# Psychosocial intervention outcomes for caregivers of adolescents with intellectual disability in the COVID-19 era

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# ABSTRACT

Background: The COVID-19 pandemic led to prolonged home confinement for children and adolescents due to national lockdowns, resulting in school closures and the suspension of rehabilitation services. These measures aimed to curb the virus's spread but caused significant psychosocial distress among caregivers of adolescents with intellectual disability (ID). Objectives: This study aims to assess the psychosocial distress among caregivers of adolescents with ID, explore the coping strategies employed by these caregivers during the lockdown, and evaluate the impact of psychosocial interventions on caregivers of adolescents with ID. Material & Methods: A prospective pre and post-intervention study without a control group was conducted using consecutive sampling method. Fifteen caregivers of adolescents with ID registered at Government Rehabilitation Institute for Intellectual Disabilities, Chandigarh participated. Caregivers with a score of 20 or more on the Kessler Psychological Distress Scale (K10) were included with their consent. Assessments were conducted using the Socio-demographic and Clinical Data Sheet, Psychosocial Assessment Tool (PAT), and Brief Cope scale. Psychosocial interventions were provided, followed by post-assessment with K10 and PAT scales over five video call sessions. Ethical clearance and Clinical Trials Registry India (CTRI) registration were obtained before starting the study. Data were analysed using SPSS 16, and the Wilcoxon Signed Rank Test was used to compare pre and post-intervention results. Results: Significant reductions in psychological distress were observed across all domains post-intervention, including nervousness, restlessness, sadness, tiredness, hopelessness, and feelings of worthlessness (p < .01 for some and p < .001 for others). Conclusions: Despite the small sample size, the study suggests that psychosocial interventions effectively reduce psychological distress and related psychosocial issues among caregivers of adolescents with ID.

Keywords: Intellectual disability, COVID-19 pandemic, lockdown, caregivers, distress, psychosocial intervention, coping

# **INTRODUCTION**

The novel coronavirus (COVID19) has rapidly spread worldwide since late 2019, prompting the World Health Organization (WHO) to declare it a pandemic in March 2020<sup>1</sup>. India implemented nationwide lockdown measures on March 24, 2020, leading to closures of workplaces and schools to contain the virus, though associated psychosocial issues such as worry, stress, and sleep disturbances emerged<sup>2</sup>.

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Individuals with intellectual disabilities (ID) faced heightened vulnerability due to poor mental and physical health, closure of rehabilitation institutes, and challenges posed by social distancing measures<sup>3</sup>. The severity of ID, categorized as mild, moderate, severe, or profound, affects over 90% of those impacted<sup>4</sup>. Caregivers of individuals with ID, often family members providing instrumental and emotional support, experienced high levels of stress and burnout, exacerbated by

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demanding nature of caregiving<sup>5</sup>. the Challenging behaviours in individuals with ID indicate increased mental stress, exacerbated by disruptions to routines and activities during lockdowns<sup>6</sup>. Lockdown measures may both trigger or alleviate such behaviours, depending on individual circumstances<sup>7</sup> <sup>8</sup>. During the pandemic, there was a notable increase in requests for psychotropic medication among ID services, reflecting changes in behaviours or caregiver coping strategies<sup>9</sup>. The unmet needs of children with ID due to closure of rehabilitation services and schools during the pandemic added to caregivers' stress and burden<sup>16</sup>. The situation was compounded by job losses, financial constraints, and other challenges experienced during the lockdown<sup>17</sup>. Caregivers of individuals with ID reported higher levels of stress, anxiety, and depression compared to caregivers of those without ID<sup>18</sup>. Effective coping mechanisms, such as positive interpretations and growth, were associated with reductions in depressive and stressrelated symptoms<sup>18</sup>.

# **OBJECTIVES**

The study aimed to assess the psychosocial distress among caregivers of adolescents with Intellectual Disability during the COVID-19 pandemic, explore the coping strategies they used during the lockdown, and determine the impact of psychosocial interventions provided to these caregivers.

