

# Study of Socio-demographic and Clinical Profile of Individuals with Deliberate Self-harm Attempt during COVID-19 Lockdown

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## ABSTRACT

**Introduction:** Self-harm attempt is an important aspect in consultation liaison psychiatry. During lockdown due to the Coronavirus Disease-2019 (COVID-19) pandemic, many people underwent various stressors. Many individuals were referred to Psychiatry Out Patient Department (OPD) with a history of self-harm attempt. They were also aware of the travel restrictions and difficulty in reaching hospitals. So, it was necessary to understand the reasons for the self-harm attempt, especially during the lockdown.

**Aim:** To study the socio-demographic and clinical profile of individuals with self-harm attempt during the lockdown.

**Materials and Methods:** The cross-sectional study was done during the COVID-19 lockdown period (last week of March 2020 till end of May 2020) in the Kodagu Institute of Medical Sciences Teaching Hospital, Madikeri, Karnataka, India. A total of 52 subjects of self-harm attempt who were referred to the Department of Psychiatry for counseling and needed psychological help, on regular OPD days were recruited for the study after obtaining informed consent. Socio-demographic

and clinical details like nature of self-harm attempt, method of attempt, number of attempts, reason for attempt, time of attempt, consumed alcohol prior to the attempt, how did they reach hospital, clinical depression, difficulty in reaching hospital due to lockdown, regret/remorse about the attempt were documented using the semi-structured proforma. The data was expressed as percentages and Chi-square test was applied. A p-value less than 0.001 were considered as significant.

**Results:** Out of 52 subjects, 65.4% belonged to 21-40 years of age, 51.9% were females, 65.4% were married, 30.8% belonged to lower socio-economic status, 61.6% residing in a rural area, education below class 10 (73.07%), the predominant occupation was labourers and home maker. Poisoning was the common method and 25% had depression and needed medications. The interpersonal conflict was the common reason and had difficulties due to lockdown (5.7%). However, the findings were statistically not significant among males and females.

**Conclusion:** Self-harm attempt was common in young married females in a rural area by poisoning, who reported depression, interpersonal conflict and economic difficulties during the lockdown.

**Keywords:** Coronavirus 2019, Depression, Pandemic, Suicide attempt

## INTRODUCTION

Self-harm is a term used to describe wide range of behaviours and intentions which includes attempted hanging, impulsive self-poisoning, overdosing medications etc. Various terms can be used interchangeably for self-harm attempt like "attempted suicide," "deliberate self-poisoning", "deliberate self-harm or injury" and "parasuicide" [1,2] and it is one of the top five causes of acute medical admissions for both men and women [3].

Suicide is a serious global public health issue. It is among the top 20 leading causes of death worldwide, with more deaths due to suicide than malaria, breast cancer or war and homicide. Close to 8,00,000 people die by suicide every year [4].

The onset of COVID-19 began in India at the end of January 2020 and since then cases started increasing, the government of India announced the entire nationwide lockdown from 4<sup>th</sup> week of March 2020, where apart from essential services almost all the movements across the country were restricted. However, government and private health care facilities continued to serve the community with emergency services.

During this time even though restriction to the movement was there, cases of self-harm attempt presenting to the emergency/casualty were noted. Subsequently after stabilisation they were referred to the outpatient department for psychiatry evaluation, psychosocial interventions and counseling. Hence, the present study was done with the aim to understand the demographic and clinical profile of the subjects who had deliberate self-harm attempt during the lockdown period.

Our Department of Psychiatry was regularly getting referrals from physicians to evaluate patients who attempted suicide and survived; and after which they were physically stable. We are collecting the data of such patients with the objectives to understand the reasons for their attempt, methods used, number of attempts in the past, and other socio-economic and clinical profile. This study was going on since last 2-3 years on regular basis.

The present study was the part of the above study where data was collected exclusively during the lockdown period.

As we have noted, there was significant decrease in the number of patients visiting Psychiatry OPD due to lockdown, but the patients with suicide attempt (self-harm attempt) keep on coming in spite of restrictions in movement of vehicles and transport facilities.

