Research Article

Impact of Some Personal Variables on Selective Components of e-learning & Face to Face Learning Strategies for Nursing Students

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ABSTRACT

In the current scenario when globally there is digital advancement, Nurse Educators are required to upgrade themselves with the use of technology, preparing e- modules, e-lessons and their evaluations, and the students' needs to have computer literacy and required supporting infrastructure to access the e-learning and administrators needs to make sure that adequate online resources are mobilized to meet the educational needs of their students. Hence it is a crucial area of research area.

This study aims to investigate the Impact of some personal variables such as parental educational, occupation and income variation on selective Components of E-learning & Face to Face learning strategies for Nursing students.

Convenient sampling method was used to select 300 nursing students studying in different nursing colleges of Kolkata. A 5 point likert scale questionnaire was used.

Result shows that there exist significant difference between the use of selective component of E-learning strategies i.e. P.P.T., You-Tube, Live class (Google meet, Zoom), Sharing of Text sheet of nursing students in relation to parental education, occupation and income variation as obtained "t" values are > tabular value at 0.05 levels 1.98 and at 0.01 level2.63

There exist significant difference between the use of selective component of Face to Face learning strategies i.e. Lecture method, Interaction session, Note dictation & Demonstration of nursing students in relation to parental education, occupation and income variation as obtained "t" values are > tabular value at 0.05 levels 1.98 and at 0.01 level2.63

It is concluded that parental education, occupation and income have significance relation with E-learning and Face to Face learning strategies for Nursing students.

Key Words: *Personal Variables, Selective Component, e-Learning, Face-To-Face Learning, Nursing Students.*

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INTRODUCTION

As technology is rapidly-developing, there is fast change in the lifestyles of new generation. To combat with this transformation many teaching institution are offering more "flexible" learning environments. For over a decade there is rapid expansion in the provision of online or e-learning experiences particularly in the higher education sector. Therefore today e-learningis an important part of the student experience in most of the teaching institutes.

Due to the rise of e-learning students are encouraged to take on more responsibility for acquiring knowledge by their own whereas traditional method of teaching was teacher-centered model of teaching, where the teacher transmits knowledge to students, and student had very little input. Therefore E-learning provides greater opportunity for student - centered learning then traditional face to face learning. As student learns from their own interest and curiosities they not only tend gain in-depth knowledge and improve the quality of learning but also tend to have wider student participation and more cost-effectiveness of education.

Thus E-learning has become an important component in all teaching institutions all around the world. So to keep with the current trend, even nursing institution have started to adopt the digital world very swiftly. Traditional face-to-face instructions is gradually shifting into online instruction. Institutions and faculties are getting equipped for virtual class room sessions, and therefore parents are forced to provide the needed technical devices and internet services to the students to attend the online classes. Hence education system is striving to invest in the faculty development and equipping the institutions to impart the best learning process, irrespective of time of learning, geographical area, and

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other privileges. The main aim of this change is to transform the learners capabilities as per the global demands. Hence currently it is a subject of crucial issue for research.

The overall attitude of nursing students about the use of e-learning was negative. Moreover, the nursing students' responses about different dimension of obstacles of e-learning indicated that nursing students perceived the technical and management support, infrastructure and technology and instructors' characteristics as the most important obstacles of e-learning[1].

It is true that as individuals we all don't respond to one teaching method in the same way- some learn visually and others learn with repetition or writing. E-learning responds to those different needs with use of different types of material, whether that is audiovisual or interactive sessions, there is plethora of options to cater to the needs of each and every learner. In the coming days there will be full individual personalization of content and pedagogy enabled by cutting edge technology, multiple ways of using technology, facial expression or neutral signal response clubbed with hands on training too. In a world where shocking natural emergencies occur, we cannot afford to compromise on molding of younger generation. So education system must be or will be prepare to empower the humanity to withstand and survive in this world happily, effectively and productively. So as nurses and nurse educators let us ignite the nightingale's lamp with the modern technology, so that we can stay as relevant and needed professionals in the constantly changing society[2].

