with alcohol related disorder"**.** Utilizing a non-probability sampling technique, spouses of 200 alcohol dependent men who accompanied their husbands to treatment facilities were enrolled for the study. Coping

Questionnaire tool developed by Orford et al (1976) is used to assess the coping strategies. The instrument yields mean score for three types of coping, that is engaged coping, tolerant coping, and withdrawal coping. The results showed that engaged coping had a mean score of 16.4, tolerant coping had a mean score of 11.9, and withdrawing coping had a mean score of 4.1, with tolerant coping having the highest mean percentage score followed by engaged and withdrawal coping. The research also revealed a strong correlation between spouses' educational background, employment status, monthly family income, and family structure with coping strategies employed. According to the study's findings, majority of spouses of alcohol dependent men employed all three coping mechanisms to deal with their husbands' drinking problem. There is a need to strengthen the healthy adaptive coping strategies among the spouses and assist them in perceiving stressful events as manageable because some of the coping strategies used by the wives are linked to poor psychiatric health."

"As per the study by Humayoon Akbar et al[62] in 2019 on " Marital satisfaction among spouses of male patients with alcohol dependence syndrome". 200 consecutive male patients with alcohol dependence syndrome using the ICD 10 criteria were recruited. The mean age of alcohol dependent men and their spouses were 43.05±9.39 and 37.58±8.86 years respectively . Most of the spouses (83.5%) had done their primary education only and 50% were house-wives (unemployed). Majority of men earned between Rs.5000 to 10,000 and most of them were unskilled workers belonging to the lower socio-economic group in the rural areas. The mean SADD and EMS scores were 25.05 ± 8.891 and 31.76 ± 14.45 respectively. 74% of men in our study population were highly dependent on alcohol. Amongst the spouses of men with severe dependence 68.9% reported

moderate and 28.3% reported low marital satisfaction. In conclusion Majority of alcohol dependent men suffered from severe dependence. The severity of alcohol dependence was found to have an inverse relationship with marital satisfaction scores. Alcohol dependence and its severity was noted to have an adverse impact on marital satisfaction among spouses of the dependent patients."

"Shiji P.J et al[63] in 2020 conducted a study on quality of life of wives of alcoholics. Total 150 men residing at Mangalore and Bantwal taluk of Dakshina Kannada district were administered the AUDIT tool through house-to-house survey, of which 132 men who scored 8 to 10 were taken as alcoholics and their wives were selected as participants through purposive sampling technique. Study demonstrated that the mean quality of life score for spouses of alcohol dependent men was 11.73 in the physical domain, 9.43 in the psychological domain, 5.04 in the social domain, and 13.10 in the environmental domain. The chi-square test reveals statistically significant association between subject QOL scores and other variables, such as family income ($p \leq 0.001$) and number of children ($p \leq 0.018$). Findings from the study revealed poor quality of life of spouses of alcohol dependent men."

"E P Nace[64] in 1982 studied therapeutic approaches to the alcoholic marriage. After going through many objective research of different studies it was found that theories of psychopathology in the spouses of alcohol dependent men were lacking. Failure to confirm discreet, specific personality traits in wives of alcoholics parallel similar efforts in the search for an "alcoholic personality." The stress theory of spouse psychopathology enjoys clinical support and a moderate research underpinning . Emphasis is placed on the need for the psychiatrist to be prepared to diagnose alcoholism when evaluating a troubled marriage . Treating

the disease of alcoholism first, followed by marital therapy, is recommended the results show that the treatment of the alcoholic will be more successful if the spouse or family are included in the initial evaluation and subsequent treatment plans."

"In a cross-sectional study Divija Bunga et al[65] in 2021**,** on patients with AUD and their partners 36.98% of the partners reported having experienced domestic violence, and the marital satisfaction rate was 62.58%. The total coping was 72.76%, engaged coping was 38.60%, tolerant coping was 23.60%, withdrawal coping was 6.18%, and well-being on the WHO-5 scale was 33.88%. The severity of alcohol dependence score (ADS) negatively correlated with well-being (r = 0.24) and marital satisfaction (r = 0.17) . Additionally, DV had a statistically significant negative correlation with marital satisfaction (r = 0.32; P = 0.02) and well-being (r = 0.50; P = 0.0001). In conclusion, the majority of spouses reported experiencing domestic violence, marital dissatisfaction, and poor health."

"As per the study by Derrick Johnson et al[66] in 2021, Alcohol use disorder (AUD) in men has a significant effect on the mental health of their spouses. Quality of their marital life is an overlooked aspect which affects both the mental health of the partners and their children The mean score of resilience was 50.98 (26–77), and 52% of the wives reported their marital quality as severely affected . Association between low resilience and poor marital quality was found. Women who had endured physical abuse from their husbands were found to have low resilience. Significant association has been found between resilience of spouse of alcohol dependent men and their marital quality. Therefore, enhancing resilience of spouse of alcohol dependent men would enhance their marital quality, which in turn would have a favourable impact on the management of their husbands' alcohol consumption and the mental health of their children."

"A study on assessing depression and quality of life among spouses of person suffering from alcohol dependence syndrome was conducted by Nithya Damodara et al[67] in 2021. Alcoholism also called as alcohol dependence syndrome is defined as a cluster of physiological, behavioral, and cognitive phenomena in which the use of a substance is given much higher precedence over any other behaviour that once had greater value . They found that the quality of life is poor in spouses of men suffering from alcohol dependence syndrome. When compared to spouses of people with diabetes, the physical and psychological quality of life is worse in spouses of those with alcohol dependence syndrome. The quality of life is significantly associated with the depression ."

"As per the study by Prajakta Patkar et al[68] in 2021, on Quality of life and suicidal ideation in wives of men with alcohol dependence. A study group of 50 wives of men with alcohol dependence were included in the study along with an age-matched control group of 50 wives of nonalcoholic men without any medical comorbidities. Demonstrated lower perceived quality of life in the study group compared to controls. The spouses of alcohol dependent men scored significantly more on depression as compared to control group but not on anxiety . Spouses of alcohol dependent males were more likely to have suicidal thoughts and attempts. In conclusion severity of alcohol dependence in the husbands is associated with poorer quality of life, higher levels of depression and suicidal ideation in their spouses"

METHODOLOGY

Methodology (Materials and methods)

We carried out Cross-sectional, single centre, interview-based study of total 71 study participants including alcohol dependent men and their spouses which was carried out at Shri B.M. Patil Medical College, Hospital and Research Centre, Vijayapura from November 2020 to October 2022 in alcohol-dependent men and their spouses.

Inclusion criteria:

- Patients diagnosed with alcohol dependence syndrome and their spouses
- Spouse aged between 18-64 years
- Spouses and patient willing to give informed consent

Exclusion criteria:

- Spouses with Preexisting mental illness and cognitive impairment
- Patient consuming any substance other than alcohol and tobacco
- Spouses and patients refusing to give informed consent
- Preexisting psychiatric disorder in patients other than alcohol abuse

Sample size

- With the anticipated correlation coefficient between Marital satisfaction and Alcohol dependence in men -0.41, at 95% confidence level and 90 power in the study, the sample size worked out is 71.

- Formula used is
- $N=[(\frac{Z_\alpha+Z_\beta}{C})]^2+3$
- The standard normal deviate for $\alpha = Z_\alpha = 1.9600$
- The standard normal deviate for $\beta = Z_\beta = 1.6449$
- $C=0.5*\ln[\frac{1+r}{1-r}]=0.4356$
- N=71

MANOEUVRE

Informed consent was taken both from the spouse and husband . Confidentiality was upheld during the interview. Before starting the interview adequate time was spent with each patient and his spouse to establish a good rapport . Prior approval from ethics committee of our institution (Institutional Review Board) was taken. Interview was taken in participant's vernacular language (Kannada) or Hindi. Every participant's responses were recorded in a proforma containing details of demographic variables such as participant's initials, age, religion, residence, occupation, education, duration of marriage & Husband's SAD-Q score.

Interview of every participant's husband was taken for diagnosis of Alcohol Use Disorder using ICD 11(international classification of disease) 11th revision (ICD 11)[69]

Severity of Alcohol Dependance Questionnaire (SADQ) was used to asses severity of alcohol dependence. It consists of 20 questions. Each question is rated on a four-point Likert scale ranging from 0 (Almost never) to 3 (Almost always). A score of 31 or higher indicates "severe alcohol dependence". A score of 16-30 indicates "moderate dependence"[69]

Cronbach's alpha coefficient of SADQ scale0.914

Drinker's Inventory of Consequences (DrInC)[70] was used to assess the consequences of drinking

DrInC is a scale designed to evaluate the consequences of drinking in five areas: social responsibility, impulse control, intrapersonal relationships, and physical health . It consists of 50 items with four possible outcomes, each of which is scored between 0 and 3 . There are many different version of scales, ranging from the one that focus at the last three months to those that focus at lifelong consequences . The scale that considers the lifetime consequences was used in this study . Higher total scores in each of its domains indicate greater negative consequences or problems"

Cronbach alpha coefficient of DrInc is 0.947

To their Spouses following scales were applied:

MINI scale – To screen for psychiatric disorders

Marital adjustment test – To assess marital satisfaction

Coping strategies inventory – To assess coping

Connor Davidson Resilience scale 10 – To assess resilience

A "semi-structured proforma was used to collect socio-demographic details . Details regarding name , age , education , occupation , religion and domicile , socioeconomic status."

To screen for psychiatric disorders “Mini-International Neuropsychiatric Interview (MINI)[71] was utilised and subsequently, ICD 11 was used to confirm the psychiatric diagnosis. MINI was designed as a brief structured interview for screening major Axis-I psychiatric disorders . It screens for 17 major psychiatric disorders . The validity and reliability are compared to SCID, and it can be administered in a much shorter period of time . A screening question for a psychiatric illness appears at the beginning of each module . If the answer to that question is "YES," then specific questions pertaining to that diagnosis were asked to the spouse”

Marital adjustment test[72]: A 15-item scale that measures marital satisfaction. It was initially used to differentiate well-adjusted couples from distressed (unsatisfied) couples. The 15 items are answered on a variety of response scales. The scores for all 15 items should be added up together. Higher scores indicate greater satisfaction. A minimum score will be two, and the maximum score will be 158. Scores between 100 and 158 indicate high acuity with regard to marital satisfaction, scores between 85 and 99 indicate moderate acuity, and scores between 2 and 84 indicate low acuity.

Test reliability of the scale was 0.84 and Cronbach alpha coefficient was 0.90

“Coping Strategies Inventory (CSI)[73] was used to evaluate coping thoughts and behavior in response to a specific stressor . For this interview we used CSI short form 32 which is a self-report questionnaire with a 5 item likert format . There

is a total of 14 subscales including eight primary subscales, four secondary subscales, two tertiary scales . There are 9 items in each of the primary subscales . Raw scale scores are calculated by adding the Likert responses of the items for a particular subscale. After describing a stressful situation for controls, the study population taking the CSI are asked to respond to the 32 questions .

Cronbach's alpha coefficient value of this scale is 0.865

The primary subscale items are

1. Problem solving
2. Cognitive restructuring
3. Express emotions
4. Social support
5. Problem avoidance
6. Wishful thinking
7. Self-criticism
8. Social withdrawal.

The secondary subscale items are

1. Problem focused engagement = problem solving + cognitive restructuring
2. Emotion focused engagement = social support + express emotion
3. Problem focused disengagement = problem avoidance + wishful thinking
4. Emotion focused disengagement = social withdrawal + self-criticism

The tertiary subscale items are

1. Engagement = Problem focused engagement + Emotion focused engagement
2. Disengagement = Problem focused disengagement + Emotion focused disengagement"

Resilience was measured using (Connor Davidson resilience scale-10)[74]: The Connor-Davidson Resilience scale (CD-RISC) 10 comprises of 10 items, each rated on a 5-point scale (0–4), with higher scores reflecting greater resilience. This scale measures flexibility, sense of self efficacy, capacity to regulate emotion, optimism

Cronbach's alpha coefficient of CDRS scale is >0.80

Statistical analysis :

- The data obtained will be entered in a Microsoft Excel sheet, and statistical analysis will be performed using a statistical package for the social sciences (Version 20).
- Results will be presented as Mean (Median)±SD, counts and percentages, and diagrams .
- For normally distributed continuous variables between two groups will be compared using independent t-test for not normally distributed variables Mann Whitney U test will be used
- One-way ANOVA with Post hoc test will be used two compare more than two groups .
- Categorical variables between the two groups will be compared using the Chi-square test .
- A Correlation coefficient will be used to find the correlation between quantitative variables .
- $p<0.05$ will be considered statistically significant. All statistical tests will be performed two tailed .

