Level Of Knowledge Regarding Sustainable Development Goals Among Under Graduate Students- A Descriptive Cross Sectional Study

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ABSTRACT

Background: The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, universal call to action to end poverty, protect the planet, and ensure prosperity for all by 2030. The nursing profession has a longstanding tradition of contributing to public health initiatives, and its involvement in achieving the SDGs is vital. However, understanding the depth to which nursing students are aware of, engaged with, and actively applying SDG principles in their education and future practice is crucial to ensuring that nursing curricula are aligned with global health priorities.Nursing education programs have started to incorporate global health frameworks and sustainable practices into their curriculam, but the level of understanding among students remains an area of concern. Some studies suggest that there are gaps in nursing students' knowledge of the SDGs .

Aim: To assess the knowledge, regarding Sustainable Development Goals (SDGs) among under graduate students in order to identify gaps and promote awareness and engagement in sustainable health and development initiatives.

Methods: The study conducted with descriptive approach.400 students were selected Shri sathya Sai College of Nursing by Convenient Sampling technique. The data were collected from the participant using self-administered questionnaire. The data analysed using descriptive and inferential statistics.

Results: The analysis revealed that 400 students surveyed, the majority (264 students or 66.0%) demonstrated an average level of knowledge about the SDGs. A significant proportion (126 students or 31.5%) exhibited poor knowledge, while only a small number (10 students or 2.5%) showed good knowledge of the SDGs.

Conclusions: The findings of this study reveal that while undergraduate students demonstrate a general awareness of the Sustainable Development Goals (SDGs), there are notable gaps in their in-depth understanding and practical knowledge of specific goals and their relevance to local and global contexts. This indicates a need for enhanced integration of SDG-related content into higher education curricula across disciplines. Strengthening educational strategies through workshops, seminars, and curriculum-based approaches can play a crucial role in equipping students with the knowledge and motivation required to actively contribute to sustainable development.

KEYWORDS: sustainable development goals,under graduate students ,goals ,health and education.

INTRODUCTION

The Sustainable Development Goals (SDGs), adopted by the United Nations in 2015, universal call to action to end poverty, protect the planet, and ensure prosperity for all by 2030. These 17 global goals include a wide range of issues, such as health, education, clean water, gender equality, and sustainable economic growth. Among these, Goal 3 (Good Health and Well-being) and Goal 4 (Quality Education) are particularly relevant to the field of nursing, as healthcare professionals play a vital role in promoting health and well-being at both local and global levels. The role of nurses in promoting public health, wellness, and development has never been more important, especially in the context of global challenges such as climate change, pandemics, and social inequalities. The nursing profession has a longstanding tradition of contributing to public health initiatives, and its involvement in achieving the SDGs is vital. However, understanding the depth to which nursing students are aware of, engaged with, and actively applying SDG principles in their education and future practice is crucial to ensuring that nursing curricula are aligned with global health priorities.

Nursing education programs have started to incorporate global health frameworks and sustainable practices into their curriculam, but the level of understanding among students remains an area of concern. Some studies suggest that there are gaps in nursing students' knowledge of the SDGs.

The need for this study arises from the increasing significance of the SDGs in healthcare, particularly in the context of nursing practice. While there has been some research on the knowledge of SDGs among different healthcare professionals, less attention has been paid to how well nursing students grasp these concepts during their training. Furthermore, there is limited research examining how students' attitudes towards SDGs might influence their ability to implement them in practice.

The findings of this study will provide valuable insights into the knowledge gaps, that nursing students face when it comes to SDGs. It will also offer a deeper understanding of how nursing curriculam can be adapted to better prepare students to engage with sustainable development in healthcare contexts. Ultimately, the study will contribute to improving nursing education and practice, ensuring that future nurses are equipped with the tools necessary to contribute meaningfully to global health and sustainability initiatives.

METHOD:
Study design:
"This study will use a descriptive cross-sectional design, which is intended to assess the level of knowledge regarding Sustainable Development Goals among undergraduate students.

Research Setting and Target Population
The setting for the study was the Shri Sathya sai college of nursing, Amma pettai, Chengalpettu. The target population was all the 400 students.

