# THE IMPACT OF FAMILY PROBLEMS AND DEPRESSION ON SUICIDE; AN EMPIRICAL ANALYSIS OF DISTRICT MARDAN

# Usman Ali<sup>\*1</sup>, Shakeel Hayat<sup>2</sup>, Sana Bibi<sup>3</sup>

Corresponding Author:	<sup>*1</sup> aliusman1936@gmail.com		
Received: 28 March, 2024	Revised: 28 April, 2024	Accepted: 13 May, 2024	Published: 29 May, 2024

### ABSTRACT

Suicide is the act of taking one's own life by killing himself/herself. In times physical and mental stress, individuals most of the times are unable to make the right decision. Wrong decision can be very harmful for individual's life, career and development. There are many problems which can make an individual mentally or physically upset and challenged. Problems like family problems and depression can make an individual feel marginalized, socially excluded, and mentally upset which most of the times results in suicide attempt. This study tried to have an insight of the major determinants of suicide in district Mardan. The study is based on primary data collected from different areas of district Mardan. The sample size of the study is 180. The data is analyzed descriptively and empirically. The descriptive analysis shows that male population attempt more suicides as compared to female population, and age group of 16 to 40 is the most affected age group from suicide while lower and lower middle income classes attempt more suicides in district Mardan. Binary logistic model is used to analyze the data empirically and the results shows that the problems like family problems and depression are found to be the prominent determinants of suicides in district Mardan. The empirical results show that family problems are positively related with suicide with an impact rate of 0.390. The more an individual face family problems, more will be his/her chances of attempting suicide. The results also conclude that suicide and depression are positively related. Depression is the worst form of mental situation and individual can be in. the empirical results show that the value of the impact of depression on suicide is. All these results show that in district Mardan the suicide rate is increasing due to more problems and complexities of life and more family and mental/physical problems. This study suggest that families and society must be more cooperative and helping in times of mental problems, failures, and physical illness to reduce suicide rate in district Mardan.

Keywords: suicide, family problems, depression.

### INTRODUCTION

Human life is the basic ingredient of global existence, all occurrences that people have around them are plotted, produced and to be used to make human life trouble free. Individual's decisions most of the times are based on the situation they are facing at that point of time, and if the person is confronting tough affairs and he/she is incompetent to perceive any solution of the problem, it force him to make irrational decisions, and if the person is psychologically not good enough to tackle this situation he/she will seek to choose an contented way of breaking away by taking away his/her life by striving for suicide (Boyed, 2005). The decision of going for suicide is a very unforeseen, unexpected and based on the situation decision in almost all cases (Joanna & Patel, 2004).

The act of doing away your personal existence is called suicide (Boyed, 2005). Suicide is described as "when the horror of existence gets to a degree wherein it dismantles the horror of loss of life, the individual will determine to position an end to his/her life by attempting suicide. (Hamermesh S & Neal, 1974).

The suicide charge around the sector has improved with time because of the growing problems in society, financial stress, and more complicated life. Nearly 800,000 people die due to suicide each year around the globe, this counts for one case every 40 seconds. Many more people strive suicide but they continue to survive the effort. And suicide is named as the second leading cause of demise within the age group of 15-29 years everywhere in the world. Its miles an international hassle, certainly, seventy-eight

% of suicides happened in lower-income and middleincome nations in 2015 (world health organization, 2016). Suicide deaths rated for 1.4% of total known deaths happened all over the globe in 2015, taking it to the 17th major reason for death for the year 2015 (World Health Organization, 2016). According to the world health organization's report, there was an enormous hype in suicide, and suicide was told to be the 10th prime reason of death in 2017. The suicide rate in 2017 around the world was 16 people/million (World Health Organization, 2017). There are numerous socioeconomic factors to which the decision of suicide is very responsive, not handiest socioeconomic elements however many different elements like spiritual troubles, political issues, own family issues, private troubles, socio-demographic issues, economic issues, and mental troubles like depression also play a completely vital function in converting the conduct of a person and to persuade him to attempt suicide.