Results

Table 1. Demographic Variables of alcohol Dependent Patient

(n=71)

Variables	Age Group	No	Frequency (%)	Mean ± SD
Age (Male) [Years]	21-30	9	12.7%	42.56±9.1
	31-40	24	33.8%	
	41-50	25	35.2%	
	51-60	12	16.9%	
	61-70	1	1.4%	
Education (Male)	Illiterate	3	4.2%	
	Primary	23	32.4%	
	Secondary	20	28.2%	
	Higher Secondary	11	15.5%	
	Diploma	4	5.6%	
	Degree	10	14.1%	

Occupation (Male)	Farmer	17	23.9%	
	Government employee	11	15.5%	
	Self employed	25	35.2%	
	Unemployed	4	5.6%	
	Other employee	14	19.7%	
Religion	Hindu	68	95.8%	
	Muslim	3	4.2%	
Residence	Urban	18	25.4%	
	Rural	53	74.6%	
***Socioeconomic Status	Lower	2	2.8%	
	Lower Middle	48	67.6%	
	Upper Middle	21	29.6%	
Family (Type)	Joint	34	47.9%	
	Nuclear	37	52.1%	

**Duration of Marriage (Years)	1-15	38	53.52%	
	16-30	28	39.43%	
	>30	5	7.04%	

* NOTE:

**Mean Duration of Marriage is 16.66 ±8.78 years

***Socioeconomical Class was determined according to Modified Kuppuswamy scale

Table. 2 Demographic variables of spouses of alcohol dependent men

Variables	Age Group	No	Frequency (%)	Mean ± SD
AGE (FEMALE)	<20	1	1.4%	35.25±8.9
	20-29	18	25.4%	
	30-39	30	42.3%	
	40-49	16	22.5%	
	>50	6	8.5%	
Education (Female)	Illiterate	7	9.9%	
	Primary	30	42.3%	
	Secondary	22	31.0%	
	Higher Secondary	8	11.3%	
	Degree	4	5.6%	

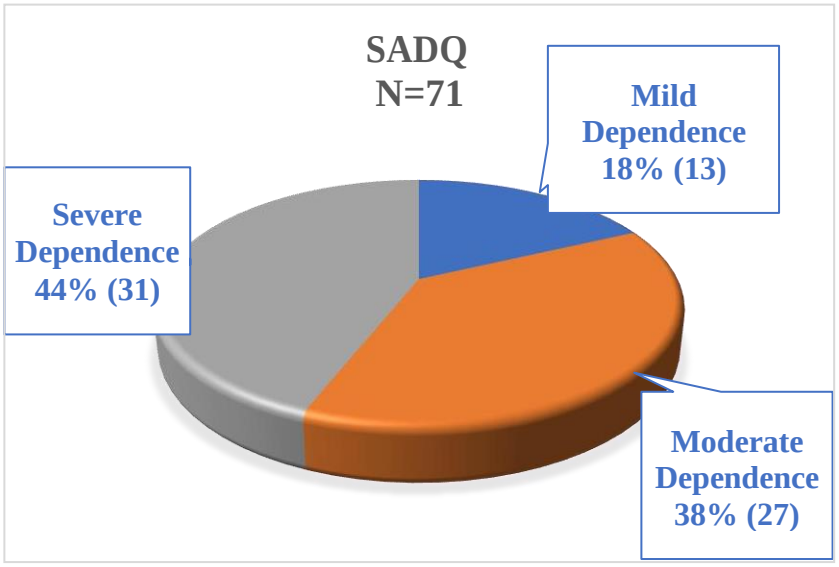
Occupation (Female)	Housewife	66	91.5%	
	Tailoring	3	4.2%	
	Teacher	1	1.4%	
	Employee	1	1.4%	

Table 3. Duration of Alcohol use and Severity of Alcohol Dependence in Alcohol Dependent Husband (n=71)

Variables		No	Frequency (%)	Mean	SD	Range
Duration of alcohol use (Years)	1-10	15	21.12%	19.79	8.874	1-40
	11-20	29	40.84%			
	21-30	23	32.39%			
	31-40	4	5.63%			
Severity of alcohol dependence (Based on SAD-Q score)	Mild	13	18%	27.24	10.30	4-46
	Moderate	27	38%			
	Severe	31	44%			

Severity of Alcohol Dependence Questionnaire (SADQ) Scale

Figure 1. Severity of alcohol dependence



In our study, severity of alcohol dependence was assessed using severity of alcohol dependence questionnaire in which we found out that majority of individuals (44%) were severely dependent, (38%) of individuals were moderately dependent, (18%) of individuals were having mild dependence

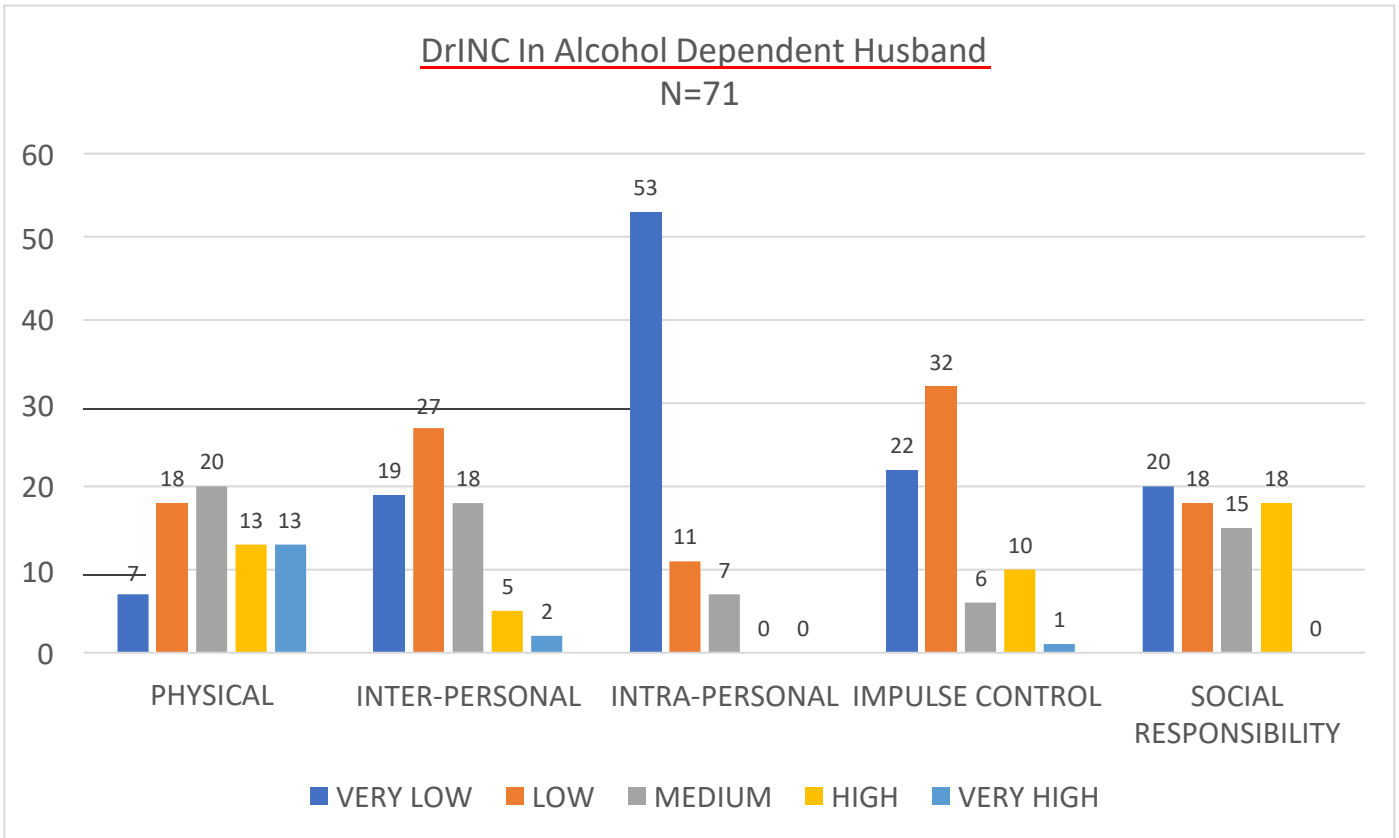
Drinkers Inventory of consequences scale (DrInc scale)

Table 4. Mean and Standard Deviation scores of Drinkers inventory of Consequences scale

	Mean	SD	Minimum	Maximum
DRINC -2L	25.51	7.61	7	41
Physical	6.06	1.35	2	8
Inter-personal	5.80	1.81	1	10
Intra- personal	4.24	2.168	0	8
Impulse Control	4.72	2.269	1	10
Social Responsibility	4.66	2.280	0	8

Figure 2. Drinkers Inventory of consequence (Lifetime)

In our study, we used DrInC Scale to assess the adverse consequences of alcohol consumption



PHYSICAL DOMAIN :

13 (18.3%) scored very high, 13 (18.3%) scored very high, 20 (28.1%) of men scored medium, 18 (25.3%) of men scored low, 7 (9.85%) Of men scored very low,

INTER-PERSONAL DOMAIN :

2 (2.8%) scored very high, 5 (7%) of men scored high, 18 (25.3%) of men scored medium, 27 (38%) of men scored low, 19 (26.7%) of men scored very low,

INTRA-PERSONAL DOMAIN :

7 (9.8%) of men scored medium, 11(15.4%) of men scored low, 53 (74.6%) of men scored Very low

IMPULSE-CONTROL :

1 (1.4%) of men scored very high, 10 (14%) of men scored High, (8.45%) of men scored medium, 32 (45%) of men scored low, 22 (30.9%) of men scored very low

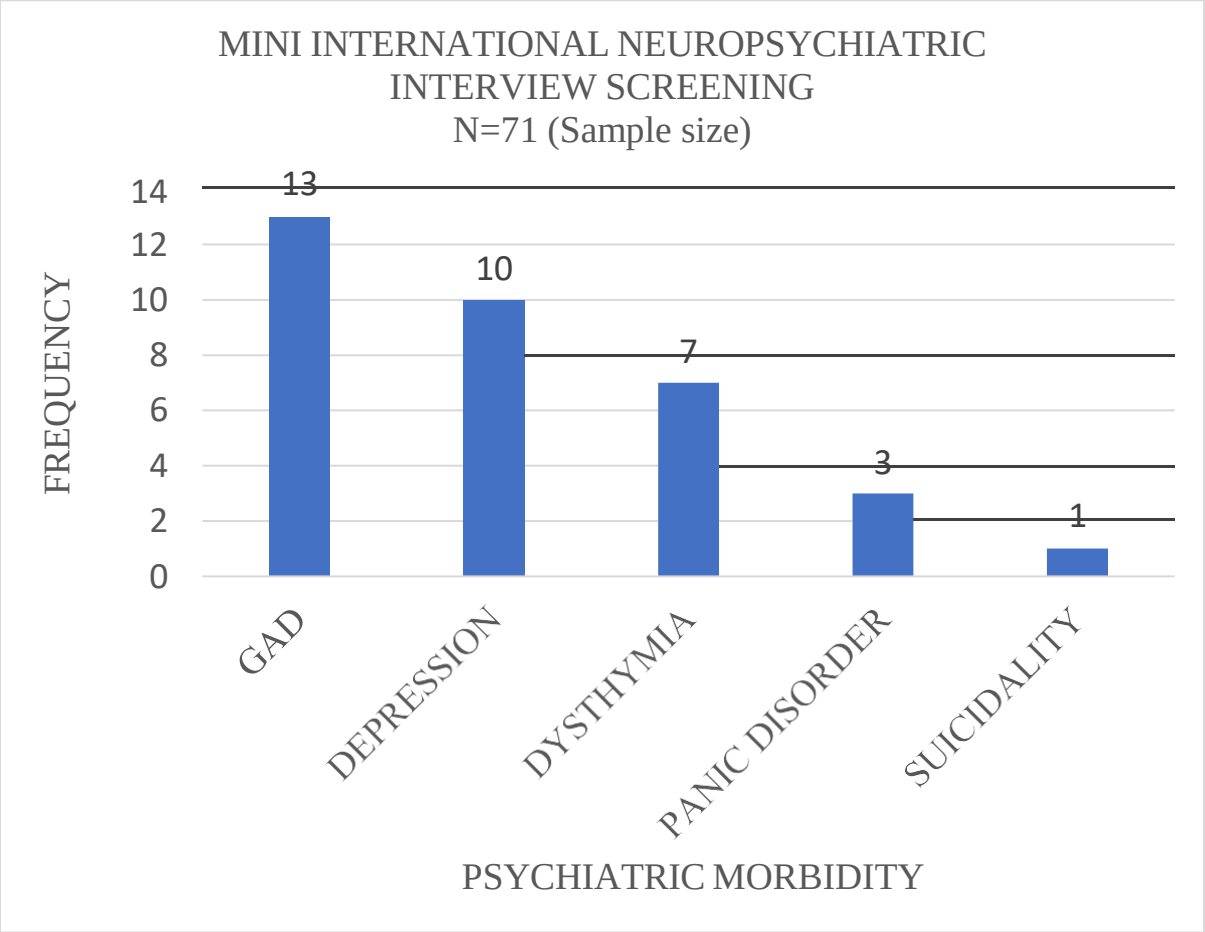
SOCIAL RESPONSIBILITY :

