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Bereavement due to COVID-19 pandemic among school-going adolescents - A cross-sectional study in district Dehradun

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Abstract:

BACKGROUND: Millions of people lost their loved ones due to the COVID-19 pandemic; this dire situation had an impact on almost every aspect of the daily life of every person. However, most of the individuals adapted to their losses nearly 2-10% of the population experienced dysfunctional grief in which adolescents were also affected. Aims and Objectives: Prime objective of the study was to assess dysfunctional grief due to loss from COVID-19 Pandemic among adolescents and to find out the coping strategies used by them to overcome this grief.

MATERIALS AND METHODS: The study was conducted among school-going adolescents of District Dehradun. A pre-designed, pre-tested, self-administered, semi-structured questionnaire including socio-demographic details, COVID-19-related questions and Pandemic Grief Scale (Cronbach alpha-0.77) was used in the offline survey.

RESULTS: Out of 690 study participants, a total of 151 (21.8%) adolescents lost their loved ones due to the COVID-19 pandemic. Of these, 9.93% were facing dysfunctional grief due to their loss. To overcome this grief, coping strategies used by study participants were mainly phone and internet usage (78%) followed by watching TV (73.8%) and sleeping (68.1%).

CONCLUSION: Adolescents who experienced loss and were grieved are more at high risk of developing psychological disorders, particularly depression, anxiety, and physical illness, that might affect their education and overall development. Though to tackle the mental health crisis in the country Tele-Mental Health Assistance and Networking Across States (Tele-MANAS) has been initiated, still there is a lack of clarity regarding the structure and range of services provided by Tele-MANAS centers set up under the National Tele-Mental Health Program (NTMHP). Timely intervention and research to take solid steps to diminish the potential adverse effects of bereavement on adolescents' mental health is necessary.

Keywords:

Adolescents, COVID-19, mental health, Pandemic Grief Scale, Tele-MANAS, NTMHP

Introduction

Coronavirus (SARS-CoV-2) is the causative agent of COVID-19, a contagious illness.^[1] In December 2019, Wuhan in the Hubei Province of China, COVID-19 was first discovered. Additionally, COVID-19 was declared a pandemic by the World

Health Organization (WHO) on March 11, 2020. Globally till November 8th, 2022, there had been 630,601,291 confirmed cases of COVID-19, with 6,583,588 deaths recorded by the WHO.^[2] As of November 8th, 2022, there were 44,663,968 confirmed cases of COVID-19 in India, and 530,514 of those instances resulted in fatalities.^[2] If we focus on Uttarakhand in this context, there were

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440002 confirmed coronavirus cases reported, and on September 14, 2022, 7,743 of those instances resulted in fatalities.^[3] Nearly every element of everyday life has been impacted by this grave scenario, which has led to a rise in the prevalence of substance abuse and mental health disorders (Simon *et al.*, 2020)^[4]. While the virus has received the majority of the attention, preparing for the potential occurrence of a “grief pandemic” is urgently necessary.^[5] According to estimates, two children and four grandchildren suffer loss with every COVID-19 death.^[5] Even though people frequently display persistence in the face of loss,^[6] we think that during this epidemic, adolescents, especially those from impoverished homes, are more likely to experience complicated grief (CG). When something or somebody expires, people cry with grief, this is a kind of emotional energy.^[6] The puberty-initiated developmental stage known as adolescence is distinct and extremely sensitive. During this time, it is biologically necessary to separate from family and surround oneself with peers. The start of mental health issues is also more likely to occur during adolescence.^[7]

Bereavement in adolescents is sometimes viewed as an unexpected rite of passage, a phase that obstructs the process of defining oneself and “needs us to die to the old image of who we thought we were and walk beyond the threshold into a drastically altered sense of self.”^[8] The start of adolescent sorrow can be challenging without a strong support network. Teenagers who have lost a loved one are more likely to suffer at work and to achieve less in their academic aspirations.^[9] Additionally, they have a higher risk of medical sickness, particularly psychological disorders^[10] and physical illness like depression.^[11] It is clear that loss can significantly lower adolescent quality of life.^[12] Understanding the unique experiences and needs of bereaved adolescents is crucial in order to provide appropriate resources, support, and interventions. By addressing the bereavement of school-going adolescents, we can foster resilience and assist them in navigating through this challenging period, ultimately promoting their well-being and academic success. Thus, the present study was planned to evaluate dysfunctional bereavement induced by loss due to the COVID-19 Pandemic among school-going adolescents in District Dehradun and to find out the coping mechanisms adopted by them to overcome this grief.