Being a under developed country, Pakistan is also facing the same problem, majority of the people are wrestling with lower income and low life level which in response become the reason of low healthcare and socio-demographic provisions and some other problems which influence people's behavior while deciding. Pakistan is a Muslim country and the action of suicide is strongly condemned in Islam but still the amount suicide in Pakistan is mounting slowly due to rise in many socio-demographic, economic, personal and family problems in the society. In Pakistan, each year around 3033 people try suicide and majority of these attempts are of the age group of 20-40 (Human Right Commission of Pakistan, 2016).

One of Pakistan's four provinces is Khyber Pakhtunkhwa is positioned in the northwest facet of Pakistan is commonly occupied by the Pashtun tribe. Mardan is the second biggest district of Khyber Pakhtunkhwa following Peshawar and one of the primary enterprise centers. Mardan is well-known for its ancient places like the remnants of Takht Bhai and mysterious Sangao caves and so forth. And for the productivity of its agricultural land that produce distinct crops. For the past few years, the suicide rate in district Mardan is ascending better and better. In keeping with the HRCP (Human right commission of Pakistan) approximately forty people try suicide in Mardan each year respectively and the rate of survival is stated to be extraordinarily low because to the deficiency of well-equipped hospitals and healthcare centers and the unavailability of clinical equipment in nearby hospitals.

# 1. Literature Background

The comparative importance of illness and sociodemographic disadvantage and risk factors for suicide is not easily understandable. And mental illness can easily cause suicidal thoughts in women (Joanna & Patel, 2008). Health problems (physical and mental) weaken individual self-trust and he loses his control over his decision making and this complex situation most of the times allow him to make irrational decision (Joanna & Patel, 2004)

Governments policies should not only concentrate on improving life standard but also improve individual's interpersonal characteristics, and also the areas people living in should be improved to make life better and easier for them (Martikainen, Mäki, & Blomgren, 2004).

Depression leads to psychological problems. In less developed countries most of the people are psychological disturbances which cause anxiety and loneliness. Main reason for these issues is financial problems faced by male portion of the society (Wysowski, Pitts, & Beitz, 2001).

Building positive social relationships with peers and avoiding serious injury appear key to suicide prevention strategies for vulnerable adolescents. Targeted programs by age group and sex for such indicators could improve mental health during adolescence in low and middle-income countries, given the diverse risk profiles for suicidal ideation and attempts. (Campisi, Carducci, Akseer, Zasowski, Szatmari, & Bhutta, 2020).

The corona virus disease (COVID-19) has impacted not only physical health but also mental health and wellbeing globally. These impacts can be critically higher among marginalized individuals and populations like farmers in India. While most of them live in poor socioeconomic conditions, recent psychosocial challenges due to the COVID-19 lockdown had brought endless suffering in their lives. In this article, we describe a case of suicide of an Indian farmer amid COVID-19 lockdown, who had debts and could not find laborers during the lockdown leading to a helpless situation committing suicide. In India, nearly 16,500 farmers commit suicide each year, which can aggravate if psychosocial and economic challenges like COVID-

19 continue to affect them. (Hossain, Mahbub, Neetu, Bhattacharya, & Sharma, 2020)

Family problems, and depression are the most frequent reasons of suicide all over the globe. All these determinants are found to be the causes of people's choice of attempting suicide. (Hajizadeh, Bombay, & Asada, 2019)

Suicidal ideation and completed suicide seem to be more frequent in patients experiencing systemic lupus erythematosus, fibromyalgia and arthritis. Major determinants were comorbid depression in fibromyalgia and arthritis, and neuropsychiatric disease in systemic lupus erythematosus. (Calandre, Fernando, & Mahmoud, 2018)

# **2.** Theoretical framework

Before trying suicide an individual has to make a critical decision and to choose one between living and death, and decision building is one of the prominent concerns of behavioral economics. Behavioral economics is the cramming of economic decision making of individuals and organizations and its relationship with psychology. Behavior economics is based on two major questions. Ist one is '' are the assumptions of utility and profit maximization an excellent measure of the real behavior of human beings?'' 2nd one is '' do people constantly maximize anticipated utility?''. There are three essential phrases of behavioral economics.

- (1) Heuristics: This explains that out of their decisions, 95% of the decisions taken by human being are structured by using mental alternatives.
- (2) Framing: the cluster of narratives and selfassumed ideals that layout the intellectual filters which people use in reply to distinctive activities even as making choices.
- (3) Market inefficiencies: This consists of incorrect-pricing by means of market and non-rational choices by people.

