Awareness Of Maternal and Newborn Health Nursing Students Towards Sustainable Development Goals

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Abstract:

Background: Attempts in the future to preserve and save assets that are accessible for the next generation would be greatly aided by student's awareness of the Sustainable Development Goals.

Aim: Assess the awareness of maternal and newborn health nursing students towards sustainable development goals.

Design: study method used was descriptive.

Setting: The Nursing Faculty at Menoufia University served as the study's location.

Sample: A simple random sample of 288 Maternal and Newborn Health Nursing Students was selected. Instruments: Data from a self-administered questionnaire, which also included information on personal characteristics and nursing students' understanding of sustainable development goals, was gathered.

Results: The social and education goals receive the greatest good knowledge scores from nursing students studying maternal and newborn health (91.3% and 86.8%, respectively), followed by the economic and environmental goals 85.4% and 83.7, respectively. The academic year, age, marital status, gender and Sustainable Development Goals all differ in a statistically significant way (P. value < 0.01).

Conclusion: It can be concluded that the maternal and newborn nursing students had a good understanding of sustainable development goals. Additionally, based on their age, marital status, and gender, nursing students who specialize in maternity and newborn care demonstrate statistically significant disparities in their comprehension of the Sustainable Development Goals.

Recommendation: All faculties' curricula should incorporate lessons on sustainable development.

Keywords: awareness of maternal and newborn health nursing students, & sustainable development goals.

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I. Introduction

Egypt's Vision 2030 is a move in the direction of inclusive development, with welfare and prosperity as the main economic goals to be achieved through sustainable development, social justice, and balanced geographical and sectoral expansion. The Sustainable Development Goals (SDGs) cover the areas of the economy, society, education, and the environment, claims Pakkan (2022).

To satisfy current needs without compromising the ability of future generations to satisfy their own, sustainable development is used. Each Sustainable Development Goal has pre-established goals that must be accomplished by 2030. The government, civil society, the commercial sector, and the general public must all work together to achieve these goals. To get the desired outcomes, each person should have a distinct role in the plan. The world's issues, such as climate change, water scarcity, inequality, and hunger, can only be solved on a global basis and by promoting sustainable development (Allen et al., 2020).

Sustainable development (SD) was originally mentioned in the Brunland Commission's 1987 report, "Our Public Future. Development that satisfies the needs of the present without compromising the ability of future generations to satisfy their needs is defined as sustainable development. Despite the emphasis on and awareness of the need for sustainable development, there is mounting evidence that many nations are not pursuing development policies that are sustainable into the future (Balamuralithara et al. 2020).

Sustainable development has grown in popularity among local, regional and international organizations because it places a strong emphasis on maintaining the present for the benefit of future generations. Families, public entities, as well as for-profit businesses should all continually work towards achieving sustainable development goals (Barth et al., 2020).

Sustainable development is the recommended strategy for meeting the needs of the present generation without endangering the capacity of future generations to do the same. No matter where they are in the world, it is the goal to collectively increase everyone's wellbeing (He et al., 2020). Al-Naqbi and Alshannag (2020) define sustainable development as a development concept that aims to provide human needs while safeguarding the environment so that they can be met for both the current generation and future generations.

To achieve a better and more sustainable future for all people, a set of 17 interconnected global goals known as the Sustainable Development Goals were developed. According to Editor Cutter (2020), there should be good health and Wellness, great education, gender equality, access to clean energy, decent job, economic growth, industry, innovation and infrastructure. Additionally, there should be no poverty or hunger. Less inequality, sustainable cities and communities, responsible consumption and production, climate action, the preservation of life on land and in the seas, peace, justice, robust institutions, and partnerships are a must for the achievement of the goals.

One of the main tasks of the higher education system, according to Kelley & Nahser (2019), is to produce graduates with a high degree of Sustainable Development. This argument has led to institutions beginning to study sustainable development to help students deal with social, economic, and environmental issues on a local and global level. Many of the difficulties that people face can be solved with the aid of the educational system in order to reach a sustainable future.

Study significance

SD knowledge is essential to nursing education. SD awareness provides recommendations for the interventions that maternity nurses should make in addition to highlighting the elements that affect health. Finding out how aware students are of the issue in this regard is important, as is addressing it in nursing education (Barth et al., 2020). Students studying maternity nursing were to be tested on their knowledge of sustainable development because maternity nurses strive to improve the health of pregnant women. Menoufia University's Faculty of Nursing is working to get its bachelor's degree nursing program accredited, and as a result, it has incorporated sustainable development into the curriculum. As a result, the faculty of nursing planned to research how its nursing students felt about the strategy once it had been incorporated.