Materials and Methods

Study design and setting

The cross-sectional study was conducted over a period of one year among school-going adolescents from the 9th to 12th class of selected senior secondary schools (one government, one private) of four Nagar Palikas (Doiwala,

Herbertpur, Vikas Nagar and Mussoorie) of District Dehradun.

The minimum sample size for the study was calculated by using the formula:

$$N = Z^2PQ/d^2$$

Where, P is the prevalence of depression, i.e., 42%^[13] (which is the most important risk factor for mental health illness).

$$Z = 1.96 \text{ (at two-sided interval)}$$

$$Q = 1 - P = 58\%$$

d is absolute error taken as 4%

$$N = Z^2PQ/d^2 = 3.8416 \times 0.42 \times 0.58 / 0.04 \times 0.04 = 584$$

By taking a 10% non-responsive rate, the minimum sample size calculated was 642.

Study participants

Adolescents (14 years to 19 years) of selected senior secondary schools of District Dehradun.

Sampling technique

To recruit the adolescents from Nagar Palika of District Dehradun, a two-stage sampling technique was used.

• First Stage:

From all four Nagar Palikas, enlisting all Government and Private schools was done. Through simple random sampling, one government and one private school were selected from each Nagar Palika. Thus, in total four government and four private schools were selected.

• Second Stage:

As per our inclusion criteria, nearly 21 students from each class 9-12th were selected using a simple random sampling technique. Thus, from each school nearly 86 students were enrolled in the study, making a total of 690 to cover the targeted sample size.

Selection of subjects

1. Inclusion Criteria

- Adolescents of age group 14 to 19 years.
- Study participants who gave assent and whose school authorities and parents gave consent for the study.

2. Exclusion Criteria:

- Form that had >20% missing data
- Adolescents already diagnosed with depression, anxiety or any other mental illness.
- Adolescents who were on any medication for mental illness.

Data Collection and technique

The information was gathered using a pre-designed, pre-tested, semi-structured, self-administered questionnaire having questions related to socio-demographic details, COVID-19-related questions, and a Pandemic Grief Scale. The COVID-19-related questionnaire contained dichotomous close-ended questions. The section had questions related to the history of COVID-19 infection among study subjects/family/best friends/others. The history of loss of family members/close relatives/best friends/others because of COVID-19 was also taken. The Pandemic Grief Scale, it's a reliable instrument. Its sensitivity was 87%, and its specificity was around 71%.^[14] It contains a total of five items, using a 4-point time-anchored scale that spans a two-week period (0 = not at all to 3 = nearly every day). The final total score was taken out by combining the scores of each item. The Pandemic Grief Scale segment was filled by the study participants who have reported a loss of their loved ones because of the COVID-19 pandemic, thus 151 out of 690 study participants filled the PGS-related questionnaire. A PGS total score ≥ 7 indicates probable dysfunctional grief due to a COVID-19 loss. MS Excel 10 software and SPSS Software version 20.0 were used for the analysis.

Ethical consideration

Ethical clearance was taken from the Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Dehradun (SRHU/HIMS/ETHICS/2022/305), and written informed consent from principal/faculty and assent from each study subject.

Results

Socio-demographic details of study participants (N = 690)

Among a total of 690 study participants, the majority of study participants (47.5%) were in the 14-15-year-old age range, followed by 16-17 years of age (38.3%). While 14.2 percent were in the range of 18-19 years.

There was almost equal representation of males (51%) and females (49%) in the study. The majority (62.6%) of study participants belonged to the nuclear family and were Hindus. Around 53.1 percent school school-going adolescents lived in families of five members while 46.8 percent lived in families of more than five members. Adolescents (66.6%) who lived in nuclear families faced more grief as compared to the adolescents living in joint families.

About 5 percent of the fathers of the study participants were illiterate. While only 9.7 percent of them were educated up to class 12. The majority (25.2%) number of fathers were educated up to graduation and

above (14.9%). While 11.3 percent of mothers were illiterate and 20.7 percent of mothers were educated up to graduation and above (10.9%).

Table 1 reveals that out of a total of 690 study participants, 12.2% of study participants got infected with COVID-19 infection, while 48% reported a history of COVID-19 infection among family, best friends, close relatives, or other people. 21.9 percent of study participants experienced the death of a family member, best friend, close relative, or other person as a result of COVID-19 infection.

Table 2 shows that the majority (18.8%) of study participants, who lost their closed ones due to the COVID-19 pandemic never wished to die in order to be with the deceased while 0.4 percent wanted to do that always.

It was observed that 17 percent of study participants never experienced confusion over their role in life because of the loss while 0.6 percent of study participants always found confusion over their role in life.