18 (25.3%) of men scored high, 15 (21.1%) of men scored medium, 18 (25.3%) of men scored low, 20 (28.1%) of men scored very low

In our study we found out that Physical, Inter-personal, social responsibility domain were most affected followed by Impulse control and intrapersonal domain

Psychiatric Morbidity

Figure 3. Psychiatric Morbidity in Wives



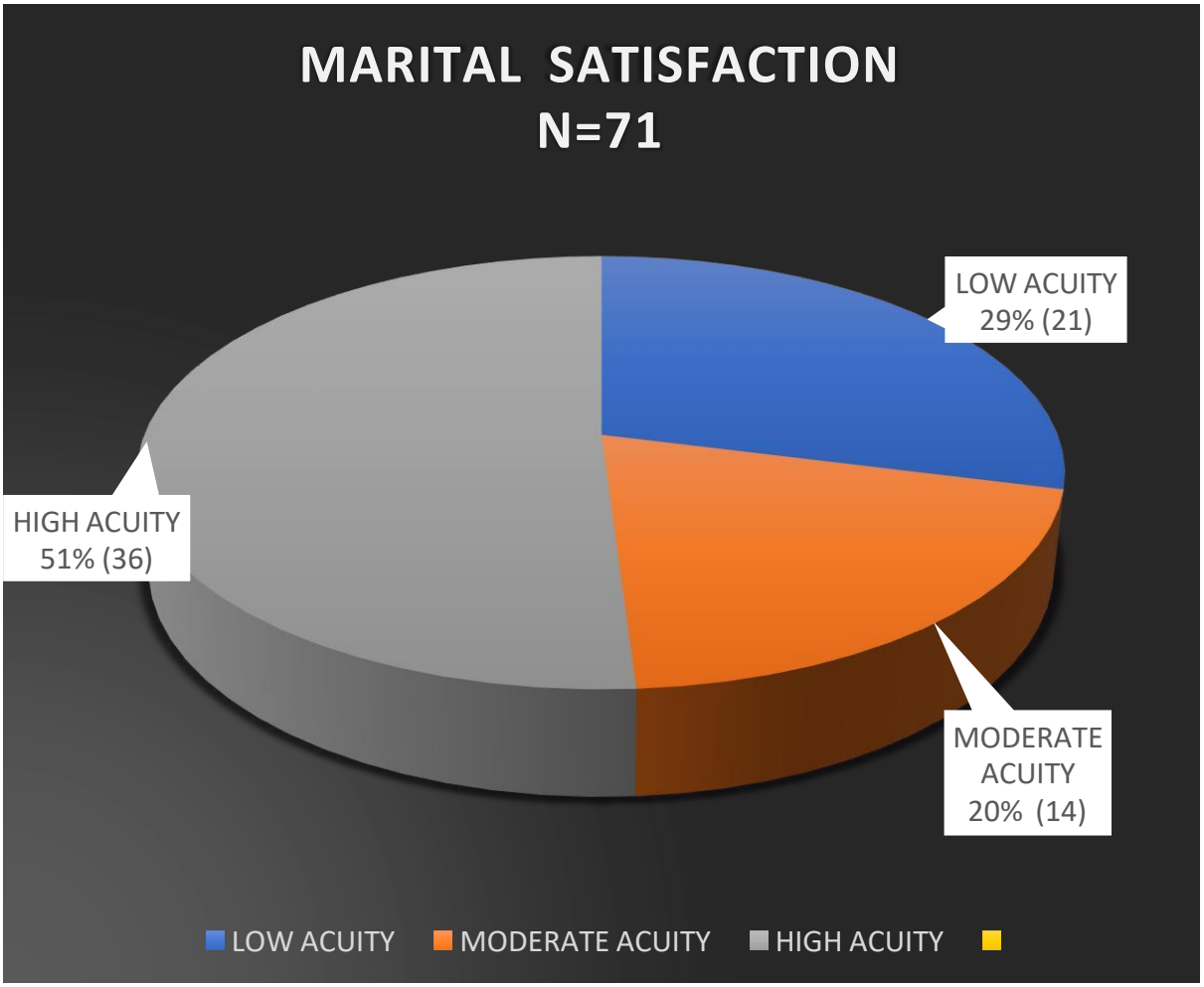
PSYCHIATRIC MORBIDITY :

In our study to assess the psychiatric morbidity in spouses, MINI scale (screening) along with ICD 11(confirmation) was used :

Our study found that majority of the spouses i.e. thirteen were suffering from generalized anxiety disorder, followed by ten spouses were suffering from depression, 7 spouses had dysthymia, 3 were suffering from panic disorder, 1 was suffering from suicidality

Marital Satisfaction

Figure 4. Marital satisfaction in Wives



Marital satisfaction:

In our study marital adjustment test scale was used to assess the marital satisfaction in spouses of alcohol dependent men

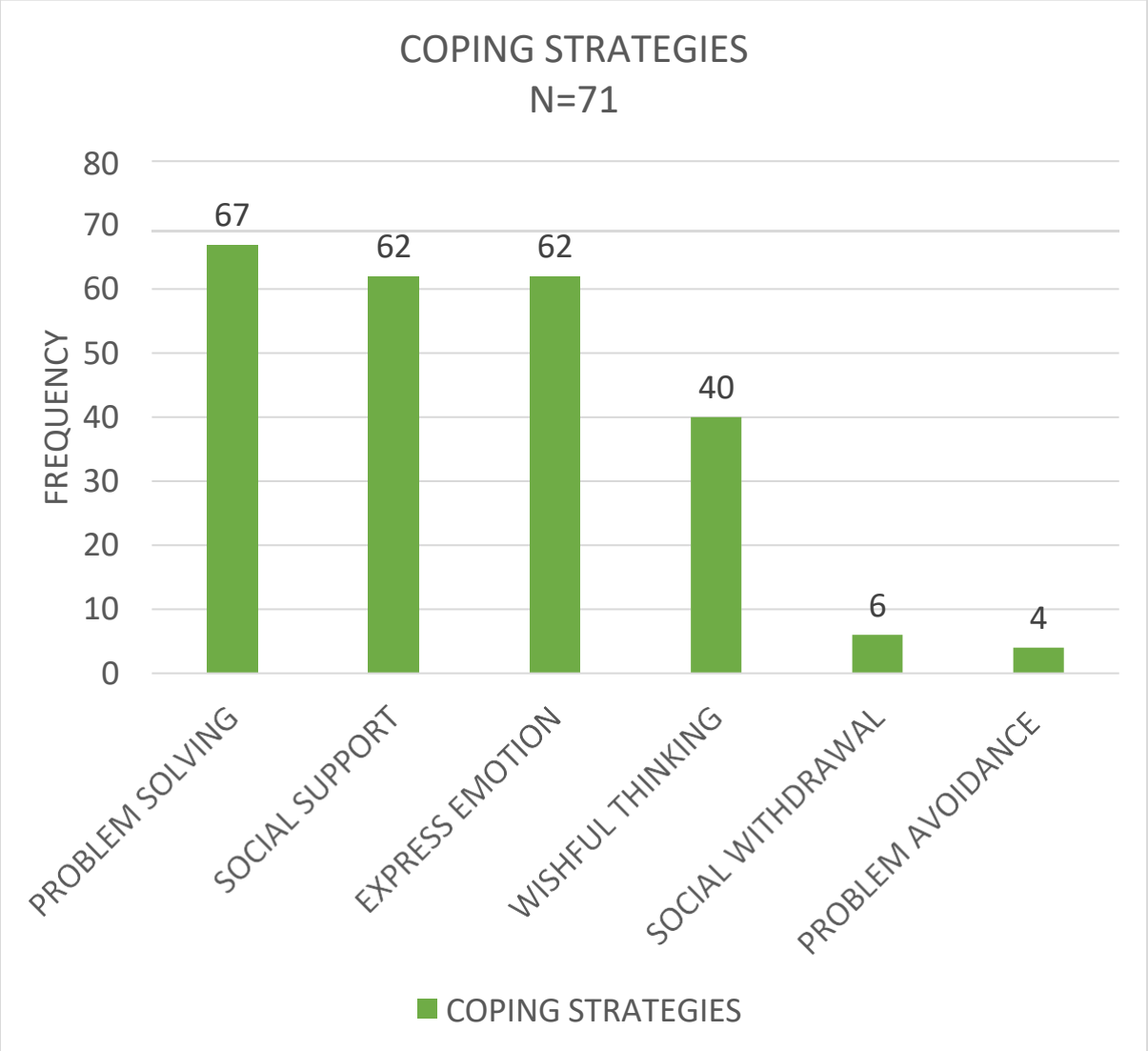
Our study found that 29% of spouses had low acuity marital satisfaction, 20% of spouses experienced moderate acuity, 51% of spouses had severe acuity marital satisfaction

Table 5. Mean and Standard deviation score for Marital satisfaction

	Mean	SD	Minimum Score	Maximum Score
Marital satisfaction (score)	97.13	34.741	26	156

Coping strategies

Figure 5. Coping strategies inventory (Short Form)



Coping strategies inventory was used to assess the type of coping strategies

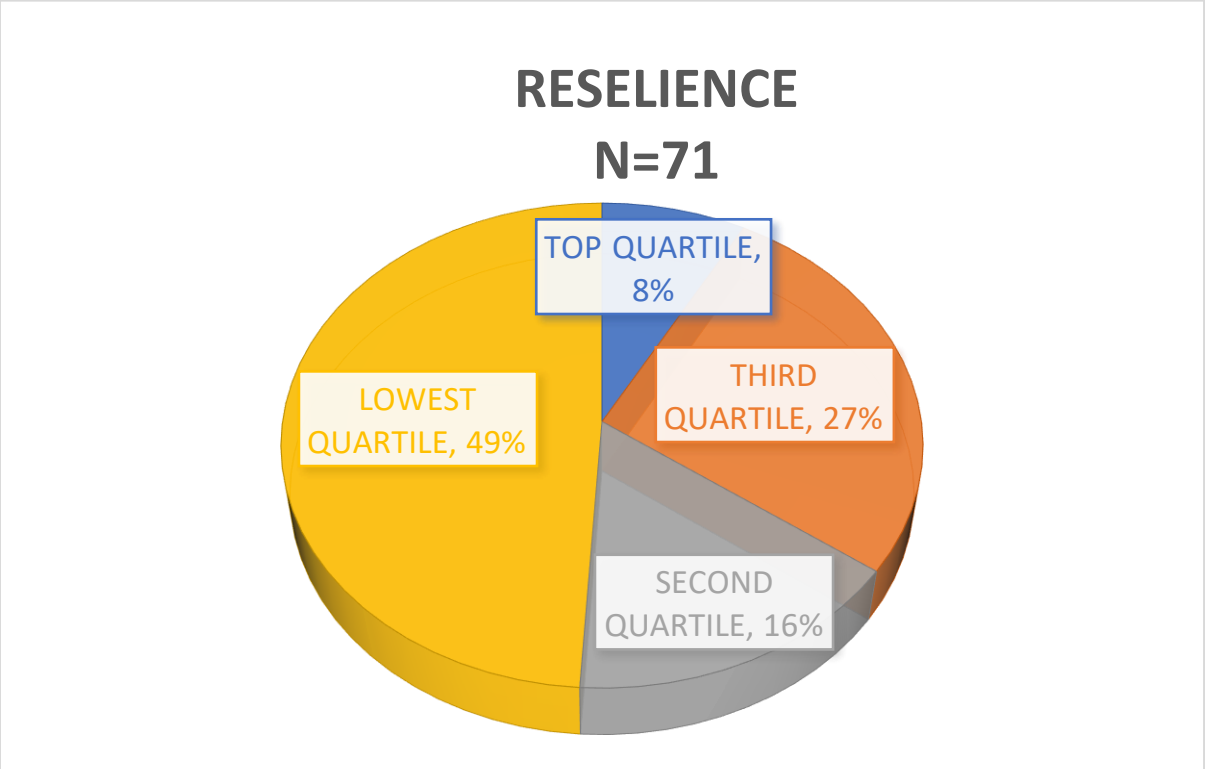
Our study found that majority of spouses (67) were using problem solving, followed by (62) spouses were using social support and express emotion as way of coping, (40) spouses were using wishful thinking, (6) spouses were using social withdrawal as coping strategies, 4 spouses used problem avoidance as way of coping.

