

Research Paper

## Exploring Satisfaction of Basic Psychological Needs in relation to Academic Engagement of Undergraduate Students

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### ABSTRACT

The satisfaction of basic psychological needs and academic engagement are significant aspects for the optimal development of students. It contributes to enhancing students' psychological well-being. The present study is mainly focused on investigating the relationship between Satisfaction of Basic Psychological Needs (BPNS) and Academic Engagement of undergraduate students. Basic Psychological Needs Satisfaction (BPNS) is one of the six mini theories of Self-Determination Theory. According to this theory, the three basic needs in human life are autonomy, competence, and relatedness. Satisfaction of these three basic needs leads to a self-determined individual. And academic engagement is also another comprehensive aspect of students' positive outcome during college life. In this study, academic engagement denotes students' course engagement. It defines undergraduate students' skills, emotions, participation, interaction, and performance engagement. This study is an attempt to explore how three basic psychological needs contribute to the academic engagement of undergraduate students. The sample consists of 120 undergraduate students including both male and female of Arts stream of Nowgong College (Autonomous). In the present study, the Basic Psychological Needs Satisfaction Scale in General developed by Deci & Ryan (2000), and Academic Engagement is measured by using the Student Course Engagement Questionnaire developed by Handelsman et al., (2005) are used to collect data. Descriptive statistics, t-tests, Pearson correlation, and SPSS are employed to analysis the data. The findings showed that no significance difference between male and female undergraduate students in satisfaction of basic psychological needs. However, a significant difference between male and female undergraduate students was found in their academic engagement. Further findings indicated that satisfaction of basic psychological needs is positively correlated with academic engagement. Hence, Satisfaction of basic psychological needs and academic engagement contributes the holistic development of students.

**Keywords:** *Academic Engagement, Basic Psychological Needs Satisfaction, Undergraduate Students*

Every human being has various desires in life. It is necessary to realize and satisfy the needs of human being in order to fulfill their desires. According to Self-Determination Theory (SDT), Satisfaction of Basic Psychological Needs is a

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significant aspect of human well-being. Basic Psychological Needs Satisfaction (BPNS) is one of the sub-theories of Self Determination Theory (SDT). Rooted to this theory, three basic needs autonomy, competence, and relatedness that are universal and fundamental for all individuals (Deci & Ryan, 2000). They are inborn and every human being endeavours to satisfy these basic needs in every stage of life (Kasser & Ryan, 1999). The need for autonomy refers to the individual's ability to make independent decisions in life, and they are free to express their opinions and feelings without hesitation (Deci & Ryan, 1985). Competence is the feeling of being capable and efficient in completing any particular task in life (Deci & Ryan, 1985). The need for relatedness refers to the ability to establish relations with others that develop feelings of belongingness (Deci & Ryan, 1985). These basic needs serve as an essential pillar for individual intrinsic motivation, satisfaction, and flourishing in different domains of life. Students who accomplish all these three basic needs in their academic life can become self-determined persons (Deci & Ryan, 2000). Within the educational context, the satisfaction of basic psychological needs plays a crucial role in promoting academic engagement (Samadieh et al., 2023) and positive outcomes among students (Zhou et al., 2021).

Academic engagement is indispensable for fostering effective learning experiences in an educational setting. It encourages students to engage themselves in their learning-related activities. Academic engagement is the active involvement, participation, and interaction of students in their educational pursuits like students' interaction with their courses, curriculum, peers, teachers, and their learning environment which goes beyond only attending the classes, are essential for the holistic development of the students. In the present study, academic engagement denotes the students' course engagement. It refers to students' skills, emotions, participation, interaction, and performance engagement. However, fulfillment of basic psychological needs encourages students to engage in various academic activities (Reeve et al., 2019). To meet the demands and challenges of academic life among undergraduate students, satisfaction of basic psychological needs is comprehensive for their academic engagement (Russell & Slater, 2011). Hence, the present study is an attempt to investigate the relationship between basic psychological needs satisfaction and academic engagement of undergraduate students.

