ROLE OF PROTECTIVE FACTORS AGAINST SUICIDAL BEHAVIOUR AMONG PATIENTS WITH DEPRESSION – A CROSS SECTIONAL STUDY

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DECLARATION

I hereby declare that the thesis titled **"Role of Protective Factors against Suicidal Behaviour among Patients with Depression – A Cross Sectional Study."** embodies the original work carried out by the undersigned in All India Institute of Medical Sciences, Jodhpur.

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CERTIFICATE

This is to certify that the thesis titled **"Role of Protective Factors against Suicidal Behaviour among Patients with Depression – A Cross Sectional Study."** is the bonafide work of **Dr. Dhanashri Surendra Gohad** carried out under guidance and supervision, in the Department of Psychiatry, All India Institute of Medical Sciences, Jodhpur, Rajasthan.

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DEDICATED TO OUR PATIENTS WHO ARE ALSO OUR TEACHERS

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SUMMARY

Background: Every year globally 8,00,000 people die due to suicide. Suicide has become a public health concern all over the world as we see that in every 40 second one person is losing their life due to it. For every completed suicide there are more than 20 suicide attempts.[(1)] Multiple sociodemographic, clinical and psychosocial variable can have protective role in patient with suicidal behavior in depression.

Aims: To study the role of the following protective factors - Psychological Flexibility, Resilience, Social Connectedness, Emotional Regulation, Satisfaction with life, Meaning in life, Religiosity against suicidal behaviour among patients with depression.

Methodology: A total of 134 participants with moderate to severe depression as per the inclusion criteria (HAM-D>14) were recruited into the study. Sociodemographic and clinical details were recorded using a semi structured format. Based on CSSRS assessment, three groups were identified i.e., patients who never had suicidal ideations, those who presented with suicidal ideations and participants who had attempted suicide. Written informed consent was obtained from participants who agreed to participate in the study after adequate information was imparted about the objective and methodology of the study. Patients were asked to respond to the following scales- Acceptance and Action Questionnaire (AAQ II), Brief Resilience Scale (BRS), Social connectedness Scale Revised (SCSR), Satisfaction with Life Scale (SWLS), Emotional Regulation Scale (ERS), Meaning in Life Questionnaire (MLQ), Centrality Religiosity Scale (CRS). The clinician rated the patients on Hamilton depression rating scale (HAM-D), Columbia-Suicide Severity Rating Scale (CSSRS).

Results: A total of 134 participants in the age group 18-50 years were enrolled in the study. The distribution between male and female participants were almost equal i.e., 49.3 % and 50.7% respectively. Out of 134 participants, 21 (15.67%) participants never had suicidal ideation, 45 (33.58%) had suicidal ideation and 68 (50.74%) people attempted suicide. In this cross-sectional study, among

participants with depression along with suicide attempts, 57.4% were female and 42.6% were male. Amongst the sociodemographic and clinical variables viz. sex, occupation, residence, diagnosis, family history of psychiatric illness, side effects of medication, duration of treatment had significant association with the suicide behavior in depression. Amongst the constructs evaluated, Psychological Flexibility *(p=0.006)*, Social Connectedness *(p=0.004)*, Meaning in life *(p=0.001)*, Satisfaction with life *(p<0.001)*, Religiosity *(p=0.019)* were found to have significant association with the suicide behavior in depression. Psychological Inflexibility is positively correlated with suicide attempt while Social Connectedness, Meaning in life, Satisfaction with life, Religiosity are negatively correlated. In logistic regression analysis, satisfaction with life, psychological flexibility came out as significant predictors of suicide attempt in the depression.

Conclusion: The findings of this study suggested that both sociodemographic variables and clinical variables are associated with suicidal attempt in depression. Almost half of the participants with depression had a history of suicide attempt. The findings of this study suggest that social connectedness, psychological flexibility, satisfaction with life, meaning in life, religiosity are protective factors against suicidal behaviour in patients with depression. The above variables can be used in day-to-day clinical practice to speculate the depressed patients with suicidal behaviour, therefore leading to an early appropriate and holistic assessment of suicidal behaviour and other psychosocial factors, which is of utmost importance so as to prevent suicide attempt.

ABBREVIATIONS

AAQ II	Acceptance & Action Questionnaire
BRS	Brief Resilience Scale
CRS	Centrality of Religiosity Scale
CSSRS	Columbia-Suicide Severity Rating Scale
DSM 5	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
ERQ	Emotional Regulation Questionnaire
HAM-D	Hamilton depression rating scale
ICD-11	International Classification of Diseases, 11th edition
IMV	Integrated Motivational-Volition Theory
IPTS	Interpersonal-Psychological Theory of Suicide
MLQ	Meaning in Life Questionnaire
SA	Suicidal Attempt
SCSR	Social Connectedness Scale Revised
SI	Suicidal Ideation
ST	Step Theory
SWLS	Satisfaction with Life Scale
RDD	Recurrent Depressive Disorder
UNICEF	United Nations Children's Fund
WHO	World Health Organization

INTRODUCTION

Suicide is defined by DSM-5 as "a self-initiated series of behaviours by a person who anticipates that the series of behaviours will result in his or her own death at the moment of start." There is no one cause or risk factor for suicide since it is a multifaceted issue. A complex combination of biological, genetic, social, cultural, and environmental elements leads to this multifactorial phenomenon. One of the most frequent risk variables that has been linked to suicidal ideation or suicide attempt is depression. There are some clinical, sociodemographic, clinical and psychosocial protective factors also for suicidal behaviour in suicide. However, there are very limited number of studies from India which have tried to assess the association of these factors with suicidal behaviour among patients with depression.

Epidemiology & sociodemographic factors

All over the world, depression inflicts upon 264 million people, making it one of the most common maladies. Unlike the shifts in mood and emotions that happens to all human alike in response to various situations in day-to-day life, depression differs not just in severity, but also in quality and the duration for which it lats. Due to this affected person is not able to perform work with interest and motivation at the workplace, at home and equally underperforms in their academic pursuits. Depression can instigate suicidal behaviour and result in completed suicide. Every year globally 800,000 people die due to suicide. Suicide has become a public health concern all over the world as we see that every 40 second one person is losing his life due to suicide. For every completed suicide there are more than 20 suicide attempts.[1]

The Global Burden of Disease reports that unipolar depressive episodes had a point prevalence of 1.9% for men and 3.2% for women, and a one-year prevalence of 5.8% for males and 9.5% for women. Depression is predicted to account for 5.7% of all disease burden by 2020, substituting the position of ischemic heart disease as

the second most important cause of disability-adjusted life years (DALYs), if demographic and epidemiological revolutions continue in their current course.[2]

Amongst young people, in the age group of 15-29 year, suicide is next only to unintentional injury as the leading cause of death and irrespective of age group it is the 10th most frequent cause of death. [3] Suicidal behaviour is related to various risk factors in the literature. Past history of suicide attempt is the strongest risk factor for subsequent suicide attempt.[1] Depression and associated hopelessness have been reported to be the most significant predictors of suicidal behaviour.[3]

In India, suicide is a huge concern pertaining to public mental health. However, it can be avoided by implementing timely, evidence-based, and frequently inexpensive interventions. In 2016, the suicide death rate was 16.5 per 100,000 people, which is greater than the worldwide average of 10.5 per 100,000. The elderly people, particularly those with special needs, and younger people aged 15 to 29 are the most at risk.[4]

Suicidal thoughts and failed suicide attempts should also receive attention, in addition to suicide deaths. The lifetime prevalence rates for suicidal ideation and suicide attempt are respectively 9.2% and 2.7% worldwide. Suicide attempts and ideation are highly predictive of suicide deaths; they can have unfavourable effects like injury, hospitalization, and loss of liberty; and they cost society billions of dollars. Suicide and suicidal behaviour are the sixth and ninth largest causes of worldwide illness burden for men and women between the ages of 15 and 44, respectively, and the twentieth common cause of disease burden overall (defined as years lost to disability, ill health, and early death).[5]

The Mental Healthcare Act of 2017 decriminalises suicide and guarantees individuals who attempt it access to necessary medical care. This is a significant breakthrough that ensures respect and a humanitarian approach to the problem. The National Mental Health Programme and the Ayushman Bharat Program's Health and Wellness Centres are examples of initiatives to deliver high-quality care at the primary healthcare level. There are also recovery facilities and centres for drug addiction.[4]

The National Crime Records Bureau (NCRB) reports that India had over 1.53 lakh suicides, or 418 a day in 2020. As a result, the suicide death rate (per lakh people) increased from 10.4 in 2019 to 12 in 2021. The number of suicides in our country and around the world is at its highest level in ten years. In 2020, there was a 21.2% increase in suicide deaths among students, compared to a 7–8% increase during the previous three years. In India, for each person who commits suicide, there are almost 200 persons who have suicidal thoughts and behaviours, and more than 20 person who attempt suicide. These numbers only represent the reported suicidal behaviour. However, it could be a far from the actual prevalence as the stigma that accompanies mental illness and the legal issues surrounding reporting suicides in India, stands as an obstacle for people from reporting about it. The havoc wreaked by the pandemic in terms of joblessness, social isolation and difficulty in accessing services, increased the stress and anxiety among people, which reflected in the dramatic increase in suicide rates in 2020. [6]

The Sustainable Developmental Goal 3.4 which stands for reducing premature mortality attributed to non-communicable diseases by the year 2030 has used suicide rates as one of its two indicators of assessing the advancements made by the various endeavours. The UN SDGs have emphasised the importance of global attention to suicide prevention.[6]

As per the Centres for Disease Control and Prevention (CDC) suicidal self-directed violence is distinguished from self-directed violence without any suicidal intent. The term "suicide" refers to any death brought on by self-inflicted harm with the intention of dying as a result of the conduct. A suicide attempt is described as a potentially harmful behaviour that is initiated by someone with the intent of being the agent of one’s own death. Even if the action itself does not cause harm, as a result of the behaviour. Suicidal ideation is the act of considering, contemplating, or planning suicide.[7]

Etiology and clinical Features

Ideation to Action Theories

As per the Centres for Disease Control and Prevention (CDC) suicidal self-directed violence is distinguished from self-directed violence without any suicidal intent. The term "suicide" refers “to any death brought on by self-inflicted harm with the intent of being an agent of one’s own death.” A suicide attempt is described as “a potentially harmful behaviour inflicted upon oneself with the intent of being the agent of one’s own death.” Even if the action itself does not cause harm, as a result of the behaviour. Suicidal ideation is the act of considering, contemplating, or planning suicide.[7]

Researchers looking at factors that predict suicide attempts, are urged to separate apart factors that are related to suicide attempts from those that are related to suicidal thoughts. The framework should also guide prevention and practise risk variables should be identified according to how much they contribute to suicidal thoughts and/or attempts. The most commonly cited factors which increase the risk of suicide are depression, hopelessness, and the majority of psychiatric disorders and impulsivity. They indicate towards suicidal behaviour but cannot differentiate between suicidal attempters and suicidal ideation. According to the ideation-to-action concept, the inception of suicidal ideas and the evolution from suicidal ideas to the actual attempt take two separate pathways to develop with different causes and predictors.[8]

Suicidal attempts among people with such ideations has been found to be regularly correlated with the capacity to try suicide (including enhanced fearlessness about dying, endurance through suffering and discomfort, knowledge of and availability to lethal means, and experience with self-inflicted damage.

Active and Passive Suicidal Ideation

Suicidal ideation that is "active" is present currently and has specific details associated with it. In active self-injury, one has a desire to engage in self-harm

behaviour and wishes for the act to end their life. Considering the techniques used in the suicide attempt, the possibility for these activities to result in human deaths is not the main concern. The important factor is rather the person's belief that their effort might result in death.[9]

In “passive suicidal ideation’’ there is no intent to end one’s life. Indifference to an unintentional death that would happen if no action is made to preserve one's own life is a component of passive suicidal ideation. Most research do not differentiate between active and passive suicidal ideation. Both researchers and doctors alike, pay more attention to active rather than to passive suicidal ideation. According to one expert, the underlying presumption among medical practitioners is that the wish to die is not considered as a grave indicator of increased suicidal risk.[(19)] The first scale to assess "passive suicidal desire" was the Beck’s Scale for Suicidal Ideation (BSSI).[10]

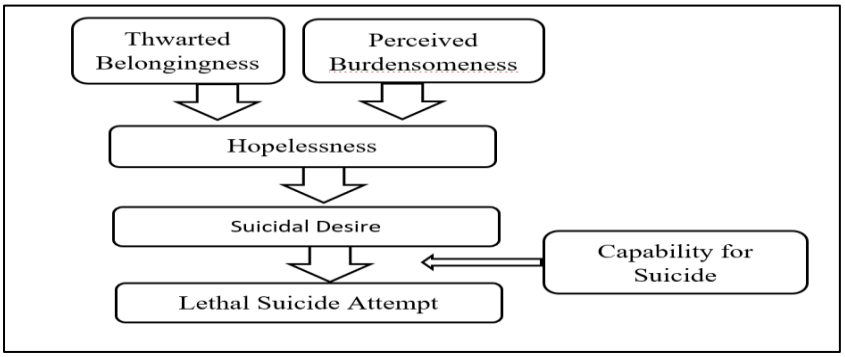
Contrary to popular assumption, passive SI is less clinically significant than active SI. Large population-based studies (n>85,000) found no statistically significant difference in the odds ratios used to predict suicide attempts based on reported passive SI vs. reported active SI. It was recommended that the best clinical risk assessment strategy incorporate both active and passive SI evaluation questions.[11]

Ribet et al. examined the possible contributing factors after 141 veterans committed suicide a week after being released from the hospital. Communication issues were frequently brought up. Furthermore, it was shown that about half of the suicides occurred following an discharge.[12]

The ITPS, the IMV model, and the 3ST are three theories of suicide that fall under the ideation-to-action paradigm; they provide testable and encouraging hypotheses concerning the emergence of ideation and the progression from ideation to potentially lethal attempts.[6]

As per Joiner's 2005 Interpersonal-Psychological Theory of Suicide (IPTS), having death wishes or SI is caused by feeling like a burden to others ("perceived burdensomeness") and feeling socially excluded ("thwarted belonging")[13]

The first theoretical model to emphasise this divergence was the interpersonal-psychological theory of suicide, which proposed that suicidal desire—composed of perceived burdensomeness and thwarted belongingness—was inadequate to produce a major suicide attempt or death by suicide on its own. Suicidal people must also be capable of carrying out their wish to end their lives, which is indicated by diminished sensitivity to physical pain and a high level of fearlessness toward death that overcomes the urge for self-preservation.[14]



Pathways hypothesized by interpersonal theory of Suicide

Passive suicidal thought is caused by two factors that are both immediate and sufficient: a sense of not belonging and feeling burdened. The concurrent presence of both, when perceived as stable and unchanging (i.e., hopelessness regarding these states), is a proximal and sufficient cause of active suicidal desire. The circumstance in which suicidal desire will change into suicidal purpose is the coexistence of suicidal want with diminished fear of death. The outcome of severe suicidal behaviour, such as lethal or nearly lethal suicide attempts, is most likely to take place in the context of a sense of belongingness being denied, feeling burdened (and feeling hopeless about both), having less suicidal fear, and having a higher threshold for physical pain. [15]

The interpersonal theory of suicide has significantly advanced clinical and scientific knowledge of suicide and associated illnesses during the past ten years. According to the interpersonal theory of suicide, suicidal desire develops when people feel unrelenting pressure to perform and a sense of betrayal, and when these sentiments are present, near-fatal or lethal suicidal behaviour takes place. A rising

number of research have explored these hypothesised pathways in different samples, although meta-analytic evaluation of these results is still pending. The research results that supported the interpersonal theory: the interaction of thwarted belongingness and perceived burdensomeness was significantly associated with suicidal ideation, and the interaction of thwarted belongingness, perceived burdensomeness, and capability for suicide was significantly related to a higher number of prior suicide attempts. Theory-consistent paths and alternative combinations of theory variables both performed well in predicting the likelihood of suicide.[15]

According to estimates, depression is the second-leading factor of years of life lost due to disability worldwide (4.3%), and by 2030 it will overtake heart disease as the leading cause of disability and the second-leading cause of years lived with disability globally. Women are more at risk than men to experience depression (13.4%) than men (8.3%). Mainly the risk factors associated primarily to problems with family bonds and relationships, which are made worse by drinking, using other drugs, and being unemployed; to sadness and loneliness over concerns about the physical absence of significant people and dissatisfaction over the affective relationship; to actual and anticipated losses brought on by the passing of important people, issues with spirituality; incapacity to experience frustrations throughout life. The protective factors are mainly related to develop primarily referring to the value of strong familial and emotional bonds and relationships, social interaction, and practising faith. The talks about the family and emotional connections as protective elements highlighted the necessity for children present in everyday interactions, a good relationship with the partner, family stability, and the ability to support the family.[15]

Positive emotions that lower these risks have received less attention from researchers than the risk variables for suicidal ideation and attempts. Favourable attitudes, such as reasons to live and hope, have been shown to have a positive impact on suicide ideation, as shown with the emergence of positive psychology over the past 20 years. There is some evidence that positive aspects of life, such as seeking a meaningful existence, believing life has meaning, being satisfied with

interpersonal connections, and feeling valuable to family and friends, are associated with lower suicidal thoughts.[16]

From the last two decades the interest of the researchers have been shifted towards understanding the influence of various personal and social protective factors on suicidal behaviour. Positive personality characteristics such as psychological flexibility, social connectedness, resilience etc. have been identified as protective against suicidal behaviour in patients with depression.[17]

Psychosocial factors and Suicide

Psychological Flexibility

Psychological flexibility is the capacity to accept one's feelings without avoiding them and, depending on the circumstances, go on with one's goals in spite of a bad experience. Numerous research have demonstrated that psychological flexibility shields against depression, anxiety, and overall distress.(18)

The six fundamental ACT processes—diffusion, acceptance, present moment, self as content, values, and committed action—form the basis of psychological flexibility. By enhancing it, ACT combines acceptance and mindfulness techniques to achieve committed behaviour change.

Inflexibility in psychological and behavioural reaction patterns, is related to depression. For example, depression frequently results in rumination, which is characterized by thinking about one's interior state again and regularly, which may result in passive behaviour response patterns.[19]

Being in contact with the present moment, being completely aware of emotions, feelings, and ideas, welcoming them all, even the undesirable ones, and acting in a pattern of behaviour in the service of predetermined values are all examples of psychological flexibility. This entails, to put it simply, embracing our own ideas and feelings and acting on long-term principles as opposed to momentary impulses, thoughts, and feelings that are frequently connected to experiencing avoidance and a strategy of controlling unwelcome interior happenings. [20]

Social Connectedness

Based on quantitative and qualitative social assessments as well as relationship salience, we define social connection as a transient sense of belonging and relatedness. The concept of social connectedness, which was created to preserve social experiences resulting from recent contacts and the dissemination of awareness information, is fundamentally based on the subjective sensation of belonging. Relationship salience captures the thoughts of others and the sense of being together outside of social contact, whereas appraisals focus on one's contentment with their social status, according to research.[21]

The concept covers a broad range of brief, temporary social experiences arising from mediated and unmediated contacts as well as the mediated sharing of awareness information (i.e., knowledge about other people's whereabouts, moods, activities, and contractability).[21]

There are two different sorts of social connectivity. Social connectivity at individual level and at the overall level. Social connectivity at personal level refers to how one feels about a certain person, social connectedness at the general level concerns one's whole social network. This distinction is important because some methods of communication, like text messaging, may emphasise social interactions based on one-on-one communication while other tools modify how one feels linked to their larger social network (e.g. Facebook). [22]

Social connectedness at the personal level has two dimensions the sense of sharing and involvement, dissatisfaction with contact quality. It has subdimensions like relationship salience, shared understanding, knowing each other' experiences and feelings of closeness. Generally speaking social connectedness has dimensions i.e. sense of sharing and participation and social evaluations. [22]

According to Durkheim's theory, social connections differ depending on their degree of integration and (moral) control, and suicide rates are a positive consequence of the social network structure of a group or class of individuals. Despite the fact that Durkheim never stated his dimensions explicitly, sociologists have generally understood regulation to be the degree to which a collective's moral

order directs and coordinates the attitudes and behaviours of its members and integration to be the structural elements of social relationships, such as the number and density of ties. Durkheim distinguished four distinct forms of suicide in connection to integration and regulation, as well as two continua: egoistic/altruistic suicides (too little, too much integration), and anomic/fatalistic suicides (too little too much regulation). The development of effective suicide prevention techniques also depends on an understanding of the social context. The potential of larger, upstream environmental interventions is recognised by several current suicide prevention programmes, such as the Centres for Disease Control and Prevention's (n.d.) focus on social connectivity in communities. Schools have made excellent use of the focus on fostering connectedness. Fostering mutual trust between adults and children in the classroom, in particular, is linked to lower student suicidality rates. [24]

Resilience

The ability to adaptively overcome stress and adversity while maintaining regular psychological and physical functioning is known as resilience. The idea of resilience refers to a sustainable process that prevents and lessens psychological disorders after experiencing considerable stress or trauma as well as a process of quick recovery from psychological issues after adversity.

There are three main components of resilience. The Internal Protective domain reflects positive feelings or beliefs about oneself and one's level of life satisfaction, the External Protective domain reflects positive feelings or beliefs that the person can recognise or seek out externally helpful resources, and the Emotional Stability domain reflects positive beliefs about one's capacity to control suicidal thoughts and behaviours. Neuropeptide Y (NPY), the hypothalamic-pituitary-adrenal (HPA) axis, the noradrenergic, dopaminergic, and serotonergic systems, as well as brain-derived neurotrophic factor have all been associated to resilience (BDNF).

Resilience in three dimensions The three areas that should be prioritised for the prevention of recurrence of depression are improving stress recovery from minor daily stressors, encouraging positivity, which means allowing positive emotions

during stress, and training flexibility, which is the capacity to recognise various demands in the environment and use the appropriate coping strategy to meet those demands.[23]

Resilience is "the process of adjusting successfully in the face of adversity, trauma, tragedy, danger, or even large levels of stress," according to the American Psychological Association.

Research and efforts to prevent suicide are increasingly focusing on resilience. Developing resilience should be a component of all effective, targeted, and universal suicide prevention programmes. In groups at high risk for suicide, among high-risk individuals, and in the general population, resilience promotion may reduce suicide risk. The prevalence of stress-related problems and, as a result, suicidal behaviour may be decreased by increasing resilience in the general population. Each psychiatric patient's treatment strategy should include strengthening resilience. If mental health providers aggressively focus on building stress resistance using both psychosocial and pharmaceutical therapies, they will probably succeed in decreasing the risk of suicide in patients with psychiatric illness.

Satisfaction with Life

The Latin term "satisfaction" implies "to make or do enough." A person who is comfortable with or accepting of their life circumstances is said to be satisfied with their life. Life satisfaction is essentially a personal evaluation of one's quality of life. Life satisfaction assessments have a significant cognitive component because it is necessarily an appraisal. Ed Diener and his colleagues (1999) reported that Subjective well-being, or happiness, includes both an affective (i.e., emotional) and a cognitive (i.e., 4 judging) component. The consistency with which a person reports having both good and negative affect makes up the affective component. The cognitive element of this more comprehensive construct is considered to be life satisfaction.[24]

According to the Multiple-Discrepancy-Theory developed by Alex Michalos in 1986, a person's degree of pleasure is influenced by their judgements of "how things are" vs "how they should be." Comparisons between how things are and what one wants, has, expects, has, what others have, and what one believes one deserves help determine one's level of life satisfaction. Satisfaction with life is influenced by personality; extraversion, internal locus of control, psychological resilience, assertiveness, empathy, and openness to new experiences are among personality traits that have been associated to life satisfaction.[25]

A full assessment of one's life is referred to as global life satisfaction. Domain satisfaction, on the other hand, refers to contentment with particular aspects of one's life. These may differ, but they are typically classified into four categories: self, work, relationships, and income.[26]

There has been ongoing work to connect domain and overall pleasure with suicidal behaviour. Poor mental and physical health and overall life satisfaction were shown to be significantly correlated. Suicidal behaviour was substantially connected with a number of quality of life variables, including depression as well as happiness, perceived SES, and life satisfaction in the physical and mental health, leisure, and appearance-related categories.[27]

Meaning in Life

It is a sense of purpose that goes beyond the person living that life in some way. The two parts of meaning in life are the search for meaning in life and the presence of meaning, according to the most comprehensive model of meaning in life. However, these characteristics are not mutually exclusive, and people who already have meaning in life may still look for a deeper or alternative meaning. People who do not already have purpose in life may be searching for it.(16) According to Viktor Frankl, everyone's main source of motivation is seeking meaning in life. Frankl argued that even when suffering is unavoidable, we have the freedom to look for purpose in our life. "Meaning is something to be found rather than to be given, discovered rather than invented," (10) The search for meaning can be viewed both positively as life-affirmation and negatively as deficit-based motivation[28]

A study by Dr. David Attenborough and his colleagues at the Harvard Business School found that people search for meaning when they feel their lives have little or no value, which is the opposite of the effect that more meaning in life has.[29] The association between depression, self-denigration, and suicide thoughts has been demonstrated to be mediated (or to function as a buffer or suppressor) by the meaning in life concept. The links between drug misuse and self-deprecation as well as the links between depression and suicidal ideation were also mediated by a loss of meaning in life. Gratitude, grit, and thoughts of suicide were all somewhat mediated by their sense of meaning in life. [30]

Meaning in life was also a mediator between reasons to live and suicidal ideation in older persons from a population sample, which lowers the likelihood of considering suicide. A feeling of coherence, which might be interpreted as having a purpose in life, was found to have the potential to function as a mediator between emotion-oriented coping, avoidance-distraction coping, and suicidal symptoms in students, particularly in females, in a more recent study. In a clinical sample of individuals with borderline personality disorder, meaning in life in general, particularly its life goals and purposes components, influenced proximal (such as psychiatric disease diagnosis, past attempts) and distal risk factors (e.g., hopelessness). [31]

Meaning in life serves as a moderator or mediator. Either it moderates (by decreasing) the relationships between risk factors and suicide thoughts and behaviours, or it explains how factors influence suicidal ideation, such as through mediating the relationships between particular risk or protective factors and suicidal manifestations. As a result, the concept of meaning in life was included in the many studies to prevent suicide. [32]

Emotional Regulation

Suicidal behaviour is unpredictable in many aspects, but research has shown that it is usually accompanied by dysfunctional coping mechanisms, suggesting that difficulties controlling strong emotions may be a typical predictor to suicide attempts.[33]

Lower suicidal ideation has been found to be associated with high level of social connectedness, feeling satisfied with their life, and pursuing a meaningful life.[4] Depression as an illness gives rise to number of negative emotions and individual who has poor difficulty in regulating and managing their emotions tend to indulge more in suicidal behaviour. People indulge in positive emotional regulation strategies would less likely to involve in suicidal behaviour.

