

Happiness: A New Perspective Contributing Towards Learning for Post-Pandemic Higher Educational Institutions

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Abstract

Purpose. The word ‘pandemic’ reminds us of the disaster it has created in the world. The present paper aims to explore the gender-based difference in happiness levels among students of Indian higher education institutions (HEIs) during the pandemic. The study elaborates on the skill to remain happy by providing a happiness model useful in curriculum modification in HEIs for better learning of students. *Design/ methodology.* A self-constructed questionnaire was used to collect data from 642 respondents through purposive sampling. SPSS software was used for data analysis. Such statistical methods as independent t-test, multiple regression, and AMOS were employed for structural equation modelling. *Findings.* The statistical results showed no significant difference in the levels of happiness between the male and female students. Physical, psychological, social, and financial factors and semester stress were found to contribute to the happiness of students, and gender had a significant impact on physical, financial, and semester stress. Finally, a happiness model was developed. *Originality.* This research presents a model with five major contributing factors to happiness during the pandemic for students in Indian HEIs. The impact of gender on overall happiness and its contributing factors were also studied. *Research limitation.* The study should be expanded in terms of data collection, reaching more regions of India and outside to generalise the results. *Practical implication.* The outcomes that emerged from the study can be incorporated into the curriculum to prioritise happiness and improve students’ learning. *Social Implication.* A modified curriculum will help students to remain happy which automatically increases learning. **Keywords:** happiness, higher educational institutions, students, curriculum, physical factors, psychological factors, social factors, financial factors.

Счастье как фактор, способствующий обучению в постпандемических высших учебных заведениях

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Аннотация

Пандемия стала бедствием, изменившим мир. Цель данной работы – изучить гендерные различия в ощущении счастья среди студентов высших учебных заведений Индии после пандемии. В исследовании анализируется умение оставаться счастливым и предлагается модель счастья, которая может стать полезной при модификации учебных программ с целью достижения лучших результатов обучения. Для сбора данных были целенаправленно отобраны 642 респондента, им предложена структурированная анкета. Для анализа использовалась программа SPSS, в которой применялись такие статистические методы, как независимый t-тест, множественная регрессия и AMOS для моделирования структурных уравнений. Было изучено влияние пола, и статистические результаты показали отсутствие существенной разницы в уровнях счастья между студентами мужского и женского пола, однако пол оказывает значительное влияние на физический, финансовый и семестровый стресс. Были установлены факторы (физические, психологические, социальные, финансовые факторы и семестровый стресс), которые вносят вклад в ощущение счастья у студентов. В результате исследования была разработана модель с пятью основными факторами, влияющими на ощущение счастья у студентов индийских высших учебных заведений. Исследование следует расширить в плане сбора данных, охватить больше регионов Индии и за ее пределами с целью обобщения. Результаты исследования могут быть учтены при разработке учебных планов с целью сделать ощущение счастья приоритетным и улучшить обучение студентов. Модифицированный учебный план поможет студентам оставаться счастливыми, что автоматически повысит результаты обучения.

Ключевые слова: счастье, высшие учебные заведения, студенты, учебная программа, физические факторы, психологические факторы, социальные факторы, финансовые факторы, семестровый стресс.

Introduction

At the end of 2019, the world encountered an unprecedented situation. Although COVID-19 was not the first world pandemic, the rate at which it increased and spread throughout the globe was unmatched with any of the earlier pandemics. This novel virus was first identified in Wuhan, China, and soon started spreading to other Chinese provinces and the world. Symptoms of COVID-19 ranged from unnoticed to serious, causing deaths. This pandemic compelled us to name it the deadliest in the history of

mankind. Several precautions, such as lockdown, restrictions on travel, social distancing, face masks, frequent hand washing, and regular and routine sanitisation, became normal. The pandemic caused severe social and economic disruptions globally, leading to the biggest recession and major depression. COVID-19 impacted every sector ranging from aviation, science and technology, financial markets, businesses, arts, entertainment, sports, tourism, and agriculture, leading to huge job losses.