Hence the study was conducted and the subjects were recruited during the lockdown (pandemic time) in which the situation was different from routine situations (i.e., non-pandemic times).

## MATERIALS AND METHODS

This cross-sectional study was conducted at the Department of Psychiatry, Kodagu Institute of Medical Sciences Teaching Hospital, Madikeri, Karnataka, India, during the time of lockdown (from last week of March 2020 till end of May 2020) due to COVID-19 pandemic. The present study is a part ongoing study on self-harm attempt for which Ethical committee clearance was already obtained (KoIMS/IEC/12/18-19).

**Inclusion criteria:** Out of 60 subjects with deliberate self-harm attempt (both males and females) who were referred to the

Department of Psychiatry, 52 subjects who had reliable informant and gave consent to participate in the study as inclusion criteria, were recruited by purposive sampling method.

**Exclusion criteria:** Among the remaining 8 subjects, five subjects did not give consent and three subjects did not have reliable informants, hence they were excluded from the study.

Semi structured socio-demographic and clinical data (based on previous studies on self-harm attempt) sheet was used to record the variables like nature of self-harm attempt, method of attempt, number of attempts, reason for attempt, time of attempt, consumed alcohol prior to the attempt, how did they reach hospital, clinical depression, difficulty in reaching hospital due to lockdown, regret/remorse about the attempt [5]. Modified Kuppaswamy socio-economic scale updated for the year 2019 was used to categorise the socio-economic status of the study subjects [6]. International Classification of Diseases, revision 10 (Diagnostic Criteria for Research) [7] was used to diagnose depression among study subjects.

### STATISTICAL ANALYSIS

Socio demographic variables were expressed as percentages and non-parametric Chi-square test was used for clinical variables. Statistical significance was considered at p-value less than 0.001.

### RESULTS

#### Socio-demography [Table/Fig-1]

Total of 52 subjects who were included in this study, there was a slight female preponderance among the study sample (51.9%). About 65.4% of them were in the age group of 20 to 40 years followed by 25% below the age of 20 years. Majority of them were having education below class 10 (73.1%), belonged to rural area (61.6%) and were married (65.4%). A 78.9% of the subjects belonged to lower socio-economic status (Upper lower and lower, according to modified Kuppaswamy socio-economic scale updated for the year 2019). Most common occupation was labourer/farmer (40.4%), followed by homemakers (34.60%) and students (25%). Only 3.8% had reported past history of self-harm attempt and 11.5% had family history of suicide/attempted suicide.

#### Clinical Profile of Individuals with Self-harm Attempt [Table/Fig-2]

A 61.5% reported that their self-harm attempt was impulsive in nature and it was their first attempt (96.2%) and poisoning was the most common method (57.7%) chosen, as it was easily available.

Main reason for attempt was interpersonal conflict with spouse and other family members, among students it was study related stress due to pandemic and broken relationships. Only 5.7% reported loss of job due to lock down and pandemic was the reason for their attempt.

Sl. No.	Characteristics		N (%)
1	<b>Age group (years)</b>		
		≤20	13 (25)
		21-30	20 (38.5)
		31-40	14 (26.9)
		41-50	01 (1.9)
		Above 50	04 (7.7)
2	<b>Gender</b>		
		Male	25 (48.1)
		Female	27 (51.9)
3	<b>Education</b>		
		Upto class 10 <sup>th</sup>	38 (73.1)
		Above class 10 <sup>th</sup>	14 (26.9)
4	<b>Residence</b>		
		Rural	32 (61.6)
		Semiurban/Urban	20 (38.4)
5	<b>Socio-economic status</b>	Upper	2 (3.8)
		Upper middle	3 (5.8)
		Lower middle	6 (11.5)
		Upper lower	25 (48.1)
		Lower	16 (30.8)
6	<b>Marital status</b>		
		Married	34 (65.4)
		Unmarried	18 (34.6)
7	<b>Occupation</b>		
		Labourers/Farmers	21 (40.4)
		Home makers	18 (34.6)
		Students	13 (25)
8	<b>Past history of self-harm attempt</b>		
		Yes	02 (3.8)
		No	50 (96.2)
9	<b>Family history of suicide/attempt</b>		
		Yes	06 (11.5)
		No	46 (88.5)

[Table/Fig-1]: Sociodemographic variables of the subjects.