In the concept of economics, person is commonly described as to be a rational person and could determine amongst available options rationally and will having complete information about the situation. But in reality we most of the times found that individual's decisions are irrational and within complete information. Rational choice theory says that human choices are most of the times logical, and it explains the concept rationality in a relatively slender sense in comparison of philosophy. Consistent with rational choice theory, a commitment is rational only be called a rational one if it is target oriented, contemplative and consistent. That is practically opposite with real behavior of people which is random, reckless and conditional mostly. The essence of human decision construction is not that smooth to be analyzed by the current economic theories which are interpreting human behavior in a comparatively shallow path. In critical situation to take a decision mostly people use their psychological shortcuts to get a solution for their problems. Same goes with the scenario of the decision to try suicide, which is every time an unforeseen and accidental decision and people use the rule of thumb to tackle the situation.

# **3.** Problem Statement

Among all the causes of death all around the world according to recent studies and world health organization's reports suicide is one of the major causes. In Pakistan, being an Islamic state, suicide rate should be relatively low but unfortunately the situations are not as they were expected. Suicide rate in Pakistan is quite high in comparison with other Muslim countries and is increasing time by time. In rural areas like Mardan suicide rate is increasing with respect to time, but there is no complete information regarding the statistics and determinants of suicide in district Mardan. Due to the increasing problems and complexities of socioeconomic life, suicide rate has been increased with time.

# 4. Research question

The research question for this study will be

• What are the most dominant determinants of suicide in district Mardan?

# 5. Objective of the study

According to the rational choice theory individuals always know their preferences and individuals always have full information regarding the factors on the basis of which individuals make decisions. Behavioral economics is of the view that the individuals at times may not make rational decisions because some other factors may also affect their decisions. The objective of this study will be

• To identify the factors affecting the behavior of the individual and convincing him/her to attempt suicide in district Mardan.

# **6.** Hypothesis of the study

The study will test the following hypotheses.

- Family problems (relationship with parents, relationship with siblings, relationship with spouse, role in decision making, attendance in family functions) are negatively related to individual's decision-making regarding life.
- Depression (failure in education, failure in business, health issues, psychological issues, drugs addiction) is negatively related to individuals to attempt suicide.

# **7.** Significance of the study

This study will help to find the determinants of suicide in district Mardan and the major variables which convince an individual to make decision to attempt suicide. As suicide rate is increasing in district Mardan so this study will help to point out the major causes and the age group that is most affected from suicides in district Mardan. The study can be used by public and private organizations for policy making to control suicides in district Mardan. The data and results provided by the study can be further analyzed and the major determinants and governments and private organizations can tackle those determinants individually. Furthermore, the study will help public and private organizations to identify the most affected age group, gender and income group by suicide which will help in minimizing the problems in the said age, gender and income group.

# 8. Data and Methodology

The study is built on primary data which is gathered through questionnaires. The questionnaires are filled during personal interviews. The data is collected through personal interviews from those who survived the attempt and from the near ones of those who made a successful try and were deceased in the result. Bergeron (2014) used multiple regression models to estimate the effects caused by age groups, variations in income, unemployment rate and gender on suicide rate. Andrea J. Bergeron (2015) used the model.

Suicid = $\beta 0$  +  $\beta 1$ Age1 +  $\beta 2$ Age2 +  $\beta 3$ Age3 + $\beta 4$ Male +  $\beta 5$ Income +  $\beta 6$ Ump +  $\mu$ 

A more extended and complex form of the model is used for this study by introducing some more connected and potent variables in the model.