In a study conducted by Claire Hatkevich, et al (2019) the relation between the six dimensions of emotional regulation and suicide ideation and suicide attempt were assessed. There were identified six unique aspects of emotion dysregulation, including: 1) inability to accept emotional responses or distress, 2) problems using goal-directed behaviours and strategies, 3) lack of emotional awareness, 4) issues with impulse control, 5) Unclear emotional state, and 6) restricted access to ER techniques, including one's perceived lack of efficient emotion regulation techniques. The study conclude that good emotional regulation can protect individual from suicide ideation and suicide attempt.[34]

Religiosity

The five elements of religiosity that Glock and Stark (1965) described are experiential, ritualistic, ideological, intellectual, and consequential. The experience component emphasises one's own faith. While the ritualistic realm involves the worship experience that is shared in community, possibly a transcendent encounter, Expectations that religion will holiness make up the ideological dimension.

Allport and Ross (1967) recognised the two fundamental elements extrinsic and intrinsic religiosity. They saw extrinsic religiosity as a self-serving and utilitarian view of religion that gives the believer assurance of salvation.

Numerous studies show that being religious protects against suicide attempts and actual suicide but not suicidal thoughts. Similarly, participation in religious activities reduces the risk of suicide attempt but not of suicidal ideation (after adjusting for social support). According to these research, religion may prevent

someone from pursuing suicidal thoughts by giving them access to a caring community, influencing their attitudes about suicide, giving them a reason to have hope, and giving them a perspective on how to deal with pain.[35]

The evidence also suggests that there is a complicated link between religion and the risk of suicide. Protection levels vary according on one's religious affiliation. Religion can help people feel more connected to their communities.

To provide better insight and humane understanding, the present study is planned to assess the role of protective factors against suicidal behaviour among patients with depression.

RATIONALE OF PRESENT STUDY

Suicide has become a real concern worldwide and patients with depression are more vulnerable for suicidal behaviour. Literature quotes numbers of studies on risk factors and few studies on protective factors of suicide. Moreover, these studies have assessed only one or two protective factors related to suicidal behaviour and have been conducted on general population. Therefore, the present study is planned to assess the role of protective factors against suicidal behaviour among patients with depression in comprehensive manner.

REVIEW OF LITERATURE

In last four decades, there has been a 60% global increase in suicide rates. There are 20 times as many suicide attempts as there are suicides. More than 90% of suicides are associated with mental disorder like depression. [8] Suicide is preventable cause of death. The risk factors for suicidal ideation and attempts have so been established via numerous studies aimed at preventing suicide. Few studies had explained protective factors against suicide.

In study conducted by **Palmer et al.,2004** 116 admitted depressive patients were interviewed and divided them in three groups based on history- 'no history of suicidal ideation and attempt' group, 'history of suicidal ideation but not attempt' group and group having 'suicidal ideation and past suicide attempt.' On the self-esteem scale, there was a difference in suicidal thoughts between Groups 1 and 2, as well as between Groups 1 and 3. Decreased self-esteem led to suicide ideation and suicide attempt, which further increased the suicide risk. [36]

Klonsky et al., 2015 studied three hypotheses (a) Connection between pain and hopelessness predicts suicidal ideas (b) The connection prevents the escalation of suicidal thoughts in people who are suffering from both pain and hopelessness (c) Suicide capacity contributors who are dispositional, acquired, and practical predict the progression from ideation to attempts. Suicidal behaviour has embraced an ideation-to-action framework in which the emergence of suicidal ideation and the progression to a suicide attempt are considered as two distinct processes. [37]

The Scottish Wellbeing Study conducted by **Wetherall K et al.,2018** on 3508 young people of age group 18-34 years divided them into three groups- no suicidal controls, lifetime suicide ideation group, and lifetime suicidal attempt group. It was discovered that members in the control group who were not suicidal exhibited higher levels of protective variables like resilience and social support. [38]

In a recent prospective study, researchers in Canada compared the likelihood that people with SI would attempt suicide within six months with people whose presentations were different, as revealed by their answers to screening questions (n

= 5,655). Some people largely endorsed SI during ED triage screening, which is characterised by an "ambivalence about living," while others indicated active SI. Three percent of the initially screened group returned to the emergency department within six months having attempted suicide. The probability of suicide attempts was more than two times higher in people who first classified as having "ambivalence about living" (odds ratio [OR] = 2.57, 95% CI = 1.64-4.02, P 0.001). When compared to people without suicidal ideation, those with active SI had a probability of attempting suicide more than three times higher (OR = 3.75, 95% CI= 2.61-5.34, P < 0.001) Ambivalence toward life and active suicidal ideation are both troubling manifestations linked to a 6-month attempt risk. Clinicians should be aware that differentiating between active suicide ideation and ambivalence about living are presentations that need follow-up due to the greater 6-month risk of attempts.[39]

The Three Step Theory (3ST), developed by **Klonsky** and published in 2015, states that pain and hopelessness are the main contributors of SI. If the psychological, interpersonal, and/or physical sources of suffering are treated, or if there is hope that the pain will subside with time or effort, SI will go away. This is due to the fact that the individual's focus will change from suicide to a better future.[7] If the pain does not subside but worsens, the person moves on to step two of the 3ST process when their sense of closeness is overwhelmed. The sense of connection might come from close relationships, cherished jobs, or anything else that gives the person a sense of direction and significance. The intensity of SI increases when it transitions from passive ideation to active SI if the scales tip in favour of pain over connectivity. The ability to attempt suicide occurs at the third step in the 3ST process. Armed people with access to and knowledge of lethal weapons, like soldiers and gun owners, as well as medical experts with access to and knowledge of medications, use social media to find novel approaches.[(13)] Studies utilising the 3ST showed that the interaction between pain and hopelessness was able to predict SI better than felt burdensomeness robustly and hampered belonging in IPTS; the degree of connection was able to predict SI even in the presence of pain and despair; and finally, it was shown that differentiating

suicide capacity into dispositional, acquired, and practical components may predict suicide attempt histories in addition to SI.[37]

O'Connor's (2011) Integrated Motivational-Volition Theory (IMV) model differs from the IPTS in a number of areas. First, rather than belongingness and burdensomeness, the roads to SI are defeat and entrapment. Patients with depression, anxiety disorders, PTSD, and suicidality showed similar-sized, strong correlations for defeat and entrapment, according to a meta-analysis of 40 research ($n > 40,000$).[40]

Results also reveal strong correlations between SI and feeling defeated and trapped.[41] The IMV hypothesis expands the theoretical framework for the potential of suicide by identifying other traits like impulsivity that may help in the shift from SI to suicidal acts, despite the fact that there are currently few evidence to support this.[7]

According to a 2013 study, 0.6% of ED visits were brought on by suicidal thoughts, but incidental, occult suicidal ideation was discovered in almost 11% of patients who had come in with medical problems when screening for SI was done. While on the medical unit, no follow-up about the SI of the patients who had SI was done, despite the fact that it was identified and disclosed to them.[42]

A retrospective study conducted by A. **Dahale et al., 2017**, analysed the sociodemographic and clinical characteristics of psychiatric in-patients who died by suicide while being treated in a hospital. Total 13 completed suicide were reported from 1985 to 2014 and total psychiatric admissions during that time was 132249. Hence rate of in-patient suicide is around 10 per 100000 admissions. Majority was males (84%) of age group 20-30 years. 77% were educated till secondary education. 61% belong to urban background. Duration of illness was less than 5 years for maximum number of patients (84%). Among 13 46% had history of suicide attempts in past. Among 23% suicide had history of psychiatric illness in family members and 7.7% have history of suicide attempt in family member. [43]

Psychological Flexibility

Psychological Flexibility is defined as the capacity to carry on or to change behaviour in a setting to seek together psychological influences, guided by goals and dependent on what the situation at that time allows.[44]

The capability to accept one's emotions without avoiding them and, depending on the situation, keep on with one's goals despite an unpleasant experience.[45]

Self-blame and hopelessness are common automatic and stereotypical negative attributions used by depressed people to explain unpleasant life occurrences and/or issues, and these tendencies can also result in a lack of action taken to achieve personally important and desired results.[46]

Numerous research has demonstrated that psychological flexibility protects against depression, anxiety, and chronic distress.[45]

In 168 active-duty military convey operators, **Bryan et al., 2015** looked at the protective benefits of psychological flexibility on emotional distress and suicidal ideation. Before deployment as well as at 1, 3, 6, and 12 months after deployment, self-report data were gathered. Suicide risk is assessed by Suicide Behaviours Questionnaire-Revised (SBQ-R) with higher scores indicating greater suicide risk, depression is assessed by Patient Health Questionnaire (PHQ), severity of PTSD is assessed by Posttraumatic Stress Disorder Checklist (PTSD Checklist), emotional impact of traumatic experiences is assessed by Combat Experiences Scale (CES), Psychological Flexibility is assessed by Acceptance and Action Questionnaire-2 (AAQ 2) Psychological flexibility protects military members from emotional discomfort and mitigates the impact of depression on suicide risk. Plotting histograms to identify data skew was done before to all analyses to evaluate the distributional features of the outcome variables. The substantial relationship between psychological flexibility and depression severity revealed that only those with low levels of psychological flexibility were more likely to report suicidal ideation while depressed. These results suggest that while some risk factors for suicide ideation, like depression, are protected against by psychological flexibility, others, like PTSD symptoms, are not. This may be due to the fact that trauma-

related symptomatology is less closely linked to suicide thoughts and actions than depressed symptomatology. Hence Psychological flexibility protects against emotional stress and therefore decreases the effect of depression on suicide. [45]

Another study by **Rufino et al., 2016** in a sample of 189 psychiatric inpatients with depression, analyses the connection between suicidal ideation and therapeutic recovery. This study investigated the hypothesis that suicidal ideation is a manner of experiencing avoidance-reported changes in suicidal ideation over the course of treatment during the ward stay. Both past and current suicidal ideation and behaviour are assessed by Columbia-Suicide Severity Rating Scale (C-SSRS), The Patient Health Questionnaire (PHQ-9) a valid measure of depressive symptoms, The Beck Scale for Suicide Ideation (BSS) is utilised to evaluate suicidal ideation, negative future thinking is assessed by Beck Hopelessness Scale (BHS), patients cognition for suicide is assessed by Suicide Cognitions Scale (SCS) and experimental avoidance by Acceptance and action questionnaire 2 (AAQ-2). Individuals were split into "responder" and "non-responder" groups based on their discharge BSS scores in order to study the idea of experiencing avoidance in the context of therapeutic transformation. Using correlation analysis and Pearson product-moment correlations, the link between experience avoidance and suicidal thoughts was examined. Specifically addressing experiential avoidance in suicidal people (aiming to build psychological flexibility) may assist to reduce suicidal ideation and the risk of suicide, in addition to improvements in depression and hopelessness. This study suggested that decreased experimental avoidance and increased psychological flexibility reduced suicidal ideation and suicidal behaviour. The limitation of the study is why certain patients' experiential avoidance showed less change over the course of their hospitalization [47]

A longitudinal study conducted by **Rufino et al., in 2018**, in 474 psychiatric inpatients of 18 to 76 years of age. Participants were assessed by using the Structured Clinical Interview for DSM-IV Diagnosis, Both past and current suicidal ideation and behaviour are assessed by Columbia-Suicide Severity Rating Scale (C-SSRS), patients' cognition for suicide is evaluated by the Suicide Cognitions Scale (SCS) and psychological flexibility by Acceptance and action

questionnaire 2 (AAQ-2), the alliance between client and therapist by Working Alliance Inventory (WAI). The psychological flexibility (at discharge) was found to account for 12.2% of the variation in suicidal thoughts during a 6-month follow-up. The study's limitations include its inability to demonstrate changes in suicidal thoughts, intentions, or plans that followed adjustments in one's perception of unsolvability or intolerability. [48]

McCracken et al., 2018 conducted a study of 424 patients attending treatment for chronic pain. Measures of Psychological Flexibility, including that acceptance, cognitive defusion, committed action, and self-as-context are used to assess depression, pain, and pain-related interference. Psychological flexibility by Acceptance and action questionnaire 2 (AAQ-2), The Patient Health Questionnaire (PHQ-9) a valid measure of depressive symptoms, the impact of pain on mood, physical activities, work, social relations, sleep, and enjoyment of life in the past week is assessed by Brief Pain Inventory Interference Scale (BPI-1), cognitive fusion assessed by Cognitive Fusion Questionnaire (CFQ), capacity to make and keep commitments is measured by Committed Action Questionnaire (CAQ-8), Self-Experiences Questionnaire (SEQ) is a self-assessment tool based on the PF model is used. Each of the component scores for Psychological Flexibility was strongly negatively correlated with Suicidal thoughts, according to correlation studies. The general acceptance and committed action also remained significant individual predictors of ST in multivariate analyses, both unadjusted and adjusted for the presence of widespread pain, as well as for depression and pain-related interference. The current data could be interpreted as showing that certain PF elements are directly linked to decreased suicidal thoughts. An important drawback of the study is that single item measure of suicidal thoughts. [49]

In a study conducted by **Landi et al., 2022** 569 Italian people completed an online survey at four assessment points. This study examined the trajectories of anxiety and depression during two successive lockdowns in order to ascertain whether anxiety and depression varied as a result of numerous circumstances during the first nine months of the pandemic in Europe (April 2020-January 2021). Time 1 evaluation took place during the first strict national lockdown, which lasted from 9

to 19 April 2020. Time 2 evaluation was carried out between July 9 and July 19, 2020, when the epidemic was under better control and all restrictions were released. Time 3 assessment took place between October 9 and 19, 2020, when COVID-19 situations started to rise once more without any matching restrictions. Two months after the start of the second, less severe state wide lockdown, the Time 4 review was conducted from January 9 to January 19, 2021. The standardized Italian version of the General Anxiety Disorder Scale (GAD-7) was used to measure anxiety symptoms at all four evaluations. A multidimensional Psychological Flexibility inventory (MPFI) is used to measure psychological flexibility. Statistical analyses were conducted. At each time point, it was found that psychological flexibility was significantly inversely associated with psychological inflexibility, anxiety, and depression. The limitation of this research is there was a slight underrepresentation of those who had mental health issues before. [50]

A study conducted by **Martins et al., 2022** on 104 transgender persons in Portugal of ages 18 to 66. Among them 42% identified themselves as male, 34% as non-binary and 23% as female. Participants completed online self-report questionnaires. A diagnosis of mental illness was reported by 39% of the individuals, 33% of people who tried suicide, and 63% of those who had plans to commit suicide in the past. Suicide and depression were negatively and moderately correlated with emotional toleration of suffering and psychological flexibility. Even in the face of adversities, maintaining awareness of the current moment and the internal experience itself may be necessary to lessen transgender people's suicidal tendencies. In order to decrease suicidality, psychotherapeutic interventions with trans persons should encourage psychological flexibility, focusing primarily on and exploring awareness of the present moment. [51]

Resilience

Resilience is defined as an ability or recognised ability of the individual to reduce difficulties, or a set of positive beliefs or individual resources which can act as barrier for the individual from adversity. [52]

The ability to adapt to distress and adversity while retaining normal psychological and physical functioning is known as resilience. [23]

Resilience is "the process of adjusting well in the face of adversity, trauma, tragedy, threats, or even large levels of stress," according to the American Psychological Association.[23]

Griffiths et al. 2011 studied the effect of resilience on depression recovery in an Australian cohort and found improved outcome of depressive disorder with the use of personal resilience strategies.[53]

A three-year longitudinal study conducted by **Youssef et al., 2013** looked at how resilience and resilience variables relate to predicting suicide thoughts and attempts in 176 veterans. Mailings, ads, and physician referrals were used to enlist veterans in the MIRECC registry. Suicidality was assessed by Beck Scale for Suicide Ideation (BSI), Resilience is assessed by Connor-Davidson Resilience Scale (CD-RISC), and PTSD severity was measured using the Davidson Trauma Scale (DTS), a screening tool called AUDIT, which consists of 10 items, is used to determine whether a person has problematic alcohol drinking habits. According to a study, resilience and suicidality are inversely connected throughout time. At about 3 years, a longitudinal follow-up was conducted. This implies that resilience has a preventative impact on suicidality. Suicidality was predicted to be reduced at the follow-up by resilience at the first evaluation, indicating a protective impact for resilience. The protective role of resilience in combat veterans who are suicidal has never been established longitudinally until this study. The study's observational methodology made it impossible to completely rule out the potential of other confounding factors. [54]

A cross-sectional study by **Rossetti et al., 2017** on 100 in-patients with depression. Psychiatric symptoms were evaluated by using The Brief Symptom Inventory (BSI), Humiliation was evaluated by Humiliation Inventory, and Resilience was measured by Resilience Scale for Adults (RSA). The purpose of the study was to compare samples with and without a history of suicide in order to assess the association between certain risk factors (humiliation, interpersonal sensitivity, and

depression) and a protective factor (particularly, resilience). The factors that predicted whether the dependent variable, history of suicide attempt, was positive or negative were determined by logistic regression analysis. In this study, those who were not suicidal had higher levels of resilience. Social resources and family cohesion, two aspects of resilience, were engaged in various between-group correlation patterns. In contrast, fewer social resources and less family cohesion may make people more prone to suicide thoughts. Stress, hardship, humiliation, and sadness may be particularly harmful to social resources and family cohesion in suicidal patients. Family support is crucial in averting suicide behaviour, 35 and those with a history of self-injury report experiencing decreased levels of perceived social support and social resources. The suicidal subjects had no positive relationships between any of the risk or protective factors. This relationship trend and the differences across groups are consistent. Eventually, there is a "failure of resilience" in those who have attempted suicide in the past, wherein the resilience mechanisms are unable to protect against depression, interpersonal sensitivity, and shame ultimately favouring suicidal ideation. Contrarily, the non-suicide attempt group had a higher level of resilience and labelled resilience as a protective factor against suicidal ideation.[55]

A study conducted by **Favale et al.,2020**, on 75 subjects of age groups between 18 and 75 years. This study aims to investigate the impact of hope and resilience on the development of depressive illness and suicidality. For measuring general psychopathology Brief Psychiatric Rating Scale (BPRS) is administered, Hamilton Rating Scale for Depression (HAM-D) and Montgomery-Asberg Depression Rating Scale (MADRS) to analyse depression, levels of depression and anxiety is assessed by Hospital Anxiety and Depression Scale (HADS), the Enhanced Snyder Hope Scale (SNYDER) to measure level of hope , Scale of Connor and Davidson-10 (CD-RISC) to measure levels of resilience, Scale for Suicide Ideation (SSI) to evaluate suicidal ideation is used. Descriptive analyses done. According to research, both objective factors like sociodemographic parameters (age, gender, and employment) and subjective elements like psychosocial traits of resilience and hope affect the course of disease in patients who have experienced depressive episodes. In order to increase healing elements like hope and resilience, research

suggests including psychotherapy and rehabilitation activities into the treatment of various stages of depressive disease as a protective factor. [56]

Song et al., 2021 conducted a study on 302 civil servants, Civil servants' stress levels were measured using the Civil Servants Stress Scale (CSSS). Participants' levels of depression and anxiety were measured using the Self-rating Depression Scale (SDS) and Self-rating Anxiety Scale (SAS), respectively. Civil servants' tenacity is assessed using the Connor-Davidson Resilience Scale (CD-RSCI). This study examined how resilience affected anxiety and depression in China's grassroots civil servants. The protective and compensating models of resilience were put to the test in this study. According to studies, resilience protected pregnant women and adolescents by mediating the relationship between stress, depression, and anxiety. Resilience may enhance coping mechanisms to prevent the detrimental impacts of stress on mental health, such as depression and anxiety among public employees. The stronger the psychological health and the higher the resilience level, the better the ability to withstand the negative effects of stress. Resilience has potential to both, directly and indirectly, buffer the detrimental impacts of stress on depression and anxiety among grassroots civil servants. The limitation of the study is since the study is cross-sectional, causality cannot be established. [57]

Social Connectedness

According to definitions, social connectedness is a quality of one's self that expresses his awareness of his shared relationship with his environment and may encompass experiences of both proximal and distal relationships that are shared by many people (e.g., parents, friends, peers, strangers, communities, and society). [58]

Nguyen et al., 2019 conducted a study in 268 students in Asia Pacific University, depression is assessed by patient Health Questionnaire (PHQ-9), Social connectedness is evaluated by Social Connectedness Scale (SCS) and to measure measured acculturative stress Scale for International Students (ASSIS) is used. 25% of the participants (N = 67) were domestic students, whereas 75% of the participants (N = 201) were international students. Two key components make up

the statistical analysis of the study. The first section estimates the prevalence of depression and potential sociodemographic predictors, whereas the second section examines the relationship between two variables (social connectedness and acculturative stress) and the degree of depression. Multiple factors may contribute to the fact that international students experience depression at a higher rate than domestic students. The current research found that international students experienced more depression than domestic students due to a lack of social connections, supporting the two main hypotheses that (H1) acculturative stress was significantly positively associated with depression and (H2) social connectivity was significantly negatively associated with depression among both local and overseas students. Due to the disparity in the numbers of international and domestic students, this study may have certain drawbacks. [59]

In recent cross-sectional research in 811 Filipino youth, **Reyes et al., 2020** studied the comparative significance of social support and social connectivity as two protective elements. the Inventory of Socially Supportive Behaviours (ISSB) is used to assess how frequently people received different types of support in the month before the testing, the extent to which young people in their social context feel attached to one another is analysed by the Social Connectedness Scale, and the Adult Suicide Ideation Questionnaire used to screen suicidal ideation in college student. Four hypotheses were investigated in the current study using a sample of Filipino youngsters. First, tried to recreate the link between social connectivity and social support. Confirming the link between these two protective factors and suicidal ideation was the second objective. Third, was to find out how much of a role social support and social connectivity had in predicting suicidal ideation. The results supported our initial theory that there is a significant association between social support and social connection. This resulted in a strong inverse connection between social closeness and suicide ideation, supporting the second hypothesis. Greater connectedness may result in a more positive assessment of stressful situations and reduce suicidal ideation and behaviour; more social connectedness increases the number of people who can recognize the presence or signs of suicidal ideation, and greater connectedness exposes the person to social influences that may encourage healthy coping mechanisms. Greater social connectedness was

associated with less suicide ideation, which is a strong positive relationship between social connectivity and support from others. One drawback of this research is Instead of focusing only on suicide ideation, many stages of the suicide process, such as planning and attempting, should be studied.[52]

McMahon et al., 2017 conducted a cross sectional study in which 496 individual of age group between 18 to 73 years, completed an online survey within the initial 3 months of COVID-19 pandemic. The Patient Health Questionnaire-9 or (PHQ-9) was used to assess depressive symptoms. To evaluate people's opinions of their level of social and interpersonal connection social connectedness scale- Revised (SCS-R) is used. Confounding factors like age, gender, and a history of mental health disorders were the subject of preliminary correlation analyses and Analyses of Variance (ANOVA) to determine how they affected the disruption of activities that promote well-being and the symptoms of depression. People reported feeling less socially connected when there was more disturbance to their physical and psychological well-being activities. These increased levels of rumination then led to an increase in depression symptoms. Public health initiatives that distance people from one another to fight COVID-19 have exacerbated depressive symptoms by causing broad disruptions in routine. In this association, social isolation is a very significant factor. In order to promote widespread, positive mental health during COVID-19, intervention measures should take social aspects into account as a "social cure." Bidirectional effects are not ruled out by the cross-sectional survey design.