# MATERIAL AND METHODS

This prospective study used a pre and postintervention design without a control group and was conducted at the Government Rehabilitation Institute for Intellectual Disabilities (GRIID), Chandigarh. The sample consisted of 15 caregivers of adolescents with Intellectual Disability who were receiving services from GRIID. Participants were selected using consecutive sampling. Inclusion criteria for caregivers were: living with an adolescent with mild Intellectual Disability (as per ICD-10 criteria), being of any age, comprehending Hindi or English, having access to video calling facilities, and scoring 20 or more on the Kessler Psychological Distress Scale (K10). Caregivers were excluded if they had any known major psychiatric or medical illness, including substance dependence (except caffeine and

nicotine), or if more than one family member had a major disability.

## **Tools Used**

Socio-demographic and Clinical Data Sheet: It was a semi-structured proforma included patient registration number, name, age, sex, class, diagnosis, family history of mental illness, and similarly caregivers' name, age, sex, relationship with patient, education level, marital status, occupation, family monthly income, family size and type, domicile, religion; the category.

The Kessler Psychological Distress Scale  $(K10)^{19}$  is a concise assessment of psychological distress. The K10 scale consists of ten questions about emotional states with a five-level response scale for each. The questionnaire can be used as a quick screening tool to determine levels of distress.

*The Psychosocial Assessment Tool (PAT)*<sup>20</sup> is a psychosocial risk assessment tool for families of children who have recently been diagnosed with cancer. This tool includes Family Conflict, Family Resources, Family Structure, Social Support, Stress Reactions, Family Problems, Family Psychological Problems, Family Beliefs and Child's Challenging Behaviour. This scale was adapted in Hindi version after getting permission from the author.

Brief  $Cope^{21}$ The is а 28-item multidimensional measure of coping and cognitive regulation techniques used in response to stressors. There are 14 two-item subscales within the Brief COPE, and each is analyzed separately: self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor. acceptance, religion and self-blame.

## **Psychosocial Intervention Package**

- Psychosocial Intervention package was adopted from UNICEF's "Psychosocial Support for Children during COVID-19: A Manual for Parents and Caregivers".<sup>22</sup>
- UNICEF's Manual for Psychosocial Support is developed to provide parents, caregivers, support persons, children and adolescent themselves, a tool that enables them to understand what COVID-19 is and how it

can be prevented, to help them to manage COVID-19 related stress, fear and anxiety, and recognize the increased risk of violence, which can help them to stay safe.

The Manual, which is designed for two different age cohorts: 6 to 10, and 11 to 19, contains activities and play methods to keep children engaged positively and provide them opportunity to express their emotions.

## **Psychosocial Intervention Plan**

1<sup>st</sup> session: Pre-assessment with above mentioned tools and brief overview of psychosocial package

2<sup>nd</sup> session: Wellbeing Plan for caregivers. Counselling activities for caregivers. Progressive relaxation to caregivers.

 $3^{rd}$  session: Training for caregivers to enhance sense of identity and self-image in their child with ID. Training for caregivers to provide understanding of pain/sadness in a child's mind/heart.

4<sup>th</sup> session: Enable caregivers to help their child to move on from a difficult experience. Prepare caregivers to find and build courage in child. Endorse skills in caregivers for helping their child to slow down and think carefully.

 $5^{th}$  session: Post Assessment with above mentioned tools and brief session to clarify doubts if any.

Procedure: After receiving ethical clearance from the Institutional Ethical Committee and CTRI registration, caregivers of adolescents at GRIID. Chandigarh. diagnosed with Intellectual Disability per ICD-10 criteria and meeting the selection criteria were recruited for the study with informed consent. Initially, socio-demographic data was recorded. followed by assessments using K10, Brief Cope, and PAT tools. Participants then received psychosocial intervention based on UNICEF's "Psychosocial Support for Children during COVID-19 Manual for Parents and Caregivers" in five weekly 30-40 minute one-on-one video sessions. Postintervention impact was assessed using K10 and PAT tools, and participants were thanked. Data was analyzed using Statistical Package for the Social Sciences version 16, using descriptive statistics and the Wilcoxon Signed Rank Test for pre and post-intervention comparisons.