Econometric model which is to be used in this research study is

 $1_i(p_i/1 - p_i) = \alpha + \beta_1 \sum FaP + \beta_4 \sum Dep + \mu_i \quad --$ ------ (1)
Where

FaP = Family problems which includes (relationship with family member i.e. parents, siblings, spouse, subject's role in family decision making, and subject's attendance in family functions)

 $1_i(p_i/1 - p_i) = = \boldsymbol{\beta}\mathbf{0} + \boldsymbol{\beta}\mathbf{1}RPa + \boldsymbol{\beta}\mathbf{2}RSi + \boldsymbol{\beta}\mathbf{3}RSp + \boldsymbol{\beta}\mathbf{4}DMR + \boldsymbol{\beta}5FFu + \boldsymbol{\mu}$ ------(2)

Dep = Depression and personal failures resulting from (subject's failure in education, and business, health issues and psychological issues faced y subject, any drugs addiction)

 $1_i(p_i/1 - p_i) = = \beta \mathbf{0} + \beta \mathbf{1} \text{FEdu} + \beta \mathbf{2} \text{FBus} + \beta \mathbf{3} \text{HI}$ +  $\beta \mathbf{4} \text{PsyI} + \beta 5\text{DA} + \mu \dots \text{(Equation 5)}$ 

# **9.** Demographic characteristics

The respondents of this study were those who had a failed suicide attempt, and nears/family members of those who had committed successful suicide, during data collection we conducted interviews from both genders. In this study we conducted 48 interviews from females and 132 for male subjects.

S.NO	Variable	Classification	frequency	Percentage
1	Age	10-20	40	22%
		21-30	76	42%
		31-40	46	25%
		41-45	18	10%
2	Gender	Male	132	73%
		Female	48	27%
3	Method of suicide	Head shot	68	37%
		Hanged	29	16%
		Poison	21	11%

Table 1 Demographic characteristics
-------------------------------------

		Jumped to water Jumped from building Electricity Burned Drugs Cut nerves	10 6 16 7 15 8	5% 3% 8% 3% 8% 4%
4	Marital status	Married Unmarried	80 100	44% 56%
5	Employment status	Unemployed Student Govt. employee Private employee Self employed	60 66 5 14 35	33% 36% 2% 7% 19%
6	Family income	<20,000 20,000 - 40,000 40,000 - 50,000 50,000 - 60,000 >60,000	36 82 34 14 14	20% 46% 19% 7% 7%
7	Results of suicide attempt	Successful suicides Unsuccessful suicide	162 18	90% 10%

Survey results show that among the subjects that were studies for this research study. its is found that the age group of 21-30 years is the most effected age group where 76(43%) of the total cases are reported, followed by the age group of 31-40 where we have the second highest frequency i-e 46(25). The main reason of suicide for these people was financial problems. The study results show that people among age 20 to 40 the suicide rate is higher, which means young people are having a very major portion among those who are trying to commit suicides in district Mardan.

The data has a total of 180 subjects among whom 132 (73%) are male subjects, while 48 (27%) are female subjects in district Mardan.

While committing suicide people used different methods which are recognized during the data collection process. Among all these methods, in our sample of 180 subjects who have attempted suicide, the most frequent way of attempting suicide in district Mardan was reported to be head shot. The study results confirms that 68 (37%) committed suicide by head shot, while the second most frequent way of attempting suicide was reported to be hanging themselves where 29(16) of the subjects cases were reported in district Mardan. Among the sample of 180 subjects, 80 (44%) subjects were reported to be married, while the remaining 100 (56%) respondents were unmarried.

Employment status of the respondents is divided in five different categories which includes unemployed, students, government employed, private employed and self-employment. According to the data collected 60 (33%) of the subjects were unemployed, which means that unemployment plays a very key role in individual decision of committing suicide and is one of the major determinants of suicide in district Mardan, while 66 (36%) of the subjects were found to be students, which conclude that students are the most effected category from suicide due to different problems they face in educational and personal life are the main causes of attempting suicide among youth in district Mardan.

Family income of the subject plays a very important role in his decision making. In our data set we have divided family income in 5 different groups. The study results show that the most affected income group from the decision of suicide is lower middle income group in district Mardan where 82(46%) out of the total subjects under study had family income between 20,000 and 40,000. While the second most affected income group is reported to be lower income

group. The study results shows that 36(20%) of the total suicides that were studies lies in the income group of less than 20,000.

The collected information conclude that out of 180 subjects who tried suicides in district Mardan, 162 (90%) subjects had a successful attempt, while 18(10%) survived in the result. The rate of successful

attempts is higher due to a few reasons. Firstly, mostly people go for suicide when they are alone. Secondly, the transportation system is not good enough to get to the healthcare center on time. Thirdly, healthcare centers in district Mardan aren't well equipped to handle critical patients.