Jones et al., 2022 conducted an online survey of 7705 public and private school students' mental health and suicidality during COVID 19 worldwide pandemic. The study explores if having close relationships with people at school and feel connected to others digitally during the epidemic are linked to mental health and suicidality. Study analysed the poor mental health during the pandemic, poor mental health within the last 30 days, persistent sadness or hopelessness within the past year, serious consideration of attempting suicide within the past year, attempt within the past year, feeling close to people at school (time frame not specified), and being virtually connected to others during the pandemic are all indicators of

poor mental. All were assessed by qualitative questionnaire. It was found that when comparing the students who felt close to persons at school and not felt close. 35.4% vs 52.9% felt hopelessness and sadness, 14% vs 25.6% seriously consider to attempt suicide, 5.8% vs 11.9% having attempted suicide. Based on t-test analysis, all comparisons of feeling linked versus never or rarely feeling connected were considerably different. To safeguard teenagers' mental health and general well-being, it is crucial to strengthen their sense of connectedness to their schools, friends, and families, especially in view of the ongoing pandemic-related stressors. It was found that connectedness with friends and family significantly reduced suicidal ideation and suicide attempt in students during the COVID-19 pandemic. [60]

Cui et al., 2022 conducted a case-control longitudinal study on 570 individuals of elderly aged more than 50 years, from a late-life suicide study. The current study sought to: (1) ascertain whether subjective and objective measures of social connectedness differ in their relationships to the risk of suicide in later life; and (2) ascertain whether social connectedness may attenuate the negative effects of executive dysfunction and poor global cognition on the risk of suicide in later life. The sample contained three non-psychotic unipolar depression groups. (n = 460), along with a healthy comparison group (n = 110), which was made up of individuals without a history of psychiatric diagnoses or suicide attempts. Out of the 460 depressed people, 217 (attempts) had both recent suicidal behaviour and present suicidal ideation, 119 (ideators) had both recent suicidal ideation and a plan but no history of suicidal behaviour, and 124 (depressed comparison) had neither. The Interpersonal Support Evaluation List (ISEL), which measures belonging, self-esteem, and tangible support, was used to examine the perception of social support, also known as perceived social connection. Social connectedness in social network were measured by Social Network Index (SNI). The Mattis Dementia Rating Scale (DRS) is used to measure global cognition and executive dysfunction was evaluated using the Executive Interview (EXIT). The severity of depression is calculated by e Hamilton Depression Rating Scale (HDRS) and medical illness burden is calculated by Cumulative Illness Rating Scale-Geriatric Version (CIRS-

G). Univariate analysis of variance for continuous variables and $\chi 2$ tests for categorical variables are used for data analysis. Predicated variable was coded group status.0 represents a healthy comparison, 1 a sad comparison, 2 ideators, and 3 attempters, whereas healthy comparisons serving as the standard. Study concluded that compared to the non-suicidal depressed and healthy comparison groups, suicide ideators and attempters showed decreased perceived social connectedness. Compared to the non-suicidal sad or healthy comparator groups, suicide attempters spoke to less of their children and friends. In comparison to all other groups, attempters also said they felt close to fewer family and had fewer friends. Emphasizing the potential protective roles of both subjective and perceived social connectivity in reducing the risk of late-life suicide.[61]

Emotional Regulation

Emotional regulation is a set of regulatory processes that can be used to turn emotions in order to change the extent, latency, and duration of emotional responses [62]

In a study by **D'Avanzato et al., 2013** in 551 participants of mean age 36 years. Online and newspaper advertisements were used to enlist participants from the community. This study assessed (1) the specificity of emotion regulation strategies used by people with current major depressive disorder (MDD), social anxiety disorder (SAD), and never-disordered controls (CTL), as well as (2) the stability of strategy use in participants who had previously experienced depression (i.e., those whose depression had remitted; RMD). In the first phase of the study the structured clinical interview was done. Emotion Regulation Questionnaire (ERQ) is used to assess emotional regulation, Ruminative Responses Scale (RRS) is used to assess tendency of individual for repetitively thinking about negative events, depression was measured by Beck Depression Inventory (BDI-II), State-Trait Anxiety Inventory-Trait (STAI-T) is used to access anxiety symptoms. Path analysis was carried out to examine the association between strategy use and symptom severity across diagnostic groupings. When compared to the CTL group, participants in both clinical groups endorsed using rumination and expressive suppression more frequently while using reappraisal less frequently. There were much higher

expressive suppression levels in SAD compared to MDD, and there was a significant link between rumination and anxiety levels. The levels of rumination were even greater and the levels of reappraisal were reduced specifically in MDD. It's interesting to note that heightened rumination—rather than diminished reappraisal—was discovered to be a consistent trait identifying remitted depressive people. These findings might shed light on how psychological problems are maintained by emotion management strategies. Study concluded that greater disturbance in emotional regulation of individuals with major depressive disorder. [63]

Woods et al., 2019 conducted a longitudinal study in 367 adolescents by using a self-reported questionnaire for emotional regulation. The aim of study identifying the potential interactions between interoceptive deficits (IR), experiential avoidance (EA), and NSSI conduct in relation to suicidal ideation. Data was collected from two high schools and two public middle schools in south central region of United States and at two 6 month follow up points. Inventory of Statements About Self Injury (ISAS) is a self-report tool used to measure multiple features of no suicidal self-injury (NSSI), Eating disorder inventory to assess eating disorders in individual, Acceptance and Action Questionnaire-II (AAQ-II) to access experimental avoidance, suicidal ideation is assessed with Suicidal Ideation Questionnaire – Junior (SIQ-JR). Study conclude that it may be feasible to more accurately identify young people at risk for suicidal thoughts and attempts if it can be shown that emotion regulation deficits and NSSI combine to predict suicidal ideation. If a young person lacks the ability to control their emotions, they may not be at risk for suicidal ideation. Despite having no prior history of self-harm, if individuals engage in NSSI, it could raise their risk for future suicidal thoughts and actions early detection of impairments in emotion control essential in stopping any self-harming behaviour. It was found that increased suicidal behaviour with the disturbance in emotional regulation (i.e. experimental avoidance deficits)[64]

In a systemic review by **Navarrete et al, .2021** the databases PsycINFO, MEDLINE, Scopus, and the Cochrane Library were used to conduct a thorough

search of scientific papers written in English and Spanish. This study's aim was to undertake a systematic evaluation of the data about the association between emotional regulation and suicidal ideation and behaviour in both adults and adolescents. There are 70 studies found, and of these 70, 70 revealed higher levels of suicidal thoughts and more suicide attempts in those with emotional control issues.[65]

Joan Rosenbaum **Asarnow et al., 2021** conducted a study to evaluate mechanism, mediation and secondary outcomes to compare dialectical behaviour therapy (DBT) to individual and group supportive therapy (IGST). This was the multisite randomized controlled trial of 173 adolescents of 12-18 years of age with prior suicide attempts, self-harm, and suicidal ideation. The process of adaptive minimization was computerized. Randomly assign subjects to groups within sites that are matched by age, the number of SAs, the severity of past self-inflicted injuries, and psychological medication usage, or to DBT for 6 months. Suicidal ideation is assessed by Suicidal Ideation Questionnaire Junior (SIQ-Jr), Emotion regulation was measured using the Difficulties in Emotion Regulation Scale (DERS), and The Borderline Personality Features Scale for Children (BPFS) 23 measured borderline symptoms, Baseline Clinical Interviews to evaluate for mood symptoms or depressive and anxiety disorder. Parent distress and symptoms were evaluated using the Brief Symptom Inventory Global Severity Index (BSI). Throughout the therapy session and the 12-month study period, DBT was found to have produced larger gains in young people's emotion regulation than IGST. Results show that emotion control is important as a therapy goal for minimizing self-harm, and they show that DBT has an edge in this area. Substance abuse, externalizing behaviour, and self-harm remission, with self-harm remission achieved by 49.3% of teenagers learning emotional regulation skills during follow-up.[65]

Life satisfaction

Satisfaction in life is defined as an individual's personal recognition of happiness, wellbeing and quality of life based on his or her own chosen criteria [66]

In a study on patients with depression, **Flett et al., 2018** examined the role of satisfaction with life along with purpose in life as a protective factor against suicide. The study was conducted with 49 psychiatric patients including 40 inpatients and 9 outpatients. Sample consist of 15 men and 34 females with mean age of 37.5 years. Suicide ideation was assessed with suicide ideation subscale (SPS-SI), Neuroticism was evaluated with the Neuroticism subscale (EPQ-N) of the Eysenck Personality Questionnaire (EPQ), Beck depression Inventory is used to assessed depression of participants, social hopelessness was assessed with the Social Hopelessness Questionnaire (SHQ), Satisfaction with Life Scale (SWLS) is used to assess satisfaction in life, Purpose in Life was evaluated with the purpose in life (PIL) subscale. A sense of purpose in life significantly lowered the link between life satisfaction and suicidal ideation, as was the link between depression and suicide ideation These results highlight the potential advantage of taking resilience and pathology into account when developing predictive models of suicidal thoughts as well as the need of considering important existential themes when diagnosing and treating suicidal people. Hence this study concluded the protective role of life satisfaction with a reduction in suicidal ideation and severity of depression.[67]

Similarly, in other study by **Guney et al., 2010** in 364 college students from Ankara University Ankara, Turkey. There were 188 boys and 176 girls of age in between 19 to 25 years. The goal of the study is to determine the link between satisfaction in life with depression and hopelessness. The satisfaction with life scale (SWLS) is used to measure satisfaction in life, depression is measured with Beck Depression Inventory (BDI-II), Beck Anxiety Inventory (BAI) is used to assess anxiety, and hopelessness is assessed by Hopelessness Scale. SPSS is used for statistical analysis. Pearson Correlation, One-way ANOVA and Tukey test used. The findings of the measures measuring depression, hopelessness, and anxiety revealed a weak and negative relationship with life satisfaction. The

results imply that there is a strong correlation between the perception of anxiety, depression, and life satisfaction with the likelihood of developing psychological issues. For studies on mental health, life satisfaction can also be considered as a moderator variable. Hence life satisfaction was found to have protective role by reducing severity of depression. [67]

During the ongoing COVID-19 Outbreak, **Zhijun Yu et al., 2022** investigated a moderated mediation model of life satisfaction and suicide ideation in college students in China. Total 790 college students participated in this study. This study has two objectives (1) to examine the possibility that depression mediated the link between life satisfaction and suicidal ideation in college students. (2) To determine if gratitude affected the relationships between life satisfaction and depression during the ongoing COVID-19 epidemic. The Life Satisfaction Scale's Chinese translation is used to assess one's life satisfaction, Gratitude is assessed by Gratitude Questionnaire, Patient Health Questionnaire is used to measure depression and suicidal ideation is measured with Suicide Ideation Scale (SIS). The survey was conducted on online platform by generating QR code to facilitate publishing from January 2 to 12, 2022. Every response to this study was anonymous. According to the results, (1) depression somewhat mediated the relationship between life satisfaction and suicidal thoughts. (2) The relationship between life satisfaction and suicidal ideation was only significant for individuals with greater levels of gratitude, indicating that gratitude had a moderating influence on the relationship between life satisfaction and depression. In addition to being directly connected with suicidal ideation, life satisfaction was also indirectly related to suicidal ideation due to the mediation role played by depression in college students. In light of the continuing COVID-19 pandemic, this study gives helpful suggestions for preventing suicidal behaviour among Chinese college students. The study's drawback is that additional control factors, such as demographic and mental state characteristics, were not taken into account.[68]

Meaning in Life

Meaning in Life is defined as it is an individual sense of determination and significance that they considered to be significant in a sense that went beyond the person living that life.[52]

In a longitudinal study conducted by **Heisel et al., 2016** on late life suicidal ideation, meaning in life and reason for living in 173 older adults of age 65 or older. Taking into account clinical and demographic variables, they tested a model in which it was found that Reason for life and Meaning in life prevent suicidal thoughts. Baseline assessment was done at first visit then after 4-6 weeks second follow up done to test retest the validity of study measures, after that 2 more follow ups done at 6-12 months and 1-2 years after baseline to investigate current and previous risk and resiliency factors associated with suicidal ideas. Reasons for living were measured with the RFL-OA, Geriatric Suicide Ideation Scale is used to assess suicidal ideation, Suicide ideation was assessed with the Geriatric Suicide Ideation Scale, Depression symptom severity was measured with the Revised Center for Epidemiologic Studies Depression Scale (CESD-R), Loneliness was evaluated with the 10-item version of the UCLA Loneliness Scale, Perceptions of social support measured by Multidimensional Scale of Perceived Social Support (MSPSS), Satisfaction with Life Scale (SWLS) analyzed the life satisfaction, Meaning in life was measured with the Experienced Meaning in Life Scale, Physical functioning was assessed with the eight-item Instrumental Activities of Daily Living scale (IADL), Cognitive functioning was assessed with the Mini-Mental State Examination 2nd Edition (MMSE-2). In addition to the identified negative psychological factors, a regression analysis was conducted to predict suicide ideation with MIL and RFL, controlling for age, sex, the severity of depressive symptoms, and loneliness in order to ascertain the distinct contribution of these positive variables to the prediction of suicide ideation. The present study conclude that Reason for life and meaning in life had significant negative association with suicide ideation, and reported protective role of meaning in life against suicidal behavior. [69]

Similarly, in a cross-sectional study**, Beaver et al., 2013** 585 individuals of the age group 17-60 years diagnosed with depression, completed two times, with an eight-week gap between them, self-report questionnaires on an internet platform. Thwarted belongingness and perceived burdensomeness is evaluated by the Interpersonal Needs Questionnaire**,** Brief Symptom Inventory (BSI) used to assessed depression and anxiety, gratitude is assessed by The Gratitude Questionnaire (GQ-6), social support is assessed by Multidimensional Scale of Perceived, Social Support (MSPSS), Meaning in Life Questionnaire (MLQ) assessed meaning of life, suicidal ideation by Beck Suicide Scale (BSS), past suicide history was determined by using the item of the Suicidal Behaviour Questionnaire-Revised (SBQ-R). After series of negative binomial regression, it was found that the presence of meaning in life would predict lower level of suicidal ideation in an individual. To evaluate the predictive power of groupings of factors over and above other factors, we entered the predictors in four steps. In the first step, demographic information then in second step baseline suicidal ideation and suicide risk factors were added. In the third step, resiliency factors (such as gratitude and social support) and in the fourth step, the presence of and search for meaning in life were added. We employed a collection of binary logistic regression models to test our second hypothesis, which proposed that the presence of meaning in life would be associated with lower lifetime odds of attempting suicide (because of dichotomous outcome) predicting a suicide attempt. The model followed the same format as the model for the initial hypothesis. Both look for meaning in life, and the presence of meaning in life strongly predicted reduced levels of suicidal ideation. We discovered that having a meaningful life was linked to a decrease in suicidal thoughts and hence decrease lifetime risk of suicide attempt. [16]

Religiosity and Spirituality

Religiosity is defined as the extent to which an individual can believe in God of a particular religion, practices the teaching of religion, and actively participates in religion-related activities[70]

Religious persons frequently turn to spiritual direction to understand their life's difficulties and use their religious convictions to deal with their difficulties [70].

Dervic et al., 2017 studied the effect of religiosity among 371 individuals with major depressive disorder. Aim of the study was to study association between religion and suicide. In this study individuals belong to one specific religion is compared with individuals having no religious affiliation. Brief psychiatric rating scale is used to assessed psychiatric symptoms, depression is assessed by Hamilton Depression Rating Scale, the Beck Depression Inventory, hopelessness is assessed by Beck Hopelessness Scale, Stressful life events were evaluated with the St. Paul-Ramsey Scale, Lifetime history of suicide attempts was recruited from the Columbia Suicide History, suicide ideation is assessed by Scale for Suicide Ideation. To investigate the relation of moral objection for suicide with suicidal behavior and religious affiliation 3 step procedure is used. First, they looked at the bivariate relationship between religious affiliation and suicide attempt and if its strength changed when moral objections to suicide were statistically controlled. Second, we into whether moral opposition to suicide was related to one's religious affiliation. Finally, examined the existence of moral prohibitions against suicide. Subjects without a religious affiliation were more likely to have attempted suicide in the past, report having more suicidal thoughts, and had relatives who had died by suicide. This study concludes that the strongest indicator of future suicide or attempts was a history of prior suicide attempts, which was less likely among respondents who identified as religiously affiliated. Additionally, in a clinical sample of depressed individuals, higher moral objections to suicide that may reflect conventional religious views modulated the protective impact of religious affiliation against suicidal behavior. Despite having similar levels of depression, negative life events, and hopelessness at the time of examination, people who identified as religious also reported reduced suicidal ideation.[71]

Wang et al., 2013 conducted a study to assess reasons for living, life satisfaction, and religious awareness as a protective predictor for suicidal thoughts and behaviour in depression in 340 Black college students who are Christian by religion. Suicidal Behaviours Questionnaire-Revised is used to distinguish between participants with suicide risk and no suicidal participants, Centre for Epidemiological Studies Depression Scale—(CES-D) was used to evaluate depression, for measuring life satisfaction, Satisfaction with Life Scale—(SWLS)

is used, The Reasons for Living Inventory for Young Adults—(RFL-YA) used to evaluate the various domains related to the reason for living like Positive self-evaluation, relationships with family and peers, coping principles, and future expectations, The Spiritual Assessment Inventory—(SAI) is used to measure to assess awareness of God and quality of the relationship with God. Participants who were women said that 68.4% of them had never considered suicide, 20.4% had a fleeting suicidal thought, 6.4% had at least one suicidal plan but didn't try to carry it out, 4.0% had at least one plan but seriously wanted to die, and 0.8% had made an attempt at suicide in the past. Approximately 81.3% of men said they had never considered suicide, 16.5% said they had a fleeting suicidal thought, 1.1% said they had thought about it at least once but didn't try to carry it through, and 1.1% said they had planned to commit suicide themselves at least once. Logistic regression was used. The study concluded that, when included alone (or along with life satisfaction) after depressive symptoms, religious awareness was in fact a significant inverse predictor of suicidal thoughts and behaviours in women. When helping Black American women cope with suffering, mental health providers should also encourage the client to analyse how their personal criteria (such as life satisfaction) may connect with their religion.[72]

A randomized controlled trial by **Ebrahimi et al.,2014** on 51participants diagnosed with Major depressive disorder with suicidal ideation from Razi Hospital Iran. Demographic details were collected and to assess suicidal ideation Beck Suicide Ideation Scale was applied. 10 psychotherapy group session for 1 hour duration 3days a week, conducted over experimental group. Post test was conducted after 2 weeks of last session. Total 9 sessions were held related to introduction, advantage of group therapy, religious practices, patience, reliance on God. The data were analyzed using SPSS software. In order to compare the two groups' thoughts of suicide before and after the test, an independent t-test was applied. As well thorough investigation and to manage the impact of ANCOVA was utilized for the pre-and post-test. Independent t-test results showed no distinction between the two groups in before to intervention, but following the trial, there is a statistical difference. Additionally, the result of the ANCOVA test

revealed a substantial correlation between spiritual group therapy and a decline in suicidal thoughts, make up 57% of the variation in the experimental group's suicidal ideation as reported protective effects of religiosity and spirituality against suicide in depression as suicidal ideation was reduced with religiosity and spirituality psychotherapy. [73]

Mosqueiro et al., 2021 conducted a 6- month prospective study of 277 tertiary care patients with major depressive disorder. The study examined the association between several religious components and baseline suicide risk scores in Brazilian tertiary care depression patients as well as the resolution of depressive symptoms during a prospective 6-month follow-up. To evaluate religiosity Duke University Religion Index is used in which three dimensions of religiosity (organizational religiosity, non-organizational religiosity, intrinsic religiosity) is assessed, Childhood Trauma Questionnaire (CTQ) is used to assess childhood traumatic experiences, Maudsley Staging of illness (MSM) is used to measure severity of current depressive episode and treatment-resistant depression, social support is measured by Medical Outcomes Study Social Support Survey (MOS), World Health Organization Spirituality and Religiousness and Personal Beliefs instrument (WHOQOL-SRPB) used to measure Spiritual quality of life and Hamilton Depression Scale (HAM-D) is used to evaluate for severity of depression. Different R/S domains were tested for their effects on baseline continuous scores for suicide risk using multilinear regression models. In a 6-month follow-up, the effect of religiosity dimensions (DUREL) and WHOQOLSRPB (total score) on the likelihood of remission of depression symptoms was assessed using a logistic regression model. At baseline, there was an inverse relationship between WHOQOL-SRPB scores, intrinsic religiosity, and religious attendance. Furthermore, a 6-month follow-up of depressed people revealed that religious attendance was the key indicator of remission. Hence reported a protective role of spirituality on suicidal behavior in depression [74]

INDIAN STUDIES

Literature from India regarding protective factors against suicide is sparse as compared to studies on risk factors of suicide. As suicide is preventable cause of death it is necessary to assess the role of various protective factors against suicidal ideation in depression.

A multicentric cross sectional study was conducted by **Grover et al., 2018** on 488 geriatric patients (age ≥60 years) with depression and suicidal ideations. All participants are assessed only once by tools. UCLA Loneliness Scale was used to assess feeling of loneliness as well as social isolation, social connectedness is evaluated by Revised Social Connectedness Scale, severity and intensity of suicidal ideation is measured by Columbia Suicide Severity Rating Scale, Geriatric Depression Scale (GDS-30) is used to evaluate depression and Generalized Anxiety Disorder scale 7 (GAD-7) is used to assess anxiety symptoms. For continuous variables, mean and standard deviation (SD) with a range were calculated during the descriptive analysis. For ordinal or nominal variables, frequency and percentages were calculated. Pearson's correlation and Spearman's rank correlation coefficient was used to assess the relationship between loneliness and social isolation. This study suggested that higher the loneliness lower is the social connectedness. Social connectedness is positively linked with self-happiness and subsequently decreased the severity of depression and protects individuals from suicide. [75]

Another recent study was conducted by **Chatopadhya et al., 2020** on 150 adolescent students from Varanasi City. A self- reported questionnaire was given for assessment of emotional regulation, suicidal behavior and coping. The study concluded that if expressive suppression is higher (decreased emotional regulation) then the risk of suicidal behavior is also increased. [76]

Another study was conducted by **Raj etal., 2019** on 30 adolescents diagnosed with depression and having suicidal ideations of Gangtok, Sikkim. All participants were assessed with self- reported questionnaire Beck's Depression Inventory (BDI) for depression, Modified Scale for Suicidal Ideation (MSSI) for suicidal ideation and

Satisfaction with Life Scale for life satisfaction. The 175 teenagers who scored between 9 and 29 on the Beck Depression Inventory and above 9 on the Modified Scale for Suicidal Ideation were chosen for the study. The research team members and their respective counselors informed the chosen adolescents about the study, and only those adolescents who agreed to participate voluntarily were ultimately recruited for it. After that all participants were provided with 12 sessions of "Mindfulness-based Cognitive behavioral therapy" over the period of 16 weeks. Sessions of 45 minutes to 1 hour were taken weekly. Firstly, focused was on bringing participants attention to their internal experiences and made them realizing the upcoming changes in this process. After that participant was motivated to practice mindfulness to deal with life difficulties. The complete intervention program focused on eight themes mainly: building a supportive environment, dealing with barriers, mindfulness of the breath and the body in the moment, being in present, acceptance and allowing, thoughts are not facts, how can one best take care of oneself, how to deal with future mood fluctuations. This study concluded that CBT enhances life satisfaction and that ultimately causes decreased suicidal ideation in depression. There was significant decrease in mean scores of depression, by enhancing life satisfaction. [77]

A qualitative study conducted by **Wagani et al., 2018** on 160 Indian students from North India of age group 17-25 years. Most of the participants (86%) practice Hindu religion. Participants were divided in 4 groups. One group included only male participants, the other only females, while the other two groups had individuals split equally between the sexes. Since the goal of the study was to learn more about how spirituality affects wellbeing, they used both qualitative and quantitative methodologies that reflected a multifaceted understanding of spirituality. In first stage The Spirituality Religiousness and Personal Beliefs and WHO Quality of Life self- reported instruments were used. Questionnaire had one separate section of open-ended questions for youth suicide. The second stage involves recordings of focus groups discussions (FGDs) based on activities about suicide prevention and religion/spirituality. The qualitative data collected were analyzed using thematic analysis. This study showed that Spirituality and

Religiosity as protective factors against suicidal behavior. Many students reported that spirituality has helped them in the formation of meaning in life. They acknowledge that the use of spiritual techniques and practices helps them to find solutions to their problems or deal with negative emotional states. [78]

A study conducted by **Dua et al., 2021** compares individuals with first-episode depression with suicidal ideation to those who have recently made an attempt at suicide in order to determine their levels of religion and spirituality. A second goal was to assess the level of spirituality and religion among first-episode depressive patients compared to that of healthy controls. Purposive sampling was used for recruitment. The participants in the study were divided in three groups i.e. Group 1 with suicidal ideation and recent suicide attempt, Group 2 with suicidal ideation alone and Group3 was healthy participants. The Centrality of Religiosity Scale (CRS), the Duke University Religion Index (DUREL), the Brief Religious Coping Scale (R-COPE), and the Spiritual Attitude Inventory were used to evaluate patients with single episode depression with suicidal ideation and healthy controls (SAI). The degree of the depression was equal between the patients who had attempted suicide and those who had not. On CRS and SAI assessments, no significant difference was found between the two patient groups' levels of spirituality and religiosity. When compared to healthy controls, both depression groups in the CRS had lower religiosity levels. In comparison to healthy controls, the two groups likewise scored worse on the SAI component measuring "feeling of hope." Participants with suicide attempts employed negative religious coping more frequently than patients without suicide attempts (i.e., ideators group) and healthy controls. The CRS's ideology domain was linked to the total number of lifetime suicide attempts in the attempt group. Depression sufferers had lower levels of spirituality and religiosity than healthy controls. Higher negative religious coping behaviour is linked to suicide attempts when depression intensity is comparable.[79]

In a study conducted by **Kumar, 2004** depending on their psycho-socio-demographic profile, this study aimed to separate suicide attempters from completers. A specially created proforma was used to evaluate suicide attempters admitted to Govt. Medical College, Kozhikode between January 1 and December

31, 2001, and retrospective chart reviews were used to gather data on completions. Using the proper statistics, the parametric and non-parametric variables were compared in these two groups were compared. Male attempters and completers were in their forties, whilst females were in their thirties. Among the victims, young married women and housewives were overrepresented. [80]

A study was conducted by **Shrivastav et al., 2005** to evaluate the frequency of suicide ideation and attempt among people with major depressive disorder and to determine the relationship between the two. The study enrolled 60 patients with major depressive disorder who had suicide thoughts. Ten of them had previously attempted suicide or were currently attempting suicide. Both the Hamilton Rating Scale for Depression (HAM-D) and sociodemographic information were assessed. According to data analysis, 16.6% of patients with suicidal ideation made an effort to end their lives. According to statistics, people under 30 were shown to have a higher probability of making an attempt at suicide. Higher education was also a vulnerability factor, as were single men, married women, and students who attempted suicide more frequently. The study concluded that not all patients who express suicidal thoughts actually make an attempt. Young depressed individuals are more prone to attempt suicide if they have strong suicidal ideation and agitation or paranoid symptoms, especially single men, married women, and students.[81]

AIMS AND OBJECTIVES

AIM

To study the role of protective factors (Psychological Flexibility, Resilience, Social Connectedness, Emotional regulation, Satisfaction with life, Meaning in life, Religiosity and Spirituality) against suicidal behaviour among patients with depression.

OBJECTIVES

1. To compare various demographic, clinical and protective factors among patients with depression who never had suicidal ideations and patients presented with suicidal ideation and suicidal attempt.
2. To assess the association of various socio-demographic, clinical and protective factors with suicidal behaviour among patient with depression.