The pandemic brought significant disruptions to the education sector. COVID-19 impacted education globally forcing most educational institutions to suddenly close down and many to switch online. Zambia encountered a partial lockdown, where few higher learning institutions provided e-learning, and only after April 2020, primary and secondary schools started to implement online learning as a new normal (Sintema, 2020a). Slowly, the whole education system switched to the online mode. The effectiveness of online learning versus face-to-face learning has been already studied, where online mode facilitates resource sharing and collaboration leading to high learning scores (Baig, 2011). Reaching out to remote learners located anywhere and anytime through online mode was an effective tool during the pandemic.

Along with the many benefits of the closure strategy and opting for online methods, these have had a huge impact on everyone involved as the time for transition was nil. Education has three major entities: teachers, students, and institutions. If we turn pages of the past, there were diseases like MERS brought along high levels of mental problems such as anxiety and aggression (Jeong, 2016). Similarly, COVID-19 also caused mental health issues such as panic attacks (Ahorsu et al., 2020), depression, and anxiety (Wang et al., 2020). As the well-being of students is of utmost importance, these issues must be considered and addressed.

The adaptability and sustainability of present and future education lie in meeting the needs and demands of teachers, as well as learners. E-learning emerged out to be a sustainable new normal in Romania (Ionescu & colleagues, 2020). It became an effective learning solution based on the teacher-student-parent perspective in current and future conditions. However, careful attention should be paid to students' behaviour as there may be possible detrimental effects because of the changed style of teaching and learning and new realities. Students were compelled to stay in isolation, leading to decreased proximity to teachers, friends, and social circles. A positive correlation between real-life friends and subjective well-being (Helliwell & Huang, 2013) indicates for paying attention to find out the relationship between online friends and happiness.

Various studies have been carried out on HEIs during the pandemic but very few focused on gender-wise happiness levels and their contributing factors in Indian HEIs. Thus, the present research examines gender-wise happiness level of students in India and presents the strategy and model of happiness that might be used by HEIs to survive in the long run. The model will help to identify the needs of students which will facilitate their well-being in present and the future. The current study suggests reshaping the higher education curriculum that would include the remote learning format.

Literature review

World during COVID-19

COVID-19 has impacted all sectors, forcing them to drastically transform themselves in order to adapt to the new conditions. The new normal was compared to mobile learning, allowing learning anytime, anywhere, and anyplace, which became an important sustainable tool for remote teaching (Naciri et al., 2020). The disruption caused by this pandemic has impacted social and economic functioning, resulting in massive changes in all sectors (Krishnamurthy, 2020). This outbreak occurred at the business hub of China,

taking hundreds of lives and leaving thousands infected by late December 2019 (Shereen et al., 2020). Approximately 160 countries and regions were captured by the virus infection within three months. World Health Organisation (WHO) declared Coronavirus disease 2019 (COVID-19) as a 'Public Health Emergency of International Concern' on 30 January 2020 (Emergency-committee-regarding-the-outbreak-of-novelcoronavirus, 2005).

Education during COVID-19

The education sector was also not left untouched. Thousands of schools have been closed worldwide. UNESCO reported that 1,576,021,818 learners were affected by April 6, 2020, 91.3% out of the total number of enrolled learners in 188 countries across all levels of education (Education: From disruption to recovery, 2020). Soon whole education systems in all levels completely shifted to online teaching-learning from face to face (Mishra et al., 2020). Although many studies have been conducted in various areas, very few examined the impact of COVID-19 on the education system (Bao, 2020; Sintema, 2020b).

Education's response during COVID-19

The 21st century has already been influenced by educational technology with multi-equipped teaching, involvement of computer devices and other innovations, already in use to resolve setbacks of education. Thus, although the education sector was impacted by the pandemic, it showed a good response by opting for radical transformations which included the digitalization of education along with providing timely training for academics to adapt to online teaching. This adaptation was not confined to a single place, but globally, higher education was undergoing drastic digital transformation (Dwivedi et al., 2020). It can be said that the education sector viewed a pandemic as a positive crisis, growth crisis, or crisis of adolescence.

Some of the challenges that university systems faced were in the necessity to provide timely resources, and train academicians to remain intact during this time of crisis. While necessary actions amid disruption and crisis were carried out, it appeared that the time was right for innovative risk-taking, new decisions and innovations in the education system, which was the main aim for meeting the requirements of present customers and managing existing services (Christensen et al., 2006). Teachers and students were led into an unfamiliar zone due to the sudden end of the face-to-face mode of teaching-learning, when they had to adapt to e-learning settings (Carolan et al., 2020). Traditional pedagogy shifted to online class sessions, virtual instructions instead of face-to-face and webinars took over seminars (Mishra et al., 2020). The term "emergency online education" was used in some studies (Marinoni et al. 2020) for this new system that became a global experiment of remote learning (Govindarajan et al., 2020).