Sample and sampling technique
data were collected from undergraduate students at a single point in time to describe their current knowledge and understanding of the SDGs. The study population will include undergraduate students from Nursing (Shri Sathya Sai College of Nursing)A total of 400 students will be selected using convenient sampling technique to ensure representation from each faculty and year of study.

Instrument of Data Collection
A *Descriptive Cross-Sectional Study,"* data was collected using a **structured self-administered questionnaire** developed after an extensive review of relevant literature and previously validated instruments used in similar studies. The tool is designed to gather both demographic information and data on the participants' level of knowledge regarding the Sustainable Development Goals.

Method of Data Collection
Data collected using a structured self-structured questionnaire designed . The data collection process was carried out in a systematic and organized manner to ensure accuracy, reliability, and validity of the findings.

Prior to data collection, ethical clearance will be obtained from the Institutional Ethics Committee of . Permission will also be sought from the heads of the respective departments or faculties where the study will be conducted. The purpose of the study will be clearly explained to all participants, and informed consent will be obtained before administering the questionnaire. Participation will be entirely voluntary, and respondents will have the right to withdraw at any stage without any penalty. Confidentiality and anonymity of the participants will be strictly maintained throughout the study.

Methods of Data Analysis
Statistics were utilised to assess the knowledge, regarding Sustainable Development Goals (SDGs) among under graduate students and interpret using descriptive and inferential methods. The help of the statistical programme SPSS, version 21.

Ethical approval
The ethical approval uptain from Shri Sathya Sai College and Research Institute IEC NO:1303/25

RESULTS
Table 4.1: Assessment of Socio-Demographic Characteristics of Students in Sustainable Development Goals
The socio-demographic profile of the 400 participating students is summarized as follows:
AgeThe majority of the students (98.8%) were aged between **18–24 years**, indicating a youthful population. A small proportion was **under 18 years** (1%) and only **0.2%** were in the **25–30 years** age group. The mean age was **1.99**, and the P-values indicate that the **18–24 age group** was the most statistically significant (P = 0.988).**Gender**Out of 400 respondents, **64.3% were female**, and **35.8% were male**, showing a higher representation of female students. The mean for gender was **1.64**, with a P-value of 0.642 for females, indicating higher participation.**Year of Study**The distribution across academic years was relatively even, with **1st year (26%)**, **2nd year (24.5%)**, **3rd year (24.8%)**, and **4th year (24.8%)** students. The average year of study was **2.48**, suggesting that most students were in their **second or third year**.**Institution**All respondents (100%) were from **Shri Sathya Sai College**, indicating a single-institution study with a P-value of **1.000** and a mean of **1.00**.**Nationality**All students (100%) belonged to the same nationality, indicating a homogeneous group. P-value and mean were both **1.000** and **1.00**, respectively.**Religion**The majority of the participants were **Muslim (58.5%)**, followed by **Hindu (38.3%)**, and **Christian (4.3%)**. The mean value for religion was **2.34**, with the highest P-value (0.575) seen in the **Islam** group.**Residential Area**Most students resided in **rural areas (65.5%)**, followed by **urban (28.3%)**, and **semi-urban (6.3%)** regions. The mean residential score was **2.37**, with the rural category being the dominant group (P = 0.655).**Living Area**A large majority (74.5%) lived in **rented apartments**, while **23.8%**

stayed in **hostels**, and **1.8%** in **other accommodations**. The mean living condition score was **1.78**, showing that rental housing is the preferred option.**Financial Aid**Only **5.3%** of students received **financial aid**, whereas **94.8%** did not. This suggests limited access or utilization of financial support. The mean value was **1.95**, with a P-value of **0.052** for aid recipients.**Monthly Family Income**The majority (62.25%) of students came from families earning between ₹21,000–40,000, followed by **<₹20,000 (17.5%)**, **₹41,000–80,000 (18.75%)**, and **₹81,000–1,00,000 (1.5%)**. The mean income group was **2.04**, with the most common income range being ₹21,000–40,000.