Resilience

Table. 6 Mean and Standard Deviation score for Resilience

	Mean	SD	Minimum	Maximum
Resilience (Score)	28.80	6.21	16	39

Figure. 6 Connor Davidson resilience scale 10



Connor Davidson resilience scale 10 was used to assess the resilience in spouses of alcohol dependent men

Our study found that majority of the spouses (49%) scored in lowest quartile range, (16%) spouses in second quartile range, (27%) scored in third quartile range, (8%) scored in top quartile range

Association between Severity of alcohol dependence and Conjugal satisfaction

Table. 7 Correlation analysis between Severity of alcohol dependence and Conjugal satisfaction

SPEARMEN RHO	Marital satisfaction (SCORE)
Severity of alcohol dependence (SCORE)	-0.600 (Rho value) 0.000 (P-value)

Spearmen's correlation coefficient obtained a moderate negative correlation coefficient of -0.600 between Severity of alcohol dependence score and Marital satisfaction score which was significant with a P-value of 0.000 suggesting that severity of alcohol dependence and marital satisfaction are inversely proportional i.e. as severity of dependence increases then marital satisfaction decreases

Table 8. Association Between Severity of alcohol Dependence (SAD) and Psychiatric Morbidity

			SAD			Chi-square Value	p-value
			Mild Dependence	Moderate Dependence	Severe Dependence		
Psychiatric morbidity	Depression	Count	0	1	8	31.521	0.002
		% within SAD	0.0%	3.7%	25.8%		
	Dysthymia	Count	0	1	5		
		% within SAD	0.0%	3.7%	16.1%		
	GAD	Count	0	6	7		
		% within SAD	0.0%	22.2%	22.6%		
	NCM	Count	13	19	7		
		% within SAD	100.0%	70.4%	22.6%		
	Panic disorder	Count	0	0	3		
		% within SAD	0.0%	0.0%	6.5%		
	Suicidality	Count	0	0	1		
		% within SAD	0.0%	0.0%	3.2%		
TOTAL		Count	13	27	31		
		% within SAD	100.0%	100.0%	100.0%		

"Data is represented in Numbers and Frequency, Groups were compared by Chi-square test, P-value <0.05 is considered to be statistically significant. P-value >0.05 is considered to be statistically not significant"

Our study through above table shows that there is significant association between Severity of Alcohol Dependence and Psychiatric morbidity.

Association Between Duration of Marriage and Marital satisfaction

Table. 9 Correlation analysis between Duration of marriage and marital satisfaction

Spearmen's rho	Marital satisfaction (SCORE)
Duration of Marriage (Years)	0.163 (Rho Value) 0.175 (p-value)

Spearmen's correlation coefficient obtained a mild positive correlation coefficient of 0.163 between Duration of Marriage and Marital satisfaction score which was statistically non significant with a P-value of 0.175

Association Between Resilience and Severity of Alcohol Dependence

Table 10. Correlation between Resilience and Severity of Alcohol dependence (SAD)

Spearman's rho	Severity of alcohol dependence (SCORE)
Resilience (score)	-0.378 (rho value) 0.001 (p-value)

Spearmen's correlation coefficient obtained a mild negative correlation coefficient of -0.378 between Resilience and Severity of Alcohol dependence score which was statistically significant with a P-value of 0.001 suggesting that severity of alcohol dependence and resilience are inversely proportional i.e., as severity of dependence increases then resilience decreases

Association Between Resilience and Marital Satisfaction

Table 11. Correlation Between Resilience and Marital satisfaction

Spearman's rho	Marital Satisfaction (score)
Resilience (score)	0.534 (rho value) 0.000 (p value)

Spearmen's correlation coefficient obtained a mild positive correlation coefficient of 0.534 between Resilience and Marital satisfaction score which was statistically significant with a P-value of 0.000 suggesting that resilience and marital satisfaction are positively correlated i.e., as marital satisfaction increases then resilience increases

Association Between Resilience and Duration of Alcohol use

Table 12. Correlation between Resilience and Duration of alcohol use

Spearman's rho	Duration of alcohol use (years)
Resilience (score)	-0.18 (rho value) 0.880 (p-value)

Spearmen's correlation coefficient obtained a mild negative correlation coefficient of -0.18 between Resilience and Duration of alcohol use which was statistically non-significant with a P-value of 0.880 suggesting that duration of alcohol use and resilience are inversely proportional to each other i.e. as duration of alcohol use increases, then resilience decreases

Table 13. Association between Domicile, Educational status (female), Socioeconomic status, Family type with Marital satisfaction and resilience

Variables	Marital satisfaction	Resilience
Domicile	0.064	0.226
Educational status (Female)	0.362	0.767
Socioeconomic status	0.746	0.117
Family type	0.538	0.014

Data is represented in numbers and mean ± S.D, groups were compared by chi- square test &Mann Whitney test, $p<0.05$ is considered to be statistically significant, $P>0.05$ is considered to be statistically not significant

Our study shows that there is significant association between resilience and family type, but there is no significant association between family type and marital satisfaction, there is no significant association between domicile, educational status (female), Socioeconomic status with Marital satisfaction and resilience

Discussion

We conducted a study to assess the psychiatric morbidity and conjugal satisfaction, coping skills, reselience in wives of men suffering from alcohol use disorder in which 71 subjects (Husbands suffering from alcohol use disorder) along with their spouses were recruited

AGE DISTRIBUTION:

Males

Out of the 71 alcohol dependent men, majority (35.2%) of the alcohol dependent men belonged to the age group of 41-50 years, 33.8% of the alcohol dependent men belonged to age group of 31-40 years, 16.9% of the alcohol dependent men belonged to 51-60 years, 12.7% belonged to 21-30 years, 1.4% belonged to 61-70 years of age group respectively, with the mean age of alcohol dependent men being 42.56±9.1

In the study done by M Kishor et al[42] in Indian population, the mean age of the alcohol dependent men was (39±7) years which is almost similar to our study

In the study done by Aruna Dandu et al[55] in Indian population, the mean age of the alcohol dependent men was (41.24 ± 10.101) years which is almost similar to our study

In the study done by Vishal et al[59] in Indian population the mean age of the alcohol dependent men was (40.68±7.96) years which is almost similar to our study

In contrary to our findings, mean age of alcohol dependent men in study conducted in Indian population by Ruchi Soni et al[51] was 32±7.2

In our study majority of alcohol dependent men belonged to 41-50 years age group, this data is little on the higher side as compared to findings of community sample data of national drug dependence treatment center where majority of alcohol consuming population belonged to 18–49 year age group, and the reason for that being our study does not include the community based sample, it included individual who came to the hospital for seeking treatment

In the study done by Koustubh et al[75] in Indian Population majority of alcohol dependent men belonged to 31-50 years age group which was almost similar to our finding

In the study done by Aruna Dandu[55] et al. in Indian Population majority of the alcohol dependent men belonged to 31-40 years age group which was in contrary to our findings

Females

In our study majority of the spouses belonged to 31-40 years age group, with the mean age being 35.25±8.9 years

In the study conducted by M Kishor et al in Indian population mean age of spouses was 32.4 ±5.8 years which is almost similar to our finding

In the study conducted by Aruna Dandu et al, in Indian population mean age of spouses was 35.04 ± 8.98 years and majority of the spouses belonged to 31-40 years age group which is similar to our findings

In the study conducted by Ruchi Soni et al in Indian population, mean age of spouses was 26.25±8.72 years which is in contrary to our findings

Educational status

In our study majority of sample i.e., 32% of husbands suffering from alcohol use disorder and 42% spouses had completed only their primary schooling.

In the study done by Humayoon Akbar et al[62] in Indian population majority of husbands suffering from alcohol use disorder and their spouses had completed their primary schooling which is similar to the findings of our study

In the study done by Ruchi Soni et al[51] and Ghosh P et al in Indian population majority of husbands suffering from alcohol use disorder and their spouses had completed their primary schooling only which is similar to the findings of our study

In the study done by M Kishor et al[42] in Indian population majority of alcohol dependent men were educated less than 10^{th} std where as majority of spouses were educated upto 10^{th} std which was in contrary to our findings

Character of alcohol dependence

In our study mean duration of alcohol use is 19.79±8.8 years, this finding is almost similar to finding of the previous study done by Kaustubh et al[75] where mean duration of alcohol use was 21 years

In the study done by Ruchi soni et al[51] in Indian population mean duration of alcohol use was 6.8±5.3 years which was in contrary to our study findings

In the study done by Aruna Dandu et al[55] in Indian population mean duration of alcohol use was 10 years which was in contrary to our findings

The reason for the difference in duration of alcohol use in above studied is that majority of the alcohol dependent men in both the above studies presented early in their course of treatment to Deaddiction center

Alcohol dependence

Our study found that mean score of severity of alcohol dependence is 27±10 indicating significant dependence, where 18% of men suffered from mild dependence, 38% had moderate dependence, 44% of the individual had severe dependence.

In another study done by M Kishor et al[42] in Indian population mean scores of severity of alcohol dependence was 19.9, where 45% of the men suffered from moderate dependence, 46% of men suffered from High dependence, very low were having mild dependence which was in contrary to the findings of our study

In the study done by Humayoon Akbar et al[62] in Indian population, 74 % of study population were highly dependent on alcohol while 13 % were found to have low and medium dependence which was in contrary to the findings of our study

Drinkers Inventory of consequences

Our study found that on DrInc, Physical, Inter-personal, Social Responsibility domain were found to be most affected followed by Impulse control and intra-personal domain, findings of this study is similar to the previous study done by Koustubh R et al[75] but differs from study done by Kishore et al[42] where Physical and inter-personal were the least affected domains.

Physical domain was most affected because majority of the individual reported to hospital with physical health problems due to alcohol who were later included in the study depicting more problems in physical domain, social responsibility domain was affected owing to the

consumption of alcohol in dependence pattern which ultimately affected their quality of work, and more money was being spent on procuring alcohol leading to the disruptions in their social responsibility, Intra-personal domain was least affected as husbands in this study were attributing their illness to external factors with locus of control being external.

Psychiatric Morbidity

In Our study, the prevalence of psychiatric morbidity among spouses of alcohol-dependent men was 47.7%, where as prevalence of psychiatric morbidity in different national and international literature varied in the range of 10% - 79%,

our study found that spouses of alcohol dependent men were primarily suffering from Anxiety and mood disorders, the most common being generalized anxiety disorder, followed by Depression, Dysthymia, Panic disorder, suicidality i.e., 13 women were suffering from Generalized anxiety disorder, 10 women were suffering from Depressive disorder, 7 women were suffering from Dysthymia, 3 women were suffering from panic disorder, 1 woman was suffering from Suicidality

Generalized anxiety disorder was the most common diagnosis because most of the wives reported that because of the husbands increased propensity of spending more money on procuring alcohol, not going to work daily has affected the financial conditions of the family which forms the basis of excessive worry regarding families financial woes, future of their children

Depressive disorder was second most common diagnosis because most of the wives reported that they go through repeated physical and verbal abuse along with increased financial woes because of husbands spending pattern on alcohol leaving them sad and hopeless

The findings of the high rates of anxiety and mood disorders in our study is similar to the findings of the previous studies done in the western literature[19,20,28,43] and Indian literature i.e.

previous study done by M. Kishor et al[42], Kamal Solati et al[38] , Nithya Damodaran et al[67] , Vishal shah et al[59], Koustubh R et al [75], Ruchi Soni et al[51] , but our finding differed from a study conducted by Aruna Dandu et al [55] wherein Depressive disorder was most common psychiatric morbidity followed by adjustment disorder and anxiety disorder was found in only 3% of cases.