# **10.Results and discussion**<br/>Model 1Model 1 $1_i(p_i/1 - p_i) = \alpha + \beta_1 \sum FaP + \beta_4 \sum Dep + \mu_i$ ------ (1)<br/>Model SummaryModel Summary-2 Log<br/>likelihoodCox & Snell R<br/>SquareNagelkerke R<br/>Square1118.085.518.691

Model results show the comparison of various measures for the given sample. The three measures, likelihood test, Cox and Snell R square and Nagelkerke R square. Among these measures, Nagelkerke test is the better one for estimating the

correlation among actors. Nagelkerke R square has a range from 0-1. Here in this model result the figure of Nagelkerke is 0.691 that explains that there exist a strong enough correlation between the two variables of the given model.

### Variables in the Equation

	В	S.E.	Wald	Df	Sig.	EXP (B)
Step 1 <sup>a</sup> FaP	.390	.113	12.003	1	.001	1.477
DEP	1.130	.220	26.490	1	.000	3.095
Constant	1.797	2.076	.750	1	.387	6.033

EXP (B) shows the direction of the relationship between dependent and independent variables. Given the found value of EXP (B) is lower than 1 show that there is inverse relationship connecting the variable. When the value of EXP (B) is uniform to 1, this recommends that no relationship exist between variables. While if the value of EXP (B) is more than 1, it explains that the relationship liking the said variable and the dependent actor is positive. The study founding shows that EXP (B) for Family problems values at 1.477 that is more than one and that describes that there is positive relationship in the variable of family problems and the probability of occurrence of suicide. It indicates that if family problems increase by 1% the probability of suicide will grow by 0.390% in district Mardan. The value of EXP (B) for depression is 3.095 (more than one), which shows that there is positive relationship between depression and the chances of attempting suicide, and if depression in improves by 1% the chances of attempting suicide will enhance by 1.130% in district Mardan.

## Model 2

Suicide= f (family problem)

 $1_i(p_i/1 - p_i) = \boldsymbol{\beta}\mathbf{0} + \boldsymbol{\beta}\mathbf{1}RPa + \boldsymbol{\beta}\mathbf{2}RSi + \boldsymbol{\beta}\mathbf{3}RSp + \boldsymbol{\beta}\mathbf{4}DMR + \boldsymbol{\beta}\mathbf{5}AFFu + \boldsymbol{\beta}\mathbf{6}RBFM + \boldsymbol{\beta}\mathbf{7}ENIMTY + \boldsymbol{\mu}$ 

		Cox	&	Snell	R	Nagelkerke	R
Step	-2 Log likelihood	Squa	re			Square	
1	67.512	.636				.848	

Model outline shows the comparison of 3 tests for the provided sample set. The 3 measures used are likelihood, Cox and Snell R square, and Nagelkerke R square test. But among the said measures, Nagelkerke is the better estimate here for estimating the correlation among the variables under study. Nagelkerke R square test scales from 0 to 1. Here in this model results the worth of Nagelkerke is 0.848 that explains that here exist a strong relationship joining the variables of this model.

### Variables in the Equation

-	В	S.E.	Wald	Df	Sig.	EXP (B)
RWPa	-2.434	1.304	2.240	1	.027	.520
RWSi	-3.277	2.608	1.870	1	.039	.830
RWSp	-1.164	.610	3.638	1	.036	.312
RIDM	-1.310	1.304	3.773	1	.009	.170
AIFF	-2.976	1.979	2.261	1	.033	.051
RBFM	-3.049	2.603	1.419	1	.008	.206
ENIMITY	0.350	2.925	1.600	1	.006	1.025
Constant	144.430	9.129	7.304	1	.788	5.308E62

a. Variable(s) entered on step 1: RWPa, RWSi, RWSp, RIDM, AIFF, RBFM, and ENIMITY.

