An Investigation on the Lasting Impact of COVID-19 on Hope, Gratitude, and Forgiveness of College Students' Wellbeing

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Abstract : With the COVID-19 widespread, the disruption of the normal routine of the people global wide was predominant. The restrictions abiding the control of the spread of the pandemic were effective in controlling the spread of the virus, but it has remained instrumental in the upheavals of negative emotions amidst the people even after the pandemic period. Most significantly, these protocols have impacted the college students socially and emotionally. To sustain the sense of happiness as well as fulfilment in life, hope, forgiveness, and gratitude are the significant contributors. This study investigated the impact of hope, forgiveness, and gratitude on the college students in the post pandemic era using the Hope Scale, the Gratitude Questionnaire, and the Heartland Forgiveness Scale to collect data. Quantitative analysis was carried out using SPSS; t-tests and ANOVA tests enabled the analysis resulting in the findings that the parents and teachers should encourage pupils to develop good habits and attend specialized trainings on cultivating hope, forgiveness, and gratitude to raise their degree of optimism and wellbeing.

Keywords : Gratitude, Hope, Forgiveness, Psychology, Optimism, Wellbeing.

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1. Introduction

The impact of COVID-19 on the mental makeup of the people globally has been persistent (Zhang et al., 2020). This is the result of the stress that the people have undergone during the lock-down period, ailing with the infection of COVID-19, quarantine time or owing to the financial stress that was imposed because of the pandemic (Wang et al., 2020). Added to these, is the work-related stress that continued to play havoc even in the post-pandemic period (Huang & Zhao, 2020). The study by (Rourke, 2020) pointed out the lasting impact of the pandemic burnout and the investigation by (Queen & Harding, 2020) explored the reluctance in committing to a long-term engagement by the people in the post pandemic era. Though isolating oneself was suggested to be the way to prevent COVID-19, it undeniably played havoc on the emotional wellbeing of the people due to the sense of being alienated and the series of restrictions imposed on them (Hossain et al., 2020). Such health care moves considerably affect the emotional wellbeing of the society's subjects (Pfefferbaum & North, 2020) for a short or long period of time (Galea et al., 2020).

A systematic review by (Nobles et al., 2020) comprising of the studies by (Cao et al., 2020; Zhang & Ma, 2020) acknowledge the fact brought forth by (Brooks et al., 2020;) that negative emotions like anxiety, depression, suicidal thoughts etc., were considerably predominant. This aspect was further seconded by the investigations carried out in Iran by (Moghanibashi-Mansourieh, 2020), India by (Roy et

al., 2020), Italy by (Cellini et al., 2020; Moccia et al., 2020), North-Spain by (Dosil-Santamaria et al., 2020), Paraguay by (Rios-González & Palacios, 2020) and the UK by (Shevlin et al., 2020). The recent study by (Prati & Mancini, 2021) dealt with 25 research articles and justified that there is a significant impact of COVID-19 on the mental wellbeing of the people world-wide especially among the college students. The attempt by (Prowse et al., 2021) to study the coping mechanisms employed by Canadian college students brought out alarming results as they ended adopting unhealthy strategies including substance abuse, mobile addiction, and insomnia. This was confirmed by the findings of (Li et al., 2021) as well. The students who could not do away with the effects of the pandemic and resort to any coping mechanisms suffered all the more (Kar et al., 2021). According to (Stieger et al., 2021), the students simply preferred to be outdoors to stay active and happy which was compromised to a greater extent owing to the pandemic.

There is a clear suppression of positive emotions like hope, gratitude, and forgiveness amongst the college students during the post pandemic period (Chew et al., 2020) because of the continued effects of being subjected to the COVID-19 restrictions (Bendau et al., 2021). This study intends to verify how a few of the factors are affecting the college students' wellbeing, and the levels of hope, gratitude, forgiveness, pathways thinking, as well as agency thinking that prevail amongst the college students. It also aims to find the variations in these parameters with respect to the area of residence, level of education, gender, religious faith, size of the family, and evaluate the relationship between hope, forgiveness, and gratitude with age. To determine whether engineering college students believe that hope, forgiveness, and thankfulness are significant factors in enhancing life satisfaction and wellbeing, a poll of the students was conducted. Young people, and college students in particular, need orientation on positive thinking and to develop positive habits. The aim of the study is to investigate the connection and ascertain the degree of forgiveness, hope, and appreciation among college students.