Our study shows that there is statistically significant association between psychiatric morbidity and severity of alcohol dependence which is consistent with findings of the previous study conducted in Indian Population by Kishore et al[42] , Koustubh R Bagul[75] , Aruna Dandu et al[55], Ruchi soni et al[51], Vishal shah et al[38], Solati et al[38]

MARITAL SATISFACTION :

In our study we found that 29% of women had low acuity marital satisfaction, 20% of women had moderate acuity marital satisfaction, 51% had high acuity marital satisfaction, our study also found that marital satisfaction in women was negatively corelated with severity of alcohol dependence in men i.e. women whose husbands were having more severe alcohol dependence were suffering from low marital satisfaction, these findings were consistent with the findings of the previous study done by Debasree Bora et al[49], Humayoon Akbar et al[62], Divija Bunga et al[65], Kishore et al[42], Koustubh et al[75], Tempier et al[43], Aruna Dandu et al[55] which also concluded that marital satisfaction decreases as severity of alcohol dependence increases.

In our study, reportedly reasons for low marital satisfaction in spouses with increasing severity of dependence is because of the spouses going through repeated verbal abuse and physical abuse, along with increasing burden on them to handle family finances because of the excessive spending of money by the husband on procuring alcohol, lack of mutual

decision making, poor conventionality (the way the husbands behave in society and family during their intoxicated state)

Coping strategies :

Findings of our study concluded that wives adopted engagement strategies which were either Problem focused or Emotion focused while dealing with the stress caused by the alcohol dependent husbands, our study also revealed that wives adopted same coping strategies i.e. engagement irrespective of severity of alcohol dependence hoping that their husband would come out of illness which will ultimately lead to their family welfare, along with that accompanying their husbands for treatment in itself is reflecting an engagement on their part to deal with the husbands problematic behavior

Findings of our study was similar to the previous studies done by Hiromani Barman et al[61], Nitasha Sharma et al[50], Jim orford et al[30], Jack B Schaffer et al[53] which showed more of engaged coping and less of withdrawal coping

It is in contrast to the findings of the previous study done by Orford and Guthrie et al[26], Satyanarayana Rao and Kuruvilla et al [24], Srijana Pandey et al[11,25], R. Chandrasekaran et al[25] in which avoidance, fearful withdrawal, were the common coping behaviors and taking special action (engagement) was the least common coping behavior because of the personality of the wives being timid, submissive and dependent and the dependency of the wives on husband financially which leads them not to take action against the husbands behavior.

Resilience :

Our study found that majority (49%) of women scored in lowest quartile range followed by (16%) of women scored in second quartile range, 27% of women scored in third quartile range, and very few (8%) of women scored in top quartile range in Connor Davidson resilience scale 10, findings of this study were similar to the previous studies done by Johnson Pradeep et al[57], Ramya RM et al[60] in Indian Population which reflected low resilience in wives of alcohol use disorder, moreover our study found that there is inverse relationship between the resilience and severity of alcohol dependence which is consistent with findings of the previous study done by Sreeja Sreekumar et al[54], Ramya RM et al[60]

The reason reportedly of the wives experiencing low resilience as the severity of dependence increases is their inability to bounce back after repeatedly getting exposed to verbal and physical abuse by husband who are consuming alcohol leading to decreased tolerance of negative affect

Our study found that there is significant association between Resilience and Family type which could be due to the amount of social support the wives are receiving which strengthens their ability to cope with stressors, this finding is similar to previous study done by Sreeja Sreekumar et al[54]

Limitation

- Sample size is small

- Domestic violence in the wife's was not assessed which could have affected marital satisfaction, resilience and coping

- Personality was not assessed in wives of alcohol dependent men which could have affected the resilience

- Physical comorbidities in Husband was not assessed which could have an effect on Wife's mental state which would ultimately affect the coping strategies, resilience

- This study is done at the out-patient department and inpatient care of a tertiary mental health center so the sample may not be representative of the general population

Conclusion

- Wives of alcohol dependent men suffer more commonly from GAD, depressive disorder, dysthymia, panic disorder which are usually neglected

- Increasing severity of alcohol dependence is associated with marital dissatisfaction

- Severity of alcohol dependence in husband is associated with development of psychiatric morbidity in spouses

- Spouses of alcohol dependent men adopted problem focused engagement and emotion focused engagement coping strategies to deal with distress caused by their husband

- Wives adopted same coping mechanism irrespective of the severity of alcohol dependence in men

- Increased severity of alcohol dependence in men was associated with decreased resilience in women

SUMMARY

This study was conducted to assess the psychiatric morbidity and conjugal satisfaction, coping skills, resilience among spouses of men diagnosed with alcohol use disorder.

This was a Cross-sectional, single center, interview-based study of total 71 study participants including alcohol dependent men and their spouses whose husbands were admitted in psychiatry ward or came to psychiatry OPD of Shri B.M. Patil Medical College, Hospital and Research Centre, Vijayapura.

1. In our study, the age distribution among alcohol dependent male patients and their spouses was highest in 41-50 years age group and 30-39 years age group respectively, they constituted around 35% and 42% of population in their groups respectively
2. Our study found that majority comprising 32% of alcohol dependent men and 42% spouse had completed only their primary schooling
3. Mean age of alcohol dependent men in our study was 42.56±9 years and mean age of Spouses of alcohol dependent men in our study was 35.25 years
4. Mean duration of marriage was 16.66 ± 8 years
5. Mean duration of alcohol use in alcohol dependent men was 19.79±8.8 years
6. Our study found that mean score of severity of alcohol dependence is 27±10 years indicating significant dependence, 18% of men suffered from mild dependence, 38% had moderate dependence, 44% had severe Dependence
7. Our study found that on DrInc, Physical, Inter-personal, Social Responsibility domain were found to be most affected followed by Impulse control and intra-personal domain

8. In our study, the prevalence of psychiatric morbidity among spouses of alcohol-dependent men was 47.7%, the most common psychiatric morbidity reported was generalized anxiety disorder, followed by Depression, Dysthymia, Panic disorder, suicidality
9. Our study found that 13 women were suffering from GAD, 10 women were suffering from Depressive disorder, 7 women were suffering from Dysthymia, 3 women were suffering from panic disorder, 1 woman was suffering from Suicidality
10. Findings of our study revealed that there is statistically significant association between Psychiatric morbidity and severity of alcohol dependence
11. While assessing marital satisfaction among spouses we found that 29% of women had low acuity marital satisfaction, 20% of women had moderate acuity marital satisfaction, 51% had high acuity marital satisfaction
12. Our study revealed that marital satisfaction was inversely related to severity of alcohol dependence i.e. marital satisfaction decreases as severity of alcohol dependence increased and the reason for it is that spouses going through verbal abuse and physical abuse, along with increasing burden on them to handle family finances because of the excessive spending of the husband on alcohol, lack of mutual decision making, poor conventionality
13. Our study found that majority of spouses use problem focused and emotion focused engagement strategies while dealing with the stressors
14. Our study found out that wives adopted same coping strategies i.e. engagement irrespective of severity of alcohol dependence hoping that their husband would come out of illness which will ultimately lead to their family welfare, along with that accompanying their husbands for treatment in itself is reflecting an engagement on their part to deal with the husbands problematic behavior

15. While assessing resilience we found that majority (49%) of women scored in lowest quartile range followed by (16%) of women scored in second quartile range, 27% of women scored in third quartile range, and very few (8%) of women scored in top quartile range.
16. Our study found inverse relationship between Resilience and severity of alcohol dependence i.e., as severity of alcohol dependence increases, resilience decreases
17. Our study found out statistically significant association between resilience and family type which could be due to the amount of social support in the joint family, wives are receiving which strengthens their ability to cope with stressors

Bibliography

1. Gordis E. The etiology, consequences, and treatment of alcoholism. Liver Transplantation and Surgery. 1997 May;3(3):199–205.

2. Kaur D, Ajinkya S. Psychological impact of adult alcoholism on spouses and children. Medical Journal of Dr DY Patil University. 2014;7(2):124.

3. Eashwar VA, Umadevi R, Gopalakrishnan S. Alcohol consumption in India– An epidemiological review. J Family Med Prim Care. 2020;9(1):49.

4. National drug dependent treatment centre report on magnitude of substance use in india. 2019.

5. Yang P, Tao R, He C, Liu S, Wang Y, Zhang X. The Risk Factors of the Alcohol Use Disorders—Through Review of Its Comorbidities. Front Neurosci. 2018 May 11;12.

6. Clifford BJ. A Study of the Wives of Rehabilitated and Unrehabilitated Alcoholics. Soc Casework. 1960 Nov 8;41(9):457–60.

7. Damodara N. Assessing Depression and Quality of Life among Spouses of Persons Suffering from Alcohol Dependence Syndrome. . J Res Med Dent Sci. 2021;9(4):519–28.

8. Whalen T. Wives of Alcoholics. Four Types Observed in a Family Service Agency. Q J Stud Alcohol. 1953 Dec 1;14(4):632–41.

9. Hansson H. Interventions in adult children and spouses of alcoholics. Randomized controlled trials of mental health and drinking patterns. Lund University Faculty of Medicine Doctoral Dissertation Series. 2007;2007:148:1–105.

10. McWilliams LA, Cox BJ, Enns MW. Use of the Coping Inventory for Stressful Situations in a clinically depressed sample: Factor structure, personality correlates, and prediction of distress. J Clin Psychol. 2003 Apr;59(4):423–37.

11. Pandey S, Shrestha K. Coping Strategies Among Spouses of Alcohol dependents at Gokarneswor, Kathmandu, Nepal. J Ment Health Clin Psychol. 2020 Jan 1;4(1):1–5.

12. Smith MM, Saklofske DH, Keefer K v., Tremblay PF. Coping Strategies and Psychological Outcomes: The Moderating Effects of Personal Resiliency. J Psychol. 2016 Apr 2;150(3):318–32.

13. Kishor M, Pandit L, Raguram R. Psychiatric morbidity and marital satisfaction among spouses of men with alcohol dependence. Indian J Psychiatry. 2013;55(4):360.

14. Johnson D, Varughese S, Kallivayalil R. Resilience in wives of persons with alcohol use disorder and their marital quality: A cross sectional study from a tertiary care center. Indian J Soc Psychiatry. 2021;0(0):0.

15. Gururaj G GNB v. Burden and Socio-Economic Impact of Alcohol-Bangalore Study. World Health Organization, Regional Office for South-East Asia. 2006 Apr 6;

16. Rajat Ray. The Extent, Pattern and Trends of Drug Abuse in India: National Survey. Ministry of Social Justice and Empowerment, Government of India & United Nations Office on Drugs and Crime, Regional Office for South Asia. 2004;1–140.

17. World Health Organization Department of Mental Health and Substance Abuse. Global status report on alcohol 2004, 2nd ed. World Health Organization. 2004;

18. Tomori M. Personality characteristics of adolescents with alcoholic parents. Adolescence. 1994 Feb;29(116):949–59.

19. Steinglass P. The impact of alcoholism on the family. Relationship between degree of alcoholism and psychiatric symptomatology. J Stud Alcohol. 1981 Mar;42(3):288–303.

20. Hurcom C, Copello A, Orford J. The Family and Alcohol: Effects of Excessive Drinking and Conceptualizations of Spouses over Recent Decades. Subst Use Misuse. 2000 Jan 1;35(4):473–502.

21. Kahler CW, McCrady BS, Epstein EE. Sources of distress among women in treatment with their alcoholic partners. J Subst Abuse Treat. 2003 Apr;24(3):257–65.

22. Gil-González D, Vives-Cases C, Álvarez-Dardet C, Latour-Pérez J. Alcohol and intimate partner violence: do we have enough information to act? Eur J Public Health. 2006 Jun 1;16(3):278–84.

23. MPHI M. Female alcoholism problems in Lesotho. Addiction. 1994 Aug;89(8):945–9.

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

25. Chandrasekaran R C v. Patterns and determinants of coping behaviour of wives of alcoholics. Indian J Psychiatry. 1998 Jan;40(1):30–4.

26. Orford J, Guthrie S, Nicholls P, Oppenheimer E, Egert S, Hensman C. Self-reported coping behavior of wives of alcoholics and its association with drinking outcome. J Stud Alcohol. 1975 Sep;36(9):1254–67.

27. Epstein EE, McCrady BS, Hirsch LS. Marital Functioning in Early Versus Late-Onset Alcoholic Couples. Alcohol Clin Exp Res. 1997 May;21(3):547–56.

28. Homish GG, Leonard KE, Kearns-Bodkin JN. Alcohol use, alcohol problems, and depressive symptomatology among newly married couples. Drug Alcohol Depend. 2006 Jul;83(3):185–92.