Table 4.1 Assessment of Socio-Demographic Characteristics of Students in Sustainable Development Goals

s.no	Demographic data	Frequency	Percentage	P value	mean
1.	**Age** **18-24**	395	98.8%	0.988	1.99
	25-30	1	0.2%	0.003	
	under 18	4	1.0%	0.010	
2.	**Gender** **female**	257	64.3%	0.642	1.64
	Male	143	35.8%	0.357	
3.	**year of study**				2.48
	1st year	104	26.0%	0.260	
	2nd year	98	24.5%	0.245	
	3rd year	99	24.8%	0.247	
	4th year	99	24.8%	0.247	
4.	**Institution** **shri sathya sai college**	400	100%	1.000	1.00
5.	**Nationality**	400	100%	1.000	1.00
6.	**Religion** **Christian**	17	4.3%	0.043	2.34
	Hindu	153	38.3%	0.383	
	Islam	230	58.5%	0.575	
7.	**Resitential** **rural**	262	65.5%	0.655	2.37
	semi urban	25	6.3%	0.063	
	Urban	113	28.3%	0.282	
8.	**Living area** **Hostel**	95	23.8%	0.237	1.78
	Others	7	1.8%	0.018	
	rent apartment	298	74.5%	0.745	
9.	**Financial aid** **Yes**	21	5.3%	0.052	1.95
	No	379	94.8%	0.948	
10.	**Income** **<20,000**	70	18.75%	0.175	2.04
	21,000-40,000	249	62.25%	0.623	
	41,000-80,000	75	17.5%	0.188	
	81,000-1,00,000	6	1.5%	0.015	

Table 4.2: Assessment of the Level of Knowledge Nursing Students Have About the Sustainable Development Goals
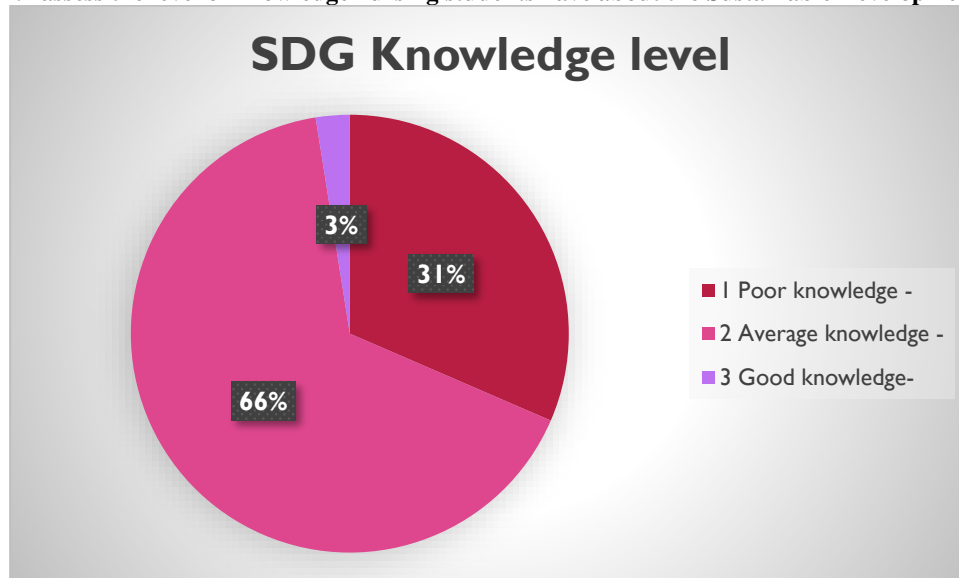Table 4.2 presents the distribution of nursing students based on their level of knowledge regarding the Sustainable Development Goals (SDGs). Out of a total of 400 students surveyed, the majority (264 students or 66.0%) demonstrated an average level of knowledge about the SDGs. A significant proportion (126 students or 31.5%) exhibited poor knowledge, while only a small number (10 students or 2.5%) showed good knowledge of the SDGs.

These findings indicate that while most students have a moderate understanding of the Sustainable Development Goals, there remains a substantial portion with limited awareness. The very low percentage of students with good knowledge suggests a need for enhanced educational interventions or curriculum integration to improve awareness and understanding of the SDGs among nursing students.