Most of the HEIs acknowledged that teaching methodologies, necessary competencies and assessment methods demand intense changes and technological transformation in the education system (Marinoni et al., 2020) which also requires reconsideration of new skills and competencies. For the COVID-19 scenario globally, ample options of sources for online communication are readily available to facilitate the digitalisation of the teaching-learning process (Mishra et al., 2020). The current study focused on the challenges faced by students.

Challenges faced by students

The education process is recognised for its long-term effects on one's mind and personality. A longitudinal study conducted on Swiss undergraduates, before and during the COVID-19 period found that during the COVID-19, students' stress levels, loneliness, depressive symptoms, and anxiety worsened in comparison to that before the COVID-19 period. Students were stressed about family, friends, health, future; they also experienced

the fear of missing out on social life. The research by Elmer and colleagues (2020) urges universities and practitioners to design onsite-cum-online teaching to handle the social aspects of students' lives and support psychologically affected students. Such mental health challenges are not restricted to one country. In the USA, for example, interviews conducted with 195 students showed that multiple stressors contributed to an increase in stress levels, depression, and anxiety thoughts among university students, including fear of self and loved one's health, sleep disturbances, concentration issues and others calling for timely attention towards the psychological and mental health of students (Son et al., 2020).

This way, attention to students' happiness is of great concern. Learners in the education system suffer a lot. WHO (2013) defined mental health as "a state of well-being in which every individual realizes his or her potential, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to her or his community". Petkari and Ortiz-Tallo (2018) revealed the connection between mental health and the achievement of the state of happiness.

Happiness

Happiness is the measure of subjective well-being. It varies with individual perception. For some, it can be a feeling of the moment, while for others a feeling over a stretched period. It can also be described as a frequently occurring positive effect and occasionally negative effect (McBride, 2010). There are different definitions of happiness. Daniel Kahneman (Mandel, 2008) referred to it as '*what I experience here and now*'. It can also be described as an "overall appreciation of one's life as-a-whole" (Veenhoven, 2001). People attempt different things in their search for happiness. Anthropology, a field that studies human beings, opines that people do not have one single "pursuit of happiness" (Mathews & Izquierdo, 2009).

Psychology views happiness as an individual's long-term emotional state of happiness along with life's positive evaluation (Oishi & Gilbert, 2016). It was shown that balancing positive and negative emotions is a strong determinant of happiness (Diener et al., 1999). Another way to see happiness is through its three components: positive emotions, satisfaction, and absence of negative emotions (Argyle, 2013). It has also been found that various changes and fluctuations influence happiness, which is based on the nature inherited from parents through genes (Nikolova & Graham, 2020). Furthermore, researchers Sheldon and Lucas (2014) also found that one's genes and nurture give specific points to their happiness. This study reassures us that people facing good and bad times tend to return to a set point that is governed by their genes. Another study challenges this by stating that an increase in happiness is not restricted by genes (Nes, 2010) and thus, opening the door for exploring methods and interventions for increasing happiness.

There is less understanding of what comprises happiness in the context of education. Noddings (2003) argues that very little attention is given to "happiness" in the studies of education and that evaluations also fail to consider the happiness of students. The question of how education can contribute to lifelong happiness is also open. The study by Bakker (2005) shows that students' happiness could be predicted by school performance while teachers' happiness – by students' happiness. Happiness is found to be influenced by various factors like personality traits, self-confidence, friendship, and school grades for adolescents (Cheng & Furnham, 2002). Similarly, some other factors contributing to college students' happiness were found. These are enjoyment and success in work, popularity, good health in childhood, success in dealing with people, love of nature, marriage, hard-working life and other (Watson, 1930). During the pandemic the situation has changed impacting all the above-mentioned factors and urging to examine college students' happiness level.

- The current research set the following objectives:
- To explore the difference in happiness experienced by male and female students of HEIs during the pandemic.
- To find out the difference in factors contributing to happiness between male and female students of HEIs during the pandemic.