29. Dawson DA, Grant BF, Chou SP, Stinson FS. The Impact of Partner Alcohol Problems on Women's Physical and Mental Health. J Stud Alcohol Drugs. 2007 Jan;68(1):66–75.

30. Orford J, Natera G, Velleman R, Copello A, Bowie N, Bradbury C, et al. Ways of coping and the health of relatives facing drug and alcohol problems in Mexico and England. Addiction. 2001 May;96(5):761–74.

31. Suresh Kumar P, Thomas B. Family intervention therapy in alcohol dependence syndrome: One-year follow-up study. Indian J Psychiatry. 2007;49(3):200.

32. Geneva World Health Organization. International Classification Of Disease And Related Health Problems 10th Edition. 1990.

33. Benjamin James Sadock VAPR. Kaplan and Sadock' synopsis of psychiatry behavioral science/clinical psychiatry. 12th edition.

34. Vengeliene V, Bilbao A, Molander A, Spanagel R. Neuropharmacology of alcohol addiction. Br J Pharmacol. 2008 May;154(2):299–315.

35. Weiss F. Neurobiology of craving, conditioned reward and relapse. Curr Opin Pharmacol. 2005 Feb;5(1):9–19.

36. Koob GF, le Moal M. Addiction and the Brain Antireward System. Annu Rev Psychol. 2008 Jan 1;59(1):29–53.

37. Becker HC. Alcohol dependence, withdrawal, and relapse. Alcohol Res Health. 2008;31(4):348–61.

38. Solati K. Study of Association of Substance Use Disorders with Family Members' Psychological Disorders. JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH. 2017;

39. NASCIMENTO VF do, LIMA CAS, HATTORI TY, TERÇAS ACP, LEMES AG, LUIS MAV. Daily life of women with alcoholic companions and the provided care. An Acad Bras Cienc. 2019;91(1).

40. Moos RH, Brennan PL, Schutte KK, Moos BS. Spouses of Older Adults With Late-Life Drinking Problems: Health, Family, and Social Functioning. J Stud Alcohol Drugs. 2010 Jul;71(4):506–14.

41. Rozhnova TM. The types of matrimonial relations and personal characteristics of married couples in the families of men suffering from alcoholism]. Voen Med Zh. 2007 Feb;328(2):28-31, 96. Russian. Voen Med Zh. 2007 Feb;328(2):28-31,96.

42. Kishor M, Pandit L, Raguram R. Psychiatric morbidity and marital satisfaction among spouses of men with alcohol dependence. Indian J Psychiatry. 2013;55(4):360.

43. Tempier R, Boyer R, Lambert J, Mosier K, Duncan CR. Psychological distress among female spouses of male at-risk drinkers. Alcohol. 2006 Aug;40(1):41–9.

44. Dolan SL, Rohsenow DJ, Martin RA, Monti PM. Urge-specific and lifestyle coping strategies of alcoholics: Relationships of specific strategies to treatment outcome. Drug Alcohol Depend. 2013 Feb;128(1–2):8–14.

45. Kaur D, Ajinkya S. Psychological impact of adult alcoholism on spouses and children. Medical Journal of Dr DY Patil University. 2014;7(2):124.

46. Ariyasinghe D, Abeysinghe R, Siriwardhana P, Dassanayake T. Prevalence of Major Depressive Disorder Among Spouses of Men Who Use Alcohol in a Rural Community in Central Sri Lanka. Alcohol and Alcoholism. 2015 May 1;50(3):328–32.

47. Grubisić-Ilić M LTKKD. Personality dimensions and psychiatric treatment of alcoholics' wives. Croat Med J. 1998 Mar;39(1):49–53.

48. Nagesh VA. Stress and Coping among the Wives of Alcoholics admitted in Selected De-Addiction Centers. Asian Journal of Nursing Education and Research. 2015;5(3):373.

49. Bora D, Banerjee I, Deuri SP. Marital quality in wives of persons with alcohol dependence syndrome. Open J Psychiatry Allied Sci. 2017;8(1):53.

50. Sharma N, Sharma S, Ghai S, Basu D, Kumari D, Singh D, et al. Living with an alcoholic partner: Problems faced and coping strategies used by wives of alcoholic clients. Ind Psychiatry J. 2016;25(1):65.

51. Soni R, Upadhyay R, Meena PS, Jain M. Psychiatric morbidity, quality of life and marital satisfaction among spouse of men with opioid dependence syndrome: a study from North India. International Journal of Advances in Medicine. 2017 Mar 23;4(2):556.

52. McLeod JD. Spouse Concordance for Alcohol Dependence and Heavy Drinking: Evidence from a Community Sample. Alcohol Clin Exp Res. 1993 Nov;17(6):1146–55.

53. Schaffer JB, Tyler JD. Degree of Sobriety in Male Alcoholics and Coping Styles used by their Wives. British Journal of Psychiatry. 1979 Nov 29;135(5):431–7.

54. Sreekumar S, Subhalakshmi T, Varghese Pj. Factors associated with resilience in wives of individuals with alcohol dependence syndrome. Indian J Psychiatry. 2016;58(3):307.

55. Dandu A, Bharathi S, Dudala S. Psychiatric morbidity in spouses of patients with alcohol related disorders. J Family Med Prim Care. 2017;6(2):305.

56. Reddy AS, Jagannathan A. Predictors of coping and perceived expressed emotions in persons with alcohol dependence in India: a pilot study. Asian J Psychiatr. 2017 Aug;28:38–40.

57. Johnson P, Britto C, Sudevan K, Bosco A, Sreedaran P, Ashok M. Resilience in Wives of persons with Alcoholism: An Indian exploration. Indian J Psychiatry. 2018;60(1):84.

58. Kanchan V BNDKSRK. Stress and coping strategies among wives of alcoholics in selected community. Baba Farid university nursing journal. 2018;15(2):28–32.

59. Shah V, Behere P, Mishra K, Sharma A, Kumar K. Psychiatric Morbidity among Spouses of Men with Alcohol Dependence. International Journal of Recent Surgical and Medical Sciences. 2017 Jun 15;03(01):010–4.

60. Ramya R, Nisha C, Johnson P. A Comparative study to assess the Resilience factors between wives of alcoholics and wives of non alcoholics in a selected hospital, Bangalore. Asian Journal of Nursing Education and Research. 2019;9(4):530.

61. Barman H. Coping Strategies used by Wives of Patients with Alcohol Related Disorders. International Journal of Nursing Education and Research. 2019;7(2):237.

62. Akbar H, S. S, B. S, Bi K, R. J, M. NH. Marital Satisfaction Among Spouses of Male Patients with Alcohol Dependence Syndrome. INDIAN JOURNAL OF MENTAL HEALTH AND NEUROSCIENCES. 2019 Jul 1;2(02):8–13.

63. Shiji P.J NK. Quality of Life of Wives of Alcoholics. Indian Journal of Public Health Research & Development . 2020 Mar;11(3):658–62.

64. Nace EP. Therapeutic approaches to the alcoholic marriage. Psychiatr Clin North Am. 1982 Dec;5(3):543–64.

65. Bunga D, Bipeta R, Molanguri U. A cross-sectional study on domestic violence, marital satisfaction, and quality of life among partners of patients with alcohol use disorder. Archives of Mental Health. 2022;23(1):18.

66. Johnson D, Varughese S, Kallivayalil R. Resilience in wives of persons with alcohol use disorder and their marital quality: A cross sectional study from a tertiary care center. Indian J Soc Psychiatry. 2021;0(0):0.

67. Nithya Damodara SN. Nithya Damodara, S Nambi, Assessing Depression and Quality of Life among Spouses of Persons Suffering from Alcohol Dependence Syndrome, J Res Med Dent Sci, 2021, 9 (4):519-528. J Res Med Dent Sci. 2021;9(4):519–28.

68. Patkar P WTSICSSDDC. Quality of life and suicidal ideation in wives of men with alcohol dependence: A hospital-based study. Ind Psychiatry J. 2021 Oct;30(1):184–8.

69. Tim Stockwell DMRH. The Severity of Alcohol Dependence Questionnaire : Its Use, Reliability & Validity. Br J Addict. 1983 Jun;78(2).

70. W Miller JTRL. The drinkers inventory of consequences : an Instrument for Assessing Adverse Consequences of Alcohol Abuse : Test Manual . 1995;

71. D.V Sheehan LecrubierY et al. Mini-International Neuropsychiatric Interview (MINI) . Journal of clinical psychiatry. 1998;59(20):22–33.

72. Locke HJ, & WKM. Short marital adjustment and prediction tests: Their reliability and validity. Marriage Fam Living. 21:251–5.

73. Addison CC, CJ et al. Coping Strategies Inventory--Short Form (CSI-SF). 2007;

74. Connor KM, Davidson JRT. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). Depress Anxiety. 2003 Sep;18(2):76–82.

75. Koustubh R. Bagul SBDMKBPSD. Psychiatric Morbidity and Marital Quality among Wives of Patients with Alcohol Dependence Syndrome. Journal of Evidence based Medicine and Healthcare. 2015 Jun 1;2(22):3284–95.

ANNEXURES

ANNEXURE I

INSTITUTIONAL ETHICAL CLEARENCE CERTIFICATE.

IEC/No-09/2021
Date-22/01/2021

B.L.D.E. (DEEMED TO BE UNIVERSITY)
(Declared vide notification No. F.9-37/2007-U.3 (A) Dated. 29-2-2008 of the MHRD, Government of India under Section 3 of the UGC Act, 1956)
The Constituent College
SHRI. B. M. PATIL MEDICAL COLLEGE, HOSPITAL AND RESEARCH CENTRE

INSTITUTIONAL ETHICAL CLEARANCE CERTIFICATE

The Institutional ethical committee of this college met on 11-01-2021 at 11-00 am to scrutinize the synopsis of Postgraduate students of this college from Ethical Clearance point of view. After scrutiny the following original/corrected and revised version synopsis of the Thesis has been accorded Ethical Clearance

Title: Assessment of Mental health & conjugal satisfaction. Coping skills, Resilience among spouses of men diagnosed with alcohol dependence syndrome.

Name of PG student: Dr Lalwani Karan Manohar, Department of Psychiatry

Name of Guide/Co-investigator: Dr S.P.Chaukimath, Professor & HOD of Psychiatry

DR .S.V.PATIL
CHAIRMAN, IEC
Institutional Ethical Committee
B L D E (Deemed to be University)
Shri B.M. Patil Medical College,
VIJAYAPUR-586103 (Karnataka)

Following documents were placed before Ethical Committee for Scrutinization:

1. Copy of Synopsis / Research project
2. Copy of informed consent form
3. Any other relevant documents.

1

ANNEXURE – II

CONSENT FORM

B.L.D.E. (DEEMED TO BE UNIVERSITY) SHRI B.M. PATIL MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTER, VIJAYAPURA-586103

INFORMED CONSENT FOR PARTICIPATION IN DISSERTATION / RESEARCH.

I, the undersigned,_____, S/O D/O W/O_____, aged___years, ordinarily resident of_____do hereby state/declare that Dr. LALWANI KARAN MANOHAR of Shri. B. M. Patil Medical College Hospital and Research Centre has explained me thoroughly on_____at VIJAYAPURA (place) and it has been explained to me in my own language that I am suffering from_____disease (condition) and this disease/condition mimic following diseases. Further Doctor Dr LALWANI KARAN MANOHAR informed me that he is conducting dissertation/research titled "ASSESSMENT OF MENTAL HEALTH AND CONJUGAL SATISFACTION, COPING SKILLS, RESELIENCE AMONG SPOUSES OF MEN DIAGNOSED WITH ALCOHOL DEPENEDENT SYNDROME" under the guidance of Prof. S.P. CHAUKIMATH requesting my participation in the study. Further Doctor has informed me that my participation in this study help in evaluation of the results of the study which is useful reference to treatment of other similar cases in near future. The Doctor has also informed me that information given by me, observations made photographs video graphs taken upon me by the investigator will be kept confidential and not assessed by the person other than me or my legal hirer except for academic purposes.

The Doctor did inform me that though my participation is purely voluntary, based on information given by me, I can ask any clarification during the course of treatment / study related to diagnosis, procedure of treatment, result of treatment or prognosis.

At the same time I have been informed that I can withdraw from my participation in this study at any time if I want or the investigator can terminate me from the study at any time from the study but not the procedure of treatment and follow-up unless I request to be discharged.

After understanding the nature of dissertation or research, diagnosis made, mode of treatment, I the undersigned Shri/Smt_____under my full conscious state of mind agree to participate in the said research/dissertation.