Table 4.2: Assessment of the Level of Knowledge Nursing Students Have About the Sustainable Development Goals

S.no	Category	frequency	percentage
1.	Poor knowledge	126 students	31.5%
2.	Average knowledge	264 students	66.0%
3.	Good knowledge	10 students	2.5%

Figure 4.1 assess the level of knowledge nursing students have about the Sustainable Development Goals.

The figure, it is evident that the majority of nursing students have an average level of knowledge about the SDGs, with 264 students (66%) falling in this category. A significant portion, 126 students (31%), show poor knowledge, indicating limited awareness or understanding of the goals. Only a small group, 10 students(3%), demonstrated good knowledge, suggesting a need to enhance the overall understanding of SDGs among the student population.

Table 4.3 Association between Socio-Demographic Variables and SDG Knowledge

revealed that there is no significant association between SDG knowledge data with the selected socio demograghic except the year of the study ($\chi^2 = 3.58$, df = 6, p < 0.001),religion ($\chi^2 = 13.9$, df = 4, p = 0.007) in the groups,financial aid status ($\chi^2 = 1.39$, df = 2, p < 0.001), income ($\chi^2 = 33.0$, df = 6, p < 0.001)

Table 4.3 Association between SDG knowledge with selected demographic variable

S.no	Socio demographic variable	SDG knowledge			F	%	df	χ2	p
		Poor knowledge	Average knowledge	Good knowledge					
1.	age under 18	0	4	0	4	1%	4	5.92	0.205
	18-24	215	173	7	395	98.75%			
	25-30	1	0	0	1	0.25%			
2.	Gender Male	79	60	4	143	35.75	2	1.72	0.423
	female	137	117	3	257	64.25			
3.	Year of study 1st year	1	103	0	104	26.0%	6	3.58	<.001
	2nd year	17	74	7	98	24.5%			
	3rd year	99	0	0	99	24.75%			
	4th year	99	0	0	99	24.75			
4.	religion christian	5	11	1	17	4.25%	4	13.9	0.007
	islam	126	104	0	153	38.25%			
	hindu	85	62	6	230	57.5%			
5.	residential urban	68	43	2	113	28.25%	4	8.91	0.064
	Semi urban	7	17	1	25	6.25%			

	rural	141	117	4	262	65.5%			
6.	living hostel	58	35	2	95	23.75%	4	7.24	0.124
	Rental apartment	157	136	5	298	74.5%			
	others	1	6	0	7	1.75			
7.	Financial aid yes	5	14	2	21	5.25%	2	1.39	<.001
	no	211	163	5	379	94.75%			
8.	income <20,000	42	28	0	70	17.5%	6	33.0	<.001
	21,000-40,000	137	112	0	249	62.25%			
	41,000-80,000	33	35	7	75	18.75%			
	81,000-1,00,000	4	2	0	6	1.5			

DISCUSSION:

Table 4.1: Assessment of Socio-Demographic Characteristics of Students in Sustainable Development Goals

The socio-demographic profile of the 400 participating students is summarized as follows:

AgeThe majority of the students (98.8%) were aged between **18–24 years**, indicating a youthful population. A small proportion was **under 18 years** (1%) and only **0.2%** were in the **25–30 years** age group. The mean age was **1.99**, and the P-values indicate that the **18–24 age group** was the most statistically significant (P = 0.988).**Gender**Out of 400 respondents, **64.3% were female**, and **35.8% were male**, showing a higher representation of female students. The mean for gender was **1.64**, with a P-value of 0.642 for females, indicating higher participation.**Year of Study**The distribution across academic years was relatively even, with **1st year (26%)**, **2nd year (24.5%)**, **3rd year (24.8%)**, and **4th year (24.8%)** students. The average year of study was **2.48**, suggesting that most students were in their **second or third year**.**Institution**All respondents (100%) were from **Shri Sathya Sai College**, indicating a single-institution study with a P-value of **1.000** and a mean of **1.00**.**Nationality**All students (100%) belonged to the same nationality, indicating a homogeneous group. P-value and mean were both **1.000** and **1.00**, respectively.**Religion**The majority of the participants were **Muslim (58.5%)**, followed by **Hindu (38.3%)**, and **Christian (4.3%)**. The mean value for religion was **2.34**, with the highest P-value (0.575) seen in the **Islam** group.**Residential Area**Most students resided in **rural areas (65.5%)**, followed by **urban (28.3%)**, and **semi-urban (6.3%)** regions. The mean residential score was **2.37**, with the rural category being the dominant group (P = 0.655).**Living Area**A large majority (74.5%) lived in **rented apartments**, while **23.8%** stayed in **hostels**, and **1.8%** in **other accommodations**. The mean living condition score was **1.78**, showing that rental housing is the preferred option.**Financial Aid**Only **5.3%** of students received **financial aid**, whereas **94.8%** did not. This suggests limited access or utilization of financial support. The mean value was **1.95**, with a P-value of **0.052** for aid recipients.**Monthly Family Income**The majority (62.25%) of students came from families earning between **₹21,000–40,000**, followed by **<₹20,000 (17.5%)**, **₹41,000–80,000 (18.75%)**, and **₹81,000–1,00,000 (1.5%)**. The mean income group was **2.04**, with the most common income range being **₹21,000–40,000**.

Table 4.2: Assessment of the Level of Knowledge Nursing Students Have About the Sustainable Development Goals

Table 4.2 presents the distribution of nursing students based on their level of knowledge regarding the Sustainable Development Goals (SDGs). Out of a total of 400 students surveyed, the majority (264 students or 66.0%) demonstrated an average level of knowledge about the SDGs. A significant proportion (126 students or 31.5%) exhibited poor knowledge, while only a small number (10 students or 2.5%) showed good knowledge of the SDGs.

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The high number of students in the "poor knowledge" category suggests that many are either unaware of the SDGs or lack sufficient information about their relevance to health and nursing practice. This highlights the urgent need for integrating SDG-related content into the nursing curriculum and promoting awareness through workshops, seminars, and other educational programs.

By improving knowledge in this area, nursing students can be better prepared to contribute to sustainable healthcare practices and align their professional roles with global development priorities.

Table 4.3 Association between Socio-Demographic Variables and SDG Knowledge

This section examines the relationship between students' socio-demographic characteristics and their knowledge levels regarding Sustainable Development Goals (SDGs).

The association between socio-demographic characteristics and SDG knowledge was examined using the Chi-square test. The results revealed that year of study was significantly associated with SDG knowledge (χ^2 = 3.58, df = 6, p < 0.001), indicating that knowledge levels varied across academic years. Similarly, religion showed a significant relationship with SDG knowledge (χ^2 = 13.9, df = 4, p = 0.007), suggesting differences in awareness among different religious groups.

Additionally, financial aid status was significantly related to SDG knowledge (χ^2 = 1.39, df = 2, p < 0.001), with those not receiving aid forming the majority and showing variations in knowledge levels. Furthermore, household income demonstrated a significant association with SDG knowledge (χ^2 = 33.0, df = 6, p < 0.001), indicating that economic status influences students' awareness about SDGs.

Conversely, no statistically significant associations were found between SDG knowledge and age (p = 0.205), gender (p = 0.423), residential area (p = 0.064), or living arrangement (p = 0.124)

CONCLUSION

This study highlights the varying levels of knowledge regarding Sustainable Development Goals (SDGs) among undergraduate students. While the majority demonstrated poor to average knowledge, significant differences were observed based on year of study, religion, financial aid status, and household income. These findings suggest that academic progression, socio-economic background, and cultural factors influence students' awareness of SDGs.

The absence of significant associations with age, gender, residential area, and living arrangements indicates that these variables may not play a major role in shaping SDG knowledge within this population. To enhance sustainable development education, targeted interventions focusing on later-year students and economically disadvantaged groups are recommended. Integrating SDG-related content into university curricula and promoting inclusive awareness programs can foster better understanding and engagement with sustainability goals.

Further research is encouraged to explore the underlying factors affecting knowledge gaps and to evaluatethe effectiveness of educational strategies aimed at improving SDG literacy among university students.

ACKNOWLEDGEMENT

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