Aim of the study:

Assess the awareness of maternal and newborn health nursing students towards sustainable development goals.

Research questions:

- What is the awareness of maternal and newborn health nursing students towards sustainable development goals?

- What is the relationship between social characteristics and the awareness of maternal and newborn health nursing students towards sustainable development goals?

Operational Definition

Awareness is operationally defined as a familiarity or understanding of maternal and newborn nursing students to facts, information, descriptions about SDGs. It was measured using part two of instrument one.

II. Method

Design: Methodology of the study employed was descriptive.

Setting: The Nursing Faculty at Menoufia University served as the study's location.

Sample: Using the margin of error with 5%, confidence level with 95%, and response distribution with 50%, a simple random sample of 288 nursing students majoring in maternal and newborn health nursing was chosen (288 out of 1143).

Data collection instruments:

Instrument One: A self-administered questionnaire with two components was used to evaluate the knowledge of students studying maternal and newborn health in relation to sustainable development goals.

Part One: Social characteristics: Age, gender, location of residence, marital status, and academic year.

Part Two: To assess students' knowledge of SD, Gericke et al. (2018)'s Sustainability Consciousness Questionnaire (SCQ) was employed. There were 20 items total, which were broken down into the following 4 goals: education, society, economic, and environment.

Scoring system

Each question on knowledge level was given a score: the correct and complete answers scored of 2, the correct and incomplete answers scored of 1, and the incorrect or don't know answers scored of Zero. Sum of the scores for the "known items" was used to get the overall knowledge score. The results had been converted to

percentages. The higher scores demonstrated a greater level of understanding of sustainable development objectives. The overall knowledge score was denoted as follows: good > 75%, fair > 50% to 75%, and poor < 50%.

Validity & Reliability: Three professors from the Maternal and Newborn Health Nursing Department of the Faculty of Nursing at Menoufia University served as jurors (experts) to ensure appropriate comprehension of the data collection devices. Additionally, content validity (importance, clarity, and accountability of each item of the data collection instrument) was examined using a confirmatory factor analysis test, and its outcome was 1.2 for all items of the data collection instrument. Repetition-based reliability was applied. The Cronbach's alpha coefficients was 0.82.

Administrative design: The dean of the nursing faculty and the vice dean for education and student affairs gave their official authorization after being notified the study's purpose.

Ethical considerations: The Faculty of Nursing's Ethical and Research Committee approved the study; the research was conducted in accordance with generally accepted clinical research ethics; informed consent was obtained from the participants in the current investigation; and they have the right to refuse and/or withdraw from it at any time without giving a justification. During the data collection process, the researchers protected the privacy and security of their information.

Pilot study: To evaluate the clarity and usefulness of the instruments, a pilot study was conducted. Additionally, to recognize any potential issues that can arise during data gathering, 29 students, or 10% of the sample, participated in the pilot study. After the pilot research, no modifications were made; hence, the participants from that trial were included in the sample used for the whole study.

Procedure:

After analyzing the literature that is currently available on the research topic, it took roughly one month to complete, starting at the beginning of October 2022. The data collection tools have been translated into Arabic. The data collection instrument was delivered to the participating students to be filled out through a self-administered questionnaire. The instrument required about 10 min to be filled out. The entire time for data gathering was between October 2022 and March 2023, or around six months.

Data Analysis:

Statistical Software Package SPSS 25.0 was used for data entry and analysis. Descriptive statistics, including frequencies, percentages, means, standard deviations, ranges, and paired t-tests, were used to present the data. At a P-value of 0.05, statistical significance was taken into account.

Social Characteristics	No	%
Age		
Less than 20 years	200	69.4
From 20-22 years	88	30.6
Gender		
Male	264	91.7
Female	24	8.3
Marital status		
Married	60	20.8
Single	228	79.2

III.	Results
Table 1: Social characteristics of the studied	Maternal and Newborn Nursing Students (N = 288)

Table 1 demonstrates that more than half of them (69.4%) are under 20 years old. The majority of them (79.2% and 91.7%, respectively) are single and male.