Satisfaction of basic psychological needs, like autonomy, competence, and relatedness is positively associated with academic engagement of undergraduate students (Benlahcene et al., 2020) which can contribute to their academic success (Buzzai et al., 2021). These three psychological needs are essential for fostering students' intrinsic motivation and engagement in academic activities. A positive association between academic engagement and intrinsic motivation was found (Karimi & Sotoodeh, 2019). When undergraduate students' basic psychological needs are satisfied, they are more likely to be academically engaged (Reeve et al., 2019), that contributes to their academic achievement (Buzzai et al., 2021), and overall well-being (Jiang & Tanaka, 2021). The students who are more academically engaged, learn different skills like critical thinking, problem-solving, communication, and collaboration. These skills are helpful for developing a successful career in future. Thus, the satisfaction of basic psychological needs and academic engagement plays a comprehensive role in undergraduate students' personal growth and development (Xin, 2022). If the basic psychological needs of students are dissatisfied that affects in emotional and psychological well-being. Satisfaction of three basic needs enables the students particularly female students to reduce their aggressive behavior to easily adjust to any circumstances. A study has shown that basic psychological needs affected students' aggressive behavior among

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female compared to male (Dou et al., 2023). Moreover, the students who are not academically engaged affect in their academic performance. Academic performance is positively associated with students' academic engagement (Handelsman et al., 2005). However, in the pursuit of effective education, basic psychological needs satisfaction and academic engagement of students are very significant for undergraduate students. In the present study, the researcher has selected the Arts stream students from Nowgong College (Autonomous) because it is the only one autonomous college in the Nagaon district, Assam which may prioritize understanding the needs of arts students to enhance their learning experience and support their academic success. Thus, the present study is an attempt to investigate the satisfaction of basic psychological needs in relation to academic engagement of undergraduate students.

Based on the rationale of the study, three objectives are formulated. The first objective is to assess the level of satisfaction of basic psychological needs of undergraduate students with respect to gender. The second objective is to assess the level of academic engagement of undergraduate students with respect to gender, and the third objective is to compare the relationship between satisfaction of basic psychological needs and academic engagement of undergraduate students.

### METHODOLOGY

#### *Methods*

The present study adopted a descriptive survey method to study the relationship between satisfaction of basic psychological needs and academic engagement of undergraduate students. The population comprised of 550 undergraduate students in the 2<sup>nd</sup> Semester of Arts Stream, Nowgong College (Autonomous). From the total population, 120 undergraduate students were selected as the sample consisting of 60 male and 60 female students, by using a stratified random sampling technique, which constitutes 21.8 percent of the population.

#### *Instruments*

Two measures were used in this study,

- 1. Basic Psychological Needs Satisfaction Scale:** Basic Psychological Needs Satisfaction Scale in General developed by Deci & Ryan (2000) is used to measure the Satisfaction Basic Psychological Needs. This scale is comprised of 21 items of three dimensions namely autonomy, competence, and relatedness. This scale has 7-point Likert type scale. Each items includes very true, usually true, often true, somewhat true, rarely true, usually not true, not at all true. In this questionnaire, the coefficient alpha is from 0.76 to 0.82 which indicates a strong internal consistency. In this scale, the coefficient alpha is between 0.78 to 0.82 and internal consistency as assessed by Cronbach alpha was .95. The scoring proceeds as per the norms of the scale.
- 2. Student Course Engagement Questionnaire:** Academic Engagement is measured by using the Student Course Engagement Questionnaire developed by Handelsman et al., (2005). This questionnaire is comprised of 23 items of four dimensions namely skill engagement, participation/interaction engagement, emotional engagement, and performance engagement having a 5-point Likert type Scale. Each item includes very characteristic of me, characteristic of me, moderately characteristic of me, not really characteristic of me, not at all characteristic of me. In this questionnaire, the

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coefficient alpha is from 0.76 to 0.82 which indicates a strong internal consistency. The scoring proceeds as per the norms of the tools.

### *Procedure*

In the first step, the researcher identified the relevant psychological tools for assessing the variables of the present study. In the second step, the researcher collected primary data by using the psychological tools from the selected sample of the study, after taking their consent. In the last step, the collected primary data was analysed by applying descriptive statistics, t-test and Pearson correlation.