The association liking family issues with suicide is depicted in the table below. The findings indicate an inverse relationship existing between suicide and relationship with parents; therefore, if there exist a 1% surge in relationship with parents, the odds of attempting suicide will go down by 2.434% and the chances of suicide attempt increases by the same amount if there is 1% decrease in the value of relationship with parents in district Mardan. The worth of Exp (B) for relationship with parents is lower than one. In district Mardan, the likelihood of attempting suicide decreases by 3.277% for every 1% rise in sibling relationships and it increase by the same amount by every 1% decrease in relationship with siblings, according to the value of Exp (B) for relationship with siblings that is less than one, indicating an inverse association between the two. In

district Mardan, if there is a 1% increase in relationship with spouse, the odds of attempting suicide will diminish by 1.164%, and contrariwise, as the worth of Exp (B) for relationship with spouse is lower than one, indicating that there is an inverse relationship connecting suicide and relationship with spouse. There is an inverse relationship between suicide and role in decision-making, as evidenced by the fact that the value of EXP (B) for role in decisionmaking is also less than one; in district Mardan, for example, if role in decision-making rises by 1%, the likelihood of trying suicide decreases by 1.310% and contrariwise. In district Mardan, if family function attendance increases by 1%, the likelihood of going for suicide decreases by 2.976%, and contrariwise. The worth of EXP (B) for attendance at family functions is also lower than one, demonstrating the

inverse relationship between suicide and family function attendance. In district Mardan, if the value of family relationships grows by 1%, the likelihood of seeking suicide decreases by 3.049%, and inversely. The worth of EXP (B) for family relationships is likewise smaller than one, demonstrating the inverse association between suicide and family relationships. In district Mardan, if the value of enmity rises by 1%, the likelihood of committing suicide rises by 0.350%, and vice versa. This is because the value of EXP (B) for hostility is more than one, demonstrating that there is a direct relationship between suicide and enmity.

Helwell (2007) demonstrated through his research that "various dimensions of decision making and role supportive persons in describing decisions" are directly tied to family issues. Many times, those who made suicide attempts had recently dealt with family issues. Which support my findings where he also states that there exist a favorable relationship between family issues and suicide.

# Model 3

### **2.4 Suicide = f (depression)**

```
1_i(p_i/1 - p_i) = \beta \mathbf{0} + \beta \mathbf{1}FEdu + \beta \mathbf{2}FBus + \beta \mathbf{3}HI + \beta \mathbf{4}PsyI + \beta \mathbf{5}DA + \mu
```

### **Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	208.726ª	.203	.270

a. Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

The summary of the model shows that the worth of Nagelkerke R Square is 0.270 and that explains that there exist a fragile correlation connecting the variables of this model.

Variables in the Equation									
-	В	S.E.	Wald	df	Sig.	Exp(B)			
FIEdu	.043	.249	.030	1	.003	1.044			
FIBus	.347	.271	1.634	1	.001	1.414			
PHP	.788	8.473	.000	1	.998	1.067			
PSYP	20.045	1.391	.000	1	.999	5.075			
Drugs	.805	.424	3.596	1	.058	2.236			
Constant	-63.145	2.193E4	.000	1	.998	.000			

a. Variable(s) entered on step 1: FIEdu, FIBus, PHP, PSYP, Drugs.

The correlation linking depression and attempt of suicide is depicted in the table below. According to the findings, suicide and academic failure are positively correlated; in the region of Mardan, for every 1% increase in academic failure, the likelihood of attempting suicide rises by 0.043%. In the district of Mardan, the value of Exp (B) for business failure is greater than 1, indicating a positive link between suicide and business failure. If business failure rises by 1%, the likelihood of attempting suicide rises by 0.347%, and vice versa. The findings indicate a direct correlation between physical health issues and

suicide. The likelihood of attempting suicide in district Mardan will increase by 0.788% for every 1% increase in the value of physical health issues and vice versa. In the given table, the worth of Exp (B) for mental health issues is greater to 1, indicating a possible link connecting mental health issues and suicide. The likelihood of suicide in district Mardan will increase by 20.045% if the value of psychological health issues rises by 1%, and vice versa. According to the findings, there is a direct correlation between drug abuse and suicide. In the

Mardan district, the odds of suicide rise by 0.805% for every 1% increase in drug abuse.