13.8 percent of study participants stated that nothing seemed to matter much to them because of their loss never followed by on several days (4.8%). While 1.3 percent of study participants reported always.

When the study participants were asked about "how much they find it difficult to have positive memories about the deceased?". Only one percent of participants believed that he/she always had difficulty in keeping positive memories about the deceased, 14.3 percent of study participants answered never followed by on several days (10.1%) and on more than half of days (2%). however, only 0.7 percent of study participants found it always difficult. 8.7 percent of study participants "never" believed that without the deceased, life was either meaningless or empty.

Out of a total of 690 study participants, 151 (22%) study participants lost their close ones due to the COVID-19 pandemic. Of those, 15 (9.93%) studies participants experienced symptoms of dysfunctional grief [Figure 1].

In Figure 2, it is shown that study participants employed more than one approach to ease their

Table 1: COVID-19-related information provided by the study participants (N=690)

Questions related to COVID-19	Yes n/(%)	No n/(%)
Study participant whose COVID-19 test was positive	84 (12.2)	606 (87.8)
Positive history of COVID-19 tests among family/friends/relatives and others	343 (49.7)	347 (50.3)
Death of closed one due to COVID-19	151 (21.88)	539 (78.11)

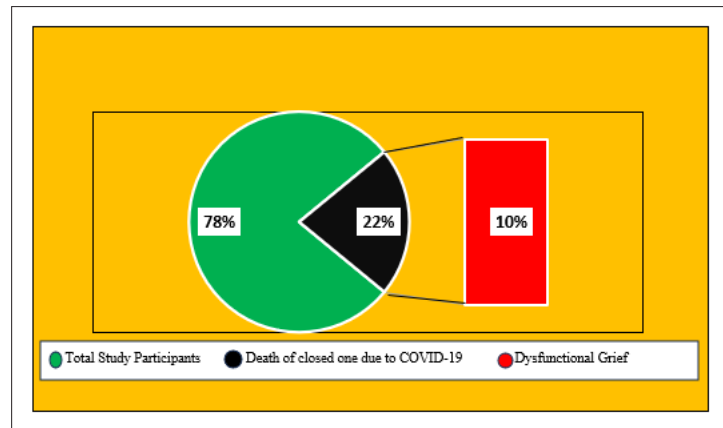


Figure 1: Pandemic Grief Scale outcome among study participants in relation to COVID-19 (n = 151)

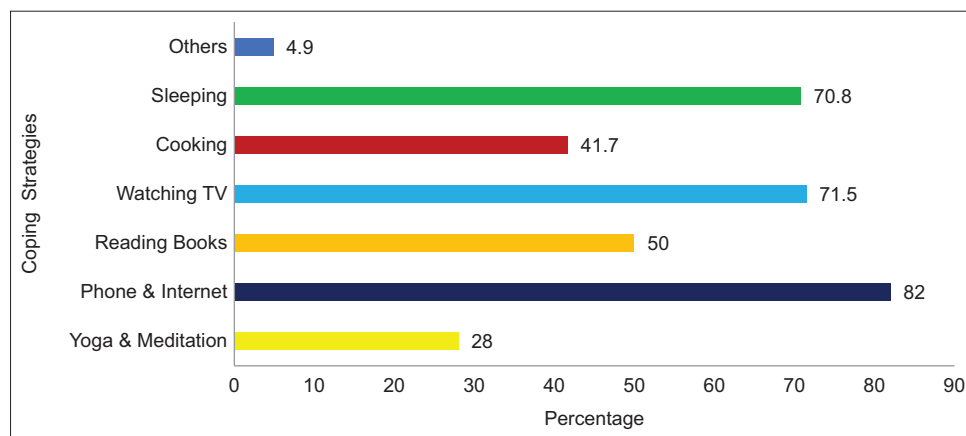


Figure 2: Distribution of coping strategies used by the study participants during the COVID-19 pandemic to overcome dysfunctional grief (N = 151)

Table 2: Distribution of Pandemic Grief Scale findings given by the study participants (n=151)

Pandemic Grief Scale	Not at all n (%)	Several Days n (%)	More than half days n (%)	Nearly every day n (%)
I wished to die in order to be with the deceased	130 (18.8)	13 (1.9)	5 (0.7)	3 (0.4)
Experienced confusion over my role in life because of the loss	117 (17)	21 (3)	9 (1.3)	4 (0.6)
Nothing seemed to matter much to me because of this loss	95 (13.8)	33 (4.8)	14 (2)	9 (1.3)
I found it difficult to have positive memories about the deceased	99 (14.3)	35 (5.1)	12 (1.7)	5 (0.7)
I believed that without the deceased, life was either meaningless, empty	60 (8.7)	70 (10.1)	14 (2)	7 (1)

() parenthesis show row percentages

stress and grief throughout the lockdown period of the COVID-19 pandemic. In addition to watching TV (71.5%), sleeping (70.8%), reading books (50%), cooking (41.7%), doing yoga and meditation (28%), and others (4.9%), the majority of study participants (82%) utilized their phones to contact with friends and family and the internet to relieve stress.