SIGNIFICANCE OF THE STUDY

In the current scenario when globally there is digital advancement, Nurse Educators are required to upgrade themselves with the use of technology, preparing e-modules, e-lessons and their evaluations, and the students' needs to have computer literacy and required supporting infrastructure to access the e-learning and administrators needs to make sure that adequate online resources are mobilized to meet the educational needs of their students. Still there are challenges of online education and there is need to explore different ways to combat those obstacles and hence enhance the use of e-learning as an essential educational tool .

In this regard, it is very important to know students views regarding e-learning. Studies done previously have thrown its light on evaluating and identifying students' perceptions and attitudes towards e-learning during the COVID-19 pandemic. Almost all the studies related to nursing students found are from out of India. As per the investigators knowledge, this study is a new approach in India particularly in the eastern zone.

Present study was conducted to assess the Impact of some personal variables on certain components of E-learning & Face to Face learning strategies for Nursing students. The study is quite relevant in India because before the pandemic, for nursing students e-learning was never been practiced on such a large scale. Therefore it is expected that this study would provide fresh light into a field that has traditionally been dominated by face to face learning within real-life situation in class room, labs and wards and provided hands-on training to groom nursing students with knowledge and skills.

STATEMENT OF THE PROBLEM

In the context of present situation both E-learning & Face to Face learning played very important role considering the personal variable of the nursing student of Kolkata in the present context of parental educational qualification (literate/illiterate), employment of parents (service/non service) and income of family (below poverty line/above poverty line), hence the investigator stated her problem for study as mentioned below.

"Impact of some personal variables on selective Components of E-learning & Face to Face learning strategies for Nursing students"

OBJECTIVES OF THE STUDY

1. To find out use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental educational.
2. To find out use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental occupation .
3. To find out use of E-learning and Face to Face learning strategies for Nursing students in relation to their parental income.

HYPOTHESIS OF THE STUDY

Ho$_1$ The scores of the E-learning and Face to Face strategy for Nursing students are not normally distributed in total and due to their intra variations/ intra variables wise.

Ho$_2$ There does not exist any significant difference of the mean scores of E-learning strategy of Nursing students due to their parental educational variations.

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Ho$_3$ There does not exist any significant difference of the mean scores of E-learning strategy of Nursing students due to their parental occupation variations.

Ho$_4$ There does not exist any significant difference of the mean scores of E-learning strategy of Nursing students due to their parental income variations.

Ho$_5$ There does not exist any significant difference of the mean scores of Face to Face learning strategy of Nursing students due to their parental educational variations.

Ho$_6$ There does not exist any significant difference of the mean scores of Face to Face learning strategy of Nursing students due to their parental occupation variations.

Ho$_7$ There does not exist any significant difference of the mean scores of Face to Face learning strategy of Nursing students due to their parental income variations.

Operational Definition
    Personal variables- It implies to Nursing students parental educational variation, occupational variation and income variation.

    Selective component- It implies to P.P.T., You-Tube, Live class (Google meet, Zoom), Sharing of Text sheet ofE-learning strategies and Lecture method, Interaction session, Note dictation & Demonstration of Face to Face learning strategies.

METHODOLOGY OF THE STUDY
The Design of the Study
    The present research work is a mixed type of research work, where, Normative and correlational, survey type research design was used and it is a non experimental survey design adopted to accomplish the objectives of the study.

The Population and Sample of the Study
    The study Population comprises of B.Sc. Nursing students, 300 students were taken by Non-probability convenience sampling technique from selected Nursing Institutes of Kolkata

The Tools Used
    One Demographic structured questioner and two (five points likert scale) self made questioner's were prepared and used after validation by experts and reliability test .

THE RESULTS AND DISCUSSION
This is done in accordance with the objectives and hypotheses formulated**.**

Component wise differences on the use of E-Learning of nursing students
    One of the objectives of the study was to be found out if there exist any component wise differences of parental educations cores on the use of E-learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the use of E-learning of nursing students in relation to component wise parental educationvariation".

    In order to find out differences if any of the scores on use of E-Learning of above graduate and below graduate parents, the test of significance of difference between the means of two sub samples was calculated and tested for significance. The result has been presented in the following table:

Table 1 : Summary of test of significance of differences between parental education Component wise variation (PPT) of nursing students on the use of E-Learning

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Parental Education variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	22.79	6.45	1.22	3.13	Significant.
Below Graduate	197	23.94	7.45			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

    The obtained value 3.13 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of

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nursing students in relation to parental education variation will be rejected.