Items	No	%		
Environment goal		·		
Good	241	83.7		
Fair	43	14.9		
Poor	4	1.4		
$Mean \pm SD$	2.82 ± 0.41			
Economic goal				
Good	246	85.4		
Fair	37	12.8		
Poor	5	1.7		
$Mean \pm SD$	2.83 ± 0.41	2.83 ± 0.41		
Society goal				
Good	263	91.3		
Fair	22	7.6		
Poor	3	1.0		
$Mean \pm SD$	2.90 ± 0.33	1		
Education goal				
~ .				
Good	250	86.8		
Fair	32	11.1		
Poor	6	2.1		
$Mean \pm SD$	2.84 ± 0.41			

 Table 2: Total Knowledge Scores of the Maternal and Newborn Nursing Students towards SDGs (N = 288)

Table 2: Illustrates that 91.3% 86.8%, 85.4%, and 83.7 of the maternal and newborn nursing students had good knowledge scores towards society, education, economic and environment sustainable development goals, respectively.

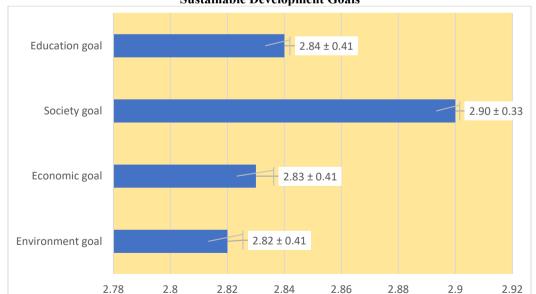


Figure 1: Total Mean Knowledge Scores of the Maternal and Newborn Nursing Students towards Sustainable Development Goals

Figure 1 illustrates the total mean knowledge scores of the maternal and newborn nursing students towards sustainable development goals. It also Illustrates that the highest mean knowledge scores of them are towards society and education Sustainable development goals $(2.90 \pm 0.33 \& 2.84 \pm 0.41$, respectively) followed by economic goals (2.83 ± 0.41) .

Items		Total environment goal	Total economic goal	Total society goal	Total education goal
Total environment	Pearson	1	.940**	.735**	.891**
goal	Correlation				
8	Sig. (2-tailed) N		.000	.000	.000
		288	288	288	288
Total economic goal	Pearson Correlation	.940**	1	.622**	.848**
8	Sig. (2-tailed) N	.000		.000	.000
		288	288	288	288
Total society goal	Pearson Correlation	.735**	.622**	1	0.757**
	Sig. (2-tailed) N	.000	.000		.000
		288	288	288	288
Total education goal	Pearson Correlation	.891**	.848**	0.757**	1
8	Sig. (2-tailed) N	.000	.000	.000	
		288	288	288	288

Table 3: Correlation between the SDGs among the Maternal and Newborn Nursing Students (N = 288)

Table 3: Shows that all the Sustainable Development Goals have a highly favorable connection with a statistically significant difference (P value 0.01).

Table 4: Relationship between the Maternal and Newborn Nursing Students' Age and their Knowledge
towards SDGs ($N = 288$)

Items	Age	Age		
	Less than 20 years	From 20-22 years		
Total environment goal	•			
Good	153	88	24.713	
Fair	43	0	0.000	
Poor	4	0		
Total economic goal	·	•	*	
Good	158	88	21.635	
Fair	37	0	0.000	
Poor	5	0		
Total society goal	·		·	
Good	175	88	12.046	
Fair	22	0	0.002	
Poor	3	0		
Total education goal	·			
Good	162	88	19.261	
Fair	32	0	0.000	
Poor	6	0		

Table 4 demonstrates the statistical difference in understanding the SDGs amongst nursing students who specialize in maternal and newborn care based on their age.

Table 5: Relationship between the Maternal and Newborn Nursing Students' Marital Status and their
Knowledge towards Sustainable Development Goals (N=288)

Sustainable Development	Marital status		P value
Goals	Married	Single	
Total environment goal			
Good	13	228	213.431
Fair	43	0	0.000
Poor	4	0	
Total economic goal		•	•
Good	18	228	186.849
Fair	37	0	0.000
Poor	5	0	
Total society goal		•	
Good	35	228	104.030
Fair	22	0	0.000
Poor	3	0	
Total education goal		•	•
Good	22	228	166.349
Fair	32	0	0.000
Poor	6	0	

Table 5 illustrates the statistically significant differences in understanding of the SDGs amongst nursing students specialized in maternal and newborn care based on their marital status.