MATERIALS AND METHODS

STUDY SETTING

Outpatient and Inpatient setting of Psychiatry, All India Institute of Medical Sciences, Jodhpur, Rajasthan

STUDY DESIGN

Cross sectional study

All the participants were assessed on following measures:

Demographic: Name, age, gender, religion, marital status, educational status and employment status, socio-economic status.

Clinical: Age of onset of depression, duration of illness and actual time spent with illness, number of depressive episodes, family history of psychiatric illness including depression and suicide, and severity of illness, depressive cognition (ideas of hopelessness worthlessness helplessness), death wish (current episode / lifetime), suicidal ideation (Current episode or lifetime), suicidal plans (current episode / lifetime), suicidal attempt (Current episode or Lifetime), details of current treatment (current medications details, including psychological interventions in current or past and duration of treatment), experience of side effects with medications, engagement in faith healing etc.

Psychological: Psychological Flexibility, Resilience, Social Connectedness, Emotional regulation, Satisfaction with life, Meaning in life, Religiosity and Spirituality.

STUDY PARTICIPANTS:

INCLUSION CRITERIA: -

1. Patients diagnosed with depression as per International Classification of Diseases, Eleventh Revision (ICD-11)
2. Patients score ≥ 14 on Hamilton depression rating scale (HAM-D) (for moderate to severe depression)
3. 18 to 50 years of age
4. Able to read and understand Hindi or English.

EXCLUISON CRITERIA: -

1. Presence of bipolar depression, co-morbid psychiatric disorders or organic brain syndromes
2. H/O chronic medical disorder, epilepsy, head injury and neurological illnesses
3. Patient with intellectual disability or significant physical disability.
4. Patient with substance use disorder.

SAMPLING AND SAMPLING SIZE:

Purposive sampling

Thomas E. Elis found a negative correlation of r = - 0.24 between psychological flexibility and suicidal ideation. Using this for calculation, we estimate a sample size of 134 depressive patients at alpha value of 0.05 and beta value (power) of 0.20.

Calculation steps:

Total sample size, $n = [(Z\alpha+Z\beta)/C]2 + 3 = 134$

Where,

$Z\alpha$: The standard normal deviate for $\alpha = 1.9600$

$Z\beta$: The standard normal deviate for $\beta = 0.8416$

$C = 0.5 * \ln[(1+r)/(1 -r)] = 0.2448$

STUDY DURATION:

After obtaining Ethics approval from Institutional Ethics Committee, the study was conducted between 1st January 2021 till 30th June 2022 at Department of Psychiatry, All India Institute of Medical Sciences, Jodhpur, and Rajasthan

OPERATIONAL DEFINITIONS

Person with Suicidal Ideation: defined as a person who experienced current or lifetime suicidal ideation but had never attempted suicide [(11)]

Person with Suicidal attempt: defined as a person with history of past suicidal attempts (one or more). [(11)]

Measures

List of data tools: Detailed description of each tool is given below

Domain	Measure	Brief description
Demographic and clinical variables	Socio-demographic and clinical profile sheet	Semi-structured, specifically prepared for the study
Depression	Hamilton depression rating scale	21 Items scale It is an open access data tool
Suicidal ideation	Columbia-Suicide Severity Rating Scale	Permission has been obtained from author to use this data tool.
Psychological Flexibility	Acceptance and Action Questionnaire	7 Item scale. It is an open access data tool.
Resilience	Brief Resilience Scale	6 Item scale. Permission has been obtained from author to use this data tool
Social connectedness	Social connectedness Scale Revised	20 Item Scale. Permission has been obtained from author to use this data tool.
Emotional Regulation	Emotional Regulation Scale	10 Item Scale Permission has been obtained from author to use this data tool.
Satisfaction with Life	Satisfaction with Life Scale	5 Item Scale It is an open access data tool.
Meaning in Life	Meaning in Life Questionnaire	10 Item scale It is an open access data tool.
Religiosity	Centrality Religiosity Scale	15 Item Scale. Permission has been obtained from author to use this data tool.

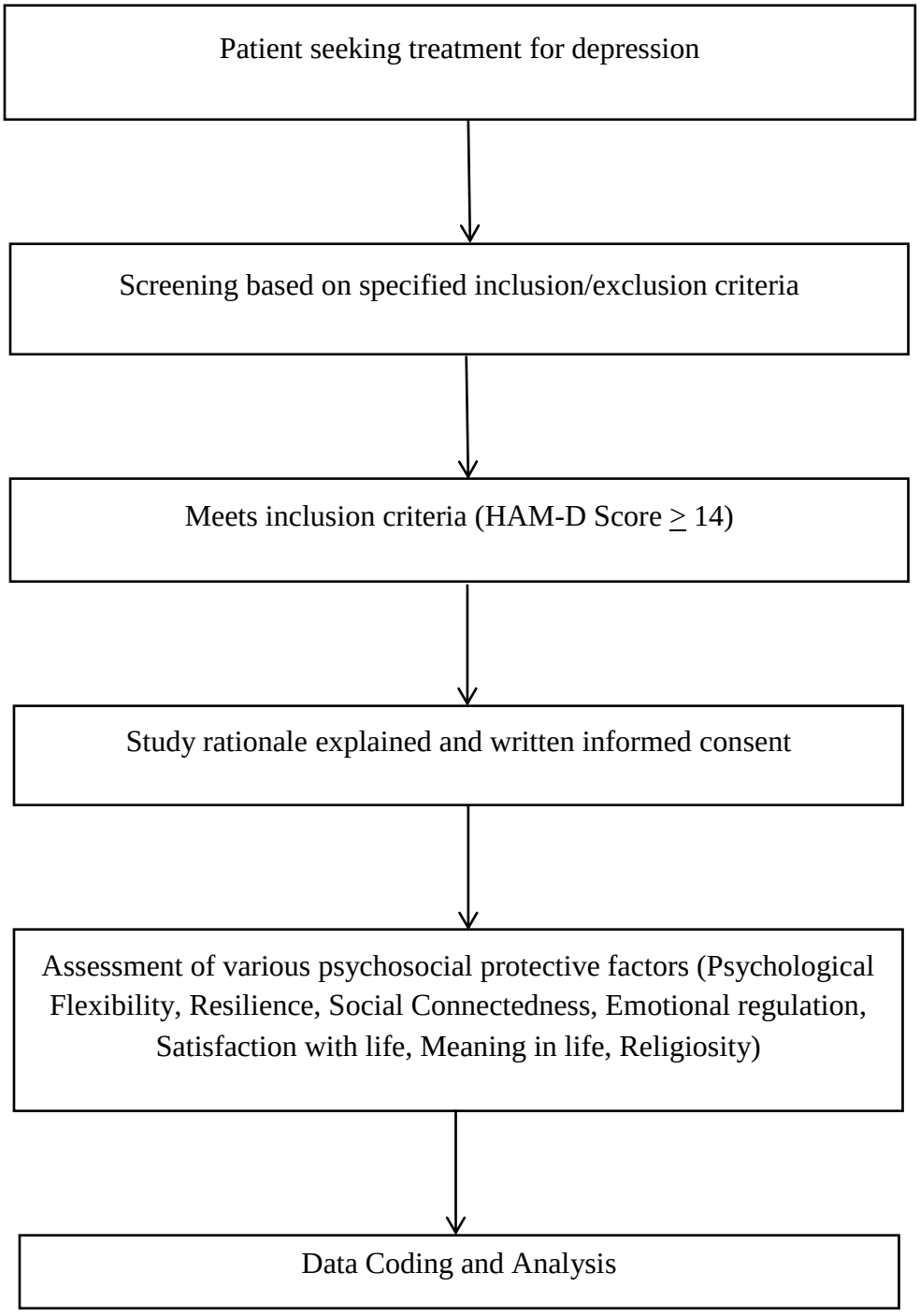
1. **Demographic and Clinical profile sheet** (APPENDIX 5&6)
2. **Hamilton Depression Rating Scale** (HAM-D) – It is a 21-item clinician-reporting questionnaire for evaluating the severity of depression in normal population and patients with psychiatric disorders. Participants are rated on either 3 point or 5-point Likert type scale. Scoring is based on the first 17 items only. Questionnaire is used to rate the severity of depressive illness in adults. Score of 0-7 is normal, 8-13 is mild depression, 14-18 is moderate depression, 19-22 is severe depression, >/= 23 indicates very severe depression. (Cronbach's alpha = 0.85) [82]
3. **Columbia-Suicide Severity Rating Scale** (C-SSRS) – It is a clinician administered rating scale measuring past and current suicidal ideation and behavior. It measures four dimensions of suicidality: severity, intensity, behavior, and lethality. The C-SSRS includes items that assess frequency, duration, and controllability of ideations, and it has shown excellent internal reliability and good convergent, divergent, and predictive validity. In terms of suicidal behaviours, the scale is divided into several categories [3]: actual attempts, interrupted attempts, aborted attempts, and preparatory acts or behaviours. Interviewers establish the presence or absence of these behaviours and, where applicable, the number of attempts, both over the course of a lifetime and in the period of interest (the last week or month). Similarly, five aspects of suicidal ideation are required: the wish to be dead, nonspecific active suicidal thoughts, active ideation without intent to act, active ideation with some intent to act, and active ideation with specific plan or intent. The presence and frequency of these different thoughts are evaluated. (Cronbach's coefficient =0.89) [83]
4. **Acceptance & Action Questionnaire** (AAQ) **–** The 7-item scale and each item has score from 1-7 and all item score ranges from 7 – 49. Final score obtained by adding 7 items. Each item has 1-7 likert scoring ranging from 1 never true to 7 always true for three domains- acceptance, psychological flexibility, and experimental avoidance). More the score more is the psychological inflexibility. (Cronbach's alpha= 0.92)[84]

5. **Brief Resilience Scale** (BRS) - It consists of 6 items and each item has a score from 1-5 and all item score ranges from 6 – 30. Final score is obtained by adding up the individual scores and taking an average of it by dividing the score obtained with 6. Items 1, 3, and 5 are positively worded, and items 2, 4, and 6 are negatively worded. The BRS is scored by reverse coding items 2, 4, and 6 and finding the mean of the six items. Higher score represents greater resilience. (Cronbach's alpha=0.80-0.91). [85]
6. **Social Connectedness Scale (revised) –** It is 20 item scale and each item has scoring from 1 (Strongly disagree) to 6 (Strongly agree). Reverse score items 3,6,7,9,11,13,15,17,18,20 and sum all 20 items. Higher score represents greater social connectedness. (Cronbach's alpha=0.88). [86]
7. **Emotional Regulation Scale–** It is 10 item scale and each item has score from 1-7 and all item score ranges from 10–70. Final score obtained by adding 10 items (Cognitive reappraisal 6 items and Expressive suppression 4 items). All items are answered on a 7-point Likert Scale, ranging from 1 (strongly disagree) to 7 (strongly agree) with higher scores indicating higher usage of that strategy. (Cronbach's alpha for Cognitive Reappraisal is 0.89-0.90 & Expressive suppression is 0.76-0.80).[87]
8. **Satisfaction with life Scale-** It has 5 statements with which patient may agree and disagree and can be interpreted in terms of absolute as well as relative life satisfaction. Each item score from (1-7) (Strongly disagree to strongly agree) and total score categorize as 26-30- strongly satisfied, 21-25 slightly satisfied, 15-19 slightly Dissatisfied, 5-9 extremely dissatisfied (Cronbach's alpha= 0.79 – 0.89).[88]
9. **Meaning in life Questionnaire** (MLQ) **–** It is 10-item questionnaire designed to measure two dimensions of meaning in life: Presence of Meaning (how much respondents feel their lives have meaning), and Search for Meaning (how much respondents strive to find meaning and understanding in their lives). Respondents answer each item on a 7-point Likert-type scale ranging from 1 (absolutely true) to 7 (absolutely untrue) (Cronbach's alpha 0.87 to 0.94).[89]
10. **Centrality of Religiosity Scale** (CRS) – It is 15 item scale designed to measure five dimensions of religiosity i.e. public practice, private practice, religious experience, ideology, and the intellectual dimensions. It has 3 items per dimension.

The items score from 1 to 5 for these with 5 answer questions. CRS total score ranges from 1-5. 1-2 (not religious), 2.1-3.9 (religious), 4-5 (highly religious) (Cronbach's alpha=0.92 – 0.96) [90]

The WHO translation method cross-language equivalence procedure was followed to adapt the Hindi Version of the various standard questionnaires. The tools were translated in Hindi, reviewed by an expert panel following which a refined version was back translated in to English by an independent health professional not verse with the questionnaire. Thereafter final Hindi version of all the patient rated/self-rated tools were used.

METHODOLOGY



ETHICAL CONSIDERATION

- After getting approval from the department, it was submitted after seeking permission from the institutional ethics committee.
- Informed written consent was obtained from the study participants. (APPENDIX 2)
- For the use of various scales and questionnaires and to translate the same in Hindi language, permission has been sought from their respective authors.
- Patients presenting with active suicidal ideation or recent suicide attempts was managed sensitively by providing brief supportive session. Proper liaison for further psychiatric/psychological management was done with treating team.
- There was no potential risks for the patients participating in the study.

DATA ANALYSIS

The statistical package for social sciences (SPSS version 21, Chicago, US) was used to analyses the data. Demographic data, clinical variables, scores in the mentioned scales (Psychosocial factors), Mean and standard deviation was calculated for the continuous variables and frequency and percentages was calculated for the ordinal or nominal variables. Chi-square Test was used for categorical sociodemographic variables and clinical variables. Shapiro Wilk Test was used to test for normality of the data and *p* value was found to be less than 0.05 suggestive of deviation from normal distribution. Since data was not normal in distribution, non-parametric test was used for analysis. Comparison of variables based on ordinal or categorical data was done by Kruskal Wallis test or Mann U Whitney test accordingly. Spearman's correlation *(rho)* was used to assess correlation. After checking for the essential assumptions, logistic regression was applied for identification of potential predictors of suicide attempt. The *p* value less than 0.05 was deemed significant.

RESULTS

A total of 134 participants, as per the calculated sample size were recruited after considering the inclusion and exclusion criteria. Sociodemographic and clinical details were obtained. As per inclusion criteria participants with moderate to severe depression (HAM-D >14) were recruited. Based on CSSRS assessment, patients were classified in-to three groups i.e., patient having depression who never had suicidal ideation nor suicide attempt (Depression), patients presented with depression with suicidal ideation (Depression + SI) and depression with suicidal attempt (Depression + SA). Scores on Hamilton depression rating scale (HAM-D), Columbia-Suicide Severity Rating Scale (CSSRS), Acceptance and Action Questionnaire (AAQ II), Brief Resilience Scale (BRS), Social connectedness Scale Revised (SCSR), Satisfaction with Life Scale (SWLS), Emotional Regulation Scale (ERS), Meaning in Life Questionnaire (MLQ), Centrality Religiosity Scale (CRS) were obtained. Out of 134 participants, 21 participants never had suicidal ideation, 45 had suicidal ideation and 68 people had suicide attempt.

Table 1A: Sociodemographic Variables (Categorical)

Socio-demographic characteristics	Depression (n=21)	Depression +SI (*n*=45)	Depression+SA (*n*= 68)	Total (134)	Chi-Square Test Value (*p* Value)
Sex					
Male	7 (33.3)	30(66.7)	29(42.6)	66(49.3)	8.776
Female	14(66.7)	15(33.3)	39(57.4)	68(50.7)	**(0.012) ***
Marital Status					
Single	9(42.9)	22(49.9)	31(45.6)	62(46.3)	0.235
Married	12(57.1)	23(51.1)	37(54.4)	72(53.7)	(0.889)
Locality					
Urban	13(61.9)	28(60.9)	56(83.6)	97(72.4)	8.408
Rural	8(38.1)	18(39.1)	11(16.4)	37(27.6)	**(0.015) ***
Occupation					
House-wife/Household	10 (47.6)	8 (17.8)	18 (26.5)	36(26.9)	11.054
Unemployed	6 (28.6)	14 (31.1)	30 (44.1)	50 (37.3)	**(0.026) ***
Employed	5 (23.8)	23 (51.1)	20 (29.4)	48 (35.8)	
Family type:					
Nuclear	19 (90.5)	31(68.9)	49 (72.1)	99(73.9)	4.369
Extended	0(0.0)	4(8.9)	7(10.3)	11(8.2)	(0.358)
Joint	2(9.5)	10(22.2)	12(17.6)	24(17.9)	
Religion					
Hindu	20(95.2)	44 (97.8)	66 (97.1)	130(97)	3.742
Muslim	1(4.8)	0(0.0)	2(2.9)	3(2.2)	(0.442)
Christian	0(0.0)	1(2.2)	0(0.0)	1(0.7)	
$p < 0.05$ (Significance:*)					

Among the 134 participants, 66 were males, while 68 were females. Among the suicidal ideation group (45), males were almost twice the number of females i.e., (66.7%) and (33.3%) respectively. In the case of the suicidal attempt group, females were in higher proportion than males i.e., (57.4%) and (42.6%) respectively. Female participants were more number in the depression group and suicidal attempt group (66.7%) and (57.4%) respectively. Post hoc analysis revealed no significant difference between male and female across the groups.

In the study, (53.7%) of participants were married, while (46.3%) were single. In the suicide attempt group (54.4%) participants were married and (45.9%) were

unmarried. It was found that suicidal ideation is equally present among married and single participants.

The majority (72.4%) of the participants belonged to the urban background. In the suicide attempt group, the participants were almost five times more from urban (83.6%) than rural background (16.4%). While in the suicidal ideation group and depression group, people were more from urban background compared to rural. Post hoc analysis revealed significant difference between suicide ideation group and suicide attempt group in terms of whether they belonged from urban or rural.

A significant number of participants in the study were unemployed (37.3%). Nearly (24%) of the participants were employed in depression group. Whereas, significant participants in suicidal attempt groups were unemployed (44.1%). Post hoc analysis between the groups i.e., depression and suicide ideation group, depression and suicide attempt group and suicide ideation and suicide attempt group showed that being unemployed didn't have any significant difference between them. In participants who do household work there was significant difference between depression and suicide ideation group. In employed patients there was significant difference between depression group and suicide ideation group.

In this study most of the participants (73.9%) belonged to nuclear families, (8.2%) belonged to extended families. The rest of them (17.9%) belonged to joint families. Thus, as compared to extended family participants were more from joint family background i.e., (8.2%) and (17.9%) respectively. Nearly (70%) of the participants in each of the groups belonged to nuclear family.

The majority of the study participants (97.1%) were Hindu by religion. (2.2%) were Muslims and (0.7%) were Christians. Nearly (97%) of the population in each of the groups belonged to Hindu Religion.

Table 1B: Sociodemographic Variables (Continuous)

Sociodemographic Variables	Depression (n= 21) Mean ± SD (Median)	Depression + SI (*n*=45) Mean ± SD (Median)	Depression + SA (*n*= 68) Mean ± SD (Median)
Age	29.52± 10.157 (28)	27.98 ± 7.691 (26)	28.97 ± 8.089 (27)
Education Years	14.90±8.18 (14)	14.40 ± 3.762 (15)	13.63 ± 4.246 (15)
Family Income (Rupees per month)	53095.24±55087.11 (40000)	54911.11±36422.91 (50000)	51235.29±33250.98 (40000)

Table 1C: Sociodemographic Variables (Continuous)(Kruskal Wallis test)

	Mean Rank (df=2)			Test statistic	*p* value
Socio-demographic Variables	**Depression (21)**	**Depression + SI (45)**	**Depression + SA (68)**		
Age	2	1	3	0.513	0.774
Education	1	3	2	0.310	0.857
Family Income	1	3	2	1.532	0.465

The mean age of participants recruited in all three groups was around (30) years. Among the suicidal attempt group means age was found to be (28.97) years and in the suicidal ideation group, it was (27.98) years. The mean age in the depression group is (29.52) years.

The mean year of education attained by a participant in the suicidal attempt and suicidal ideation groups were (13.63) years and (14.40) years respectively. The mean year of education attained in the depression group was (14.90) years. The mean family income in all three groups was similar (~52000) Rs. However, the suicidal ideation cases had higher per capita income (~55021) Rs.

When compared between depression, depression with Suicidal Ideation and depression with suicide attempt groups, there was no significant difference amongst these socio-demographic variables.

Table 2A. Clinical Variables (Categorical)

Clinical Variable	Depression (n= 21) (%)	Depression + SI (*n*=45) (%)	Depression + SA (*n*= 68) (%)	Total (n=134)	Chi Square Test Value (*p* Value)
Psychiatric Disorders in Family:					
No	20(95.2)	31(68.9)	57(83.8)	108(80.6)	7.276
Yes	1(4.8)	14(31.1)	11(16.2)	26(19.4)	**(0.026)** *
Diagnosis					
RDD	5(23.8)	15(33.3)	37(54.4)	57(42.5)	8.495
Single Episode	16(76.2)	30(66.7)	31(45.6)	77(57.5)	**(0.014)** *
Side Effects:					
No	20(95.2)	44(97.8)	56(82.4)	120(89.6)	7.747
Yes	1(4.8)	1(2.2)	12(17.6)	14(10.4)	**(0.021)** *
Faith Healing:					
No	20(95.2)	42(93.3)	60(88.2)	122(91)	1.400
Yes	1(4.8)	3(6.7)	8(11.8)	12(9)	(0.497)
Psychological Intervention:					
No	19(90.5)	38(84.4)	48(70.6)	105(78.4)	5.222
Yes	2(9.5)	7(15.6)	20(29.4)	29(21.6)	(0.073)
Family history of suicide/attempt:					
No	21(100)	40(88.9)	58(85.3)	119(88.8)	3.491
Yes	0(0.0)	5(11.1)	10(14.7)	15(11.2)	(0.175)
$p < 0.05$ (Significance: *)					

Table 2B Clinical Variables (Continuous)

Clinical Variables	Depression (N= 21) Mean ± SD (Median)	Depression + SI (*N=45*) Mean ± SD (Median)	Depression + SA (N= 68) Mean ± SD (Median)
Duration of illness (Months)	30.86±38.426 (12)	31.09±40.761 (12)	37.94±50.402 (24)
Number of Episode	2.14±2.455 (1)	1.56±1.078 (1)	2.09±1.760 (1)
Duration of Episode (Months)	10.95±23.357 (6)	5.80±2.801 (5)	7.54±6.550 (6)
Duration of Treatment (Months)	3.52±3.265 (3)	2.22±1.664 (2)	2.71±4.368 (2)
Age of Onset (Years)	26.81± 8.310 (27)	25.51± 6.687 (23)	25.22± 7.885 (24)

Table 2C Clinical Variables (Continuous) (Kruskal Wallis test)

	Mean Rank (df=2)			Test statistic	*p* value
Clinical Variables	**Depression (21)**	**Depression + SI (45)**	**Depression + SA (68)**		
Duration of illness (Months)	2	1	3	1.529	0.466
Number of Episode	2	1	3	4.670	0.097
Duration of Episode (Months)	2	1	3	1.278	0.528
Duration of Treatment (Months)	3	1	2	2.052	0.358
Age of Onset (Years)	3	2	1	0.676	0.713

Table 2A and 2B describe different clinical variables in depression, suicidal ideation, suicide attempt groups. Among the total 134 participants recruited for the study, the (57.55%) of patients were diagnosed as having single episode depressive disorder and (42.5%) as having recurrent depressive disorder. Among the suicidal ideation group (66.7%) had a single episode depressive disorder at the time of presentation, in depression group (76.2%) had single episode depressive disorder, whereas in suicidal attempt group (54.4%) had recurrent depressive disorder. Post hoc analysis revealed no significant difference between the groups in terms of whether the patients were diagnosed with having recurrent depressive disorder or single episode depressive disorder.

The mean age of onset of depressive illness in all the three groups was during the young adulthood (~25) years. Among the suicidal ideation group the mean age of onset of depressive illness was found to be (25.51) years whereas in the suicidal attempt group it was found to be (25.22) years. Among the depression group, the mean age of onset was found to be (26.81) years. Participants in the suicidal attempt group had a longer duration of illness (37.94) months and number of depressive episodes (2.09). The mean duration of illness in the suicidal ideation group was (31.09) months. The mean number of depressive episodes in the suicidal ideation and depression only group was (1.56) and (2.14) respectively.

In the depression group, the mean duration spent in episodes was (10.95) months which was longer than suicidal attempt group i.e., (7.54) months and suicidal ideation group was (5.80) months.

The mean duration spent in treatment was longer in depression group i.e., (3.52) months followed by suicidal attempts group and suicidal ideation group i.e., (2.71) months and (2.22) months respectively.

In this study it was found that (19.4%) participants had positive family history of having psychiatric illness. This was higher in suicidal ideation group (31.1%) as compared to suicidal attempt group i.e. (16.2%). However, post hoc analysis did not reveal the significant difference among the groups. Family history of suicide or

suicidal attempt was highest in suicidal attempt group (14.7%) and in suicide ideation group it was (11.1%).

The mean duration of treatment was found to be higher in proportion in depression group as compared to suicidal attempt group i.e., (3.52) months and (2.71) months. Side effects of medications were experienced by (10.4%) of the total participants. Among suicide attempt group (17.6%) reported side effects and in suicide ideation group (2.2%) reported side effects. Post hoc analysis revealed significant difference between suicide ideation and suicide attempt group in terms of whether participants experienced side-effects or not.

Faith healing practices had been subjected to (11.8%) participants in suicidal attempt group as compared to (6.7%) in suicidal ideation group. In depression group (4.8%) underwent faith healing practices. Psychological intervention was imparted to (21.6%) participants in suicide attempt group as compared to suicidal ideation and depression only group i.e., (15.6%) and (9.5%) respectively.

When compared between depression, depression with suicidal ideation and depression with suicide attempt groups, there was no significant difference amongst these clinical variables as shown in (Table 2C).