Majority of them attempted self-harm during day time (69.2%), few consumed alcohol prior the attempt (19.2%), and reach the hospital by private or rented vehicle (51.9%) and 86.5% reported difficulty in reaching hospital as vehicles were not easily available due to movement restrictions during lockdown. A 90.4% expressed regret/remorse about their self-harm attempt. A 25% were diagnosed to have clinical depression and started on antidepressant medications. However, these findings were not statistically significant.

Sl. No.	Characteristics		Male	Female	N (%)	χ <sup>2</sup>	p-value
1	Nature of self-harm attempt	Impulsive	15	17	32 (61.5)	0.048	0.826
		Intentional	10	10	20 (38.5)		
2	Method of attempt	Household agents	05	10	15 (28.8)	3.395	0.335
		Organo-phosphorous poisoning	16	14	30 (57.7)		
		Attempted hanging	04	02	06 (11.6)		
		Self cutting	0	01	01 (1.9)		
3	Number of attempts	First	23	27	50 (96.2)	2.246	0.134
		More than once	02	0	02 (3.8)		
4	Reason for attempt	Interpersonal conflicts with family (other than spouse)	05	11	16 (30.8)	3.512	0.476
		Interpersonal conflicts with spouse/partner	12	08	20 (38.5)		
		Broken emotional relationship	04	04	08 (15.3)		
		Study related stress	03	02	05 (9.7)		
		Stress due to lockdown and pandemic [Loss of job and financial difficulties]	01	02	03 (5.7)		

5	Time of attempt	Day time [6 am to 6 pm]	16	20	36 (69.2)	0.618	0.432
		Night time [6 pm to 6 am]	09	07	16 (30.8)		
6	Consumed alcohol prior to the attempt	Yes	08	02	10 (19.2)	5.054	0.025
		No	17	25	42 (80.8)		
7	How did they reach hospital?	Ambulance	10	15	25 (48.1)	1.258	0.262
		Private/Rented Vehicle	15	12	27 (51.9)		
8	Clinical depression	Present	06	07	13 (25)	0.026	0.873
		Absent	19	20	39 (75)		
9	Difficulty in reaching hospital due to lockdown	Yes	21	24	45 (86.5)	0.266	0.606
		No	04	03	07 (13.5)		
10	Regret/remorse about the attempt	Present	22	25	47 (90.4)	0.315	0.575
		Absent	03	02	05 (9.6)		

**[Table/Fig-2]:** Clinical variables.

Chi-square test applied, \*Significant at  $p < 0.001$

## DISCUSSION

Subjects who attempt deliberate self-harm are often unrecognised, unless it comes to clinical attention and hidden by family members due to fear of legal problems. COVID-19 pandemic and difficulties arising due to lockdown was an unprecedented situation where most of the people were affected. In spite of such difficulties people do attempted for deliberate self-harm due to various reasons which we tried to assess in the present study.

There was a slight female preponderance in the present study which may be due to increased family stress like increased household work, altercations with family members and worry about education of the children, due to lockdown and this finding is in contrast with other Indian studies [5,8-11] which noted male preponderance and those studies were conducted during non pandemic time.

The propensity of young adults for self-harm attempt is a constant finding among different cultures and it indicates the vulnerability of this age group [12]. The social pressures such as study-related problems, domestic responsibilities, broken emotional relationship, and financial insecurity may be the possible reasons which tend to be prevalent in this age group [13] and were aggravated especially during COVID-19 lockdown as noted in the present study in support of earlier studies.