2. Literature Review

Positive psychology has shifted the paradigm for understanding human behavior from focusing on flaws and disorders to highlighting human strengths and resources. Many research works have highlighted that pandemic has decreased this positive psychology (Ahuja et al., 2021; Yıldırım & Arslan, 2020). To live a happy life, it is crucial for everyone to cultivate virtues like hope, gratitude, and forgiveness. Adolescence is a crucial period where people change their behaviour in response to circumstances like peer pressure and other factors. It is possible to learn, unlearn, and relearn behaviour. The research analysis by (Niemiec, 2019) suggested that an individual's hope is determined by three different character strengths namely buffering to avoid problems, reappraisal to enhance recovery, and resilience to facilitate recovery. The sense of being hopeful has seamless impact on the results of mental wellbeing like contentment (Smedema, 2020). Hope determines the level of motivation in an individual or a group. Recalling hope has a drastic positive effect on one's psychology as discovered by (Datu et al., 2022; Nabi & Myrick, 2022).

Gratitude is a desirable human trait with the potential to improve both one's own and other people's lives. Gratitude is the appreciation that people feel when others do something nice or beneficial for them. More precisely, it is a feeling of gratitude and joy in reaction to receiving a gift, whether the present is a concrete benefit from a particular other or a fleeting blissful state generated by natural beauty (Algoe, 2019). Gratitude can also be thought of as an emotional quality, state of mind, or feeling that can contribute towards positive psychology (Cregg & Cheavens, 2021). The findings of (Campion et al., 2020) acknowledge that a multi-component positive psychology approach aiming at facilitating increase in pleasure, reduction of pain, and promoting exploration of one's fullest potential to live a satisfied life was needed to nullify the effects of the pandemic (Tejada-Gallardo et al., 2020). It is worthy to recall that though internet-based interventions have significantly brought forth gratitude, (Sheldon & Yu, 2021) confirmed that texting gratitude continues to be more beneficial. Further, the findings of (Bohlmeijer et al., 2021) encapsulate gratitude interventions being effective for a longer period of time. Some research pursuits have confirmed that the gratitude interventions are effective on controlling the recurrent pessimistic thinking (Heckendorf et al., 2019).

Forgiveness is an intentional and free action motivated by a conscious choice to forgive, and the existence and frequency of happy and negative emotions can be used to describe subjective wellbeing. To forgive is to modify one's feelings and attitude towards an offence, to let go of unfavourable

feelings like vengeance, and to have a stronger desire to wish the perpetrator well. Forgiveness is an intentional voluntary process that is linked with divine forgiveness (Fincham & May, 2020). It is within us that we experience forgiveness; it does not come from outside of us. It is a newly adopted perspective that profoundly alters our psychological landscape. As we forgive, feelings of happiness and acceptance as well as hope for a better future blossom within us. There are three different types of forgiveness: forgiving oneself, forgiving others, and forgiving the circumstances. Forgiving oneself helps an individual to be compassionate and engaging in social interaction without any sense of guilt (Gilo et al., 2022). Forgiving others boasts interpersonal skills resulting in relationship building, however, there is no correlation found among the people who have gone through the loss of their near and dear ones to COVID-19 as investigated by (Amaranggani, 2021). Nevertheless, forgiving others and circumstances play a vital role in replacing negative thoughts such as stress, social withdrawal, resentment, and loneliness (Rudenstine et al., 2019) with positive thinking attributes (Long et al., 2020).