Table2: Summary of test of significance of differences between parental Occupation Component wise variation (PPT) of nursing students on the use of E-Learning

300

Parental Occupation variation	N	Mean	S. D	SE_D	't'	Remarks
Non-Service	204	23.90	5.67	1.56	3.87	Significant.
Service	96	22.89	5.23			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.87 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental occupation variation will be rejected.

Table 3 : Summary of test of significance of differences between parental income Component wise variation (PPT) of nursing students on the use of E-Learning

300

Parental Income variation	N	Mean	S. D	$S E_D$	't'	Remarks
Above Poverty Level	203	23.16	7.56	1.38	3.81	Significant.
Below Poverty Level	97	21.90	6.67			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.81 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental income variation will be rejected.

Table 4 : Summary of test of significance of differences between parental education Component wise variation (YOU TUBE) of nursing students on the use of E-Learning

300

Parental Education variation	N	Mean	S.D	SE_D	't'	Remarks
Above Graduate	103	21.17	5.13	1.31	2.34	Significant.
Below Graduate	197	24.66	7.23			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.34 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental education variation will be rejected.

Table 5 : Summary of test of significance of differences between parental occupation Component wise variation (YOU TUBE) of nursing students on the use of E-Learning

300

Parental Occupation variation	N	Mean	S. D	SE_D	't'	Remarks
Non-Service	204	24.69	5.78	1.86	3.45	Significant.
Service	96	23.90	5.65			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.45 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental occupation variation will be rejected.

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Table 6 : Summary of test of significance of differences between parental income Component wise variation (YOU TUBE) of nursing students on the use of E-Learning

300

Parental Income variation	N	Mean	S. D	SE$_D$	't'	Remarks
Above Poverty Level	203	23.19	7.18	1.89	3.12	Significant.
Below Poverty Level	97	21.25	5.52			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.12 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental income variation will be rejected.

Table 7 : Summary of test of significance of differences between parental education Component wise variation (LIVE CLASS) of nursing students on the use of E-Learning

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Parental Education variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	28.16	7.13	2.32	3.11	Significant.
Below Graduate	197	32.83	9.17			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.11 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental education variation will be rejected.

Table 8 : Summary of test of significance of differences between parental Occupation Component wise variation (LIVE CLASS) of nursing students on the use of E-Learning

300

Parental Occupation variation	N	Mean	S. D	SE$_D$	't'	Remarks
Non-Service	204	34.70	9.15	3.12	3.13	Significant.
Service	96	31.45	7.13			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.13 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental occupation variation will be rejected.

Table 9 : Summary of test of significance of differences between parental income Component wise variation (LIVE CLASS) of nursing students on the use of E-Learning

300

Parental Income variation	N	Mean	S. D	SE$_D$	't'	Remarks
Above Poverty Level	203	33.26	9.16	4.13	3.56	Significant.
Below Poverty Level	97	28.95	7.13			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.56 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental income variation will be rejected.

Table 10 : Summary of test of significance of differences between parental education Component wise variation

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Parental Education variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	21.80	7.15	1.29	3.45	Significant.
Below Graduate	197	23.34	8.40			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.45 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental education variation will be rejected.

Table 11 : Summary of test of significance of differences between parental occupation Component wise variation (SHARING TEXT SHEET) of nursing students on the use of E-Learning

300

Parental Occupation variation	N	Mean	S.D	SE$_D$	't'	Remarks
Non-Service	204	24.23	6.12	1.98	3.08	Significant.
Service	96	21.18	5.78			

Critical value of 't' with df (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.08 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of E-learning of nursing students in relation to parental occupation variation will be rejected.

Table12 : Summary of test of significance of differences between parental income Component wise variation (SHARING TEXT SHEET) of nursing students on the use of E-Learning

300

Parental Income variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Poverty Level	203	25.32	9.16	2.32	2.71	Significant.
Below Poverty Level	97	21.54	6.17			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.71 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the use of e-learning of nursing students in relation to parental income variation will be rejected.