A 65.4% of the married individuals belonged to rural area with education below class 10 attempted self-harm which is in consistent with researches from Indian subcontinent [5,10], the reasons being possible increased domestic violence, financial burden due to loss of job, enhanced responsibility of married individuals during lockdown as most of them were staying indoors.

In the present study, the subjects belonged to lower socio-economic status (78.9), which is in contrast with one Indian study [10] where 85% of the subjects were belonged to middle socio-economic status. The probable reason might be the impact of lockdown predominantly affecting the people with lower socio-economic status.

### Methods Chosen for Self-harm Attempt

Self-poisoning was the most common method used (86%) in the current study. Insecticide was the most common poison used. Most of the Indian studies had similar findings. The possible reasons being: (1) Most of them are staying indoors due to lockdown and easy availability of insecticide; (2) farmers, who come across insecticides in their fields and houses; (3) popularity of insecticides as deadly poisons; and (4) increased media reporting of such acts which is a cause of concern [10,11,14-16].

Appropriate community education and individual counselling to be given to the farmers by the government agencies, regarding the "safe storage" of insecticides. The death caused by consumption of pesticides could be reduced by reporting on the availability and restriction of its use rather than mentioning the toxicity of the pesticides that are available for sale in the market.

### Stressors and Self-harm Attempt

Most common reasons which were well acknowledged in previous Indian studies [5,10] similar to current study are interpersonal conflicts with the family members, conflicts with spouse or partner, and broken emotional relationship. Among students study related stress was noted due to postponement of exams indefinitely and burden of attending online classes with limited internet connectivity especially in rural areas.

About 25% of the present study subjects reported clinical depression which needed pharmacological management with antidepressant medications. Previous studies have also noted psychiatric comorbidities like depression and adjustment disorders as most common findings followed by neurotic, stress, personality, and substance-related disorders among those who attempt self-harm [5,10].

About 5.7% of the present study subjects reported that loss of job and financial difficulties due to COVID-19 lockdown which counted as the reasons for their self-harm attempt. Study by Sahoo S et al., noted in their case report that those COVID-19 positive cases attempted suicide were found to have depression and also they were stressed about unnecessary information available in the media regarding COVID-19 [17].

Most of present study subjects were very well aware of the prevailing situations due to lockdown in the country in the form of difficulty in getting vehicles and restriction in movements to reach the hospitals in time. Being in mental health profession it is important to educate the society and identify the vulnerable subjects who are at risk of attempting suicide and also provide necessary early interventions to prevent future self-harm attempt.

Use of technology like telepsychiatry, online consultations is an important intervention strategy to promote positive mental health and provide counseling to the public in suicide prevention techniques is very important especially during the time of pandemic like COVID-19.

Role of media in reporting of suicides in the society without exaggeration, especially in case of suicide by celebrities will be an important step towards discouraging modeling behaviors and preventing suicides/attempts in the society.

### Limitation(s)

The sample size of the study was small. The study findings cannot be generalised to a community as it was done in a tertiary care centre. These lacunae need to be addressed in future studies in order to provide better mental health care to the public at large.

### CONCLUSION(S)

Among those cases presented for psychiatric evaluation during the time of lockdown due to COVID-19 pandemic, ingestion of Organophosphate Poisoning was most common method of Deliberate self-harm (DSH) in the individuals between age group

of 20-40 years, who belonged to lower socio-economic status and rural background with slight female preponderance. Married subjects who experienced interpersonal conflicts along with difficulties due to lockdown also reported more attempts of DSH.

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### PLAGIARISM CHECKING METHODS: [Jain H et al.]

- Plagiarism X-checker: Jan 07, 2021
- Manual Googling: May 31, 2021
- iThenticate Software: Jun 14, 2021 (11%)

### ETYMOLOGY: Author Origin

### AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was Ethics Committee Approval obtained for this study? Yes
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. NA

Date of Submission: **Jan 06, 2021**

Date of Peer Review: **Mar 18, 2021**

Date of Acceptance: **Jun 03, 2021**

Date of Publishing: **Jul 01, 2021**