Hypothesis 1:

Ho: There is no difference in the happiness experienced by male and female students of HEIs during the pandemic.

Ha: There is a difference in the happiness experienced by male and female students of HEIs during the pandemic.

Hypothesis 2:

Ho: There is no difference in the factors contributing to happiness of male and female students of HEIs during the pandemic.

Ha: There are differences in the factors contributing to happiness of male and female students of HEIs during the pandemic.

Research methodology

This research was conducted during the COVID-19 pandemic on HEIs students to determine the differences in the levels of happiness between male and female students and its contributing factors. The survey was conducted from January 2021 to February 2021. Purposive sampling technique was used and the sample size was not pre-set, as beginning from March 2021 lockdown took place again. A total of 637 out of 642 responses were valid. The questionnaire was a self-constructed questionnaire based on a five-point Likert scale, with a Cronbach's alpha of 0.796 (Table 1). Popular methods available to check normality are the Shapiro-Wilk test, Kolmogorov-Smirnov test, Skewness, kurtosis, histogram, box-plot, P-P Plot, Q-Q Plot, and mean with SD. For sample size ($n > 300$) relative value of the SD with respect to the mean can be quickly calculated to check normality, where if SD is less than half the mean, data are considered normally distributed (Jeyaseelan, 2007). Table 2 shows SD as less than half the mean, concluding that the data are distributed normally. Further, absolute skewness value should be less than or equal to 2, here it is 0.497 (Kim, 2013) for normally distributed data.

Table 1. Reliability

<i>Cronbach's alpha</i>	<i>N of items</i>
0.796	24

Table 2. Normality

<i>Statistics</i>		
Total		
N	Valid	630
	Missing	12
Mean		208.4984
Std. Deviation		21.11914
Skewness		-.497
Std. Error of Skewness		.097
Kurtosis		1.301
Std. Error of Kurtosis		.194

Results

The questionnaire was based on specific parameters related to students' normal routine so that they could associate them with it. This study analysed only the physical, psychological, social, and financial aspects and semester stress questions. Table 3 (Demographic Profile of Respondents) shows the details of the participants. Factor analysis was carried out using SPSS, and Table 4 (factor analysis) shows the factors to which individual sub-factors contribute to their respective loadings.

Table 3. Demographic Profile of Respondents

	<i>Valid</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Male	291	45.3
	Female	351	54.7
Undergraduates	First-Year Students	127	19.8
	Second-Year Students	210	32.7
	Third-Year Students	144	22.4
	Fourth-Year Students	82	12.8
Postgraduates	First-Year Students	50	7.8
	Second-Year Students	29	4.5

Table 4. Factor Analysis

<i>Factors</i>	<i>Variables</i>	<i>Loadings</i>
Physical	It's important to have knowledge about a balanced diet	0.498
	I strive to have a balanced diet	0.605
	It's important to have a meal on time	0.604
	I wish to take a sound sleep	0.427
	I wish not to feel tired upon waking up in the morning	0.577
	I feel exercise is important part of life	0.581
	I wish to include exercise daily in my routine	0.716
Psychological	I wish I am able to anticipate things	0.561
	I wish to do my work with great excitement	0.542
	I feel there could be various ways to solve any problem	0.472
	I take past experiences as learnings	0.642
	I wish there is great future ahead	0.656
	I wish to have enough opportunities in life	0.508
	I feel excited about wide variety of opportunities in life	0.593
Semester Stress	I wish to get chance to be involved in the things around me	0.558
	I do not feel anxious during ordinary days of semester	0.758
Social	I do not feel anxious during exams and end of semester	0.675
	I wish to have close bond with my family	0.611
Financial	I wish to have good interpersonal relationships with people	0.474
	I wish to have ample money to manage my expenses	0.774
	I wish to be able to save money	0.583
	I wish to feel financially secure	0.782

Testing hypothesis 1

Happiness scores were further analysed for male and female students using SPSS through an independent t-test. The results are shown in Table 5. The mean scores for happiness for men and women were 208.7882 and 208.2544, respectively. Table 6 shows that the group means are statistically not different because of the value in the Sig. (2-tailed) row was greater than 0.05. As shown in Table 5, males and females did not show significant difference in their happiness levels during the pandemic. Therefore, authors rejected the alternate hypothesis and accepted the null hypothesis.