In a nutshell, it can be concluded that the intervention of COVID-19 and the measures taken by the government and the health care industry have clearly made people's lives upside down. Even after the control of COVID-19, the traces left by the infection, quarantine, lock down, following of the COVID-19 protocols continue to exist. These have not taken their toll on just the physical wellbeing of the people but also the mental wellbeing of the people (Alli et al., 2023). The positive attributes like hope, gratitude, and forgiveness are greatly affected especially amongst the college students. Therefore, the purpose of this study is to ascertain the degree of hope, forgiveness, and gratitude among the college students. Additionally, this study attempts to determine how respondents' sociodemographic characteristics impact their levels of hope, forgiveness, and gratitude so that we can aid the youngsters in developing virtues like hope, gratitude, and forgiveness.

3. Research Design

Research Objectives:

• To assess the degree of hope among college students

• To ascertain the respondents' level of forgiveness

• To determine how much the respondents were grateful

• To comprehend the relationship between hope, forgiveness, and gratitude

Hence, understanding the significance of hope, forgiveness, gratitude, pathways thinking, and agency thinking can provide valuable insights into promoting a positive and successful college experience for students. To investigate these factors among college students, the Hope Scale, created by (Snyder et al., 1991), containing 12 items (each of which has a 4-point answer scale with 1 denoting false and 4 denoting certainly true) was used. The Gratitude Questionnaire developed by (McCullough et al., 2002) containing 6 items with 7-point responses where 1 = Strongly Agree and 7 = Strongly Disagree was used. The Heartland Forgiveness Scale developed by (Yamhure Thompson et al., 2002) consisting of 18 items with 5-point responses like 1 = almost always false of me and 5 = almost always true of me was used. In addition, to learn more about the socio demographic features of the pupils, the questionnaire also had some questions based on them.

4. Methodology

Out of 361 students who participated in an intervention programme run by an engineering college in collaboration with a private trust and research foundation, 238 students were selected as participants including ME (42 students), MCA (23 students), BE/B. Tech (142 students), and B. Arch (31 students) using convenient sampling method (N=238). Other than the few questions to know the demographic information about the participants, the Hope Scale, the Gratitude Questionnaire, and the Heartland Forgiveness Scale were used to collect data from the sample population. The student-provided data were analyzed using SPSS; t-tests and ANOVA tests were applied to consolidate the statistical findings.

5. Data Analysis

According to Table 1, 44.1% of students have high levels of hope, whereas 55.9% of students have low levels of hope which is in line with the measures set by (DiGasbarro et al., 2020). It suggests that they are

Table 1: Level of hope of the students

S. No	Level of Hope	Frequency	Percentage
1	Low	133	55.9
2	High	105	44.1
	Total	238	100

unaware of both their objectives and the means to achieve them. This might be because college life and adolescence cause students to get confused about their ambitions and this is confirmed by the findings of (White et al., 2019; Carr et al., 2020). Therefore, we must assist the pupils (55.7%) in raising their level of hope.

49.2 percent of students have low levels of forgiveness, whereas 50.8 percent of students have

Table 2: Level of forgiveness of the students

S. No	Level of Forgiveness	Frequency	Percentage
1	Low	117	49.2
2	High	121	50.8
	Total	238	100

strong levels of forgiveness, according to Table 2. The statistic interpretation is based on Abid et al., 2015). Students' adolescent age may have an impact on the degree of forgiveness. The culture, upbringing, and the morale can also have a significant impact on the practice of forgiving others. It can also be enhanced by providing training sessions to cultivate and sustain constructive habits.

According to the aforementioned statistics, more than half (55%) of students have low levels of

Table 3: Level of gratitude of the students

S. No	Level of Gratitude	Frequency	Percentage
1	Low	131	55
2	High	107	45
	Total	238	100

gratitude, while just 45% of students have high levels where the measurement of level is based on (Balgiu, 2020). The reliability and the construct validity of the Gratitude Questionnaire (GQ-6) in a sample of Romanian undergraduates. x. 101-109. This might be because of their parents' methods of child rearing. Studies have shown that religion and culture can have an impact on the practice of gratitude which is in line with the findings of (Bermejo-Martins et al., 2021; Kar et al., 2021; Prowse et al., 2021). The importance of thankfulness and how it might contribute to happiness can be the emphasis of the intervention

training.