(Zung, 1965) According to his studies, depression is the most potent factor for testing a person's mental fortitude and capacity to make wise decisions in stressful circumstances. He did more research into the fact that depression was one of the main contributing factors to suicide. Depression is frequently caused by other linked issues like familial or financial difficulties that a person encounters. Family issues frequently lead to feelings of loneliness and despair, which drain one's mental energy and cause depression. If one's mental fortitude is insufficient, this can lead to depression and even a suicide attempt. Depression can also be brought on by financial difficulties. Financial hardship makes a person feel physically and emotionally alone, which can lead to despair. If depression consumes a person's thoughts, he or she may try suicide.

Previous studies (Saeed, Bashir, Khan, Iqbal, Raja, & Rehman, 2002)conducted in Pakistan regarding suicide and mental health targeted Faisalabad were focused on comparative analysis of suicides in Faisalabad with the developed countries, and were case study based and explained the problem descriptively without any empirical support and data analysis. This study is based on to identify the major determinants of suicides in district Mardan. This is an empirical study based on primary data. The results show that financial problems (individual and socio-demographic problems, family). and depression play a key role in convincing individual to attempt suicide rather than continue living. The results are proved empirically with the help of data and econometric model.

# 11. Conclusion and policy recommendations Main Findings

The main factors influencing suicide in the district of Mardan were examined in this study. The following are the study's primary conclusions:

- Suicide has a favorable correlation with familial issues, which include (association with parents, siblings, spouse, importance in decision making, and appearance in family functions).
- Suicide has a favorable correlation with depression brought on by (misfiring in education, dereliction in business, health

related problems, psychological problems, intoxication addiction).

- The age range of 20 to 40 is the one most impacted by suicide.
- It has been discovered that the suicide problem is particularly severe among the middle, lower middle-, and lower-income classes.
- The research indicates that men attempt suicide at a higher rate than women, which is due to men's disproportionately higher exposure to family, socio-demographic, and economical issues.
- The findings indicate that depression, which is harmful to both physical and psychological health, is frequently brought on by familial and financial issues.
- The findings indicate that pressure from families to achieve higher grades and feelings of failure and depression when performance falls short of expectations are the leading causes of suicide attempts among teenagers.

### Conclusions

The study's conclusion is that the majority of suicides happen as a result of intense social pressure. During interviews, the majority of suicide survivors stated that intense social pressure from their families and the general public in various forms led them to try suicide. The study looks at a person's family problems and depression to see what factors are most important in determining suicide in the Mardan district. The binary logistic models demonstrate a positive association between family issues and suicide; the more a person experiences family issues, the more likely he will be persuaded to try suicide by his mental shortcuts. Negative thoughts also make people more frustrated, which frequently results in the decision to commit suicide. The findings of the binary logistic demonstrate that many people have tried suicide in recent years as a result of depression, and depression itself is a derived variable from the combination of many other variables. Majority of the time, other issues cause sadness, and people's ability to think is overseen and controlled by improbable occurrences and actions. An attempt at suicide is frequently the outcome of this making a person feel mentally down and depressed.

According to the data, 66 (36.6) people made suicide attempts as a result of family issues. In district

Mardan, where 25 (13.8%) people attempted suicide owing to depression.

### Recommendations

### Specific recommendations

- According to the report, families should help one another more when going through emotional difficulties or relational issues.
- The majority of the times, problems that are brought on by the society we inhabit make a person feel frustrated and excluded from their socioeconomic group. People shouldn't be subjected to unwarranted criticism and excessive expectations from society.
- The worst position in which a person may make any decision is depression. Numerous variables that might suppress a person individually or collectively include those that contribute to depression. To prevent depression and mental disease during depressive episodes, people should reason, act rationally, and think positively. Casual depressions that cause a person to make an unreasonable decision to commit suicide are always the cause of mental disease.

### General recommendations

- Families and educational institutions shouldn't constantly put pressure on pupils to get better grades. Different people have varying skill levels and employment and educational options.
- Families should spend more time with those members who are struggling and feeling lonely so they won't feel abandoned or unappreciated.
- Parents shouldn't underestimate the effects of academic setbacks and poor marks on their children. Teenagers and those in their early 20s tend to have soft hearts and underdeveloped minds, and the likelihood that they will make poor decisions if left emotionally unattended during times of failure is considerable.
- In order to develop students' mental fortitude and rationality, psychology courses should be included in academic curricula in schools and colleges. This would enable students to handle challenging situations and make thoughtful decisions.