## RESULTS

**Table 1: Showing demographic details of the participants**

Variables	Demographic Profile	Number	Percentage
Satisfaction of Basic Psychological Needs	Male	60	50%
	Female	60	50%
Academic Engagement	Male	60	50%
	Female	60	50%

Table 1 shows the demographic details of the participants. The total respondents are 120, in which 50% are male and 50% are female in both satisfaction of basic psychological needs and academic engagement of undergraduate.

**Table 2: Showing the t-test for the satisfaction of basic psychological needs of undergraduate students with respect to their gender**

Sl. No.	Variables	Gender	N	Mean	SD	t value	P value
1	Satisfaction of Basic Psychological Needs	Male	60	90.46	9.10106	-.193	.847
		Female	60	90.88	14.04121		

The results in table 2 shows the t-value for the satisfaction of basic psychological needs of undergraduate students based on their gender, the calculated p-value of .847 is greater than the significant value of 0.05. Thus, it indicates that both male and female undergraduate students share similar levels in autonomy, competence, and relatedness which are addressed as basic psychological needs.

**Table 3: Showing the t-test for the academic engagement of undergraduate students with respect to their gender**

Sl. No.	Variables	Gender	N	Mean	SD	t value	P value
1	Academic Engagement	Male	60	63.40	12.67481	-9.003	<.001
		Female	60	82.88	10.97160		

The results in table 3 shows the t-value for the academic engagement of undergraduate students based on their gender, the calculated p-value of <.001 which is lower than the significant value of 0.05. Thus, it indicates that there is a significant difference between male and female undergraduate students in their academic engagement.

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**Table No. 4: Showing the correlation coefficient values between Basic Psychological Needs Satisfaction and Academic Engagement of undergraduate students**

Variable	'r'	P value
Satisfaction Basic Psychological Needs Satisfaction (BPNS)	.111	.228
Academic Engagement		

*Not significant at the 0.05 level*

The results in table 4 shows 'r' value which is .111 and the p-value which is .228. The correlation coefficient (r) between satisfaction of basic psychological needs and academic engagement is reported as .111 which indicates a weak positive correlation. Hence, the p-value is .228 which indicates that the correlation between satisfaction of basic psychological needs and academic engagement is not statistically significant at the 0.05 level of significance.

### DISCUSSION

The present study was to explore the relationship between satisfaction of basic psychological needs and academic engagement of undergraduate students and to compare the level of satisfaction of basic psychological needs and academic engagement with respect to gender. The findings of the study showed that male and female undergraduate students share similar levels of basic psychological need satisfaction. This finding is supported by the studies by Kindap-Tepe and Aktas (2019); Orkibi and Ronen (2017); Sapmaz et. al. (2012); Neufeld and Malin (2019); and Oostadam et al. (2018) and contradicted to the findings Mazhar et al. (2021); Gómez-Baya et al. (2018). The present study was assessed the academic engagement of undergraduate students with respect to gender. The findings revealed that a significant difference was found between male and female undergraduate students in their academic engagement. This finding corroborated by studies of Kessels et. al. (2014); and contradicted to the findings of Mohammed (2014). Moreover, in this study, it has been found that there is a weak positive correlation between basic psychological needs satisfaction and academic engagement among undergraduate students. This highlights that satisfaction of basic psychological needs of undergraduate students was not significantly correlated with their academic engagement. This finding contradicted with the results of previous studies by Maralani et al. (2016), Chen and Zhang (2022), and Gao et al. (2021).

The present study contributes for the teachers who encourage the students to interact with academic advisors, collaborate with peers, integrate into the academic community, and also engage in academic activities that will enhance the need for relatedness among them. Moreover, the curriculum and co-curricular activities may be designed to foster students' competency through different activities like seminars, drama competitions, quizzes, debates, and so on, which will contribute to their academic engagement. By promoting academic engagement and satisfaction of basic psychological needs, students can improve their attention, concentration, and well-being which lead to higher academic achievement.

### CONCLUSION

The findings of the present study highlight that satisfaction of basic psychological needs is not significantly associated with their academic engagement. However, both male and female have similar level of satisfaction of three basic psychological needs i.e., autonomy, competence, and relatedness. On the other hand, academic engagement of female students is different from male students. Hence, it can be concluded that the satisfaction of basic

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psychological needs and academic engagement both contributes in enhancing the effectiveness of the academic performance of students in their teaching-learning process.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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