## RESULTS

Table 1	Socio-demographic	profile of
	caregivers	

caregivers	-
Variable	<i>f</i> (%)
Relationship with patient	
Mother	6(40)
Father	9(60)
Age	
36-45	10 (66.7)
46 -55	5 (33.31)
Sex	
Male	9 (60)
Female	6(40)
Marital Status	
Married	14 (93.3)
Widowed	1 (6.7)
Education	
Primary	2 (13.3)
Middle	3 (20)
Matric	4 (26.7)
Inter/Diploma	4 (26.7)
Graduate	2 (13.3)
Occupation	
Professional	4 (26.7)
Clerical/Shop/owner/Farmer	1 (6.7)
Skilled/un-skilled worker	5 (33.3)
Housewife/household	5 (33.3)
Family Income	
0-10000	6 (40)
10001-20,000	3 (20)
20,001-30,000	1 (6.7)
30,001 & above	5 (33.3)
Religion	
Hinduism	12 (80)
Islam	1 (6.7)
Sikhism	2 (13.7)
Family Type	
Nuclear	12 (80)
Joint	3 (20)
Locality	
Urban	11 (80)
Rural	3(20)
Residence	
Punjab	2 (13.3)
Haryana	3 (20)
Chandigarh	8 (53.3)
U.P	1 (6.7)
Other's	1 (6.7)
1 <sup>st</sup> Language	10 (65 -
Hindi	10 (66.7)
Punjabi	4 (26.7)
Urdu	1 (6.7)

Table 1 shows that among the study participants, 66.7% were aged 36-45 years and 33.3% were aged 46-55 years. Caregivers comprised 60% fathers and 40% mothers, with 93.3% and 6.7% widowed. married Educationally, 26.7% had completed Inter/Diploma, 26.7% Matric, 20% middle school, 13.3% were graduates, and 13.3% had primary education. Occupationally, 33.3% were skilled/semi-skilled/unskilled workers, 33.3% housewives, 26.7% professionals, and 6.7% in clerical/shop owner/farmer roles. Family income was 0-10,000 for 40%, over 30,001 for 33.3%, 10,001-20,000 for 20%, and 20,001-30,000 for 6.7%. Religiously, 80% were Hindu, 13.3% Sikh, and 6.7% Muslim. Family structures included 80% nuclear and 20% joint families, with 80% residing in urban and 20% in rural areas. Geographically, 53.3% lived in Chandigarh, 20% in Harvana, 13.3% in Punjab, and 6.7% each in UP and other states. Linguistically, 66.7% spoke Hindi, 26.7% Punjabi, and 6.7% Urdu.

 
 Table 2 Socio-demographic profile of adolescents with ID

Variable	Variable Category	<i>f</i> (%)
Age	10-12 years	1 (6.7)
	13-15 years	8 (53.3)
	16-19 years	6 (40)
Sex	Male	13 (86.7)
	Female	2 (13.7)
Class	Primary	12 (80)
	Prevocational	1 (6.7)
	Vocational	2 (13.3)

Table 2 presents the socio-demographic profile of adolescents with intellectual disability. Of the adolescents, 53.3% were aged 13-15 years, 40% were aged 16-19 years, and 6.7% were aged 10-12 years. In terms of gender, 86.7% were male and 13.3% were female. All adolescents were diagnosed with mild intellectual disability. Regarding educational enrolment, 80% were in the primary section, 13.3% in the vocational section, and 6.7% in the pre-vocational section.

# **Comparative Profile**

The pre and post intervention comparison was done using Wilcoxon Signed Rank Test on various parameters based on the Psychosocial Assessment Tool (PAT).