Signature of patient:

Signature of doctor:

Witness: 1.

Date:

Place

ANNEXURE – III: SCHEME OF CASE TAKING PROFORMA

BLDE (DEEMED TO BE UNIVERSITY)

SHRI B.M. PATIL MEDICAL COLLEGE HOSPITAL AND RESEARCH CENTRE, VIJAYAPUR.

Assessment of mental health & conjugal satisfaction, among spouses of men with alcohol dependence syndrome : A cross sectional study

1. A socio-demographic information schedule consists of age, sex, religion, educational status, occupation, socioeconomic status, family type, and domicile.
2. Diagnosing patients for alcohol dependence syndrome using the eleventh version of the international statistical classification of diseases and related health problems.
3. The severity of Alcohol Dependence Questionnaire (SADQ) The Addiction Research Unit at the Maudsley Hospital developed the Severity of Alcohol Dependence Questionnaire. The SADQ has 20 questions intended to measure the alcohol dependence severity. The following areas of dependence are analyzed using SADQ questionnaire:
   a. withdrawal symptoms-physical
   b. withdrawal symptoms-affective
   c. relief drinking
   d. alcohol use frequency
   e. time taken for withdrawal symptoms onset.

Scoring: Answers to each question are rated from 0 to 4 on a four-point scale from 'never' to 'always':

≥31 - "severe alcohol dependence"

16 -30 - "moderate dependence"

< 16 - mild physical dependency

4. Drinker's Inventory of Consequences (DrInC) for the consequences of drinking

   DrInC, is a scale devised to assess the consequences of drinking in five domains viz., physical, intrapersonal, interpersonal, impulse control, and social responsibility. It comprises 50 items with four possible responses, which are scored as 0-3. There are many versions of the scale, ranging from those, which examine the past three months to those examining lifetime consequences. In this study, we have used the one which considers the past three months. Higher total scores in each of its domains indicate greater negative consequences or problems.

5. Mini-International Neuropsychiatric Interview (MINI) to screen for psychiatric disorders and subsequently, structured clinical interview for DSM-V (SCID I and SCID II) was administered to discern both Axis I and Axis II disorders.

   MINI was designed as a brief structured interview for major Axis-I psychiatric disorders in DSM-IV and ICD-10. It screens for 17 major psychiatric disorders. The validity and reliability are compared to SCID, and it can be administered in a much shorter period of time. Each module starts with a screening question for a psychiatric

diagnosis. If that question is answered, "YES" specific questions pertaining to that diagnosis are asked to the spouse.

6. Marital adjustment test: A 15-item scale that measures marital satisfaction. It was initially used to differentiate well-adjusted couples from distressed (unsatisfied) couples. The 15 items are answered on a variety of response scales. The scores for all 15 items should be added up together. Higher scores indicate greater satisfaction. A minimum score will be two, and the maximum score will be 158. Scores between 100 and 158 indicate high acuity with regard to marital satisfaction, scores between 85 and 99 indicate moderate acuity, and scores between 2 and 84 indicate low acuity.

7. Coping Strategies Inventory (CSI) to assess coping thoughts and behavior in response to a specific stressor. The CSI is a 72-item self-report questionnaire with a 5-item Likert format. There is a total of 14 subscales including eight primary subscales, four secondary subscales, two tertiary scales. There are 9 items in each of the primary subscales. Raw scale scores are calculated by adding the Likert responses of the items for a particular subscale. To calculate the secondary and tertiary subscales scores, the primary subscale that makes up the particular subscale is added. After describing a stressful situation for controls, the study population taking the CSI are asked to respond to the 72 questions.

   The primary subscale items are

   1. Problem solving
   2. Cognitive restructuring
   3. Express emotions
   4. Social support

5. Problem avoidance
6. Wishful thinking
7. Self-criticism
8. Social withdrawal.

The secondary subscale items are

1. Problem focused engagement = problem solving + cognitive restructuring
2. Emotion focused engagement = social support + express emotion
3. Problem focused disengagement = problem avoidance + wishful thinking
4. Emotion focused disengagement = social withdrawal + self-criticism

The tertiary subscale items are

1. Engagement = Problem focused engagement + Emotion focused engagement
2. Disengagement = Problem focused disengagement + Emotion focused disengagement

8. Resilience was measured using Connor Davidson resilience scale 10: The Connor-Davidson Resilience scale (CD-RISC) 10 comprises of 10 items, each rated on a 5-point scale (0–4), with higher scores reflecting greater resilience. This scale measures flexibility, sense of self efficacy, capacity to regulate emotion, optimism

ANNEXURE IV: MASTER CHART

KEY TO MASTER CHART:

SES – Socio- economic status

SAD – Severity of alcohol dependence

Coping strategies coding used:

1 – Problem solving

2- wishful thinking

3- social withdrawal

4- express emotion

5- social withdrawal

6- problem solving

NPM – No psychiatric Morbidity

Patient Name	Age	Sex	Educational status	Occupational status	Domicile	Family Type	Religion	SES	SAD	Drinc-2L	Physical	Inter-personal	Intra-personal	Impulse Control	Social Responsibility
Shrishail Bagayat	41	Male	6th Std	Farmer	Vijayapura	Nuclear	Hindu	Lower Middle	Severe Dependence	22	8	4	2	4	5
Shrishail Desai	32	Male	Diploma	Labourer	Sindgi	Joint	Hindu	Lower Middle	Severe Dependence	28	7	6	4	4	7
Appashi Jiragal	40	Male	8th Std	Unemployed	Jamakandi	Nuclear	Hindu	Lower Middle	Severe Dependence	29	8	7	5	4	5
Amagond Pujari	35	Male	4th Std	Coolie	Mugahlkod	Joint	Hindu	Lower	Mild Dependence	27	5	6	5	3	6
Rajshekhar Biradar	55	Male	MA	Business	Bableshwar	Nuclear	Hindu	Upper Middle	Severe Dependence	28	7	7	6	3	5
Prakash Bajantri	55	Male	5th Std	Labourer	Vijayapura	Nuclear	Hindu	Lower Middle	Severe Dependence	29	8	6	4	6	6
Gurunath Shivapur	50	Male	9th Std	Labourer	Vijayapura	Nuclear	Hindu	Lower Middle	Moderate Dependence	18	5	4	4	1	4
Firoz shaikh	40	Male	Diploma	Rickshaw Driver	Takoita	Nuclear	muslim	Lower Middle	Severe Dependence	32	8	6	4	8	7
Sharanappa Wadar	52	Male	10th std	Farmer	Chabanur	Nuclear	Hindu	Lower Middle	Mild Dependence	8	3	2	0	3	0
Sikandar Yadav	25	Male		Labourer	Vijayapura	Joint	Hindu	Lower middle	Moderate Dependence	20	6	4	4	3	3
Sanjeevkumar Hipparagi	40	Male	10th std	Labourer	Indi	Joint	Hindu	Lower Middle	Mild Dependence	11	5	4	0	2	0
Venkangouda Wathar	50	Male	Bsc	Business	Yadgir	Nuclear	Hindu	Upper Middle	Moderate Dependence	34	6	7	7	7	6
Shrishail Kalaburgi	36	Male	4th Std	Farmer	Malagan	Nuclear	Hindu	Lower Middle	Severe Dependence	30	8	6	5	6	6
Ningappa Madar	65	Male	2nd std	Labourer	Vijayapura	Nuclear	Hindu	Lower Middle	Moderate Dependence	26	6	6	3	7	4
Sunil Parase	32	Male	9th std	Labourer	Vijayapura	Joint	Hindu	Lower Middle	Moderate Dependence	28	5	6	5	5	7
Krishnappa Ghatage	48	Male		Tailor	Horti	Nuclear	Hindu	Lower Middle	Mild Dependence	7	4	1	0	1	1
Bharatesh Patil	30	Male	8th Std	Farmer	Kunchanur	Joint	Hindu	Lower Middle	Moderate Dependence	22	6	6	2	4	5
Basavaraj Shiramgonda	45	Male	BA		Bableshwar	Joint	Hindu	Lower Middle	Severe Dependence	23	6	4	1	5	7
Irannagouda Biradar	43	Male	BA	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Moderate Dependence	26	6	6	4	5	5
Firoz Khan	36	Male	12th std	Business	Vijayapura	Joint	Muslim	Lower Middle	Moderate Dependence	16	6	5	2	1	1
Ashok Rathore	30	Male	10th std	Driver	Vijayapura	Nuclear	Hindu	Lower	Severe Dependence	28	6	6	6	4	5
Mallapppa Kasappa	54	Male	BeD	High school teache	Gote	Nuclear	Hindu	Lower Middle	Mild Dependence	26	5	8	5	3	5
Shrishail Kalaburgi	36	Male	5th std	Farmer	Malagan	Joint	Hindu	Lower Middle	Severe Dependence	26	6	6	5	4	4
Sudhir Chalawadi	39	Male	7th std	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Severe Dependence	36	8	7	5	9	7
Gururaj Upasth	45	Male	Bed	Teacher	Bagewadi	Nuclear	Hindu	Upper Middle	Severe Dependence	26	7	5	4	4	6
Sanju Wale	38	Male	7th std	Tailor	Vijayapura	Nuclear	Hindu	Lower Middle	Moderate Dependence	11	5	4	0	2	0
Rajshekhar Lingadalli	43	Male	12th std	Army officet	Indi	Joint Family	Hindu	Upper middle	Severe Dependence	30	5	7	5	5	8
Muttugouda Biradar	50	Male	5th std	Farmer	Indi	Joint Family	Hindu	Lower Middle	Moderate Dependence	26	6	5	6	5	4
Santosh Shivanagi	43	Male	10th std	Business	Vijayapura	Joint Family	Hindu	Upper Middle	Severe Dependence	27	6	7	3	5	6
Shashikant Bannur	45	Male	BSC nursing	Nurse	Vijayapura	Nuclear	Hindu	Upper Middle	Moderate Dependence	31	7	7	5	6	6
Kashinath Hirolli	45	Male	8th Std	Farmer	Solapur	Joint Family	Hindu	Lower Middle	Mild Dependence	17	4	5	3	3	2
Nagaraj Uppin	40	Male	10th std	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Severe Dependence	32	7	6	7	5	7
Mahantesh Ganacharya	38	Male	12th std	Employee	Masuti	Joint	Hindu	Lower Middle	Severe Dependence	27	5	6	5	5	6
Mallikarjun Kallapa	32	Male	10th std	Labourer	Vijayapura	Joint	Hindu	Lower Middle	Moderate Dependence	26	4	5	5	6	6
Shrikanth Bagali	36	Male	10th std	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Severe Dependence	29	6	6	7	6	4
Anand Ankalgi	40	Male	ITI	mechanic	Vijayapura	Nuclear	Hindu	Lower middle	Severe Dependence	32	7	7	7	5	6
Parashuram Mali	36	Male	10th std	Farmer	Athni	Joint	Hindu	Lower Middle	Moderate Dependence	28	6	6	4	6	6
Ramaningayya Mathpati	43	Male	5th std	Rickhsaw driver	Vijayapura	Nuclear	Hindu	Lower middle	Severe Dependence	24	6	5	3	4	6
Shivappa Chalawadi	49	Male	7th std	Farmer	Mangodi	Joint	Hindu	Lower Middle	Severe Dependence	31	7	7	6	6	5
Malappa Biradar	40	Male	8th std	Labourer	Indi	Joint	Hindu	Lower middle	Severe Dependence	34	6	7	7	7	7
Shrikrishna Wagamore	30	Male	10th std	Watchmen	Indi	Joint	Hindu	Lower middle	Severe Dependence	32	8	6	5	6	7
Bhimagond Shirashyad	53	Male	7th std	Farmer	Vijayapura	Joint	Hindu	Lower Middle	Moderate Dependence	21	5	6	4	6	0
Shrikant Sanabenki	40	Male	10th std	Farmer	Nandad	Nuclear	Hindu	Lower Middle	Moderate Dependence	13	5	4	1	3	0
Shivanand sandimani	45	Male	12th std	Teacher	Indi	Joint	Hindu	Upper Middle	Moderate Dependence	12	5	4	0	2	1
Dhananjay alat	60	Male	8th Std	Rickshaw Driver	Solapur	Nuclear	Hindu	Lower Middle	Moderate Dependence	22	5	4	6	3	4
Santosh Biradar	43	Male		cook	Vijayapura	Nuclear	Hindu	Lower Middle	Mild Dependence	21	4	6	4	2	5
Anandkumar Patil	41	Male	12th std	Assistank clerk	Vijayapura	Nuclear	Hindu	Lower Middle	Mild Dependence	20	4	5	4	5	2
Bhutali Kerigond	55	Male	6th Std	Farmer	Vijayapura	Joint	Hindu	Lower middle	Moderate Dependence	25	5	5	4	5	6
Shashi utnal	42	Male	12th std	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Moderate Dependence	30	7	7	6	5	5
Pramod patil	45	Male	12th std	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Moderate Dependence	25	6	4	3	5	7
Vinayak Nimbalkar	44	Male	Cped	Teacher	Vijayapura	Nuclear	Hindu	Upper Middle	Mild Dependence	20	5	4	5	3	3
Mallikarjun Adgimani	30	Male	12th std	Farmer	Vijayapura	Joint	Hindu	Lower Middle	Severe Dependence	34	6	8	6	7	7
Pintu Bhise	36	Male	6th Std	Driver	indi	Joint	Hindu	Lower Middle	Severe Dependence	34	8	9	6	4	7
Adarsh Ramapa	50	Male	8th Std	Business	Vijayapura	Joint	Hindu	Lower Middle	Moderate Dependence	17	6	4	4	1	2
Sheku Pawar	43	Male	2nd std		Mulawad	Nuclear	Hindu	Lower Middle	Moderate Dependence	18	6	5	2	5	0
Chidanand Dharavadmat	28	Male	12th std	Farmer	Kakandaki	Joint	Hindu	Lower Middle	Severe Dependence	34	8	7	6	6	7
Timmappa Chalavadi	47	Male	7th std	Farmer	Rudgi	Joint	Hindu	Lower Middle	Severe Dependence	26	7	6	2	5	6
Shrikant Bagali	36	Male	BA	Police Constable	Vijayapura	Nuclear	Hindu	Lower Middle	Severe Dependence	29	7	7	3	6	6
Santosh Walikar	28	Male	12th std	Metre Reader		Joint	Hindu	Lower Middle	Severe Depenedence	30	6	6	5	5	8
Ravi Talakeri	28	Male	Bsc	Business	Vijayapura	Joint	Hindu	Upper Middle	Mild Dependence	10	2	3	2	2	1
Ramesh Desai	60	Male	4th std		Vijayapura	Nuclear	Hindu	Upper Middle	Mild Dependence	16	5	5	3	1	2
Vitappa Awati	60	Male	10th std	Retired Army office	Vijayapura	Nuclear	Hindu	Upper Middle	Moderate Dependence	26	7	6	4	2	7
Shahin Mulla	50	Male	6th std	Business	Vijayapura	Nuclear	Muslim	Upper Middle	Severe Dependence	25	8	5	5	4	3
Manohar Kodekar	45	Male	12th std	Clerk in civil court	Sindgi	Joint	Hindu	Lower Middle	Mild Dependence	20	5	5	4	3	3
Dinesh Nyamagod	45	Male	9th std	Business	Vijayapura	Nuclear	Hindu	Upper Middle	Severe Dependence	33	8	6	4	8	7
Mohan	35	Male	B.E	Electronic engineer	Vijayapura	Joint	Hindu	Upper Middle	Moderate Dependence	25	8	4	5	1	7
Guru Peerashti	40	Male	6th std	Business	Vijayapura	joint	Hindu	Lower Middle	Moderate Dependence	27	7	7	6	4	3
Sanju Kambli	40	Male	7th std	Farmer	Vijayapura	Joint	Hindu	Lower Middle	Moderate Dependence	28	7	5	2	7	7
Nagesh Sindagi	35	Male	B.com	Business	Vijayapura	Joint	Hindu	Upper Middle	Severe Dependence	22	8	4	2	3	5
Prakash Biradar	34	Male	3rd std	Business	Indi	Joint	Hindu	Lower Middle	Moderate Dependence	16	5	3	2	1	5