Table 5. Group Statistics for Happiness

Gender	N	Mean	Std. Dev.	Std. Error Mean
Happiness- Male	288	208.7882	22.35897	1.31752
Happiness- Female	342	208.2544	20.04561	1.08394

Table 6. Independent Sample t-Test for Happiness

Happiness	Levene's Test for equality of variances		t-test for equality of means				
	F	Sig.	t	Df	Sig. (2-tailed)	Mean diff.	Std. Error diff.
Equal variances assumed	1.442	0.230	0.316	628	0.752	0.533	1.69
Equal variances not assumed			0.313	582.42	0.754	0.533	1.70

Testing hypothesis 2

The happiness level was the same for male and female students, and further questions arose: Is there any difference in the factors contributing to happiness in male and female students? An independent t-test was applied to all factors extracted from the factor analysis. Table 7 shows the mean values of all factors for both sexes. The mean values for physical, psychological, social, and financial factors and semester stress were 26.02, and 25.15, 31.37, and 31.74, 8.15, and 8.17, 10.92, and 11.49, 6.91, and 6.38, respectively. Table 8 shows Sig. (2-tailed) values for all factors. The Sig. (2-tailed) value for physical factors was less than 0.05, indicating a significant difference. As we can see from Table 7, male students' physical factors contribute more to happiness than do females. Similarly, Sig. (2-tailed) from Table 8 shows that the value for semester stress and financial factors are also less than 0.05 indicating significant difference. Table 7 shows that male students experienced less stress in comparison to females. As high scores for stress corresponds to less stress, we can conclude that males were happier. Table 7 also indicates that male students give more importance to financial factors than females. Lastly, Sig. (2-tailed) value for psychological factors and social factors are more than 0.05 pointing at no significant differences. Since the mean scores for these are approximately the same for males and females, we reject the null hypothesis and accept the alternate hypothesis.

Table 7. Group Statistics for Factors

	Gender	N	Mean	Std. Dev.	Std. Error mean
Physical	Male	291	26.02	4.94	0.289
	Female	351	25.15	4.44	0.237
Psychological	Male	290	31.37	4.54	0.267
	Female	349	31.74	3.58	0.192
Semester stress	Male	291	6.91	1.84	0.108
	Female	351	6.38	1.66	0.089
Social	Male	291	8.15	1.63	0.095
	Female	351	8.17	1.40	0.075
Financial	Male	290	10.92	2.64	0.155
	Female	350	11.49	2.27	0.121

Table 8. Independent Sample t-Test for Factors

		Levene's Test for equality of variances		t-test for equality of means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean diff.	Std. Error diff.
Physical	Equal variances assumed	4.02	0.045	2.34	640	0.019	0.870	0.370
	Equal variances not assumed			2.32	589.37	0.021	0.870	0.374
Psychological	Equal variances assumed	9.39	0.002	-1.14	637	0.253	-0.36	0.321
	Equal variances not assumed			-1.12	544.35	0.263	-0.36	0.328
Semester Stress	Equal variances assumed	2.31	0.129	3.81	640	0.000	0.529	0.138
	Equal variances not assumed			3.77	591.4	0.000	0.529	0.140
Social	Equal variances assumed	3.61	0.058	-0.23	640	0.814	-0.02	0.120
	Equal variances not assumed			-0.23	576.6	0.816	-0.02	0.121
Financial	Equal variances assumed	8.23	0.004	-2.92	638	0.004	-0.56	0.194
	Equal variances not assumed			-2.88	573.7	0.004	-0.56	0.197

Multiple regression using SPSS for a model fit

Multiple regression analysis was performed to check the individual contribution of factors and model fit for happiness during the pandemic. In Table 9, column R represents the multiple correlation coefficient *R* which predicts the dependent variable. Here, the value of *R* was 0.909, indicating that all independent variables used in this study predicted happiness as the dependent variable. The R-square column represents the *R*² coefficient of determination which is 0.825, indicating that the independent variables explain

82.5% of the variability in the dependent variable. Table 10 shows the independent variables that statistically significantly predict the dependent variable, $F(5, 624) = 590.06$, $p < 0.0005$, indicating that the regression model is a good fit of the data. Table 11 demonstrates the “Sig.” column illustrating that all independent variable coefficients are statistically significantly different from zero, concluding that all five variables added statistically significantly to the prediction ($p < 0.05$).