Variables	-ve	+ve	Ties	Ζ	
Tiredness	13	0	2	-3.358**	
Nervousness	13	0	2	-3.314**	
Over nervousness	9	0	6	-2.887*	
Hopelessness	14	0	1	-3.638**	
Restless & fidgety	10	0	5	-3.051*	
Over restlessness	10	0	5	-2.972*	
Sadness	11	0	4	-3.071*	
Over sadness	11	0	4	-3.035**	
Effortless	12	0	3	-3.276**	
Worthlessness	15	0	0	-3.2626**	
* significant at .01 ** significant at .001 (2-tailed)					

**Table 3 Psychological Stress** 

The table 3 shows the pre and post intervention comparison using Wilcoxon Signed Rank Test on psychological distress among caregivers of adolescents with intellectual disability during COVID-19 pandemic. All the domains of psychological negative changes stress have means have statistically improvement which significant difference on pre and post intervention at. .01 level in over nervousness, restless and fidgety, over restlessness, sadness; in tiredness, nervousness, hopelessness, over worthlessness sadness, effortless, had level. Psychological significance at .001 distress reduced significantly after intervention in all the domains.

**Table 4 Caregivers Support** 

Support	-ve	+ve	Ties	Ζ
Childcare/Parenting	0	1	14	-1.000 <sup>a</sup>
Emotional	0	1	14	-1.000ª
Financial	0	1	14	-1.000ª
Informational	0	1	14	447ª
Everyday tasks	1	1	13	-1.000 <sup>b</sup>
Support to siblings	0	1	14	-1.000ª

The table 4 shows the comparative profile of caregivers support on Psychosocial Assessment Tool. The scoring criteria for the caregiver support in PAT is: if the caregiver receives support from spouse, child's grandfather/mother, any other family member, friend/relative, co-worker, and spiritual/ religious group in all the domains to more than or equal to 50%, then there will be no risk. And in the present sample most of the caregivers were receiving support from any of the above mentioned sources. So, no significant changes has been noted post intervention except everyday tasks.

Table 5 Tatlent		0 0	5	
Variable	-ve	+ve	Ties	Z
Moody	0	0	15	.000
Sadness	8	0	7	-2.828
Developmental	1	0	14	-1.00
problems				
Victim of a crime,	0	0	15	.000
abuse or violence				
in/outside				
Medical problems	1	0	14	-1.000
Mental health	1	0	14	-1.000
problem				
Act like younger	1	0	14	-1.000
Get upset about	0	0	15	.000
going hospital				
Active or can't sit	0	0	15	.000
Attention problems	1	0	14	-1.00
Cry or get upset	0	0	15	.000
easily				
Distraction	0	0	15	.000
Worry	0	0	15	.000
Learning problems	1	0	14	-1.000
Drugs, alcohol, or	0	0	15	.000
other substances				
Shyness/Cling	0	0	15	.000
Problems in	0	0	15	.000
friendship				
Steal, lie, or	0	0	15	.000
aggressiveness				
Suicidal	0	0	15	.000
attempt/talks/		1		
ideation				

**Table 5 Patient Challenging Behaviour** 

The table 5 shows that after intervention in majority (53.33%) of the persons with intellectual disability there is a significant reduction in sadness. Other challenging behaviour mostly remained the same.

**Table 6 Family Problems** 

-ve	+ve	Ties	Z
5	0	10	-2.24*
1	0	14	-1.00
9	0	6	-3.00**
7	0	8	-2.65*
3	0	12	-1.73
1	0	14	-1.00
0	0	15	.000
0	0	15	.000
0	0	15	.000
1	0	14	-1.00
2	0	13	-1.44
0	0	15	.00
0	0	15	.00
0	0	15	-2.45
	5 1 9 7 3 1 0 0 0 1 2 2 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

\* significant at .05 \*\* significant at .01 (2-tailed)

The table 6 shows the pre and post intervention comparative profile on family problems, which was done by using the Wilcoxon Signed Rank Test. Some of the family problems have negative changes means improvement which have statistically significant differences on pre and post intervention at 0.05 level in worry, fear or anxiety in family, and Attention/staying focused/concentrating, 0.01 level in Sad or depressed.