Wife's Name	Age	Sex	Educational statu	Occupational statu	Marital Satisfaction	Coping strategies	Resilience	Psychiatric morbidit
Vijayalakshmi Bagayat	43	Female	10th Std	Housewife	High Acuity	1, 4, 3, 2	Lowest Quartile	Depression
Vaishali Desai	25	Female	10th Std	Housewife	High Acuity	1, 4, 3, 2	Second Quartile	NPM
Kamlashi Jiragal	38	Female	7th Std	Housewife	Low Acuity	1, 2, 5	Lowest Quartile	Depression
Sunita Pujari	25	Female	4th Std	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Bharti Biradar	45	Female	12th Std	Housewife	High Acuity	1, 3, 4, 2	Lowest Quartile	GAD
Akubai Bajantri	50	Female	Illiterate	Housewife	Low Acuity	1, 3, 4, 2	Lowest Quartile	Dysthymia
Sita Shivapur	47	Female	9th Std	Housewife	High Acuity	1, 3, 4, 2	Third Quartile	NPM
Arjuman Shaikh	30	Female	Illiterate	Housewife	Low Acuity	1, 2, 5	Lowest Quartile	Dysthymia
Shantabai Waddar	41	Female	7th Std	Housewife	High Acuity	1, 4, 3	Top Quartile	NPM
Nirmala yadav	18	Female	6th std	Housewife	High Acuity	1, 4, 3	Top Quartile	NPM
Renuka Hipparagi	36	Female	7th Std	Housewife	High Acuity	1, 4, 3	Lowest Quartile	NPM
Shanta Wathar	42	Female	10th Std	Housewife	Low Acuity	6, 7, 5, 2	Lowest Quartile	GAD
Basamma Kalaburgi	28	Female	Illiterate	Housewife	Low Acuity	1, 4, 3, 2	Lowest Quartile	NPM
Danamma Madar	60	Female	Illiterate	Housewife	High Acuity	1, 4, 3, 2	Third Quartile	NPM
Manjula Parase	28	Female	7th Std	Housewife	Moderate Acuity	1, 4, 3, 2	Second Quartile	NPM
Muktabai Ghatage	45	Female	5th std	housewife	High Acuity	1, 4, 3, 2	Third Quartile	NPM
Sujata Patil	25	Female	7th Std	Housewife	Moderate Acuity	1, 4, 3, 2	Second Quartile	GAD
Hema Shiramgonda	41	Female	12th Std	Tailoring	Low Acuity	1, 4, 3, 2	Top Quartile	GAD
Shilpa Biradar	37	Female	BA	JOB	High Acuity	1, 4, 3, 2	Third Quartile	NPM
Amrin Taz Khan	28	Female	4th Std	Houswife	High Acuity	1, 4, 3, 2	Second Quartile	NPM
Sunita Rathore	30	Female	10th std	Housewife	High Acuity	1, 4, 3, 2	Third Quartile	Panic disorder
Savanthravva Kasappa	30	female	Illiterate	Housewife	Low Acuity	1, 4, 3	Lowest Quartile	NPM
Kavita Kalaburgi	32	Female	6th std	Housewifr	Low Acuity	1, 4, 3, 2	Lowest Quartile	Dysthymia
Anita Chalawadi	33	Female	6th std	Housewife	Low Acuity	1, 4, 3	Lowest Quartile	Dysthymia
Lalita Bagewadi	36	Female	7th Std	Housewife	Low Acuity	1, 4, 3, 2	Lowest Quartile	Panic disorder
Rupa wale	32	Female	10 Std	Housewife	High Acuity	1, 4, 3	Third Quartile	NPM
Suwashni Lingadalli	40	Female	3rd standard	Housewife	High Acuity	1, 4, 3, 2	Second Quartile	NPM
Kavita Biradar	45	Female	3rd standard	Housewife	High Acuity	1, 4, 3, 2	Lowest Quartile	NPM
Rupa Shivanagi	33	Female	7th std	Housewife	Low Acuity	1, 4, 3	Lowest Quartile	Dysthymia
Chandrakala Bannur	40	Female	Ded	Teacher	High Acuity	1, 4, 3	Lowest Quartile	NPM
Renuka Hirolli	24	Female	8th Std	Housewife	High Acuity	1, 4, 3	Lowest Quartile	NPM
Vijayalakshmi Uppin	32	Female	7th std	Housewife	Low Acuity	1, 4, 3	Lowest Quartile	GAD
Sarojini Ganacharya	28	Female	10th Std	Houswife	High Acuity	1, 4, 5, 2	Top Quartile	GAD
Swetha Kallapa	25	Female	12th Std	Housewife	Low Acuity	6, 5	Lowest Quartile	NPM
Suma Bagali	28	Female	8th std	Housewife	Moderate Acuity	1, 5, 2	Lowest Quartile	NPM
Savitri Ankalgi	36	Female	10th Std	Tailoring	Low Acuity	1, 4, 3	Lowest Quartile	Depression
Kavita Mali	23	Female	7th std	Housewife	Low Acuity	1, 4, 3	Second Quartile	Dysthymia
Rajeshwari Mathpati	34	Female	10th std	Tailoring	Low Acuity	1, 4, 3, 2	Lowest Quartile	Suicidality
Dhanamma Chalawadi	30	Female	10th std	Housewife	Moderate Acuity	6, 3, 2, 4	Lowest Quartile	GAD
Sujata Biradar	36	Female	10th std	Housewife	Low Acuity	1, 3, 4	Lowest Quartile	NPM
Sujata Wagamore	22	Female	10th std	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Mahadevi Shrashyad	45	Female	5th std	Housewife	High Acuity	1, 3, 2, 4	Third Quartile	NPM
Surekha Sanabenki	36	Female	10th std	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Shila Sandimani	25	Female	BA	Housewife	High Acuity	1, 3, 4	Second Quartile	NPM
Jyoti alat	55	Female	12th standard	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Rupa Biradar	33	Female	10th Std	Housewife	Moderate Acuity	1, 3, 4	Third Quartile	NPM
Laxmi Patil	32	Female	BA	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Lata kerigond	41	Female	8th std	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Nandini utnal	34	Female	10th std	Housewife	High Acuity	1, 3, 4	Second Quartile	NPM
Vimla Patil	42	Female	9th std	Housewife	Moderate Acuity	1, 3, 4	Lowest Quartile	GAD
Ramana Nimbalkar	35	Female	12th std	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Savita Adgimani	25	Female	12th std	Housewife	Low Acuity	1, 3, 2, 4	Lowest Quartile	Depression
Sangeeta Bhise	34	Female	4th std	Houswife	Low Acuity	6, 2, 5	Lowest Quartile	GAD
Kavita	45	Female	6th std	Housewife	Moderate Acuity	1, 7, 3	Lowest Quartile	GAD
Savitri Pawar	32	Female	7th std	Housewife	High Acuity	1, 3, 4	Third Quartile	NPM
Rupali Dharavadmath	23	Female	12th std	Housewife	Moderate Acuity	1, 3, 4	Third Quartile	NPM
Renuka Chalavadi	35	Female	Illiterate	Housewife	Moderate Acuity	1, 3, 2, 4	Third Quartile	NPM
Suma Bagali	29	Female	10th std	Housewife	Moderate Acuity	1, 5, 2	Lowest Quartile	Depression

Hema Walikar	25	Female	6th std	Housewife	Low Acuity	1, 3, 4	Lowest Quartile	Panic Disorder
Renuka Talakeri	23	Female	10th std	Housewife	High Acuity	1, 3, 4	Top Quartile	NPM
Lata Desai	54	Female	3rd std	Housewife	High Acuity	1, 3, 2, 4	Lowest Quartile	NPM
Kavita Awati	55	Female	6th std	Housewife	Low Acuity	1, 3, 2, 4	Lowest Quartile	GAD
Amina Mulla	42	Female	3rd std	Housewife	High Acuity	1, 3, 2, 4	Lowest Quartile	GAD
Savita Kodekar	35	Female	10th std	Houswife	High Acuity	1, 3, 7	Third Quartile	NPM
Kavita Nyamagod	39	Female	6th std	Housewife	Moderate Acuity	1, 3, 4	Lowest Quartile	Depression
Kavya	30	Female	12th std	Housewife	High Acuity	1, 3, 2, 4	Second Quartile	NPM
Hema Peerashti	32	Female	4th std	Housewife	Moderate Acuity	1, 3, 4	Second Quartile	NPM
Rekha Kambli	35	Female	5th std	Housewife	High Acuity	1, 3, 4	Lowest Quartile	GAD
Vimla Sindagi	32	Female	10th std	Housewife	Moderate Acuity	1, 4	Lowest Quartile	Dysthymia
Kalam	24	Female	3rd std	Housewife	High Acuity	1, 3, 4	Second Quartile	NPM