Table 3: Comparison of Psychosocial Variables (Kruskal Wallis test)

	Mean Rank (df=2)			**Test statistic**	***p* value**
Psychosocial Variables	**Depression (21)**	**Depression + SI (45)**	**Depression + SA (68)**		
HAM-D	1	2	3	22.866	**<0.001****
Acceptance and Action Questionnaire (AAQ II)	1	2	3	16.251	**<0.001****
Brief Resilience Scale (BRS)	3	2	1	3.609	0.165
Social connectedness Scale Revised (SCSR)	3	1	2	19.579	**<0.001****
Emotional Regulation Scale (ERS)	2	3	1	2.841	0.694
Satisfaction with Life Scale (SWLS)	3	2	1	67.311	**<0.001****
Meaning in Life Questionnaire **(MLQ)**	3	1	2	15.310	**<0.001****
Centrality Religiosity Scale (CRS)	3	1	2	6.287	**0.040***
p< 0.05 (Significance: *) *p< 0.001* (Significance: **)					

When compared between depression, depression with suicidal Ideation and depression with suicide attempt groups, there was significant difference amongst all the variables mentioned in Table 3A between the groups except for resilience and emotional regulation. Participants in depression with suicide attempt group were found to have higher score on AAQ II *(p<0.001)* and HAM-D *(p<0.001)* as compared to other groups. Along with this social connectedness *(p<0.001),* satisfaction with life *(p<0.001),* meaning in life *(p<0.001)* and religiosity *(p=0.040)* had higher score in the depression group as compared to the other groups. Post Hoc analysis revealed significantly higher AAQ II score in depression with suicide ideation group (*adjusted p=0.019*) as compared to depression group. Higher scores of AAQ II (*adjusted p<0.001*) where seen in depression with suicide attempt group as compared to depression group. While significantly higher HAM-D scores (*adjusted p<0.001*) were seen in suicide attempt group as compared to depression group and depression with suicide ideation group. Along with that higher MLQ score (*adjusted p<0.001*) was seen in depression group compared to depression with suicide ideation group and suicide attempt group (*adjusted p<0.001*). Significantly higher score on SWLS (*adjusted p<0.001*) was seen between all the three groups. The higher score on CRS outcome (*adjusted p=0.044*) was found in depression group as compared to depression with suicide ideation group. SCRS outcome was significantly higher (*adjusted p<0.001*) in depression group when compared to suicide ideation and suicide attempt group.

Association of Variables with Sociodemographic Factors

Table 4A: Comparison of Psychosocial Variables according to Sex (Mann Whitney U test)

	Mean Rank		Test statistic	*p* value
Psychosocial Variables	**Female (68)**	**Male (66)**		
HAM-D	67.89	67.10	2270	0.906
Acceptance and Action Questionnaire (AAQ II)	75.20	59.57	2767	**0.020***
Brief Resilience Scale (BRS)	62.65	72.50	1914	0.139
Social connectedness Scale Revised (SCSR)	69.70	65.23	2393	0.506
Emotional Regulation Scale (ERS)	62.46	72.70	1901	0.127
Satisfaction with Life Scale (SWLS)	69.57	65.37	2384	0.530
Meaning in Life Questionnaire **(MLQ)**	66.26	68.77	2160	0.708
Centrality Religiosity Scale (CRS)	73.76	61.05	2670	0.058
p< 0.05 (Significance: *)				

As shown in Table 4A, there was no significant difference amongst the mentioned psychosocial variables across either of the sexes except for psychological flexibility. Higher score of AAQ II i.e. psychological inflexibility was found among females as compared to males (*p=0.020).*

Table 4B: Comparison of Psychosocial Variables according to Residence (Mann Whitney U test)

	Mean Rank		Test statistic	*p* value
Psychosocial Variables	**Rural (37)**	**Urban (97)**		
HAM-D	71.81	65.86	1954	0.425
Acceptance and Action Questionnaire (AAQ II)	56.85	71.56	1400.5	0.050
Brief Resilience Scale (BRS)	75.80	64.34	2101	0.123
Social connectedness Scale Revised (SCSR)	70.24	66.45	1896	0.613
Emotional Regulation Scale (ERS)	73.96	65.04	2.197	0.234
Satisfaction with Life Scale (SWLS)	71.19	66.09	1931	0.495
Meaning in Life Questionnaire **(MLQ)**	71.84	65.85	1955	0.424
Centrality Religiosity Scale (CRS)	63.53	69.02	1647	0.464

When compared between participants from urban and rural background, there was no significant difference found in any of the psychosocial variables mentioned in Table 4B.

Table 4C: Comparison of Psychosocial Variables according to Marital Status (Mann Whitney U test)

Psychosocial Variables	Mean Rank		Test statistic	*p* value
	Married (72)	**Unmarried (62)**		
HAM-D	67.37	67.65	2222	0.966
Acceptance and Action Questionnaire (AAQ II)	71.10	63.32	2491	0.247
Brief Resilience Scale (BRS)	67.47	67.53	2230	0.993
Social connectedness Scale Revised (SCSR)	64.65	70.81	2027	0.360
Emotional Regulation Scale (ERS)	65.40	69.94	2081	0.500
Satisfaction with Life Scale (SWLS)	70.37	64.17	2438	0.354
Meaning in Life Questionnaire **(MLQ)**	68.08	66.82	2274	0.851
Centrality Religiosity Scale (CRS)	74.91	58.90	2765	**0.017***
p< 0.05 (Significance: *)				

The Participants were also compared for any differences based on their marital status. As shown in Table 4C, married people were found to have significantly higher CRS scores (*p=0.017*) signifying a higher level of religiosity among married peoples as compared to those who were single.

Table 4D: Comparison of Psychosocial Variables according to Family Type (Kruskal Wallis test)

Psychosocial Variables	Mean Rank (df=2)			Test statistic	*p* value
	Nuclear (99)	Extended (11)	Joint (24)		
HAM-D	2	3	1	3.401	0.183
Acceptance and Action Questionnaire (AAQ II)	3	2	1	2.790	0.248
Brief Resilience Scale (BRS)	1	2	3	6.917	**0.031***
Social connectedness Scale Revised (SCSR)	2	3	1	2.818	0.244
Emotional Regulation Scale (ERS)	2	1	3	2.034	0.362
Satisfaction with Life Scale (SWLS)	2	1	3	.316	0.854
Meaning in Life Questionnaire **(MLQ)**	2	1	3	4.373	0.112
Centrality Religiosity Scale (CRS)	1	2	3	2.096	0.351
p< 0.05 (Significance: *)					

When compared based on type of family as shown in Table 4D, people belonging to joint families were found to have a higher score on BRS (*p=0.031*). Meaning people living in joint families are more resilient as compared to those living in nuclear and extended families. Post hoc analysis revealed significant difference of resilience between nuclear and joint family.

Table 4E: Comparison of Psychosocial Variables according to Religion (Kruskal Wallis test)

Psychosocial Variables	Mean Rank (df=2)			Test statistic	*p* Value
	Hindu (130)	Muslim (3)	Christian (1)		
HAM-D	2	3	1	0.270	0.874
Acceptance and Action Questionnaire (AAQ II)	2	1	3	0.041	0.980
Brief Resilience Scale (BRS)	2	3	1	3.500	0.174
Social connectedness Scale Revised (SCSR)	1	2	3	2.873	0.238
Emotional Regulation Scale (ERS)	3	1	2	1.236	0.539
Satisfaction with Life Scale (SWLS)	3	1	2	0.997	0.608
Meaning in Life Questionnaire **(MLQ)**	2	3	1	1.607	0.448
Centrality Religiosity Scale (CRS)	1	2	3	0.124	0.940

Although the number of participants belonging to religion other than hindu were limited, it was found that there was no significant difference in any of the psychosocial variables as mentioned in table 4E with the respect to religion of the participant.

Table 4F: Comparison of Psychosocial Variables according to Employment (Kruskal Wallis Test)

Psychosocial Variables	Chi Squares	Mean Rank (df=2)			*P* Value
		House Wife (36)	Unemployed (50)	Employed (48)	
HAM-D	2.138	3	2	1	0.343
Acceptance and Action Questionnaire (AAQ II)	0.088	2	3	1	0.957
Brief Resilience Scale (BRS)	5.053	1	2	3	0.080
Social connectedness Scale Revised (SCSR)	0.096	3	1	2	0.953
Emotional Regulation Scale (ERS)	8.139	1	3	2	**0.017***
Satisfaction with Life Scale (SWLS)	2.876	3	1	2	0.237
Meaning in Life Questionnaire **(MLQ)**	0.295	3	2	1	0.863
Centrality Religiosity Scale (CRS)	6.474	3	1	2	**0.039***
p< 0.05 (Significance: *)					

Across different categories of employment, significant difference was seen in ERS scores (*p=0.017*), CRS (*p=0.039*) as shown in Table 4F. Post Hoc analysis revealed higher scores on ERS (adjusted *p=0.024*) in the unemployed category as compared to the household category. Higher scores were seen in CRS (adjusted *p=0.033*), in household category as compared to unemployed category as shown in Table 4F.

Table 4G: Comparison of Psychosocial Variables according to Diagnostic Categories (Mann Whitney U test)

	Mean Rank		Test statistic	*p* Value
Psychosocial Variables	**RDD (57)**	**Single Episode (77)**		
HAM-D	69.80	65.80	2063	0.554
Acceptance and Action Questionnaire (AAQ II)	70.25	65.47	2038	0.481
Brief Resilience Scale (BRS)	64.68	69.59	2355	0.465
Social connectedness Scale Revised (SCSR)	58.89	73.88	2685	**0.027***
Emotional Regulation Scale (ERS)	76.46	60.87	1684	**0.021***
Satisfaction with Life Scale (SWLS)	60.56	72.64	2590	0.074
Meaning in Life Questionnaire (MLQ)	63.39	70.55	2429	0.291
Centrality Religiosity Scale (CRS)	73.18	63.30	1871	0.145
p< 0.05 (Significance: *)				

When compared across different diagnostic categories, scores of social connectedness (SCSR) (*p=0.027*) were found to be significantly more in participants diagnosed as having single episode depressive disorder as shown in Table 4G. The participants diagnosed as RDD had higher score on ERS (*p=0.021*) as compared to participants having first episode of depression.

Table 4H: Comparison of Psychosocial Variables according to Psychological Intervention (Mann Whitney U test)

	Mean Rank (Psychological Intervention)		Test statistic	*p* Value
Psychosocial Variables	**No (105)**	**Yes (29)**		
HAM-D	69.41	60.57	1723.5	0.275
Acceptance and Action Questionnaire (AAQ II)	64.34	78.95	1190.5	0.073
Brief Resilience Scale (BRS)	69.60	59.88	1743.5	0.229
Social connectedness Scale Revised (SCSR)	54.46	78.50	1203.5	0.085
Emotional Regulation Scale (ERS)	68.30	64.59	1607	0.648
Satisfaction with Life Scale (SWLS)	72.16	50.64	2011.5	**0.008***
Meaning in Life Questionnaire (MLQ)	69.54	60.10	1737	0.246
Centrality Religiosity Scale (CRS)	69.56	60.03	1739	0.242
p< 0.05 (Significance: *)				

Psychosocial variables of the patients were also compared with regard to whether they had received any prior psychological intervention as shown in table 4H. SWLS scores (*p=0.008*) were higher in participants having no exposure to psychological intervention.

Table4I: Comparison of Psychosocial Variables according to Family History of Psychiatric Illness (Mann Whitney U test)

	Mean Rank (Family history of psychiatric illness)		**Test statistic**	***p* Value**
Psychosocial Variables	**NO (108)**	**YES (26)**		
HAM-D	67	69.58	1458	0.760
Acceptance and Action Questionnaire (AAQ II)	68.82	62	1261	0.421
Brief Resilience Scale (BRS)	66.92	69.92	1467	0.721
Social connectedness Scale Revised (SCSR)	68.84	61.92	1259	0.414
Emotional Regulation Scale (ERS)	64.50	79.98	1728.5	0.068
Satisfaction with Life Scale (SWLS)	69.45	59.38	1193	0.233
Meaning in Life Questionnaire (MLQ)	71.30	51.71	993.5	**0.021***
Centrality Religiosity Scale (CRS)	71.38	51.40	985.5	**0.018***
p< 0.05 (Significance: *)				

Participants psychosocial variables were compared as per the presence or absence of family history of psychiatric illnesses. Significant higher score was found on MLQ (*p=0.021*) and CRS (*p=0.018*) among participants having family history of psychiatric illness as compared to those who did not have, as shown in table 4I.

Table 4J: Comparison of Psychosocial Variables according to Side Effects (Mann Whitney U test)

	Mean Rank (Side Effect)		Test statistic	*p* Value
Psychosocial Variables	**None (120)**	**Yes (14)**		
HAM-D	68.54	58.57	965	0.361
Acceptance and Action Questionnaire (AAQ II)	64.27	95.18	452.500	**0.005***
Brief Resilience Scale (BRS)	69.02	54.50	1022	0.182
Social connectedness Scale Revised (SCSR)	66.52	75.93	722	0.390
Emotional Regulation Scale (ERS)	68.51	58.86	961	0.378
Satisfaction with Life Scale (SWLS)	71.02	37.29	1263	**0.002***
Meaning in Life Questionnaire (MLQ)	68.36	60.11	943	0.451
Centrality Religiosity Scale (CRS)	68.71	57.14	985	0.291
p< 0.05 (Significance: *)				

When psychosocial variables were compared with regards to whether patient experienced any side-effects with medications or not in the past, it was found that AAQ II score (*p=0.005*) were more in participants having side effects as compared to participants who didn't experience any side-effects with medications. Hence, psychological inflexibility is seen more in participants who have experienced side effects with medications. SWLS Score (*p=0.002*) was more in patient with no prior history of side effects with medications as compared to those who had side effects as shown in table 4J.

Table4K: Comparison of Psychosocial Variables according to Family h/o Suicide Attempt (Mann Whitney U test)

	Mean Rank (Family History of suicide Attempt)		Test statistic	*p* Value
Psychosocial Variables	**NO (119)**	**YES (15)**		
HAM-D	65.58	82.73	1121	0.105
Acceptance and Action Questionnaire (AAQ II)	66.18	78	1050	0.266
Brief Resilience Scale (BRS)	67.88	64.50	847	0.749
Social connectedness Scale Revised (SCSR)	67.19	70.20	933	0.775
Emotional Regulation Scale (ERS)	66.69	73.93	989	0.495
Satisfaction with Life Scale (SWLS)	70.96	40.07	481	**0.004***
Meaning in Life Questionnaire (MLQ)	68.78	57.33	740	0.281
Centrality Religiosity Scale (CRS)	70.17	46.30	574.500	**0.025***
p< 0.05 (Significance: *)				

Comparison of psychosocial variables were done based on whether there was history of suicide attempt in patient's family members or not. Higher scores were found on the SWLS (*p=0.004*), CRS (*p=0.025*) among participants who didn't have any history of suicide attempt in their family as compared to those participants who had history of suicide in their family. Hence participants who did not have any family history of suicide were found to be more satisfied and more religious as compared to with those who had history of suicide in their family.

CORRELATION BETWEEN THE CONTINUOUS VARIABLES

Table 5 summarizes the correlation between different continuous variables used in this study. It was found that Resilience of the participant was significantly correlated with Psychological Inflexibility ($p<0.001$) as well as Number of suicide attempts ($p=0.028$). There was also significant positive correlation between Resilience of the participant and Satisfaction with Life ($p=0.004$), as well as with Meaning in life ($p=0.004$). This suggest that people who had higher resilience also have higher psychological flexibility. People who are more satisfied with their life have higher resilience and they have greater meaning of life. Similarly, number of suicide attempts are more common in people who are less resilient.

HAM-D scores were found to be negatively correlated with Social Connectedness ($p=0.008$) and Satisfaction with Life ($p<0.001$). HAM-D scores also positively correlated with Number of suicide attempts ($p<0.001$). This suggests that, people with more severe depression have significantly lesser social connectedness. Also, number of suicide attempts has direct relation with the severity of depression. Higher the severity of depression had higher probability of the increasing attempts of suicide. Hence more severe the depression can increase the risk of suicide attempts.

Psychological Inflexibility were negatively correlated with satisfaction with life ($p=0.037$) as well as Meaning in Life ($p=0.003$). Psychological Inflexibility on the other hand was positively correlated with number of suicide attempts ($p<0.001$). This means that people having higher satisfaction with their life are more psychologically flexible. People with higher meaning in life are more psychological flexibility. And that, higher psychological flexibility in patients with depression can lead to decrease in the frequency of suicide attempts in them.

Satisfaction with life correlated positively with Meaning in life ($p=0.004$) as well as Religiosity ($p=0.001$). Satisfaction with life was also found to have a significant negative correlation with number of suicide attempt ($p<0.001$). Hence people having higher satisfaction with their life are more likely to find higher meaning in their life. People who are more satisfied, have higher level of belief in their

religion. Frequency of suicide attempt is lesser in people who have higher satisfaction with life.

Meaning in Life correlated positively with Religiosity (*p=0.015*). Religiosity is positively correlated with duration illness (*p=0.029*) and age of onset (*p=0.024*). Hence, people having onset of illness during later age of life and with longer duration of illness are more religious.

Duration of illness was positively correlated with number of depressive episodes (*p<0.001),* duration of the depressive episode *(p=0.006),* duration of treatment *(p=0.008),* age of the participant *(p<0.001).* Hence people who have an early age of onset of illness have higher probability of having longer duration of illness in case of both single and recurrent depressive disorder. And people with early age of onset of illness are more likely to have greater number of depressive episodes in case of RDD.

Table 5: Corelation between continuous variables (Spearman's corelation)

Spearman's corelation rho (*p*)														
	HAM-D	**AAQ**	**BRS**	**SCRS**	**ERQ**	**SWLS**	**MLQ**	**CRS**	**DOI**	**NOE**	**DOE**	**DOT**	**NO OF ATTEMPT**	**AGE**
AAQ	0.38 (0.662)	--												
BRS	0.091 (0.296)	-0.353** **(0.037)**	--											
SCRS	**-0.228 (0.008)**	-0.109 (0.210)	-0,30 (0.735)	--										
ERQ	-0.85 (0.330)	0.064 (0.464)	0.070 (0.419)	-0.67 (0.443)	--									
SWLS	-0.404 **(<0.001)**	-0.181* **(0.037)**	0.193 **(0.026)**	0.94 (0.278)	0.034 (0.693)	--								
MLQ	-0.145 (0.094)	-0.252** **(0.003)**	0.244** **(0.004)**	0.142 (0.101)	0.060 (0.488)	0.245** **(0.004)**	--							
CRS	-0.126 (0.146)	-0.085 (0.327)	0.161 (0.062)	0.006 (0.943)	-0.040 (0.645)	0.285** **(0.001)**	0.210* **(0.010)**	--						
DOI	0.005 (0.954)	-0.031 (0.718)	-0.085 (0.331)	-0.037 (0.674)	-0.070 (0.423)	-0.163 (0.060)	-0.061 (0.482)	0.188* **(0.029)**	--					
NOE	-0.102 (0.241)	0.024 (0.779)	-0.131 (0.130)	-0.045 (0.606)	0.055 (0.531)	-0.103 (0.237)	-0.038 (0.661)	0.148 (0.087)	0.665** **(<0.001)**	--				
DOE	0.009 (0.915)	0.161 (0.063)	-0.131 (0.132)	0.048 (0.579)	-0.145 (0.095)	-0.066 (0.452)	-0.062 (0.476)	-0.060 (0.492)	0.239** **(0.006)**	-0.150 (0.084)	--			
DOT	-0.146 (0.093)	0.087 (0.317)	-0.105 (0.225)	0.149 (0.087)	-0.105 (0.228)	0.094 (0.279)	-0.031 (0.720)	0.017 (0.842)	0.230** **(0.008)**	0.243** **(0.005)**	0.202* **(0.019)**	--		
NO OF ATTEMPT	0.418** **(<0.001)**	0.298** **(<0.001)**	-0.189* **(0.028)**	-0.035 (0.689)	-0.137 (0.115)	-0.600** **(<0.001)**	-0.143 (0.100)	-0.084 (0.337)	0.103 (0.234)	0.211* **(0.015)**	0.107 (0.221)	0.043 (0.622)	--	
AGE	-0.006 (0.948)	0.054 (0.533)	-0.029 (0.735)	-0.042 (0.627)	-0.082 (0.348)	0.031 (0.720)	-0.045 (0.603)	0.127 (0.143)	0.348** **(<0.001)**	0.292** **(0.001)**	0.014 (0.874)	0.098 (0.258)	0.056 (0.519)	--
AOI	0.027 (0.758)	0.045 (0.608)	0.011 (0.904)	-0.082 (0.344)	-0.120 (0.166)	0.162 (0.061)	0.036 (0.678)	0.195* **(.024)**	0.020 (0.821)	-0.070 (0.421)	-0.031 (0.719)	-0.025 (0.773)	-0.052 (0.548)	0.836** **(<0.001)**
DOI: Duration of illness, **NOE:** Number of the episode, **DOE:** Duration of the episode, **DOT:** Duration of treatment, **AOI:** Age of onset of illness														

LOGISTIC REGRESSION

Logistic regression was conducted to examine the predictive value of significant variables. To minimize the possibility of collinearity, spearman's correlation test was conducted, to assess the correlation between all statistically significant continuous variables. Spearman's correlation > 0.7 was taken as indicator of possible collinearity during logistic regression. No such variable was identified. Further, using clinical judgment, variables for logistic regression were selected.

Binomial logistic regression was conducted for identification of potential predictors of suicide attempt. The variables that were removed from regression analysis after clinical judgement were age of onset of illness, education, number of suicide attempts, duration of illness, family history of psychiatric illness, and family history of suicide as no significant association was found in suicide attempt group. The variables that were tested by logistic regression were: Occupation, Diagnosis, HAM-D Score, psychological inflexibility, social connectedness, satisfaction with life, meaning in life and religiosity.

Table 6A: Beginning block, the constant only model

Classification Table[a]					
	Observed		Predicted		
			Suicide Attempt		Percentage Correct
			NO	YES	
Step 0	Attempt	NO	0	66	0.0
		YES	0	68	100.0
	Overall Percentage				50.7
a. Constant is included in the model.					
b. The cut value is 0.500					

Table 6B shows Omnibus tests for model coefficients. The chi-square value for the Omnibus tests of model coefficients was 80.529 (degree of freedom = 9; *p-value = <0.001*). Hence, the model with predictors is significantly better than a model with constant only. The p value less than 0.05 indicates that the current model outperforms the null model.

Table 6B: Ombius Tests for Model Coefficients

Omnibus Tests of Model Coefficients				
		Chi-square	df	Sig.
Step 1	Step	80.529	9	<0.001
	Block	80.529	9	<0.001
	Model	80.529	9	<0.001

df- degree of freedom, **sig**.- significance

As shown in Table 6C, the Nagelkerke R Square value for the model is 0.602, which estimates the model's goodness of fit.

Table 6C: Goodness of fit of model

Model Summary			
Step 1	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
	105.204[a]	.452	.602
a. Estimation terminated at iteration number 7 because parameter Estimates changed by less than .001.			

As shown in table 6D, Hosmer and Lemeshow test demonstrates that the model fits the data. (Chi-square = 4.192, degree of freedom = 8 and *p = 0.839*).

Table 6D: Hosmer Lemeshow Test

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	4.192	8	0.839

Thus, as shown in table 6E, the logistic regression model reasonably predicts suicide attempt versus no suicide attempt, i.e., 86.8 % versus 75.8%, respectively. Overall, 81.3 % of participants were correctly classified into suicide attempt and no suicide attempt groups by the model.

Table 6E: Model Predictions

Classification Table[a]					
	Observed		Predicted		
			Suicide Attempt		Percentage Correct
			NO	YES	
Step 1	Attempt	NO	50	16	75.8
		YES	9	59	86.8
	Overall Percentage				81.3
a. The cut value is 0.500					

Table 6F shows that satisfaction with life scale, Psychological Flexibility are significant predictors of suicide attempt in patients with depression. The other predictors: HAM-D score, meaning in life, Social Connectedness, Religiosity, Occupation, Diagnosis were not significant in the model. Satisfaction with life is significant predictor of suicide in depression (OR = 0.660 95% CI 0.534 – 0.816; *p = <0.001*). Thus, one unit increase in the score of Satisfaction with Satisfaction with life score reduces the odds of suicide attempt by 34% in patients with depression.

Psychological Inflexibility was also found as predictor of suicide, higher psychological inflexibility was associated with increased Odds of suicide attempt (OR=1.069, 95% CI 1.009-1.131; *p=.023*) For one unit increase in score of Psychological Inflexibility with AAQ II score, increase the Odds of suicide by 6.9% in patients with depression.

Table: 6 F Output of logistic Regression

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
HAM-D	0.124	0.071	3.038	1	0.081	1.132	.985	1.302
AAQ	0.066	0.029	5.199	1	**0.023**	1.069	1.009	1.131
SCSR	0.011	0.027	0.154	1	0.694	1.011	0.959	1.066
MLQ	0.018	0.034	0.260	1	0.610	1.018	0.951	1.089
SWLS	-0.415	0.108	14.810	1	**<0.001**	0.660	0.534	0.816
CRS	0.099	0.319	0.096	1	0.756	1.104	0.591	2.063
(Occupation) Household	0.539	0.674	0.639	1	0.424	1.714	0.457	6.427
(Occupation) Unemployed	0.709	0.550	1.661	1	0.197	2.032	0.691	5.976
(Diagnosis)RDD	0.953	0.538	3.141	1	0.076	0.386	0.134	1.106
Constant	-0.554	3.648	0.023	1	0.879	0.574		

Variable(s) entered on step 1: HAM-D(, AAQ II(Acceptance and Action Questionnaire II), SCSR(Social Connectedness Scale Revised), SWLS(Satisfaction with Life Scale), MLQ(Meaning in Life Scale), CRS(Centrality of Religiosity Scale), Occupation, Diagnosis.[a]

DISCUSSION

The purpose of this study was to find the association of various socio-demographic factors, clinical variables, and protective factors with suicidal behavior in depression.