According to the aforementioned table, 59.2% of

Table 4: Level of (hope)pathways thinking of the students

S. No	Level of (hope)pathways thinking	Frequency	Percentage
1	Low	97	40.8
2	High	141	59.2
	Total	238	100

students have high levels of (hope) pathways thinking compared to 40.8% of students who have low levels. This condition is similar to the findings of (Neaves & Hewitt, 2021). This might be as a result of their parents' methods of child rearing. Students can receive intervention training (Barrington-Leigh, 2022) on the value of considering various goals-achieving tactics, along with an explanation of how doing so might make them happier (Tejada-Gallardo et al., 2020).

Table 5 : Level of (hope) agency thinking of the students

Gratitude	Frequency(n)	Mean (Average)	SD	Statistical Value	Statistical Results	
Gender	Male	139	29.49	4	't' value 2.147	P< 0.05 (.03) Sig
	Female	99	30.60	3		

According to the table 5, 41.6% of students exhibit high levels of (hope) agency thinking, compared to 58.4% of students who have low levels. It shows that they do not have the confidence to bring about change and accomplish their objectives. This can be because several students conflated the stages of adolescence and college life (White et al., 2019; Carr et al., 2020). The parents' methods of childrearing, culture, and the students' underlying beliefs may be held responsible for their lack of agency thinking.

Table 6: Age of the respondents

	Mean (Average)	Standard Deviation	Minimum	Maximum
Age	18.9	1.9	17	26

According to Table 6, the pupils' minimum and maximum ages are 17 and 26. It demonstrates that the pupils' mean age is 18.9 (Mean = 18.9). It suggests that the study's sample is made up of adolescents who look to their parents and teachers for advice and assistance.

According to Table 7, the pupils' levels of hope range from 16 (the lowest) to 32 (the highest), the

Table 7: Hope of the students

	Mean (Average)	Standard Deviation	Minimum	Maximum
Hope	24.93	3.1	16	32

levels being formulated by Feldman & Jazaieri, 2024). Additionally, it is evident that the students' mean level of hope is 24.93 (mean = 24.93). It suggests that their level of hope is moderate so that the parents, teachers, and other adults can support students in raising their degree of future hope. Additionally, training initiatives can be carried out to raise participants' levels of agency, paths, and optimism (Barrington-Leigh, 2022).

Table 8: Hope of male and female students

Hope		Frequency	Mean (Average)	SD	Statistical Value	Results
Gender	Male	139	25.11	3	't' value 1.044	P > 0.05 (.29) NS
	Female	99	24.68	3		

There is no statistical evidence that confirms any difference in level of hope based on gender as the average level of hope stands at 25.11 and 24.68 respectively. This can be the case because hope is affected by some other factors besides gender. The students' level of hope may vary depending on their home situation and life experiences. Both men and women need to pay attention while providing training on virtuous behaviours or hope.

Table 9 : Gratitude of male and female students

S. No	Level of (hope) agency thinking	Frequency	Percentage
1	Low	139	58.4
2	High	99	41.6
	Total	238	100

The t test results reveal that female students have a significantly higher level of gratitude (M=30.60) compared to males (M=29.49), t(df) = 2.147, p=0.03. This might be because women were traditionally associated with love and compassion, which can be seen in their actions. Additionally, parental techniques for raising children might have an impact on how appreciative pupils are which is acknowledged by the findings of (Sibley et al., 2020) as well.

Table 10 : Forgiveness of male and female students

Forgiveness		Frequency(n)	Mean (Average)	SD	Statistical Value	Statistical Results
Gender	Male	139	62.40	8	't' value .346	P > 0.05 (.73) NS
	Female	99	62.77	7		

Table 11: Hope of postgraduate (PG) and undergraduate (UG) students

Hope		Frequency(n)	Mean (Average)	SD	Statistical Value	Statistical Results
Education	PG	65	25.72	3	't' value 2.416	P < 0.05 (.01) Sig
	UG	173	24.62	3		

There is no evidence to prove that there exists any difference between the level of forgiveness in the cases of male and female students as the average stands at 62.40 and 62.77 respectively). This might be as a result of the fact that forgiveness is gender-neutral. Other variables like their religious affiliation and the moral principles they have developed during their lives may also have an impact which is in accordance with the results of the experiments done by (Bermejo-Martins et al., 2021; Kar et al., 2021; Prowse et al., 2021).