Component wise differences on the Face-to-Face Learning of nursing students

One of the objectives of the study was to be found out if there exist any component wise differences of parental education scores on the face-to-face learning of nursing students, therefore the null hypothesis was stated as "there is no significant difference in the face-to-face learning of nursing students in relation to component wise parental educationvariation".

In order to find out differences if any of the scores on face-to-face Learning of above graduate and below graduate parents, the test of significance of difference between the means of two sub samples was calculated and tested for significance. The result has been presented in the following tables:

Table 13 : Summary of test of significance of differences between parental education Component wise variation (LECTURE METHOD) of nursing students on the Face-to-Face Learning

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Parental Education variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	21.73	6.44	2.45	3.11	Significant.
Below Graduate	197	24.64	8.15			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

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The obtained value 3.11 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental education variation will be rejected.

Table14 : Summary of test of significance of differences between parental occupation Component wise variation (LECTURE METHOD) of nursing students on the Face-to-Face Learning

300

Parental Occupation variation	N	Mean	S. D	SE$_D$	't'	Remarks
Non-Service	204	24.56	8.12	2.78	3.17	Significant.
Service	96	22.80	5.78			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.17 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental occupation variation will be rejected.

Table 15 : Summary of test of significance of differences between parental income Component wise variation (LECTURE METHOD) of nursing students on the Face-to-Face Learning

300

ParentalIncome variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Poverty Level	203	24.15	8.43	1.98	2.99	Significant.
Below Poverty Level	97	21.54	6.68			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.99 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental income variation will be rejected.

Table 16 : Summary of test of significance of differences between parental education Component wise variation (INTERACTIVE SESSION) of nursing students on the Face-to-Face Learning

300

Parental Education Variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	20.23	5.45	1.88	2.98	Significant.
Below Graduate	197	23.62	7.87			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.98 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental education variation will be rejected.

Table17 : Summary of test of significance of differences between parental occupation Component wise variation (INTERACTIVE SESSION) of nursing students on the Face-to-Face Learning

300

Parental Occupation Variation	N	Mean	S.D	SE$_D$	't'	Remarks
Non-Service	204	24.12	5.22	1.78	3.42	Significant.
Service	96	23.11	6.75			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.42 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental occupation variation will be rejected.

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Table 18 : Summary of test of significance of differences between parental income Component wise variation (INTERACTIVE SESSION) of nursing students on the Face-to-Face Learning

300

Parental Income Variation	N	Mean	S. D	SE$_D$	't'	Remarks
Above Poverty Level	203	24.91	7.28	2.34	3.10	Significant.
Below Poverty Level	97	21.67	5.12			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.10 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental income variation will be rejected.

Table 19 : Summary of test of significance of differences between parental education Component wise variation (NOTE DICTATION) of nursing students on the Face-to-Face Learning

300

Parental Education Variation	N	Mean	S.D	SE$_D$	't'	Remarks
Above Graduate	103	18.19	3.15	1.30	2.97	Significant.
Below Graduate	197	20.73	5.19			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 2.97 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental education variation will be rejected.

Table 20 : Summary of test of significance of differences between parental occupation Component wise variation (NOTE DICTATION) of nursing students on the Face-to-Face Learning

300

Parental Occupation variation	N	Mean	S.D.	SE$_D$	't'	Remarks
Non-Service	204	21.91	5.14	1.78	3.19	Significant.
Service	96	19.47	4.43			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.19 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental occupation variation will be rejected.

Table 21 : Summary of test of significance of differences between parental income Component wise variation (NOTE DICTATION) of nursing students on the Face-to-Face Learning

300

Parental Income Variation	N	Mean	S.D.	SE$_D$	't'	Remarks
Above Poverty Level	203	22.16	5.96	2.93	3.76	Significant.
Before Poverty Level	97	20.90	4.16			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.76 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental income variation will be rejected.

Table 22 : Summary of test of significance of differences between parental education Component wise variation (DEMONSTRATION) of nursing students on the Face-to-Face Learning

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Parental Education Variation	N	Mean	S.D	SE_D	't'	Remarks
Above Graduate	103	24.70	6.55	3.45	3.23	Significant.
Below Graduate	197	32.36	8.68			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.23 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental education variation will be rejected.