After intervention various areas of family problems have significant reduction: sadness or depression (60%), attention/staying focused/concentration (46.66%), worry, fear or anxiety in family (33.33%) and relationship problems (20%) of the family members of the persons with intellectual disability. Other challenging behaviour remained the same.

Variables	-ve	+ve	Ties	Z
Upsetting thoughts,	14	0	1	-3.74*
memories or				
bad dreams child's illness				
Social Interaction	12	0	3	-3.21**
Felt jumpy, heart beat	12	0	3	-3.46**
fast when reminded				
of your child's illness or				
injury				
Lost interest in being	11	0	4	-3.02**
with family and				
friends, or doing regular				
activities				

**Table 7 Stress Reaction** 

\* significant at .05 \*\* significant at .01 (2-tailed)

The table 7 shows the pre and post intervention comparative profile of caregivers stress reaction subscale of PAT among caregivers of adolescents with intellectual disability during COVID-19 pandemic, which was done by using the Wilcoxon Signed Rank Test. All the deficits area have negative changes means improvement which have statistically significant differences on pre and post intervention at 0.01 level in upsetting thoughts and .001 in Isolation, felt jumpy or heart beat fast, and loss of interests. All areas of stress reaction had improved after the intervention.

The table 8 shows the pre and post intervention comparative profile of family beliefs subscale among caregivers of adolescents with intellectual disability during COVID-19 pandemic, which was done by using the Wilcoxon Signed Rank Test. There have been positive changes means improvement in all areas of family beliefs which have statistically significant differences on pre and post intervention at (0.05 level in family closeness, .01 in social support, and understanding child's pain, and .001 in belief in treatment team, can express concerns to the treatment team, treatment decision making, good parent, everything happens for a reason, this is a disaster, and we are going to beat this.

Table 0			enter		
Variables	-ve	+ve	Ties	Z	
The doctors and nurses	0	14	1	-3.557***	
will know how to help					
I can express my	0	12	3	-3.276***	
concerns to the					
medical team					
We can make good	0	12	3	-3.153***	
treatment decisions					
I'll be a good parent	0	13	2	-3.58***	
through all of this					
Our family will be	1	7	7	-2.111*	
closer because of this					
Our family life will get	3	0	12	-1.633	
worse because of this					
There are people I can	0	10	5	-2.972**	
turn to for help					
My child will be in a	10	0	5	-3.051**	
lot of pain					
Everything happens	0	14	1	-3.397***	
for a reason					
This is a disaster	14	0	1	-3.397***	
We're going to beat	0	12	3	-3.176***	
this					
Total	28	94	43		
* significant at 05 ** at 01 *** at 001 (2 tailed)					

Table 8 Family Belief

significant at .05 \*\* at .01 \*\*\* at .001 (2-tailed)

 Table 9 Coping Style of Caregivers during

 Covid-19 Pandemic

Coping styles	Mean ± SD
Self- distraction	$4.13\pm1.05$
Active coping	$4.66\pm.89$
Denial	$4.73 \pm 1.22$
Substance use	$2.33\pm.78$
Use of emotional support	$3.93 \pm 1.44$
Behavioural disengagement	$3.4\pm1.08$
Venting	$4.66 \pm 1.09$
Positive reframing	$4.46 \pm 1.01$
Planning	$4.13 \pm 1.43$
Use of informational support	$3.87 \pm 1.15$
Humour	$2.4 \pm .75$
Acceptance	$4.39 \pm 1.43$
Religion	$4.66 \pm 1.31$
Self-blame	$2.6\pm1.19$
Total	$51.75 \pm 12.49$