Table 12: Forgiveness of postgraduate and undergraduate students

Forgiveness		Frequency(n)	Mean (Average)	SD	Statistical Value	Statistical Results
Education	PG	65	64.37	7	't' value 2.158	P< 0.05 (.03) Sig
	UG	173	61.87	8		

It is evident to validate the existence of a higher level of hope amidst the postgraduate students (ME and MCA) than undergraduate students. This may be because their age can affect how much hope they have. Postgraduate students may have personal goals and be looking forward to employment, both of which may influence them to retain a higher level of hope as confirmed by (Kurki et al., 2021; Limarutti et al., 2021).

Table 13: Hope of students from rural and urban areas

Hope		Frequency (n)	Mean (Average)	SD	Statistical Value	Statistical Results
Domicile	Rural	60	25.32	3	't' value 1.107	P< 0.05 (.26) NS
	Urban	178	24.80	3		

It is explicit that the postgraduate students (ME and MCA) have a greater level of forgiveness than undergraduate students (average = 61.87; mean = 64.37). This might be because postgraduate students may have more psychological maturity than undergraduate students, which might make it easier for them to forgive. Their religious practices and life experiences may have also assisted them in learning to forgive others, themselves, and circumstances which are in accordance with the results of the studies by (Bermejo-Martins et al., 2021; Kar et al., 2021; Prowse et al., 2021).

It is quite imperative that the pupils from urban areas (average = 24.83) and rural areas (average = 25.32) have almost the same level of hope. This is because hope may be more impacted by a person's own traits such as personality, status of life, and family situation, than by the location of their residence which is proposed by (Sibley et al., 2020).

Table 14: Gratitude of students from rural and urban areas

Gratitude		Frequency(n)	Mean (Average)	SD	Statistical Value	Statistical Results
Domicile	Rural	60	29.18	4	't' value 1.746	P > 0.05 (.08) NS
	Urban	178	30.21	3		

It is evident that the gratitude levels are equal among pupils from urban and rural areas (average: 30.21 and 29.18 respectively). This implies that a person's gratitude can be influenced by their personality, status of life, beliefs in their core values, family status, and religious beliefs rather than where they live geographically (Bermejo-Martins et al., 2021; Kar et al., 2021; Prowse et al., 2021).

Table 15: Hope of students from nuclear family and joint family

Hope		Frequency	Mean (Average)	SD	Statistical Value	Statistical Results
Type of Family	Joint family	43	25.74	2	't' value 2.07	P < 0.05 (.04) Sig
	Nuclear family	195	24.75	3		

It is worthy to note that the students from nuclear families (average = 24.75) exhibit slightly lower levels of hope than students from joint families (average = 25.74). This may be because a strong joint family structure may offer the emotional and physical support that gives hope and clear paths to success. The students may also be protected by the joint family system from adverse impacts. Students can find at least a few people who inspire them and give them hope in the large joint family structure.

Table 16: Relation between religious faith and hope of the students

Hope		Frequency	Mean	SD	Statistical Value	Statistical Results
Level of religious faith	Strong	98	25.09	2	F ratio.703	P > 0.05 (.49) Sig
	Moderate	121	24.92	3		
	Poor	19	24.16	3		

According to the statistical findings from the ANOVA test, there is no discernible difference between the level of hope and the degree of religious faith. Students with weak, moderate, and strong religious convictions exhibit the same amount of hope.