Socio-demographic factors and depression

As per the existing literature, multiple socio-demographic variables are associated with suicide in depression. However, findings in most studies are not consistent. This inconsistency may be explained by (1) the difference in criteria of depression used in various studies, (2) the difference in method of diagnosis, i.e., interview-based or questionnaire-based, (3) the difference in the instruments used, i.e., self-reported or clinician- rated, (4) the socio-cultural-economic differences among various populations.

In this cross-sectional study, we examined the association of sociodemographic variables with the suicide attempt as well as analyzed their role in prediction of suicide in patients with depression.

In the index study, it was found that there was statistically significant association of suicidal behavior with sex of the patient. Females were more likely to have more suicide attempts as compared to males. Higher percentage of male have suicidal ideation as compared to female. However post hoc analysis revealed that there was no significant difference between any group with sex of participants. Similarly, no significant difference was found between males and females in an Indian study conducted by the Shrivastav.[96] However, Kesseler et al., found that female patients attempted suicide more compared to males. In a study conducted by C.T Sudhir Kumar et al., in south India it was found that number of suicide attempt are more in females but, intent of suicide is more in males. Which is similar to our study.[91]

In a study conducted by Chan et al., the comparison of age and gender was done between two groups, i.e. with suicide ideation, with suicide attempt, the study concluded that there was no significant association with sex and age of participants.[92]

In another systemic review article by Thatcher et al., it was found that males are

more seen to be more prone for attempting suicide in most studies which were conducted on patients with depression having suicidal ideation and attempts.[113]

Similarly higher number of suicide attempts were found in urban as compared to rural population. In this study it was seen that suicide attempts are almost five times more common in people living in urban compared to rural area. This finding is in-consistent with the study conducted by Shrivastav in India, that found that suicide attempts were more in the participants from rural background. [96] Study conducted by Narang et al had similar findings. [95]

In the current study there was statistically significant association between occupation of the patient and suicide. The participants who were unemployed had higher suicidal ideation and they were more prone to attempt as compared to participants who were doing household work or employed. In a study conducted by Milner et al., it was found that access to means for suicide at work increases the probability of suicide attempt among employed people. They also discovered that those who worked in professions where they had access to certain techniques (firearms, pharmaceuticals or medication, and carbon monoxide) were more likely to use them to end their lives than those who did not.[93]

In the systemic review conducted by Klingelschmidt et al., it is emphasized the necessity of developing suicide prevention strategies that are tailored to this particular group of employees. Also reported that unemployed population are more prone for suicide attempts. [94]

The current study didn't find association of any other sociodemographic variables which were studied including marital status, family type, and religion of participants, age, years of education, and annual family income with suicide in participants with depression.

However older age, being single, lower number of educational years, low family income, belonging to a nuclear family are linked with increase in suicide attempts in patient with depression.

The study conducted by R. L. Narang et al., concluded that low socioeconomic status, lower level of education, and belonging to a nuclear family, with patients doing household work are at greater risk for suicide in people under 30 years of age. The possible reason for an insignificant interaction of other above mentioned

variables with suicide in patients with depression might be the lesser sample size of individual groups, as well as the unequal distribution between them in this study. [95] Study conducted by Shrivastava and Kumar found that higher educated people commit more suicide. More educated group were found to be more likely to attempt suicide as compared to the less educated population.[96] In the Indian studies Narang et al found the similar findings. Kesseler et al., found that poorly educated people are more likely to attempt suicide than highly educated people.[97]

Age group didn't have significant association with suicidal attempt in depression. It was found that age across all three groups were approximately similar. Hence in current study there were no difference in age between groups. The similar findings were reported in the study conducted by the Manjeet Singh Bhatia et al., in Punjab, i.e. because the suicidal ideates, attempters and completers did not differ in age group. [98] Lal and Sethi found that rate of suicide is more in the ae group less than 30 years. Similarly in a study by Badrinarayana et al., found that the younger age group from (15-30) years are more prone for depression and suicide. [99]

Additionally, in a study conducted by Gururaj et al., in Bangalore, it was found that individual-level research has linked factors like lack of religious belief to increased risk of suicide.

Suicide is not as well understood in Hinduism. While it generally condemns suicide, suicides carried out for religious or other related reasons have been permitted. Uncertainty exists regarding suicide trends in relation to Hinduism. Hindu-dominated India has a recorded suicide rate of 10.8 per 100,000 people, which is comparatively low.[100]

Bhagavad Gita condemns self-inflicted suicide and asserts that such a death is ineligible for "shraddha," the crucial final rites. The Brahmanical viewpoint is that those who make suicide attempts should fast for a set amount of time. The Holy Scriptures, known as Upanishads, strongly oppose suicide and warn that those who commit it will enter impenetrable darkness after they pass away. The Vedas, however, allow suicide for religious reasons and believe that giving one's own life is the greatest sacrifice. It was believed that committing suicide by starving, also

known as "sallekhana," would lead one to "moksha."[101]

On the contrary, marital status has been seen to be significantly associated with suicide attempts in depression across multiple studies, also that married patients are less likely to be diagnosed with depression than single patients. Study conducted by R. Ponnudurai in Madras city found that single persons were more prone for suicide as compared to married person, which may be due to less emotional support and lesser connectedness and belongingness.[102] The protective role of marriage in reducing risk of suicide attempt in depression may be attributed to their positive effects on the overall social support of the patient. In the study conducted by A.S. Shrivastava it was found that the married women are more likely to attempt suicide. As per them the stress related to interpersonal issues, low emotional support might be the contributing factor for suicide attempts in married women.[96] In another study conducted in Ludhiana by R. L. Narang it was found that married women and single men were more prone to commit suicide.[95] Lal and Seth also found the similar findings in their study.

Asian countries have a greater ratio of female suicides than European and American countries, which may be partially explained by cultural attitudes toward the role of women in marriage. Another study conducted by Gururaj et al., saw that the social and familial pressure on a woman to stay married even in violent situations appears to be one of the variables that raises the risk of suicide among women in societies where arranged marriages are frequent. [100]

In the index study, a higher proportion of patients diagnosed with depression with lower monthly family income were more prone for attempting suicide. In the earlier studies, depression has been found to be more common in patients with poor financial situation and unemployment. This association may be explained by the limited treatment opportunities available to people with lower income and overall poorer quality of life due to poor financial situation. The predicament of the poor is higher in developing countries like India as the out-of-pocket expenditure for health care is high and health insurance coverage is minimal.

In a study on farmer's suicide in the Vidarbha region, Behere and Behere employed the psychological autopsy method to understand the phenomenon. They

identified the following reasons which may be responsible for farmer's suicide (1) chronic indebtedness and inability to pay debts accumulated over the years (2) economic decline that leads to complications, family disputes, depression, alcoholism, etc. (3) compensation following suicide helps the family repay debts (4) grain drain and (5) rising costs of agricultural inputs and falling prices of agricultural produce.[103]

Clinical variables and Suicide

Index study examined the association of various clinical variables as predictors of suicide in patients diagnosed with depression. Family history of mental illness, patient's diagnosis, side effects due to medications, duration of treatment in months, number of suicide attempts are variables significantly associated with suicide attempts in depression.

Diagnosis of depression as per the Eleventh revision of International Classification of Diseases and Related health problems (ICD-11) criteria was found to have a significant association with the suicide attempt in patient diagnosed with depression. Patients who were presented with recurrent depressive disorder were likely to have more suicidal attempts, as compared to those with single episode of depression, which is in line with the clinical history of the participants in the study. In a study conducted by Caroline BB et al., it was found that number of suicides was higher in proportion in RDD as compared to single episode depression. A higher degree of suicidal ideation was associated with increased severity of depressive symptom over time.[104] Similarly in this study there significant association was found between the duration of treatment seeking with suicide attempt. It was found that patients with longer duration of treatment had more prevalence of suicide attempts.

It was found that suicide attempts were more in the recurrent depressive disorder as compared to single depressive disorder. This might be due to long duration of illness and because of recurrent depressive episodes patient might feel helpless and hopeless that leads to suicidal ideation in patient. That increased risk of suicide attempts in patients. In a study conducted by Bulik et al., on logistic regression it was found that recurrent depressive disorder was a strong predictor of suicide

attempt as compared to single episode depression. Which might be due to the fact that self-harm attempt or ideation in previous depressive episode can increase the risk of suicide attempt in current episode.[114]

The current study also found a significant association between family history of mental illness i.e., patients with positive family history of mental illness were less likely to have suicide attempts which is contradictory with the previous studies conducted to evaluate the role of family history of mental illness as a predictor for suicide in the patient. On the contrary in other studies, it is seen that suicide attempts were more in the patients having positive history of psychiatric illness in family members. This might be due to predominant sample in this study i.e., 80.6% did not have any history of mental illness in their family members. However, a study conducted by Trivedi et al., evaluating the association of family history of depression with depression in patients, found a positive family history of depression was associated with earlier age of onset, a longer duration of illness, higher risk of co-morbid psychiatric illness and prior suicide attempt. A study conducted by Ping Qin, reported that completed suicide and psychiatric problems in family members are risk factors for suicide in the patient, and the impact of a family's history of suicide is irrespective of any familial cluster of mental diseases. Thus, while assessing the risk of suicide, family history of suicide should also be considered. [101]

In current study no significant association was found between the family history of suicide attempt with the suicide attempt in patient with depression. It might be due to increased awareness in the family members regarding mental illness, timely help seeking and medical interventions reduces the incidence of suicide attempt. These findings contradict with the previous studies conducted to evaluate the role of family history of suicide as a predictor for suicide in the patient. However, it was seen that in few studies patients who have suicides in their family were more prone to suicide as compared to who didn't have family history of suicide.

In index study no significant association was found between suicide attempts and faith healing practices in patient with depression. In the current study the connect with religious and cultural practices were also assessed on basis of religion of the patient. In a study conducted by Brandon Johnson et al., reported that faith healers'

groups are the perfect place to talk about suicide, encourage help seeking, and organize caring volunteers to help individuals who are in need, in order to strengthen the capability and start the dialogue about suicide prevention in communities of religion. All congregations, churches, mosques, synagogues, temples, and other places of worship are encouraged by these initiatives to pray for those people whose lives have been affected by suicide. This straightforward act of prayer builds hope, a sense of connection, and communicates a supportive community ready to offer both spiritual and practical help, whether it be for a parishioner or congregant who is dealing with suicidal thoughts, a suicide attempt, or suicide loss. Shohib et al., reported that as faith healing is directly related to spirituality it may help in decreasing the suicide attempts in the people struggling with mental illness and believer of faith healing.[105]

Psychosocial Factors and suicide

The index study evaluates many psychosocial factors for prevention of suicide in patient diagnosed as moderate to severe depression. Various psychosocial variables include psychological flexibility, social connectedness, emotional regulation, resilience, satisfaction with life, meaning in life and religiosity. Among these psychosocial variables apart from resilience, it was found to have significant association with the suicide attempt in depression.

Social Connectedness and Suicide

Social connectedness was found to have a significant association with suicide attempt as patients with high social connectedness show lesser suicide ideation and attempt. However post hoc analysis revealed that participants in depression group have more social connectedness as compared to suicide ideation and suicide attempt group. In index study no significant difference was found between suicide ideation and suicide attempt group.

Connectedness is a condition of belonging in which people feel appreciated, trusted, and respected by other people and communities (such as peers, families, schools, or social clubs). Numerous positive consequences of connection include enhancing social connections, psychological well-being, prosocial conduct, effective coping mechanisms, and minimizing distress-causing behaviors. Contrarily, having strong human ties (i.e., interacting with others) can be protective

against suicide and promote survivability. Social isolation can raise the risk of suicide. Reaching out to lonely and isolated people and providing them with help and a listening ear could be a big effort to save the valuable lives. At the individual, familial, institutional, societal, national, and global levels, fostering positive (i.e., health-promoting, protective) connectivity is crucial for preventing suicide and fostering resilience. In the present study higher mean score of the SCSR was seen in the depression group and suicide ideation group. This finding suggests that social connectedness might be a protective factor against suicide in patient with depression. However, we couldn't find any study from India regarding association of suicide with the social connectedness.

A study conducted by John F. et al., conclude that youth who had higher parental connectivity and social integration ratings were less likely to have suicide thoughts. Increase in perceived school connectivity ratings shielded young people who had expressed suicidal thoughts from making an attempt.

Resilience and Suicide

The study also examined the possible association of resilience with the suicide attempt in the depression. Resilience did not have a significant association with suicide in depression. The results of the index study lie in line with the predictive role of resilience in suicide attempt group. That indicates patient without suicide ideation and suicide attempt are more resilient than patient having suicide ideation and suicide attempt. In a study conducted by Ram et al., conclude that cognitive resilience is the ability to withstand the damaging effects of setbacks and the stress they cause on cognitive performance or function. Participants who have higher scores on cognitive resilience scale i.e., individual having higher resilience are less prone to suicide attempt.[106] Hence, it was conclude that resilience is a protective factor for suicide attempt. It is comparable to the study conducted by Rosetti et al., in which it was found that resilience was higher in the non-suicidal group. In the study it was conclude that the various patterns of between-group correlations encompassed two resilience dimensions: social resources and family cohesion. Stress, adversity, shame, and sadness may be particularly detrimental to social resources and family cohesion in suicidal patients; conversely, a lack of social

resources and family cohesion may make people more susceptible to suicide intentions.[55,53,55,56,57]

Psychological Flexibility and Suicide

In the index study it was found that psychological flexibility was significantly associated with suicide attempts in depression. The mean score of AAQ II (29.95±8.91) was higher in the suicide attempt group as compared to the suicide ideation and depression group. Hence, Psychological Inflexibility is a risk factor for suicide. Post hoc analysis revealed that there was significantly higher score of AAQII in depression with suicide ideation group and suicide attempt group as compared to depression group. Similar to index study, study conducted by Debeer et al., also found that the AAQ score was on higher side in the suicide attempt group, these findings showed that, after taking into account known risk variables, psychological rigidity predicted the intensity of suicidal thoughts at both the baseline and at one-year follow-up. There are many risk factors for suicide among veterans, including suicidal ideation, history of a previous suicide attempt, mental health issues like depression, psychosocial issues, low resilience, low social support, hopelessness, childhood physical or sexual abuse, chronic pain, and physical injury. Psychological rigidity is a significant predictor of the likelihood of having suicidal thoughts and may be the focus of interventions aimed at preventing suicide.[107]

Psychological rigidity is the predominance of avoidance-based psychological reactions to unpleasant internal experiences, such as emotions, thoughts, and physical sensations, as opposed to the role of values in determining behavioral choices. Experiential avoidance, which happens when a person is unwilling or unable to remain in contact with unwanted internal experiences and takes steps to avoid, escape from, or alter the experience, is a closely related but more specific concept that is included in the broader category of psychological inflexibility.

In another study conducted by Thomas E. Ellis et al.,2018 showed that mean of AAQ score in the suicide attempt group was 14.54 + 8.62 which were comparable to the index study 29.95 +8.91. The comparatively higher scores of psychological

inflexibility in the current study could be explained by socio-demographic and socio-cultural differences between the participants of the two studies. In that study it was found that experiential avoidance upon admission was the same for respondents and non-responders. However, at discharge, indicated a substantial difference, with responders scoring significantly lower on the AAQ-II compared to non-responders. These findings imply that a) experiential avoidance may play a significant role in the development of suicidal ideation, and b) focusing on experiential avoidance in suicidal people (in an effort to increase psychological flexibility) may help to reduce suicidal ideation and the risk of suicide that goes along with it, without affecting depression or hopelessness levels.[47] Similar findings were echoed in multiple studies in literature.[45,49] However there is scarcity in the Indian literature.

Emotional Regulation and Suicide

The study also examined the possible association of emotional regulation with the suicide attempt in the depression. Emotional regulation did not find a significant association with suicide in depression. But, findings of index study indicate that patients in depression group have better emotional regulation than patient having suicide ideation and suicide attempt. In the index study it was found that the mean score of the ERQ in depression with suicide ideation group was 40.07±10.94 which is lesser as compared to other two groups. Similar to this, a study conducted by the Nagashree Vasudev et al., in the Bangalore, to determine the emotional reappraisal score (ERS) and emotional suppression score (ESS), sums of all the reappraisal and suppression items were independently calculated. It was found that mean score of reappraisal was 3.63±4.43 and emotional suppression score was 4.43±1.33. Study conclude that the greater mean suppression score compared to mean reappraisal score indicates that a person's capacity to handle stressful situations is impaired and that suicidality may be more likely as a result of an increase in emotional suppression and a decrease in cognitive reappraisal.[104] The mean score was higher in the index study for emotional reappraisal and emotional suppression i.e., 23.20 ± 6.65 and 16.7± 6.33 respectively. The comparatively higher scores of emotional suppression and emotional reappraisal in the current study may be explained by socio-demographic and socio-cultural differences

between the participants of the two studies. In our study the emotional reappraisal score was low as compared to other 2 group but it was higher than the emotional suppression scores. That might be due to the cultural difference, as this population might be more emotionally expressive than the population in other study. So, patients having poor emotional regulation are more prone to attempt suicide.

Similar to present study, the study conducted by Kharsati et al., observed that those who have self-harm have trouble in controlling their emotions. Additionally, people who have self-injured might not be as adept at managing their emotions and might resort to unhelpful behaviours like self-injury when their adaptive coping mechanisms become ineffective. The current results help us understand these processes better because they show that self-injuring youth have significantly higher levels of non-acceptance of emotions, difficulty focusing on goals, problems with impulse control, lack of emotional awareness, limited access to emotion regulation techniques, and hazy emotional states. The current findings highlight the specific role that impulsivity plays in elevating the risk for self-injuring behaviours, which has been specifically identified as an important construct in SIBs according to theoretical proposals. Hence, good emotional regulation can decrease the emotional impulsivity and ultimately decreased the self-injurious behaviour leading to the decrease in probability of suicide attempt. So emotional regulation is a very important protective factor for suicidal ideations in patient with depression.[109]

Satisfaction with life and suicide

Satisfaction with life was found to have strong significant association in the group having suicidal behaviour with depression. It was found that the people who are satisfied in their life have lesser suicidal ideation and they were less likely commit suicide. However post hoc analysis revealed that satisfaction with life score has significant difference in between all three groups. Hence, satisfaction of life was higher in depression group when compared to suicide ideation and suicide attempt group. It was found that participants in suicide ideation group were more satisfied when compared to suicide attempt group.

In a 20 year follow up study conducted by Heli Koivumaa et al., it was found that throughout the 20-year follow-up period, the age-adjusted risk of suicide was considerably higher among the unsatisfied (life satisfaction score=12–20) than the satisfied (score=4-6) participants measured on the 10 item Life satisfaction scale.[106] Scoring of Life satisfaction scale which was used in this study positively correlated with suicidal behaviour. Similarly, in our study satisfaction was assessed by satisfaction with life scale and score of the SWLS was seen to be negatively correlated with suicidal ideations. In current study SWLS score for suicide attempt group was approximately 11 which is less as compared to 14 in suicide ideation group and 28 in depression group. Hence, it can be concluded that satisfaction with life reduces the risk of suicide ideation and attempt. In current study on logistic regression, it was found to be a strong predictor of suicide in depression.

In another study conducted by Chery Roy et al., conducted with the purpose to investigate how depression, life satisfaction, and social interest are related. It was found that the higher the score on the SWLS i.e., higher satisfaction with life is associated with less depressive symptoms and good social interest. Hence, it indicates satisfaction with life as a protective factor for suicide attempt in depression.

A study conducted by Saurabh Raj et al., saw the effects of mindfulness based cognitive behavioural techniques on the life satisfaction and the life orientation and further with depression and suicidal ideation. Baseline depression and life satisfaction score were assessed. After which for 8 weeks CBT sessions were provided to participants followed by assessment of same measures. It was found that there was significant improvement in life satisfaction score as well as reduction in depressive symptoms and suicidal ideation.[77]

A study conducted by Andres Rubio et al., investigated the relationship between affective states (both positive and negative) and suicide thought and attempt, given that affectivity serves as the fundamental foundation for how people assess their level of life satisfaction. It was found that people who are satisfied in the life are more passionate and less prone to suicide attempt[111]

Meaning in Life and Suicide

Meaning in life is an important variable which has been found to have significant association with the suicidal behaviour in depression. In current study the mean values of the meaning in life in suicide attempt group is 38.55± 7.68 which is less as compared to people with depression only i.e., 49.381± 12.00. Post hoc analysis revealed that higher meaning in life was seen in depression group compared to depression with suicide ideation and suicidal attempt group. It concludes that the individuals who have higher meaning for life are less likely to attempt suicide. A study conducted in London by Hesel et al., assessed the association of suicidal ideations with reason of life and meaning in life. Multiple regression was done and it was found that after adjusting for demographic and detrimental psychological characteristics, RFL and MIL were both significantly negatively linked with suicidal ideation. Our findings also showed that MIL strongly moderated the relationship between RFL and suicidal ideation, pointing to a critical role 'meaning recognition' plays in fostering the understanding of reason to live and also lowers the risk of suicidal thoughts in later life.[69]

In a study conducted by Dogra et al., it was found that future expectations, coping beliefs about reasons to live, and the presence of meaning in life act as common factors for both hope and suicidal ideation. Furthermore, meaning in life influences hope and suicidal ideation more than other factors combined. Hence, meaning in life of an individual enhances hope and happiness in an individual and they were better able to cope up with difficulties in life. Hence, meaning of life is also protective factor in case of suicide in depression.[112]

Another study conducted by the Lew et al., compared the search of meaning and presence of meaning in life among students having depression, suicide ideation and suicide attempt. Study reported that meaning in life, including both having it and seeking it out, can be effective preventative measures against suicidal thoughts and actions.[32]

Religiosity and Suicide

Religiosity has also been found to have a significant association with suicide attempt in depression in the present study. The mean value of religiosity in the suicidal attempt group is 2.88±0.927 which is less than the other two groups. In the index study it was found that there was significant difference in religious belief in patient without suicidal ideation and suicide attempt as compared to patient with suicide ideation. Post hoc analysis revealed that the higher score on CRS outcome were found in depression group as compared to depression with suicide ideation group. No significant difference was found between suicidal ideation and suicide attempt group. It was found that those who had suicidal ideation and suicide attempt were less religious.

Similar to current study, study conducted by Dua et al., assessed the role of religiosity and religious coping between two groups i.e., patient having only depression and other group having suicidal ideation along with depression. Both the suicidal ideation group and the suicidal attempt group demonstrated significantly reduced religiosity in certain of the CRS dimensions when compared to healthy controls. Both the suicidal ideation group and the suicidal attempt group demonstrated significantly reduced religiosity in certain of the CRS dimensions when compared to healthy controls. Hence, religious convictions and spirituality are regarded to have an impact on suicidal conduct on a sociocultural level. Both of these are well-known to have a significant impact on whether suicide is seen favourably by society or as a sin across cultural boundaries. [79]

Predictors of Suicide

In the current study psychological inflexibility was found to be a strong predictor of suicide attempt in patients with depression. Hence, increase in psychological inflexibility will increase the risk of suicide attempt in patient suffering from depression. This, might be because of less acceptance and increased avoidance. Similar to the index study in a study conducted by Debeer et al., it was found that psychological inflexibility an important longitudinal predictor of the intensity of suicidal thoughts at both the baseline evaluation and the 12-month follow-up.

These results' showing likelihood of attempting suicide with being Inflexibility in one's thinking is a sign that one is trying to avoid suffering from it.[107]

In the current study, it was also found that life satisfaction is a strong predictor of suicide in the patient having depression. Similar to current study in a study conducted by Thatcher et al., it was found that individuals having less satisfaction with life had higher risk for suicide attempt. So, study concluded that less satisfaction with life leads to higher risk of suicide attempt.[113]

Thus, Psychological inflexibility, Satisfaction with life are strong predictors of suicide attempt in patients diagnosed with depression.

Strengths Of The Study

- The present study is one of the few Indian studies that examined the association of psychosocial factors as protective factors against the suicidal behavior among patients with depression.
- This is a single study which highlights multiple psychosocial factors and their association with the suicide behavior in the depression as protective factors.
- Columbia-Suicide Severity Rating Scale (CSSRS) was applied to the patients diagnosed with depression to assess the suicide behavior of patients.

Limitations Of The Study

- Relatively small sample size of depression without suicidal ideation and attempt group.
- Apart from depression, the personality related factors for suicide attempt were not assessed.
- Sample being homogenous as the majority of participants belonged to one region of the country so the generalizability of results in other settings is an issue due to cultural effects and different clinical profile in the different societies.

Implications and Future directions

Given the high prevalence of suicide attempt in patients with depression, screening for suicidal behaviour in all patients with depression should be considered. Hence, priority should be given to patients with older age, single/divorced, urban residence, poor social support and maladaptive coping skills, as they are more likely to suffer from depression and vulnerable for suicide attempt so the protective factors assessed in the study can be focussed in the psychosocial interventions. Given the nature of protective factors reported in the study such as psychological flexibility, social connectedness, and meaning in life, this can be inculcated at an early age in children and adolescents so that these positive characteristics can prevent them from depression and associated suicide. Future research can be focused on confirming the above findings with large scale studies and increased sample size. There is need to study the possible role of personality traits, coping skills, the family dynamics with the prospective studies evaluating role of psychosocial factors for suicide in depression.

CONCLUSION

This study has reconfirmed and furthered the known socio-demographic and clinical predictors of suicide in depression. The study holds the strength of being the pioneer in evaluating psychosocial variables as the protective factors against suicide in depression in the Indian population. It considered the role of psychological flexibility, social connectedness, meaning in life, satisfaction with life and religiosity as a protective factor for suicide in depression which very few studies have assessed in the past.

Study results suggest that lesser level of social connectedness leads to increased risk of suicide in depression. Hence social connectedness is protective against the suicide in depression. Participants with psychological flexibility, who are satisfied with their life and find meaning in life, are at lower risk for attempting suicide. Patients who believe in God and have connections or involvement in religious activities have less vulnerability to suicide. Hence, it can be concluded that psychological flexibility, social connectedness, satisfaction with life, meaning in life along with religiosity are possibly protective against suicide ideation and suicide attempt in depression. So, emphasis must be laid on enquiring and imparting knowledge to enhance these psychosocial factors in case of depressive disorder to decrease the risk of suicide.