Discussion

The present study showed that out of 151 study participants who suffered the loss of a close one owing to the COVID-19 pandemic, among them, nearly 10 percent of participants faced dysfunctional grief which was assessed using the Pandemic Grief Scale. Almost parallel

findings were found by Rodriguez T.C. *et al.*, (2022) conducted a study in Latin America on adolescents using the same scale and reported similar findings for different regions.^[15] The study showed that EL Salvador had a maximum number of people with bereavement (14.6%) followed by Guatemala (12.9%), Ecuador (12.2%), Mexico (10.4%), Peru (10.3%), Paraguay (10.2%), Colombia (10.2%), Bolivia (8.3%), Chile (7.3%), and Brazil (7.3%)^[15]. Lee S.A *et al.* conducted a study in Virginia and reported that most of the participants were grieving for an average of three months, 7 percent for less than one month, and 3.9 percent for six months.^[14] Sayed E. *et al.*^[16] reported a higher prevalence (56.6%) of dysfunctional grief among physicians in the age group

of 25–65 years during the COVID-19 pandemic using the same scale. Lee S. A. *et al.*^[17] also reported similar findings of dysfunctional grief (56.6%) among adults using the same scale. The possible explanation for this difference could be that studies were conducted in different regions of the world and on larger sample sizes etc.

Adolescents who were living in nuclear families faced more dysfunctional grief. Shakil M. *et al.*^[18] also reported similar findings that severe level of psychological distress and more death anxiety was found among the participants living in the nuclear family. It might be due to the fact that nuclear families have limited people at home, and they share their things and thoughts among themselves; if any one of them is not present or dead, then this can be very disheartening and make them emotionally vulnerable, whereas in joint family there are many persons with whom adolescents can and do share their feelings and also have a great bond with their grandparents as they sometimes share their room with them as well, and thus, those adolescents face less symptoms of grief. Another reason may be due to the lockdown they lost some people whom they loved very much and could not meet for a long time could not attend their last rites and will never be able to meet them. According to Santos *et al.* (2021)^[19], adolescents perceive death to be “irreversible, universal, and non-functional”.^[19] Adolescents go through a grieving process that is like adult sorrow. Grief during the pandemic may interfere with teenage identity formation, according to Weinstock *et al.* (2021).^[20] Additionally, they may encounter issues at work, challenges in achieving their educational goals, and a higher risk of psychological grief. According to Weinstock *et al.* (2021), a lack of strong support network may make teenagers more prone to experiencing difficult sorrow.

Limitation and recommendation: Although the current study made measures to ensure the data’s quality, there are a few shortcomings, like a definitive diagnosis of a psychiatric disease cannot be made as the self-reporting questionnaire was used. Because of the respondents’ recall, some of the data may not have been as reliable, and a comprehensive evaluation by the experts/consultants is therefore required. The cross-sectional design of this study limits our ability to conclude anything about the timing or causal nature of the links we observe.

Quality of mental health continues to be an issue of concern in modern world countries including India, where mental health issues consistently increase despite concerted efforts during past decades. The study also suggests that therapies boosting resilience and perceived social support may help those who lost loved ones to the recent coronavirus epidemic to feel better mentally. To battle adolescent mental illness and to be ready

for upcoming pandemics like COVID-19, the study recommended timely intervention through revision of present policies or the formulation of new policies. Like Tele-MANAS provide a toll-free helpline number to provide free tele-mental health services across the country round the clock, particularly catering to people in remote or underserved areas, other online intervention program could be customized. Current study reveals that there is a need for additional longitudinal and follow-up research on adolescent mental health to end this epidemic of the modern world.

Conclusion

During the COVID-19 pandemic, 10% of school-age teenagers experienced psychological grief. It could ultimately result in an increase in psychiatric problems which could make them more susceptible to melancholy, anxiety, and suicidal thoughts in the future. It should be considered that this grieving could turn into pathological grief at this age because adolescents are psychologically more susceptible. As a result, appropriate treatment and counseling as needed.

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Conflicts of interest

There are no conflicts of interest.

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