In order to reduce mental health difficulties, there should be adequate psychologists in all institutions so patients may easily contact them. Government and society should take mental health issues seriously and take the appropriate preventative measures and medications to lessen and eventually eliminate mental health issues.

### References

- Bergeron, A. J. (2014). The Economics of Suicide: An Empirical Study(2014).
- Boyed, N. (2005). suicide and decision making ability movement in male and female population in North Americs. *American sociological revive*, 81 (5), 412-419.
- Calandre, E. P., Fernando, R.-V., & Mahmoud, S. (2018). Suicidal behaviors in patients with rheumatic diseases: a narrative review. *Rheumatology international*, *38* (4), 537-548.
- Campisi, S. C., Carducci, B., Akseer, N., Zasowski, C., Szatmari, P., & Bhutta, Z. A. (2020). "Suicidal behaviours among adolescents from 90 countries: a pooled analysis of the global school-based student health survey.". *BMC public health*, 20 (1), 1-11.
- Hajizadeh, M., Bombay, A., & Asada, Y. (2019). Socioeconomic inequalities in psychological distress and suicidal behaviours among Indigenous peoples living off-reserve in Canada. *Cmaj*, 191 (12), E325-E336.
- Hamermesh S, D., & Neal, S. M. (1974). An economic theory of suicide. *Journal of Political Economy*, 82 (1), 83-98.
- Healy, R. (2006). Suicide in early modern and modern Europe. *The Historical Journal*, 49 (3), 903-919.
- Helliwell, J. F. (2007). Well-being and social capital: Does suicide pose a puzzle? *Social indicators research*, *81* (3), 455-496.
- Hossain, Mahbub, M., Neetu, P., Bhattacharya, S., & Sharma, R. (2020). Suicide of a farmer amid COVID-19 in India: Perspectives on social determinants of suicidal behavior and prevention strategies." (2020). 1-19.
- Hwei-Lin, C., & Huang, W.-C. (2007). A re-examination of the suicide rates in Taiwan. *Social Indicators Research*, 83 (3), 465-485.
- Isabel, R.-P., Miguel, R.-B., Antonio, R.-G., & Oscar, M.-G. (2017). Economic crisis and suicides in Spain. Socio-demographic and regional variability. *The European Journal of Health Economics*, 18 (3), 313-320.

- Joanna, M., & Patel, V. (2008). Why women attempt suicide: the role of mental illness and social disadvantage in a community cohort study in India. *Journal of Epidemiology & Community Health*, 62 (9), 817-822.
- Martikainen, P., Mäki, N., & Blomgren, J. (2004). The effects of area and individual social characteristics on suicide risk: a multilevel study of relative contribution and effect modification. *European Journal of Population/Revue Européenne de Démographie*, 20 (4), 323-350.
- Organization, W. H. (2017). World Health Organization Report. Geneva: World Health Organization.
- Pakistan, H. R. (2016). *Human Right Commission of Pakistan*. Islamabad: Human Right Commission of Pakistan.
- Paykel, E. S., Prusoff, B. A., & Myers, J. K. (1975). Suicide attempts and recent life events: A controlled comparison. Archives of General Psychiatry, 32 (3), 327-333.
- Saeed, A., Bashir, M. Z., Khan, D., Iqbal, J., Raja, K. S., & Rehman, A. (2002). Epidemiology of suicide in Faisalabad. J Ayub Med Coll Abbottabad, 14 (4), 7-34.
- Wysowski, D., Pitts, M., & Beitz, J. (2001). An analysis of reports of depression and suicide in patients treated with isotretinoin. *Journal of the American Academy of Dermatology*, 45 (4), 515-519.
- Yamasaki, A., Shunichi, A., Ryoji, S., Yokoyama, K., & Voorh, A. S. (2008). Suicide mortality of young, middle-aged and elderly males and females in Japan for the years 1953-96: time series analysis for the effects of unemployment, female labour force, young and aged population, primary industry and population density. *Industrial Health*, 46 (6), 541-549.
- Zung, W. W. (1965). A self-rating depression scale. Archives of general psychiatry, 12 (1), 63-70.