The study also found associations of other variables like sex, locality, occupation, family history of psychiatric illness, diagnosis and side effects of medications which need to be further studied by conducting more large-scale prospective studies to improve literature on suicide in depression.

Lastly to conclude, the above variables can be used in day-to-day clinical practice to evaluate patients having depression with suicidal behaviour, which would ensure a more comprehensive assessment regarding the suicidal behaviour and other psychosocial factors. It can instil hope in patients who have these constructs and their thorough assessment will enable us to work proactively to build those protective factors to prevent them from attempting suicide.

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ETHICAL CLEARANCE CERTIFICATE

अखिल भारतीय आयुर्विज्ञान संस्थान, जोधपुर
All India Institute of Medical Sciences, Jodhpur
संस्थागत नैतिकता समिति
Institutional Ethics Committee

No. AIIMS/IEC/2021/3553 Date: 12/03/2021

ETHICAL CLEARANCE CERTIFICATE

Certificate Reference Number: **AIIMS/IEC/2021/3388**

Project title: **"Role of protective factors against suicidal behaviour among patients with depression: A cross sectional study"**

Nature of Project:	**Research Project Submitted for Expedited Review**
Submitted as:	**M.D. Dissertation**
Student Name:	**Dr. Dhanashri Surendra Gohad**
Guide:	**Dr. Naresh Nebhinani**
Co-Guide:	**Dr. Tanu Gupta & Dr. Mukesh Kumar Swami**

Institutional Ethics Committee after thorough consideration accorded its approval on above project.

The investigator may therefore commence the research from the date of this certificate, using the reference number indicated above.

Please note that the AIIMS IEC must be informed immediately of:

- Any material change in the conditions or undertakings mentioned in the document.
- Any material breaches of ethical undertakings or events that impact upon the ethical conduct of the research.

The Principal Investigator must report to the AIIMS IEC in the prescribed format, where applicable, bi-annually, and at the end of the project, in respect of ethical compliance.

AIIMS IEC retains the right to withdraw or amend this if:

- Any unethical principle or practices are revealed or suspected
- Relevant information has been withheld or misrepresented

AIIMS IEC shall have an access to any information or data at any time during the course or after completion of the project.

Please Note that this approval will be rectified whenever it is possible to hold a meeting in person of the Institutional Ethics Committee. It is possible that the PI may be asked to give more clarifications or the Institutional Ethics Committee may withhold the project. The Institutional Ethics Committee is adopting this procedure due to COVID-19 (Corona Virus) situation.

If the Institutional Ethics Committee does not get back to you, this means your project has been cleared by the IEC.

On behalf of Ethics Committee, I wish you success in your research.

Dr. Praveen Sharma
Member Secretary

Member secretary
Institutional Ethics Committee
AIIMS,Jodhpur

APPENDIX-1

PATIENT INFORMATION SHEET

Title of the study: Role of protective factors against suicidal behaviour among patients with depression – A cross sectional study.

Name of the patient: **Patient ID.:**

1. **Aim of the study:** To assess various **socio-demographic** (Name, age, gender, religion, marital status, educational status and employment status, socioeconomic status), **clinical** (Age of onset of depression, duration of illness and actual time spent with illness, number of depressive episodes, family history of psychiatric illness and severity of illness depressive cognition (ideas of worthlessness, hopelessness, helplessness) suicidal ideation and attempt. Current or lifetime), **psychological** (Psychological flexibility, Resilience, Social Connectedness, Emotional Regulation, Satisfaction with Life, Meaning in Life, Religiosity and Spirituality).
2. **Study site:** Out-patient and In-patient setting of Department of Psychiatry, All India Institute of Medical Sciences, Jodhpur, Rajasthan.
3. **Study procedure:** All the above mentioned variables will be assessed by self-report from the patients after establishing the diagnosis through clinical interview. Patients fulfilling the inclusion criteria will be assessed on various self-report measures to assess different psychological attributes.
4. **Likely benefit:** Study will help identifying the role of various positive psychological attributes in suicidal behavior among patients with Depression. It will help us to understand the factors that act against suicidal behavior.
5. **Confidentiality:** All the data collected from each study participant will be kept highly confidential.
6. **Risk:** Enrollment in above study poses no substantial risk to any of the study participant and if any point of time participant wants to withdraw him / herself, he/ she can do so voluntarily at any point of time during the study.

For further information or questions, the following personnel can be contacted: Dr. Dhanashri Gohad, Junior Resident, Department of Psychiatry, All India Institute of Medical Sciences, Jodhpur, Rajasthan. Phone Number: 9405909333

APPENDIX-2

Informed Consent Form

Title of Thesis/Dissertation: Role of protective factors against suicidal behaviour among patients with depression – A cross sectional study.

Name of PG Student: Dr. Dhanashri Gohad Tel. No.: 9405909333

Patient/ Volunteer Identification No. : _____

I, _____ S/o or D/o _____

R/o_____

give my full, free, voluntary consent to be a part of the study "ROLE OF PROTECTIVE FACTORS AGAINST SUICIDAL BEHAVIOUR AMONG PATIENTS WITH DEPRESSION – A CROSS SECTIONAL STUDY", the procedure and nature of which has been explained to me in my own language to my full satisfaction. I confirm that I have had the opportunity to ask questions.

I understand that my participation is voluntary and is aware of my right to opt out of the study at any time without giving any reason.

I understand that the information collected about me and any of my medical records may be looked at by responsible individual from All India Institute of Medical Sciences, Jodhpur. I give permission for these individuals to have access to my records.

Date: _____ _____

Place: _____ Signature/Left thumb impression

This to certify that the above consent has been obtained in my presence

Date: _____ _____

Place: _____ Signature of PG Student

1. Witness 1

_____
Signature
Name: _____
Address: _____

_____

2. Witness 2

_____
Signature
Name: _____
Address: _____

_____

APPENDIX 3
Patient information sheet (Hindi)

थीसिस / शोध प्रबंध का शीर्षक: प्रोटेक्टिव फैक्टर्स का डिप्रेशन के मरीजों में आत्मक्षति के व्यव्यहार में योगदान

रोगी सूचना पत्र

रोगी का नाम:

रोगी आईडी:

1. अध्ययन का उद्देश्य: विभिन्न सामाजिक-जनसांख्यिकीय (नाम, आयु, लिंग, धर्म, वैवाहिक स्थिति, शैक्षिक स्थिति और रोजगार की स्थिति, सामाजिक आर्थिक स्थिति) का आकलन करने के लिए, नैदानिक (अवसाद की शुरुआत, बीमारी की अवधि और वास्तविक समय की अवधि) बीमारी के साथ, अवसादग्रस्त एपिसोड की संख्या, मनोरोग का पारिवारिक इतिहास और बीमारी की गंभीरता अवसादग्रस्तता अनुभूति (व्यर्थता, निराशा, असहायता के विचार) आत्मघाती विचार और प्रयास। वर्तमान / जीवनकाल, मनोवैज्ञानिक (मनोवैज्ञानिक लचीलापन, सामाजिक समानता, भावनात्मक विनियमन, लचीलापन, जीवन से संतुष्टि, जीवन में अर्थ, धार्मिकता),
2. अध्ययन स्थल: मनोरोग विभाग, अखिल भारतीय आयुर्विज्ञान संस्थान, जोधपुर, राजस्थान की रोगी सेवाएं।
3. अध्ययन प्रक्रिया: नैदानिक साक्षात्कार के माध्यम से निदान की स्थापना के बाद उपर्युक्त सभी चर स्वयं-रिपोर्ट द्वारा मूल्यांकन किए जाएंगे। समावेश मानदंड को पूरा करने वाले मरीजों को विभिन्न मनोवैज्ञानिक विशेषताओं का आकलन करने के लिए विभिन्न स्व-रिपोर्ट उपायों पर मूल्यांकन किया जाएगा।
5. संभावित लाभ: अध्ययन अवसाद के रोगियों के बीच आत्मघाती व्यवहार में विभिन्न सकारात्मक मनोवैज्ञानिक विशेषताओं की भूमिका की पहचान करने में मदद करेगा। यह हमें उन कारकों को समझने में मदद करेगा जो आत्मघाती व्यवहार के खिलाफ काम करते हैं।
6. गोपनीयता: प्रत्येक अध्ययन प्रतिभागी से एकत्र किए गए सभी डेटा को अत्यधिक गोपनीय रखा जाएगा।
7. जोखिम: उपरोक्त अध्ययन में नामांकन से अध्ययन के किसी भी प्रतिभागी को कोई भारी जोखिम नहीं होता है और यदि कोई भी प्रतिभागी उसे वापस लेना चाहता है, तो वह अध्ययन के दौरान किसी भी समय स्वेच्छा से ऐसा कर सकता है।

अधिक जानकारी / प्रश्नों के लिए, निम्नलिखित कर्मियों से संपर्क किया जा सकता है: डॉ धनश्री गोहाड़ , जूनियर रेजिडेंट, मनोरोग विभाग, अखिल भारतीय आयुर्विज्ञान संस्थान, जोधपुर, राजस्थान। Ph: 9405909333

APPENDIX 4
Informed consent form (Hindi)

सूचित सहमति पत्र

थीसिस / शोध प्रबंध का शीर्षक**:** प्रोटेक्टिव फैक्टर्स का डिप्रेशन के मरीजों में आत्मक्षति के व्यव्यहार में योगदान

पीजी छात्र का नाम: डॉ। धनश्री गोहाड़ तेल। नं .: **9405909333**

रोगी / स्वयंसेवक पहचान संख्या: _____

I, _____ S / o या D / o _____

R/o _____ अध्ययन का एक हिस्सा बनने के लिए मेरी पूर्ण, मुक्त, स्वैच्छिक सहमति दें,

शोध प्रबंध का शीर्षक : प्रोटेक्टिव फैक्टर्स का डिप्रेशन के मरीजों में आत्मक्षति के व्यव्यहार में योगदान

इस शोध की पूरी प्रक्रिया के बारे में मुझे मेरी भाषा में समझाया गया है । मैं पुष्टि करता हूं कि मुझे सवाल पूछने का अवसर मिला है।

मैं समझता हूं कि मेरी भागीदारी स्वैच्छिक है और बिना किसी कारण के किसी भी समय अध्ययन से बाहर निकलने के मेरे अधिकार से अवगत हूं।

मैं समझता हूं कि मेरे और मेरे किसी भी मेडिकल रिकॉर्ड के बारे में एकत्रित जानकारी को अखिल भारतीय आयुर्विज्ञान संस्थान, जोधपुर के जिम्मेदार व्यक्ति द्वारा देखा जा सकता है। मैं इन व्यक्तियों को अपने रिकॉर्ड तक पहुंचने की अनुमति देता हूं।

दिनांक : _____

जगह: _____ हस्ताक्षर / बाएं अंगूठे का निशान

यह प्रमाणित करने के लिए कि मेरी उपस्थिति में उपरोक्त सहमति प्राप्त की गई है।

दिनांक : _____

स्थान: _____ पीजी छात्र के हस्ताक्षर

1. साक्षी
हस्ताक्षर:
नाम :
पता :

2. साक्षी
हस्ताक्षर :
नाम:
पता :

APPENDIX 5

All India Institute of Medical Sciences

Jodhpur, Rajasthan

Declaration by the PG Student

I hereby declare that:

1. The study will be done as per ICMR/ GCP guidelines.
2. The study has not been initiated and shall be initiated only after ethical clearance
3. Voluntary written consent of the volunteers/patients will be obtained.
4. In case of children and mentally handicapped volunteers/patients, voluntary written informed consent of the parents/guardians will be obtained.
5. The probable risks involved in the study will be explained in full to the subjects/parents/guardians in their own language.
6. Volunteers/patients/parents/guardians will be at liberty to opt out of the study at any time without assigning reason.
7. I will terminate the study at any stage, if I have probable cause to believe, in the exercise of the good faith, skill and careful judgement required for me that continuation of the study/experiment is likely to result in injury/disability/death to the volunteers/subject.

Date: _____ (Signature of PG Student)

Department _____

(Signature of Guide/Supervisor/s)

Department _____

Appendix 6

DEMOGRAPHIC DATA

OPD No…… Age…. Years Sex-M/F

Education years…….

Marital status: 0) single 1) married

Occupation: 0) professional 1) clerical, shop owner/farm 3) skill worker 4) semi-skilled / unskilled worker 5) unemployed 6) house wife/house hold 7) retired 8) student 9) not known

Family Income (Monthly per capita): …….. (INR)

Religion: 0) Hindu 1) Muslim 2) Sikh 3) Christian 4) others 5) not known

Family type: 0) nuclear 1) extended 2) joint 3) others 4) not known

Locality: 0) urban 1) rural 2) town/suburban

APPENDIX 7

CLINICAL HISTORY SHEET

Patient id: **Name of patient:**

Psychiatric diagnosis:

Physical diagnosis: **Age of onset of illness :……(years)**

Duration of illness :…….(months) **No. of depressive episodes:**

Duration of total period spent in episodes/ exacerbations :……..(months)

Duration of treatment (medication) taken (months):

Current medications

H/o Psychological interventions: yes/no

Experience of side-effects with medications: yes/no (If yes, please also provide details)

Engagement in faith healing: yes/no if yes, specify:

Death wishes: Present/Absent (Current episode/ Lifetime)
Suicidal ideas: Present/Absent (Current episode/ Lifetime)
Suicidal plans: Present/absent (Current episode/ Lifetime)
Suicidal attempts: Present/absent (Current episode/ Lifetime)
If present, add details for measures of self-harm, number of attempts and last attempt:

Family history of any psychiatric disorders: Yes/ No

If yes, Specify diagnosis:

Family history of suicide/ suicidal attempt: Yes / No

APPENDIX 8

(HAMILTON DEPRESSION RATING SCALE HAM-D)

1. DEPRESSED MOOD
(Gloomy attitude, pessimism about the future, feeling of sadness, tendency to weep)
0 = Absent
1 = Sadness, etc.
2 = Occasional weeping
3 = Frequent weeping
4 = Extreme symptoms

2. FEELINGS OF GUILT
0 = Absent
1 = Self-reproach, feels he/she has let people down
2 = Ideas of guilt
3 = Present illness is a punishment; delusions of guilt
4 = Hallucinations of guilt

3. SUICIDE
0 = Absent
1 = Feels life is not worth living
2 = Wishes he/she were dead
3 = Suicidal ideas or gestures
4 = Attempts at suicide

4. INSOMNIA - Initial
(Difficulty in falling asleep)
0 = Absent
1 = Occasional
2 = Frequent

5. INSOMNIA - Middle
(Complains of being restless and disturbed during the night. Waking during the night.)
0 = Absent
1 = Occasional
2 = Frequent

6. INSOMNIA - Delayed
(Waking in early hours of the morning and
unable to fall asleep again)
0 = Absent
1 = Occasional
2 = Frequent

7. WORK AND INTERESTS

0 = No difficulty
1 = Feelings of incapacity, listlessness, indecision and vacillation
2 = Loss of interest in hobbies, decreased social activities
3 = Productivity decreased
4 = Unable to work. Stopped working because of present illness only. (Absence from work after treatment or recovery may rate a lower score).

8. RETARDATION
(Slowness of thought, speech, and activity;
apathy; stupor.)
0 = Absent
1 = Slight retardation at interview
2 = Obvious retardation at interview
3 = Interview difficult
4 = Complete stupor

9. AGITATION
(Restlessness associated with anxiety.)
0 = Absent
1 = Occasional
2 = Frequent

10. ANXIETY - PSYCHIC
0 = No difficulty
1 = Tension and irritability
2 = Worrying about minor matters
3 = Apprehensive attitude
4 = Fear

11. ANXIETY - SOMATIC
Gastrointestinal, indigestion
Cardiovascular, palpitation, Headaches
Respiratory, Genito-urinary, etc.
0 = Absent

1 = Mild
2 = Moderate
3 = Severe
4 = Incapacitating

12. SOMATIC SYMPTOMS - GASTROINTESTINAL
(Loss of appetite , heavy feeling in abdomen; constipation)
0 = Absent
1 = Mild
2 = Severe

13. SOMATIC SYMPTOMS - GENERAL
(Heaviness in limbs, back or head; diffuse backache; loss of energy and fatigability)
0 = Absent
1 = Mild
2 = Severe

14. GENITAL SYMPTOMS
(Loss of libido, menstrual disturbances)
0 = Absent
1 = Mild
2 = Severe

15. HYPOCHONDRIASIS
0 = Not present
1 = Self-absorption (bodily)
2 = Preoccupation with health
3 = Querulous attitude
4 = Hypochondriacal delusions

16. WEIGHT LOSS
0 = No weight loss
1 = Slight
2 = Obvious or severe

17. INSIGHT
(Insight must be interpreted in terms of patient's understanding and background.)

0 = No loss
1 = Partial or doubtfull loss
2 = Loss of insight

18. DIURNAL VARIATION
(Symptoms worse in morning or evening.
Note which it is.)
0 = No variation
1 = Mild variation; AM ( ) PM ( )
2 = Severe variation; AM ( ) PM ( )

19. DEPERSONALIZATION AND DEREALIZATION
(feelings of unreality, nihilistic ideas)
0 = Absent
1 = Mild
2 = Moderate
3 = Severe
4 = Incapacitating

20. PARANOID SYMPTOMS
(Not with a depressive quality)
0 = None
1 = Suspicious
2 = Ideas of reference
3 = Delusions of reference and persecution
4 = Hallucinations, persecutory

21. OBSESSIONAL SYMPTOMS
(Obsessive thoughts and compulsions against which the patient struggles)
0 = Absent
1 = Mild
2 = Severe

TOTAL ITEMS 1 TO 17: _____
0 - 7 = Normal
8 - 13 = Mild Depression
14-18 = Moderate Depression
19 - 22 = Severe Depression
> 23 = Very Severe Depression

APPENDIX – 9

COLUMBIA-SUICIDE SEVERITY RATING SCALE (CSSRS)

SUICIDAL IDEATION

Ask questions 1 and 2. If both are negative, proceed to "Suicidal Behavior" section. If the answer to question 2 is "yes," ask questions 3, 4 and 5. If the answer to question 1 and/or 2 is "yes", complete "Intensity of Ideation" section below.

Since Last Visit

1. Wish to be Dead
Subject endorses thoughts about a wish to be dead or not alive anymore, or wish to fall asleep and not wake up.
Have you wished you were dead or wished you could go to sleep and not wake up?
Yes ☐ No ☐
If yes, describe:

2. Non-Specific Active Suicidal Thoughts
General, non-specific thoughts of wanting to end one's life/commit suicide (e.g. *"I've thought about killing myself"*) without thoughts of ways to kill oneself/associated methods, intent, or plan during the assessment period.
Have you actually had any thoughts of killing yourself?
Yes ☐ No ☐
If yes, describe:

3. Active Suicidal Ideation with Any Methods (Not Plan) without Intent to Act
Subject endorses thoughts of suicide and has thought of at least one method during the assessment period. This is different than a specific plan with time, place or method details worked out (e.g. thought of method to kill self but not a specific plan). Includes person who would say, *"I thought about taking an overdose but I never made a specific plan as to when, where or how I would actually do it.....and I would never go through with it".*
Have you been thinking about how you might do this?
Yes ☐ No ☐
If yes, describe:

4. Active Suicidal Ideation with Some Intent to Act, without Specific Plan
Active suicidal thoughts of killing oneself and subject reports having some intent to act on such thoughts, as opposed to *"I have the thoughts but I definitely will not do anything about them".*
Have you had these thoughts and had some intention of acting on them?
Yes ☐ No ☐
If yes, describe:

5. Active Suicidal Ideation with Specific Plan and Intent
Thoughts of killing oneself with details of plan fully or partially worked out and subject has some intent to carry it out.
Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?
Yes ☐ No ☐
If yes, describe:

INTENSITY OF IDEATION

The following features should be rated with respect to the most severe type of ideation (i.e.,1-5 from above, with 1 being the least severe and 5 being the most severe).

Most Severe Ideation: ____ _____
Type # (1-5) ***Description of Ideation***

Most Severe

Frequency
How many times have you had these thoughts?
(1) Less than once a week (2) Once a week (3) 2-5 times in week (4) Daily or almost daily (5) Many times each day
____

Duration
When you have the thoughts, how long do they last?
(1) Fleeting - few seconds or minutes
(2) Less than 1 hour/some of the time
(3) 1-4 hours/a lot of time
(4) 4-8 hours/most of day
(5) More than 8 hours/persistent or continuous
____

Controllability
Could /can you stop thinking about killing yourself or wanting to die if you want to?
(1) Easily able to control thoughts
(2) Can control thoughts with little difficulty
(3) Can control thoughts with some difficulty
(4) Can control thoughts with a lot of difficulty
(5) Unable to control thoughts
(0) Does not attempt to control thoughts
____

Deterrents
Are there things - anyone or anything (e.g. family, religion, pain of death) - that stopped you from wanting to die or acting on thoughts of committing suicide?
(1) Deterrents definitely stopped you from attempting suicide
(2) Deterrents probably stopped you
(3) Uncertain that deterrents stopped you
(4) Deterrents most likely did not stop you
(5) Deterrents definitely did not stop you
(0) Does not apply
____

Reasons for Ideation
What sort of reasons did you have for thinking about wanting to die or killing yourself? Was it to end the pain or stop the way you were feeling (in other words you couldn't go on living with this pain or how you were feeling) or was it to get attention, revenge or a reaction from others? Or both?
(1) Completely to get attention, revenge or a reaction from others.
(2) Mostly to get attention, revenge or a reaction from others.
(3) Equally to get attention, revenge or a reaction from others and to end/stop the pain.
(4) Mostly to end or stop the pain (you couldn't go on living with the pain or how you were feeling).
(5) Completely to end or stop the pain (you couldn't go on living with the pain or how you were feeling).
(0) Does not apply
____

SUICIDAL BEHAVIOR *(Check all that apply, so long as these are separate events; must ask about all types)*	**Since Last Visit**
Actual Attempt: A potentially self-injurious act committed with at least some wish to die, *as a result of act.* Behavior was in part thought of as method to kill oneself. Intent does not have to be 100%. If there is ***any*** intent/desire to die associated with the act, then it can be considered an actual suicide attempt. ***There does not have to be any injury or harm***, just the potential for injury or harm. If person pulls trigger while gun is in mouth but gun is broken so no injury results, this is considered an attempt. Inferring Intent: Even if an individual denies intent/wish to die, it may be inferred clinically from the behavior or circumstances. For example, a highly lethal act that is clearly not an accident so no other intent but suicide can be inferred (e.g., gunshot to head, jumping from window of a high floor/story). Also, if someone denies intent to die, but they thought that what they did could be lethal, intent may be inferred. ***Did you <u>do anything</u> to try to kill yourself or make yourself not alive anymore? What did you do?*** ***Did you hurt yourself on purpose? Why did you do that?*** ***Did you_____ as a way to end your life?*** ***Did you want to die (even a little) when you_____?*** ***Were you trying to make yourself not alive anymore when you _____?*** ***Or did you think it was possible you could have died from_____?*** ***Or did you do it purely for other reasons, <u>not at all</u> to end your life or kill yourself (like to make yourself feel better, or get something else to happen)?*** *(*Self-Injurious Behavior without suicidal intent) If yes, describe: **Has subject engaged in Non-Suicidal Self-Injurious Behavior?** **Has subject engaged in Self-Injurious Behavior, intent unknown?**	**Yes No** ☐ ☐ Total # of Attempts _____ **Yes No** ☐ ☐ **Yes No** ☐ ☐
Interrupted Attempt: When the person is interrupted (by an outside circumstance) from starting the potentially self-injurious act *(if not for that, actual attempt would have occurred).* Overdose: Person has pills in hand but is stopped from ingesting. Once they ingest any pills, this becomes an attempt rather than an interrupted attempt. Shooting: Person has gun pointed toward self, gun is taken away by someone else, or is somehow prevented from pulling trigger. Once they pull the trigger, even if the gun fails to fire, it is an attempt. Jumping: Person is poised to jump, is grabbed and taken down from ledge. Hanging: Person has noose around neck but has not yet started to hang - is stopped from doing so. ***Has there been a time when you started to do something to make yourself not alive anymore (end your life or kill yourself) but someone or something stopped you before you actually did anything? What did you do?*** If yes, describe:	**Yes No** ☐ ☐ Total # of interrupted _____
Aborted Attempt or Self-Interrupted Attempt: When person begins to take steps toward making a suicide attempt, but stops themselves before they actually have engaged in any self-destructive behavior. Examples are similar to interrupted attempts, except that the individual stops him/herself, instead of being stopped by something else. ***Has there been a time when you started to do something to make yourself not alive anymore (end your life or kill yourself) but you changed your mind (stopped yourself) before you actually did anything? What did you do?*** If yes, describe:	**Yes No** ☐ ☐ Total # of aborted or self-interrupted _____
Preparatory Acts or Behavior: Acts or preparation towards imminently making a suicide attempt. This can include anything beyond a verbalization or thought, such as assembling a specific method (e.g., buying pills, purchasing a gun) or preparing for one's death by suicide (e.g., giving things away, writing a suicide note). ***Have you done anything to get ready to make yourself not alive anymore (to end your life or kill yourself)- like giving things away, writing a goodbye note, getting things you need to kill yourself?*** If yes, describe:	**Yes No** ☐ ☐ Total # of preparatory acts _____
Suicide: Death by suicide occurred since last assessment.	**Yes No** ☐ ☐
	Most Lethal Attempt Date:
Actual Lethality/Medical Damage: 0. No physical damage or very minor physical damage (e.g., surface scratches). 1. Minor physical damage (e.g., lethargic speech; first-degree burns; mild bleeding; sprains). 2. Moderate physical damage; medical attention needed (e.g., conscious but sleepy, somewhat responsive; second-degree burns; bleeding of major vessel). 3. Moderately severe physical damage; *medical* hospitalization and likely intensive care required (e.g., comatose with reflexes intact; third-degree burns less than 20% of body; extensive blood loss but can recover; major fractures). 4. Severe physical damage; *medical* hospitalization with intensive care required (e.g., comatose without reflexes; third-degree burns over 20% of body; extensive blood loss with unstable vital signs; major damage to a vital area). 5. Death	*Enter Code* _____
Potential Lethality: Only Answer if Actual Lethality=0 Likely lethality of actual attempt if no medical damage (the following examples, while having no actual medical damage, had potential for very serious lethality: put gun in mouth and pulled the trigger but gun fails to fire so no medical damage; laying on train tracks with oncoming train but pulled away before run over). 0 = Behavior not likely to result in injury 1 = Behavior likely to result in injury but not likely to cause death 2 = Behavior likely to result in death despite available medical care	*Enter Code* _____

APPENDIX 10

ACCEPTANCE AND ACTION QUESTIONAIRE (AAQ-II)

Below you will find a list of statements. Please rate the truth of each statement in the column
on the right, using the following scale:

Items	Never True 1	Very Seldom True 2	Seldom True 3	Sometimes True 4	Frequently True 5	Almost always True 6	Always True 7
1. My painful experiences and memories make it difficult for me to live a life that I would value							
2. I'm afraid of my feelings							
3. I worry about not being able to control my worries and feelings							
4. My painful memories prevent me from having a fulfilling life							
5. Emotions cause problems in my life							
6. It seems like most people are handling their lives better than I am.							
7. Worries get in the way of my success.							