Table 9. Model Summary²

Model	R	R Square	Adjusted R Square	Std. Error of the estimate	R square change	F change	Df1	Df2	Sig. F change
1	0.909 ¹	0.825	0.824	8.859	0.825	590.06	5	624	0.000

¹ — Independent variables (physical, psychological, social, financial factors, and semester stress); ² — dependent variable (happiness)

Table 10. ANOVA¹

Model		Sum of Squares	df	Mean squares	F	Sig.
1	Regression	231568.3	5	46313.67	590.06	0.000 ²
	Residual	48977.1	624	78.48		
	Total	280545.4	629			

¹ - Dependent variable – happiness; ² - Predictors: (constant), all (physical, psychological, social, financial factors, and semester stress)

Table 11. Statistical Significance of the Independent Variables

Model	Coefficients ¹				
	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
Constant	41.68	3.12		13.35	0.000
Physical	1.57	0.084	0.350	18.80	0.000
Psychological	2.46	0.104	0.473	23.68	0.000
Semester Stress	1.97	0.210	0.166	9.39	0.000
Social	2.76	0.263	0.199	10.52	0.000
Financial	1.15	0.154	0.134	7.48	0.000

¹ - Dependent variable - happiness

Table 12. Estimates for All Factors

Variables	Estimate	SE	p-value
Happiness ← Physical factors	0.540	1.616	***
Happiness ← Psychological factors	0.702	1.924	***
Happiness ← Social factors	0.382	1.808	***
Happiness ← Financial factors	0.206	0.672	***
Happiness ← Semester stress	0.303	1.488	***

Finally, using AMOS, structural equation modelling was performed to obtain a happiness model effective for curriculum modification (Figure1).

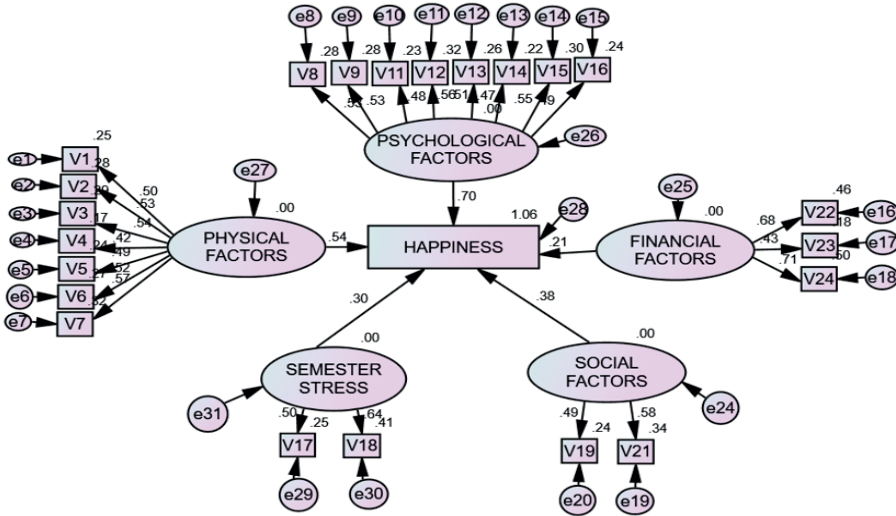


Figure 1. Structural Equation Modelling

For confirmatory factor analysis the standard measures used for fit included the root mean squared error approximation (RMSEA), minimum discrepancy per degree of freedom (CMIN/DF), normal fit index (NFI), and comparative fit index (CFI). RMSEA values less than 0.01, 0.05, 0.08 for RMSEA indicate excellent, good, and average fit respectively MacCallum et al., 1996). A CMIN/DF < 3 depicts an acceptable fit (Kline, 1998) while a CMIN/DF < 5 indicates a reasonable fit between the hypothetical model and sample data (Marsh & Hocevar, 1985). NFI, CFI > 0.9, depicts good levels of fit, while NFI < 0.9 indicate an acceptable model (Bentler, 1990). The analysis showed RMSEA = 0.07, CMIN/DF = 4.124, NFI = 0.747 and CFI = 0.793. All values recommend the model to be fit. Lastly, Table 12 shows *p*-value for all the factors as 0.000, concluding all factors do contribute towards happiness for students of higher educational institutions during the pandemic.