Table 17: Relationship between hope, forgiveness, and gratitude

Factors	Forgiveness	Gratitude	Age
Hope	.424** P < .01 (.00) Sig	.216** P < .01 (.00) Sig	.165* P < .05 (.01) Sig
Forgiveness		.289** P < .01 (.00) Sig	.149* P < .05 (.02) Sig
Gratitude			-.036 P > .05 (.57) NS

*Correlation is significant at the 0.05 level (2-tailed); Sig.-Significant; NS-Not Significant.

**Correlation is significant at the 0.01 level (2-tailed).

At the .01 level of significance, there is a substantial positive correlation between forgiveness and hope (r = .424). It demonstrates that when the level of hope rises, the propensity to forgive rises as well, and vice versa. At the .01 level of significance, there is a substantial positive correlation between hope and gratitude (r = .216). It demonstrates that as the level of hope rises, the level of gratitude will increase, and vice versa. Age and hope have a substantial association at the .05 level of significance. Hope and age have a positive correlation (r = .165) which implies that as age increases, so does the degree of hope. At the .01 level of significance, there is a substantial positive correlation between forgiveness and gratitude (r = .289). It demonstrates that as levels of forgiveness rise, levels of gratitude increase and vice versa. At the .05 level of significance, there is a substantial positive correlation between age and forgiveness (r = .149). It demonstrates that as age rises, so does the degree of forgiveness. At the .05 level of significance, there is no correlation between age and gratitude.

5. Discussion

The study reveals that there is a clear connection between the output of hope, level of forgiveness, level of gratitude, level of pathways thinking, as well as level of agency thinking and a college student's success (Chakraborty & Kaur, 2024). The following could be recommended in order to enhance the well-being of college students:

- The educationists should consider including courses on life skills as a part of the curriculum.

- Periodic check on the wellbeing of the college students should be regularised.

- Involvement of psychiatrists as part-time or full-time personnel will give a moral support to the college students as to whom should they contact for letting out their emotion and for counselling.

- The pressure associated with the engineering education should be lessened by limiting the assessments that are highly theory-based.

- Practical oriented teaching, learning, and assessments methods should be adopted.

6. Future Research

Cross-sectional comparison will bring into limelight whether the nature of the study programme has any impact on the factors affecting the well-being of the college students.

Qualitative research will bring in more critical insights as the open-ended questions would lay more scope for college students to speak out their emotions.

Comparative studies between college students from rural and urban backgrounds will bring out the geo-specific factors playing a role in maintaining the well-being of the college students.

7. Limitations

The results of the study cannot be generalized as the results are specific to the participated sample size and the sample size is also not so huge. The analysis is completely quantitative which infers that there is a scope for variation if it is carried out in the qualitative form. The study cannot recommend UG students to take PG students as their role models as the sample size of PG students is a little above the one third of the sample size of UG students.

8. Conclusion

A majority of students—55.9%—have low levels of hope. It implies that they require assistance and direction from their parents and teachers. Additionally, special training sessions might be held to raise the kids' sense of hope. 40.8% of students exhibit poor (hope) pathways thinking. It indicates that students were unaware of the various routes they could use to achieve their objectives. Therefore, they require parental and educational support. A majority of students—58.4%—have low levels of (hope) agency thinking. It shows that they do not have the confidence to bring about change and accomplish their objectives. Motivational training is therefore required to help the group develop self-confidence. More postgraduate students than undergraduate students express hope and forgiveness. Programs for life skills education and training should focus on the undergraduate students. Students who live in joint family systems are more hopeful than those who live in nuclear families. Therefore, peer counsellors can concentrate on and support students who are members of nuclear families or who are the only children in their families. In order to engage adolescents in hope concepts, the first step is to assist them in developing a set of objectives that cover various facets of their lives. Teachers can use inventories of students' values, interests, talents, and abilities to inspire this list of goals, and they should urge students to rank the goals in order of significance to them. The ideal goals for kids to strive towards are those that are clear and have clear endpoints. Markers can be made to help students gauge their progress towards goals. Creating mental pathways that assist students in navigating challenges that arise as they work towards their objectives can yield better results. Students can be driven to work on their gratitude by truly and frequently thanking others.

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