APPENDIX 10

ACCEPTANCE AND ACTION QUESTIONAIRE (AAQ-II)

1 बहुत ही सच्चा

2 शायद ही सही

3 कभी-कभी सच

4 अक्सर सच

5 लगभग हमेशा सच

6 हमेशा सच

7 आइटम कभी सच नहीं है

1. मेरे दर्दनाक अनुभव और यादें मेरे लिए एक ऐसी ज़िंदगी जीना मुश्किल बना देती हैं जिसका मैं मोल लेता हूं

2. मैं अपनी भावनाओं से डरता हूं

3. मैं अपनी चिंताओं और भावनाओं को नियंत्रित नहीं कर पाने के बारे में चिंता करता हूं

4. मेरी दर्दनाक यादें मुझे एक ज़िंदगी जीने से रोकती हैं

5. भावनाएँ मेरे जीवन में समस्याएँ पैदा करती हैं

6. ऐसा लगता है कि अधिकांश लोग अपने जीवन को मुझसे बेहतर तरीके से संभाल रहे हैं।

7. चिंताएँ मेरी सफलता के रास्ते में आती हैं।

APPENDIX 11

BRIEF RESILIENCE SCALE

	Please respond to each item by marking one box per row	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BRS 1	I tend to bounce back quickly after hard times	**1**	**2**	**3**	**4**	**5**
BRS 2	I have a hard time making it through Stressful events.	**5**	**4**	**3**	**2**	**1**
BRS 3	It does not take me long to recover from a stressful event.	**1**	**2**	**3**	**4**	**5**
BRS 4	It is hard for me to snap back when something bad happens.	**5**	**4**	**3**	**2**	**1**
BRS 5	I usually come through difficult times with little trouble.	**1**	**2**	**3**	**4**	**5**
BRS 6	I tend to take a long time to get over set-backs in my life.	**5**	**4**	**3**	**2**	**1**

APPENDIX 11

BRIEF RESILIENCE SCALE

BRS NO.		दृढ़ असहमती	असहमत	निष्पक्ष	सहमत	दृढ़ सहमती
1	मैं कठिन समय के बाद से जल्दी उभर आता हूँ|	1	2	3	4	5
2	मुझे तनावपूर्ण घटनाओं से उभरने में मुश्किल होती है|	5	4	3	2	1
3	मुझे ज्यादा समय नहीं लगता तनावपूर्ण घटनाओं से बाहर निकलने में|	1	2	3	4	5
4	मुझे उभरने में मुश्किल हो जाती है जब कुछ बुरा हो जाता है|	5	4	3	2	1
5	मुश्किल समय से मैं मामूली परेशानी के साथ ही निकल जाता हूँ|	1	2	3	4	5
6	मैं जीवन की असफलताओं से उभरने में लम्बा समय लेता हूँ|	5	4	3	2	1

APPENDIX 12

SOCIAL CONECTEDNESS SCALE (REVISED)

Directions: Following are a number of statements that reflect various ways in which we view yourselves. Rate the degree to which you agree or disagree with each statement using the following scale:

Strongly Disagree	Disagree	Mildly Disagree	Mildly Agree	Agree	Strongly Agree
1	2	3	4	5	6

1. I feel comfortable in the presence of strangers…….. 1 2 3 4 5 6
2. I am in tune with the world…… 1 2 3 4 5 6
3. Even among my friends, there is no sense of brother/sisterhood…… 1 2 3 4 5 6
4. I fit in well in new situations……. 1 2 3 4 5 6
5. I feel close to people…….. 1 2 3 4 5 6
6. I feel disconnected from the world around me…….. 1 2 3 4 5 6
7. Even around people I know, I don't feel that I really belong. …… 1 2 3 4 5 6
8. I see people as friendly and approachable……. 1 2 3 4 5 6
9. I feel like an outsider……. 1 2 3 4 5 6
10. I feel understood by the people I know……. 1 2 3 4 5 6
11. I feel distant from people……... 1 2 3 4 5 6
12. I am able to relate to my peers……... 1 2 3 4 5 6
13. I have little sense of togetherness with my peers….. 1 2 3 4 5 6
14. I find myself actively involved in people's lives…... 1 2 3 4 5 6
15. I catch myself losing a sense of connectedness with society…… 1 2 3 4 5 6
16. I am able to connect with other people…….. 1 2 3 4 5 6
17. I see myself as a loner…… 1 2 3 4 5 6
18. I don't feel related to most people……. 1 2 3 4 5 6
19. My friends feel like family…… 1 2 3 4 5 6
20. I don't feel I participate with anyone or any group…… 1 2 3 4 5 6

APPENDIX 12

SOCIAL CONECTEDNESS SCALE (REVISED)

अत्यधिक असहमत	**असहमत**	**थोड़ा असहमत**	**थोड़ा सहमत**	**सहमत**	**अत्यधिक सहमत**
1	2	3	4	5	6

मैं अजनबियों की उपस्थिति में सहज महसूस करता हूं	1 2 3 4 5 6
मैं दुनिया के अनुरूप हूं	1 2 3 4 5 6
मेरे दोस्तों में भी, भाई / बहन का कोई मतलब नहीं है	1 2 3 4 5 6
मैं नई स्थितियों में अच्छी तरह से फिट बैठता हूं	1 2 3 4 5 6
मैं लोगों के करीब महसूस करता हूं	1 2 3 4 5 6
मैं अपने आसपास की दुनिया से अलग महसूस करता हूं	1 2 3 4 5 6
यहां तक कि जिन लोगों को मैं जानता हूं, उनके आसपास भी मुझे ऐसा नहीं लगता कि मैं वास्तव में हूं।	1 2 3 4 5 6
मैं लोगों को मित्रवत और भरोसेमंद देखता हूं	1 2 3 4 5 6
मैं एक बाहरी व्यक्ति की तरह महसूस करता हूं	1 2 3 4 5 6
मुझे लगता है कि लोग मुझे जानते हैं / समझ गए हैं।	1 2 3 4 5 6
मैं लोगों से दूर महसूस करता हूं	1 2 3 4 5 6
मैं अपने साथियों से संबंधित हूं	1 2 3 4 5 6
मुझे अपने साथियों के साथ एकजुटता की बहुत कम समझ है	1 2 3 4 5 6
मैं खुद को लोगों के जीवन में सक्रिय रूप से शामिल पाता हूं	1 2 3 4 5 6
मैं खुद को समाज के साथ जुड़ाव की भावना को खोने के लिए पकड़ता हूं	1 2 3 4 5 6
मैं अन्य लोगों के साथ कनेक्ट करने में सक्षम हूं	1 2 3 4 5 6
मैं खुद को कुंवारे के रूप में देखता हूं	1 2 3 4 5 6
मैं ज्यादातर लोगों से संबंधित महसूस नहीं करता	1 2 3 4 5 6
मेरे दोस्त परिवार की तरह महसूस करते हैं	1 2 3 4 5 6
मुझे नहीं लगता कि मैं किसी के साथ या किसी समूह के साथ भाग लेता हूं	1 2 3 4 5 6

APPENDIX 13

EMOTION REGULATION QUESTIONNAIRE (ERQ)

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Mild Disagree	Neutral	Mild Agree	Agree	Strongly Agree

1. ____ When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about.
2. ____ I keep my emotions to myself.
3. ____ When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.
4. ____When I am feeling positive emotions, I am careful not to express them.
5. ____When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.
6. ____ I control my emotions by not expressing them.
7. ____When I want to feel more positive emotion, I change the way I'm thinking about the situation.
8. ____ I control my emotions by changing the way I think about the situation I'm in.
9. ____When I am feeling negative emotions, I make sure not to express them.
10. ____When I want to feel less negative emotion, I change the way I'm thinking about the situation.

APPENDIX 13

EMOTION REGULATION QUESTIONNAIRE (ERQ)

1	2	3	4	5	6	7
अत्यधिक असहमत	**असहमत**	**थोड़ा असहमत**	**निष्पक्ष**	**थोड़ा सहमत**	**सहमत**	**अत्यधिक सहमत**

1. जब मैं और अच्छी भावना महसूस करना चाहता/चाहती हूँ जैसे कि आन्नद या मन बहलाव तो मैं जिसके बारे में सोच रहा/रही होता/होती हूँ उसे बदल देता/देती हूँ।
2. मैं अपनी भावनाओं को अपने तक रखता/रखती हूँ ।
3. जब मैं कम बुरी भावना महसूस करना चाहता/चाहती हूँ (जैसे कि उदासी या क्रोध) तो मैं जिसके बारे में सोच रहा/रही होता/होती हूँ उसे बदल देता/देती हूँ।
4. जब मैं अच्छी भावना महसूस कर रहा/रही होता/होती हूँ तो मैं इस बात का ध्यान रखता/रखती हूँ कि मैं उन्हें अभिवयक्त न करूँ।
5. जब मैं किसी तनावपूर्ण स्थिति में होता/होती हूँ तो मैं उस स्थिति के बारे में इस तरह सोचता/सोचती हूँ जिससे कि मैं स्थिर हो जाऊँ।
6. मैं अपनी भावनाओं पर काबू पाने के लिए उन्हें अभिवयक्त नहीं करता/करती हूँ।
7. जब मैं और अच्छी भावना महसूस करना चाहता/चाहती हूँ तो मैं परिस्थिति के बारे में अपने सोचने के तरीके को बदल देता/देती हूँ।
8. मैं अपनी भावनाओं पर काबू, अपनी परिस्थिति के बारे में अपने सोचने के तरीके को बदलकर कर पाता/पाती हूँ।
9. जब मैं बूरी भावना महसूस कर रहा/रही होता/होती हूँ तो मैं यह निश्चित कर लेता/लेती हूँ कि मैं उन्हे अभिवयक्त न करूँ।
10. जब मैं कम बुरी भावना महसूस करना चाहता/चाहती हूँ तो मैं परिस्थिति के बारे में सोचनें के तरीके को बदल देता/देती हूँ।

APPENDIX 14

SATISFACTION WITH LIFE SCALE

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7- point scale is as follows:

1 = Strongly disagree
2 = Disagree
3 = slightly disagree
4 = neither agree nor disagree
5 = slightly agree
6 = agree
7 = strongly agree

1) In most ways my life is close to my ideal.
2) The conditions of my life are excellent.
3) I am satisfied with my family.
4) So far I have gotten the important things I want in life.
5) If I could live my life over, I would change almost nothing.

TOTAL SCORE =

APPENDIX 14

SATISFACTION WITH LIFE SCALE

निर्देश:

नीचे पाँच कथन दिये हुए हैं जिनसे आप सहमत या असहमत हो सकते हैं। नीचे दी गई 1-7 अंक मापनी का उपयोग करते हुए, प्रत्येक कथन से अपनी सहमति को उस कथन के पहले दी गई रेखा पर उपयुक्त अंक लिखकर दर्शाएँ। आपके उत्तर पूर्णतया गोपनीय रखे जाएँगे।

7- अत्यधिक सहमत

6- सहमत

5- कुछ सहमत

4- अनिश्चित

3- कुछ असहमत

2- असहमत

1- अत्यधिक असहमत

1. _____ अधिकतर मायनों में मेरा जीवन मेरे आदर्श जीवन के करीब है।
2. _____ मेरे जीवन की परिस्थितियाँ उत्तम हैं।
3. _____ मैं अपने जीवन से संतुष्ट हूँ।
4. _____ मैंने जीवन में अभी तक जिन महत्वपूर्ण चीजों की इच्छा की है वे मुझे मिली हैं।
5. _____ यदि मैं अपना जीवन दोबारा जी सका/सकी, तो मैं उसमे लगभग कोई भी परिवर्तन नहीं करूंगा/करूंगी।

APPENDIX 15

MEANING IN LIFE QUESTIONNAIRE

Please take a moment to think about what makes your life and existence feel important and significant to you. Please respond to the following statements as truthfully and accurately as you can, and also please remember that these are very subjective questions and that there are no right or wrong answers. Please answer according to the scale below:

Absolutely Untrue	Mostly Untrue	Somewhat Untrue	Can't say True or False	Somewhat True	Mostly True	Absolutely True
1	2	3	4	5	6	7

1. I understand my life's meaning. _____

2. I am looking for something that makes my life feel meaningful. _____

3. I am always looking to find my life's purpose. _____

4. My life has a clear sense of purpose. _____

5. I have a good sense of what makes my life meaningful. _____

6. I have discovered a satisfying life purpose. _____

7. I am always searching for something that makes my life feel significant. _____

8. I am seeking a purpose or mission for my life. _____

9. My life has no clear purpose. _____

10. I am searching for meaning in my life. Scoring: Item 9 is reverse scored.

Items 1, 4, 5, 6, & 9 make up the Presence of Meaning subscale

Items 2, 3, 7, 8, & 10 make up the Search for Meaning subscale

APPENDIX 15

MEANING IN LIFE QUESTIONNAIRE

कृपया कुछ समय सोचें कि ऐसी कौन सी चीज है जो आपके जीवन को महत्वपूर्ण महसूस करवाती है। कृपया निम्नलिखित वाक्यों को शुद्धता, वास्तविकता एवं स्टीकता के आधार पर **गोला लगाकर** चिह्नित करें। ये वाक्य व्यक्तिगत हैं और इनमें कोई सही या गलत नहीं है। कृपया नीचे लिखे स्केल के अनुसार जबाव दें।

1 बिलकुल असत्य	2 अधिकतम असत्य	3 कुछ हद तक असत्य	4 कह नहीं सकते सत्य या असत्य	5 कुछ हद तक सत्य	6 अधिकतम सत्य	7 बिलकुल सत्य

1 बिलकुल असत्य.....7 बिलकुल सत्य

1 मैं अपने जीवन की अर्थपूर्णता समझता हूँ।	1	2	3	4	5	6	7
2. मैं कुछ ढूंढ रहा हूँ जो मेरे जीवन को अर्थपूर्ण बनाए।	1	2	3	4	5	6	7
3. मैं अपने जीवन का उद्देश्य ढूंढता रहा हूँ।	1	2	3	4	5	6	7
4. मेरे जीवन में एक स्पष्ट उद्देश्य हैं।	1	2	3	4	5	6	7
5. मुझे पूरा आभास है कि कैसे मेरा जीवन उद्देश्यपूर्ण बने।	1	2	3	4	5	6	7
6. मैंने एक संतुष्टिपूर्वक उद्देश्य की खोज कर ली है।	1	2	3	4	5	6	7
7. मैं हमेशा ऐसी चीजें ढूंढता रहा हूँ जो मेरे जीवन को सार्थक बनाती हों।	1	2	3	4	5	6	7
8. मैं अपने जीवन के उद्देश्य या लक्ष्य की खोज में हूँ।	1	2	3	4	5	6	7
9. मेरे जीवन में कोई स्पष्ट लक्ष्य नहीं हैं।	1	2	3	4	5	6	7
10. मैं अपने जीवन के उद्देश्य की खोज कर रहा हूँ।	1	2	3	4	5	6	7

APPENDIX 16

CENTRALITY OF RELIGIOSITY SCALE

धार्मिकता मापनी (Centrality Religiosity Scale)								
1.कितनी बार आप धार्मिक मामलों के बारे में सोचते हैं / **How often do you think about religious issues?**	कई बार Very often 5	अक्सर Often 4	कभी कभी Occasionally 3	कभी कभार Rarely 2	कभी नहीं Never 1	-	-	-
2.आप किस हद तक हर बात पर विश्वास करते हैं कि भगवान या कोई देवी-देवता/ईश्वरीय शक्ति होती है / **To what extent do you believe that God or something divine exists?**	कई बार Very often 5	अक्सर Often 4	कभी कभी Occasionally 3	कभी कभार Rarely 2	कभी नहीं Never 1	-	-	-
3.आप कितनी बार धार्मिक सेवाओं (मंदिर में जाकर पूजा/दुआ करना, सामूहिक पाठ पूजा में हिस्सा लेना, तीर्थ-यात्रा में जाना, धार्मिक मेले में जाना आदि) तथा गतिविधिओं में हिस्सा लेते हैं/ **How often do you take part in religious services?**	हफ्ते में एक से ज्यादा बार More than once a week 5	हफ्ते में एक बार Once a week 5	महीने में एक से 3 बार One or three times a month 4	साल में कुछ बार A few times a year 3	बहुत काम बार Less often 2	कभी नहीं Never 1	-	-
4a.आप कितनी बार पूजा/दुआ करते हैं / **How often do you pray?**	हफ्ते में एक से ज्यादा बार More than once a week 5	हफ्ते में एक बार Once a week 5	महीने में एक से 3 बार One or three times a month 4	साल में कुछ बार A few times a year 3	बहुत काम बार Less often 2	कभी नहीं Never 1	-	-
4b.आप कितनी बार ध्यान लगाना, तप-जप करना या तप करना या भगवन का मनन या स्मर्ण करते हैं / **How often do you meditate?**	हफ्ते में एक से ज्यादा बार More than once a week 5	हफ्ते में एक बार Once a week 5	महीने में एक से 3 बार One or three times a month 4	साल में कुछ बार A few times a year 3	बहुत काम बार Less often 2	कभी नहीं Never 1	-	-
5a.आपके साथ कितनी बार इस तरह के अनुभव होते हैं जिसमे आपको यह महसूस होता है कि भगवान या कोई देवी-देवता/ ईश्वरीय शक्ति आप के जीवन में हस्तक्षेप करती है / **How often do you experience situations in which you have the feeling that God or something divine intervenes in your life?**	कई बार Very often 5	अक्सर Often 4	कभी कभी Occasionally 3	कभी कभार Rarely 2	कभी नहीं Never 1		-	-
5b. आपके साथ कितनी बार इस तरह के अनुभव होते हैं जिसमे आपको यह महसूस होता है आप सम्पूर्ण जगत में विलीन	कई बार Very often	अक्सर Often	कभी कभी Occasionally	कभी कभार Rarely	कभी नहीं Never	-	-	-

(सम्मिलित) हो गए हैं / **How often do you experience situations in which you have the feeling that you are in one with all?**	5	4	3	2	1			
6. आप धर्म संबंधी विषय/प्रसंग के बारे में और अधिक सीखने में कितने इच्छुक हैं / **How interested are you in learning more about religious topics?**	बहुत अधिक (बेहद) Very much so 5	काफी हद तक Quite a bit 4	समान्य रूप से Moderately 3	थोड़ा बहुत Not very much 2	बिलकुल नहीं Not at all 1	-	-	-
7. आप किस हद तक इस बात में विश्वास करते हैं कि आत्मा कभी नहीं मरती और उसका पुर्नजीवन (दूसरा जन्म) होता है / **To what extend do you believe in an afterlife—e.g. immortality of the soul, resurrection of the dead or reincarnation?**	बहुत अधिक (बेहद) Very much so 5	काफी हद तक Quite a bit 4	समान्य रूप से Moderately 3	थोड़ा बहुत Not very much 2	बिलकुल नहीं Not at all 1			
8. धार्मिक सेवाओं (मंदिर में जाकर पूजा/दुआ करना, सामूहिक पाठ पूजा/दुआ में हिस्सा लेना, तीर्थ-यात्रा में जाना, धार्मिक मेले में जाना आदि) में हिस्सा लेना आपके लिए कितना महत्वपूर्ण हैं / **How important is to take part in religious services?**	एक दिन में बहुत बार Several times a day 5	दिन में एक बार Once a day 5	हफ्ते में एक से ज्यादा बार More than once a week 4	हफ्ते में एक बार Once a week 3	महीने में एक से 3 बार One or three times a month 3	साल में कुछ बार A few times a year 2	बहुत काम बार Less often 2	कभी नहीं Never 1
9a. आपके लिए स्वयं (अपने आप) पूजा/दुआ करना कितना महवपूर्ण है/ **How important is personal prayer for you?**	एक दिन में बहुत बार Several times a day 5	दिन में एक बार Once a day 5	हफ्ते में एक से ज्यादा बार More than once a week 4	हफ्ते में एक बार Once a week 3	महीने में एक से 3 बार One or three times a month 3	साल में कुछ बार A few times a year 2	बहुत काम बार Less often 2	कभी नहीं Never 1
9b. आप के लिए ध्यान लगाना, तप-जप करना या तप करना या अकेले में भगवान का स्मर्ण करना कितना महत्वपूर्ण है/ **How important is meditation for you?**	बहुत अधिक (बेहद) Very much so 5	काफी हद तक Quite a bit 4	समान्य रूप से Moderately 3	थोड़ा बहुत Not very much 2	बिलकुल नहीं Not at all 1	-	-	-

10a. आप कितनी बार ऐसी स्थिति का अनुभव करते हैं जब आपको ऐसा महसूस होता है कि भगवान या कोई देवी-देवता /ईश्वरीय शक्ति आपसे संपर्क बनाना चाहती है या आपको कुछ बताना चाहती है / **How often do you experience situations in which you have the feeling that God or something divine wants to communicate or to reveal something to you?**	कई बार Very often 5	अक्सर Often 4	कभी कभी Occasionally 3	कभी कभार Rarely 2	कभी नहीं Never 1			
10b.आप कितनी बार ऐसी स्थिति का अनुभव करते हैं जब आपको ऐसा महसूस होता है कि आपको कोई देवी-देवता / ईश्वरीय शक्तियों ने स्पर्श या प्रभावित किया/ **How often do you experience situations in which you have the feeling that you are touched by a divine power?**	कई बार Very often 5	अक्सर Often 4	कभी कभी Occasionally 3	कभी कभार Rarely 2	कभी नहीं Never 1			
11.आप कितनी बार धर्मिक विषयो अथवा प्रश्नो के बारे में अपनी जानकारी बनाए रखने के लिए रेडिओ सुनते हैं, टी वी देखते हैं, अखबार या किताबें पढ़ते हैं या इंटरनेट/नेट (Internet/Net) का इस्तेमाल करते हैं **How often do you keep yourself informed about religious questions through radio, television, internet, newspapers, or books?**	एक दिन में बहुत बार Several times a day 5	दिन में एक बार Once a day 5	हफ्ते में एक से ज्यादा बार More than once a week 4	हफ्ते में एक बार Once a week 3	महीने में एक से 3 बार One or three times a month 3	साल में कुछ बार A few times a year 2	बहुत काम बार Less often 2	कभी नहीं Never 1
12.आपकी राय अनुसार यह कितना संभव है कि कोई ऊपरी दैविक/ईश्वरीय शक्ति सचमुच है/ **In your opinion, how probable is it that a higher power really exists**	बहुत अधिक (बेहद) Very much so 5	काफी हद तक Quite a bit 4	समान्य रूप से Moderately 3	थोड़ा बहुत Not very much 2	बिलकुल नहीं Not at all 1	-	-	-
13.एक धार्मिक समुह, समुदाय, संप्रदाय से जुड़ा होना आप के लिए कितना महत्वपूर्ण है / **How important is it for you to be connected to a religious community?**	बहुत अधिक (बेहद) Very much so 5	काफी हद तक Quite a bit 4	समान्य रूप से Moderately 3	थोड़ा बहुत Not very much 2	बिलकुल नहीं Not at all 1	-	-	-
14a.आप दिन प्रतिदिन होने वाली स्थितियों से किस हद तक प्रेरित होकर बिना किसी पूर्व तैयारी के अथवा निर्धारित समय	एक दिन में बहुत बार	दिन में एक बार	हफ्ते में एक से ज्यादा बार	हफ्ते में एक बार Once a week	महीने में एक से 3 बार	साल में कुछ बार	बहुत काम	कभी नहीं

के अलावा पूजा/दुआ करते हैं / **How often do you pray spontaneously when inspired by daily situations?**	Several times a day 5	Once a day 5	More than once a week 4	3	One or three times a month 3	A few times a year 2	बार Less often 2	Never 1
14b.आप दिन प्रतिदिन होने वाली स्थितियों से किस हद तक प्रेरित होकर उसी समय बिना किसी पूर्व तैयारी के ईश्वर से संबंध स्थापित करने कि कोशिश करते हैं / **How often do you try to connect to the divine spontaneously when inspired by daily situations?**	एक दिन में बहुत बार Several times a day 5	दिन में एक बार Once a day 5	हफ्ते में एक से ज्यादा बार More than once a week 4	हफ्ते में एक बार Once a week 3	महीने में एक से 3 बार One or three times a month 3	साल में कुछ बार A few times a year 2	बहुत काम बार Less often 2	कभी नहीं Never 1
15.आप कितनी बार इस तरह कि स्थितियों का अनुभव करते हैं जिसमे आपको महसूस होता है कि भगवान या कोई कोई देवी-देवता, दैविक/ईश्वरीय शक्ति आसपास उपस्थित है/ **How often do you experience situations in which you have the feeling that God or something divine is present?**	कई बार Very often 5	अक्सर Often 4	कभी कभी Occasionally 3	कभी कभार Rarely 2	कभी नहीं Never 1			