Table 9 is presenting the scores of Brief COPE which depicts the coping styles of the caregivers of adolescents with intellectual disability during COVID-19 pandemic in this specific sample among caregivers the most frequently used coping styles were Denial  $(4.73 \pm 1.22)$  followed by venting  $(4.66 \pm$ 1.09), Religion (4.66  $\pm$  1.32), Active coping  $(4.66 \pm .89)$ , Positive reframing  $(4.46 \pm 1.01)$ , Acceptance  $(4.39 \pm 1.43)$ , and Planning (4.13) $\pm$  1.43) were often used by caregivers. Selfdistraction  $(4.13 \pm 1.05)$ , use of Emotional support  $(3.93 \pm 1.45)$ , use of informational support  $(3.87 \pm 1.15)$  and Behavioural disengagement  $(3.4 \pm 1.08)$ , were rarely used Self-blame (2.6  $\pm$  1.19), Humour (2.4  $\pm$  .75), Substance Use  $(2.33 \pm .76)$  were less frequently used by respondents.

## **DISCUSSION**

#### Socio-demographic Data

In this study, 66.7% of caregivers were aged 36-45 years, and 33.3% were aged 46-55 years, aligning with a study showing a mean caregiver age of 39.6 years<sup>23</sup>. All caregivers were parents, with 60% being fathers and 40% mothers, contrasting another study where 79.5% were mothers<sup>16</sup>. The higher father participation was due to the study's requirement for video call access. Most caregivers (93.3%) were married, similar to another study's findings<sup>24</sup>. Educationally, 26.7% had completed inter/diploma, 26.7% matric, 20% middle school, 13.3% were graduates, and 13.3% had primary education, 25 being postgraduates<sup>23</sup> with none Occupationally, 33.3% were skilled/semiskilled/unskilled workers, 33.3% housewives, 26.7% professionals, and 6.7% clerical/shop owners/farmers. Regarding family income, 40% earned 0-10,000, 33.3% over 30,001, 20% between 10,001 - 20,000, and 6.7% between 20,001-30,000. Religiously, 80% were Hindu, 13.3% Sikh, and 6.7% Muslim, consistent with another study<sup>23</sup>. Family structures included 80% nuclear and 20% joint families, with 80% in urban and 20% in rural areas. Geographically, 53.3% lived in Chandigarh, 20% in Haryana, 13.3% in Punjab, and 6.7% in other states/UTs. Linguistically, 66.7% spoke Hindi, 26.7% Punjabi, and 6.7% Urdu. Among the adolescents, 53.3% were aged 13-15 years, 40% were 16-19 years, and 6.7% were 10-12

years. Gender-wise, 86.7% were male and 13.3% female, reflecting similar trends in another study. The higher prevalence of male children with intellectual disabilities may be due to age differences and social stigma, as observed in a previous study<sup>25</sup> <sup>26</sup> <sup>27</sup>. All adolescents had mild intellectual disability, with 80% in the primary section, 13.3% in vocational, and 6.7% in pre-vocational sections.

# **Psychological Distress**

The present study evaluates the effectiveness of a psychosocial intervention for caregivers of adolescents with intellectual disabilities (ID). Pre-assessment measured psychological distress in terms of tiredness, nervousness, over-nervousness, hopelessness, restlessness, fidgetiness. sadness, effortlessness, and worthlessness among caregivers during the COVID-19 pandemic. Literature indicates that the psychological well-being of caregivers of adolescents with ID worsened during the pandemic<sup>28</sup>. Individuals with ID and neurodevelopmental disorders were particularly affected by pandemic-related changes like social distancing, stay-at-home orders, and service shutdowns. Consistent with previous studies, caregivers in this study reported significant psychological distress. Similar to findings in caregivers of children with autism, the study showed that challenging behaviour by the child and disengagement by the caregiver predicted higher distress levels<sup>29</sup>. The psychosocial intervention provided in this study effectively addressed caregiver distress (Table 3). These findings align with other research indicating that positive thinking reinforcement in mental health workshops, including techniques like guided interaction, breathing exercises, visualization, and activity scheduling, can alleviate stress for caregivers of individuals with ID<sup>30</sup>.