Table23: Summary of test of significance of differences between parental occupation Component wise variation (DEMONSTRATION) of nursing students on the Face-to-Face Learning

Parental Occupation variation	N	Mean	S.D	SE_D	't'	Remarks
Non-Service	204	28.35	8.52	3.77	3.68	Significant.
Service	96	25.19	5.58			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.68 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental occupation variation will be rejected.

Table24 : Summary of test of significance of differences between parental income Component wise variation (DEMONSTRATION) of nursing students on the Face-to-Face Learning

Parental Income variation	N	Mean	S. D	S E _D	't'	Remarks
Above Poverty Level	203	29.36	9.34	4.45	3.53	Significant.
Below Poverty Level	97	24.34	7.65			

Critical value of 't' with d f (98) at 0.01=2.63 and 0.05=1.98

The obtained value 3.53 is greater than the tabular value at 0.05 levels 1.98 and at 0.01 level2.63 so it is significant and the null hypothesis that states there exist no significant difference between the face-to-face learning of nursing students in relation to parental income variation will be rejected.

DISCUSSION

The primary purpose of this study was to investigate the Impact of some personal variables such as parental educational, occupation and income variation on selective Components of E-learning strategies i.e P.P.T., You-Tube, Live class (Google meet, Zoom), Sharing of Text sheet and Face to Face learning strategies i.e. Lecture method, Interaction session, Note dictation & Demonstration for Nursing students of Kolkata. There is a paucity of evidence from the literature documenting how students have responded to different learning strategies. However, the investigator found few previous studies concerning this topic.

Kim, S.-Y.; Kim, S.-J.; Lee, S.-H[3], investigated Effects of Online Learning on Nursing Students in South Korea during COVID-19. Is consistent with the present study, their finding revealed that there a significant increase in knowledge (t = −14.85, p < 0.001) and learning flow (t = −2.15, p = 0.033) in the post-test. Present study result showed that there exist significant difference between the use of selective component of E-learning strategiesi.e P.P.T., You-Tube, Live class (Google meet, Zoom), Sharing of Text sheet of nursing students in relation to parental education, occupation and income variation as obtained "t" values are > tabular value at 0.05 levels 1.98 and at 0.01 level2.63

The present study is also consistent with other previous study –Mukasa J., Otim M., Monaco B., etal[4] investigated in their study nursing students' perspectives and readiness to transition to e-learning during COVID-19 in the UAE: A cross-sectional study indicates that half of the participating students felt that E-learning was successful, and 66% reported that they were prepared for E-learning. This suggested that students were satisfied with their experiences of the new learning approach and the associated interactions. This could be because students were able to participate in their learning in a more flexible and convenient manner than in traditional face-to-face. Although around half of the

participants had access to the Internet, they were not comfortable communicating online with each other or with their instructors. This may be related to cultural perspectives and other issues from the students' perspectives, such as lack of access to the Internet and infrastructure. This result is in consistence with the present study result there exist significant difference between the use of selective component of E-learning strategiesi.e. P.P.T., You-Tube, Live class (Google meet, Zoom), Sharing of Text sheet and Face to Face learning strategies i.e. Lecture method, Interaction session, Note dictation & Demonstrationof nursing students in relation to parental education, occupation and income variation as obtained "t" values are > tabular value at 0.05 levels 1.98 and at 0.01 level2.63

Limitations

The key limitation of this study was that a larger sample would have been desirable and more representative. The study was limited to Kolkata only, samples from other districts and states would have been more desirable. Another limitation was that there were no local and/or national studies to which to compare and contrast findings of the present study.

CONCLUSION

Research on the use and advancement of E-learning in nursing education is relatively uncharted territory. This study therefore aimed to understand the experiences and challenges encountered by nursing students at Kolkata. The difficulties of E-learning as reported by participants included economical problem to purchase devices such as android phone, computer/laptop and data, connection problems and difficulties in communication with instruction. The findings helped identify the significant problems and necessary adaptations needed for this transformational approaches to teaching learning process and methods by which students can be supported in the best way. The study have thrown some focus into e-learning challenges faced in Kolkata may also help in further researches of this field.

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