Discussion and Conclusion

The world, as well as the education system, have encountered several pandemics. The education system took the pandemic crisis as a growth crisis and switched to remote learning. Teachers, students, and institutions faced various challenges. This study aimed to highlight the aspects in students' lives related to their happiness and well-being.

The survey on happiness was conducted to examine the differences in the levels of happiness between male and female students. The results indicated that both male and female students experienced the same level of happiness. This research is supported by the recently conducted study involving higher education students from the United Arab Emirates (Moussa & Ali, 2022). Moussa and Ali's study (2022) showed no gender-based differences in the happiness levels. As argued by Mathews and Izquierdo (2009), there cannot be a single pursuit of happiness for all, so various contributing factors were also examined like physical, psychological, social, and financial factors together with the factor of semester stress. The results showed no significant differences in happiness due

to social and psychological factors between male and female students. Both are equally important, which suggests that students are also aware of the dependence of happiness on psychological aspects (Jain et al., 2021). This clearly underlines the need to pay more attention to psychological, social, and mental needs of students (Son et al., 2020). Thus, universities and practitioners are encouraged to design onsite-cum-online teaching mode that helps in handling aspects of students' social lives and supporting psychologically affected students (Elmer et al., 2020).

For male students, physical factors contribute significantly more toward happiness than for female students. This finding supports the research stating that males perceive higher levels of physical competence than females (Kalaja et al., 2010). The results also showed that male students experienced less stress than female students, so the level of their happiness might be higher. Like in other countries, the Indian education system also went through turmoil and had to raise digital knowledge among staff, improve IT infrastructure, introduce changes to the exam system. All that imposed a lot of stress on students (García-Morales et al., 2021). A study conducted in Russia by Pavlova and Bannikov (2015) also revealed that female students experiencing feelings of loneliness and hopelessness, results in pre-examination stress more than male students. Financial factors contributing to happiness turned out to play an important role for male compared to female students. Japanese and Asian American college male students are also found to be more cautious regarding money (Hanashiro et al., 2004). The multiple regression analysis was performed to confirm the factors contributing to happiness. All five factors - physical, psychological, social, financial factors, and semester stress - were found to be significant contributors to happiness. These results are in line with the research carried out by Diener (2009) who also considered various external dimensions such as sociological, psychological and other aspects and concluded that happiness was dependent on them. The study by Sfeir and colleagues (2022) conducted during COVID-19 illustrated that a healthy lifestyle correlates with general well-being. Finally, structural equation modelling was performed using AMOS to develop the happiness model diagrammatically. This model of happiness could answer the point raised by Noddings (2003) that education has an impact on life-long happiness.

Suggestions for future research

The pandemic once again made us realise that the future is unseen and cannot be predicted. Today, in the context of education, the new normal is online. What shape the education system will take tomorrow depends on our experience and learning. Some suggestions for a better-prepared tomorrow are as follows:

- Department of happiness: higher educational institutions can have separate departments for learning, increasing, and sustaining happiness for students. It can use the happiness model along with other techniques as the pandemic has taught that well-being is an important aspect to consider.
- New subjects: the pandemic helped us recall that the world is one, so everyone should be well aware and responsible. It might be the good time to add a few subjects, such as global awareness, environmental challenges, and safety measures, in the curriculum on every level of education.
- Hybrid teaching-learning system: the primary goal of the education system is to survive in the present and to sustain it in the unpredictable future. This can be achieved by taking care of students' well-being. Hybrid systems can be a breakthrough strategy when face-to-face and online interactive sessions are interchanged.

Statement on open data

The data used in this study can be accessed through the link: <https://doi.org/10.6084/m9.figshare.19295810.v1>. While using the data it should be cited as Devvrat, S. A. (2022). *FINAL DATA PANTNAGAR.sav* (Version 1). figshare. <https://doi.org/10.6084/m9.figshare.19295810.v1> ([[]])

Statement of ethics

The paper reflects the authors' own research and analysis in a truthful and complete manner approved by URC (University Research Council).

Conflict of Interest

No potential conflict of interest occurred while this research was carried out.

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