# **Psychosocial Problems**

The present study assesses the psychosocial problems of caregivers of adolescents with intellectual disabilities (ID) using the Tool. Psychosocial Assessment Most caregivers reported worry, fear, anxiety, sadness, depression, and relationship problems due to their children's illness and the COVID-19 pandemic. The nationwide lockdown and school closures exacerbated these issues, leading to increased challenging behaviours in

children with ID. These findings are consistent with previous research showing a positive correlation between caregivers' psychological distress and the severity of their child's challenging behaviors<sup>11</sup>. Post-intervention, 53.33% of caregivers reported a significant reduction in sadness among their children. though other behaviours remained unchanged. Caregiver support, primarily from spouses, remained adequate, showing no significant changes post-intervention. The study found deficits in family problems such as worry, fear, anxiety, sadness, depression, relationship issues, and suicidal thoughts, echoing concerns about the future of children with ID once parents are no longer able to provide care<sup>31</sup>. The intervention effectively reduced family problems, with significant improvements in sadness or depression (60%), attention and concentration (46.66%), worry, fear, anxiety (33.33%), and relationship problems (20%), aligning with findings by Duvdevany et al. on the impact of informal support on parental and well-being<sup>32</sup>. stress Significant improvements were also noted in stress reactions, such as upsetting thoughts, decreased social interaction, jumpiness, and loss of interest, post-intervention. This aligns with research advocating for respite care and psychosocial interventions to reduce caregiver stress<sup>33</sup> <sup>34</sup>. Additionally, family beliefs about child's illness showed significant the improvement post-intervention in areas like family closeness, social support, understanding the child's pain, confidence in the treatment team, treatment decisionmaking, and good parenting. Effective coping strategies, identified by Esia-Donkoh et al. as problem-focused and emotion-focused coping<sup>35</sup> <sup>36</sup>, were crucial during the pandemic. Denial, a maladaptive strategy, was linked to increased psychological distress, consistent with previous studies<sup>38</sup>. This study found that denial exacerbated caregiver stress, supporting findings by Gillespi et al.<sup>15</sup>, and that venting was a commonly used coping mechanism among stressed caregivers, aligning with previous research<sup>40</sup>. Overall, the study concludes that caregivers of persons with ID experienced significant psychosocial distress during the pandemic. The psychosocial intervention provided through tele-mode effectively addressed this distress. Mental health professionals should understand caregivers' coping strategies and help them

manage daily stressors, motivating them to build their capacity. Healthcare providers should take proactive steps to improve caregivers' psychosocial well-being through effective interventions.

### LIMITATIONS

The study's mandatory requirement for video call access led to a predominance of fathers in the sample, as mothers typically did not have this access. The hospital-based and small sample size limits the generalizability of the findings of the results to the broader community population, necessitating further validation. The use of virtual interaction for pre-post assessments and intervention sessions have its own limitations.

## CONCLUSION

The Covid-19 pandemic contributed negatively to increase the psychosocial distress among the caregivers of adolescents with intellectual disability. Since they lack access to regular school supervision, therapy, trainings, intervention, and rehabilitation services, some of the children with disabilities experienced regression behavioural and extensive problems. Instead, caregivers have to carry out various responsibilities such as caregiving, schooling, training and rehabilitation.

Caregivers of people with intellectual disabilities were found to be distressed during the COVID-19 pandemic's hardships, which included lockdown. Around four-fifth of the people were in mild distress, and one-fifth were in moderate distress. Denial, venting, religion, and active coping were mostly utilized as coping strategy. The challenging behaviour of their wards (adolescents with ID) is appears to be contributory factor to develop distress among caregivers.

The psychosocial intervention provided to the caregivers through 'tele-mode' in the present study shown to be effective in addressing the psychosocial distress of the primary caregivers in terms of psychological distress, family problems, stress reaction, and family beliefs.

Current study findings are indicating that adequate mental health and psychosocial interventions are required to address the problem.

#### Conflict of Interest: None

#### Source of Funding: None

Ethical clearance: Taken

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