Table (6): Relationship between total nursing students' knowledge scores towards SDGs and their gender
(N- - 299)

Sustainable Development Goals	Gender		P value
	Male	Female	
Total environment goal			
Good	217	24	5.106
Fair	43	0	0.078
Poor	4	0	
Total economic goal		1	
Good	222	24	4.470
Fair	37	0	0.107
Poor	5	0	
Total society goal	•		
Good	239	24	2.489
Fair	22	0	0.288
Poor	3	0	
Total education goal	•		
Good	226	24	3.980
Fair	32	0	0.137
Poor	6	0	

Table 6 reveals the statistical difference in understanding the SDGs amongst nursing students specialized in maternal and newborn care based on their gender.

IV. Discussion

Education has a significant impact on human growth and can maintain global security and productivity by addressing issues with sustainability (UN, 2020). The challenges posed by the sustainability issue must be addressed through the educational system (Titta et al., 2021). Consequently, the purpose of the study was to gauge how knowledgeable maternity nursing students are towards SDGs. The environment, economy, society, and education were the four categories into which the study's pillars of sustainable development had been divided.

The findings of the present investigation indicate that maternity nursing students were knowledgeable about sustainable development objectives. It is due to learning the pupils the majority of what they know about the SDGs in formal schooling and would be required to take a final exam. The results of Tekbiy & Celik (2019) and Shaw et al. (2021) were in agreement with this finding. They stated that educating individuals about SD is a way to spread its concepts and tricks to a wide audience. It serves as a framework for fusing the knowledge, abilities and values required to instill the basic SD terms in pupils. Additionally, they noted that Malaysian students were supportive of sustainable growth, particularly when it came to environmental issues.

Contrary to Richardson et al. (2017), this finding. They claimed that pupils lacked knowledge and awareness of sustainability's environmental components and how it might affect both present and future generations' quality of life. Students were not taught the importance of the environment as a sustainable development practice in the curriculum, even though they should be aware that any environmental damage constitutes a threat to the country's development efforts. Additionally, they discovered that Malaysian students' comprehension of SD was not encouraging due to a lack of experience and an emphasis on SD.

All of the Sustainable Development objectives displayed a positive relationship with highly statistically significant differences, according to the results of the current study. This could be explained by the fact that professors play a significant role in fostering knowledge in society, which helps to build a sustainable and secure future for society. This will enhance health conditions for people, lessen poverty, protect the environment and promote education.

This result agreed with Anker et al (2021). They claimed that strengthening people's abilities to address sustainable development issues and promoting SD both depend on education. Education is crucial for fostering ethical and environmental awareness in society as well as values and attitudes that support sustainable development, and it must be considered equally with the other aspects of SD.

According to them, the term environment is a term referring to the developing understanding of the physical environment's resources and weaknesses. Aspects of the economy that are crucial include borders, the possibility for economic growth, and potential negative effects on society and the environment. Democracy is regarded as the cornerstone of society because it allows citizens to actively participate in political activities, express their opinions, and elect representatives. It is believed that society, the economy, and the environment are interrelated.

Furthermore, they found a strong association between numerous research projects' sustainable development goals. This shows the imperative necessity of a solid foundation for carrying out the agenda for Sustainable Development objectives in universities' future research. A connection between sustainable development goals inspires universities to carry it out successfully.

The current study's findings show that maternity nursing students have the highest mean scores for understanding of the environment, the economy, society, and educational aspirations. The academic year and understanding of sustainable development goals among maternity nursing students differ in very statistically significant ways.

This result was at odds with what Maren (2019) and Rhonda et al. (2021) had found. According to their findings, there were no appreciable variations among students based on their academic standing and aspirations for sustainable development. Furthermore, they showed that younger students are more supportive of environmental goals.

The study's results show that students above the age of twenty-two have the highest mean scores for comprehending sustainable development goals in relation to societal, environmental, and economic goals. The differences in student ages and attitudes towards the environment and social goals were statistically significant. The fact that third-year students collaborate with faculty in community health education programs and they learn the principles of nursing so they can work as undergrads in private hospitals may help to explain this outcome.

This result was in line with Da Cal Seixas & De Moraes Hoefel's (2020) findings, which demonstrated that students age from twenty to twenty-two years old with more college experience had more distinct and uplifting environmental attitudes. The results presented here are not entirely consistent with those found by Biasutti & Frate (2017) who used age and educational attainment as individual-level control variables and found that younger groups have higher levels of environmental support and that educational attainment generally has a positive relationship with environmental attitudes.

Additionally, the study's results showed that students who are single have the greatest mean knowledge scores for sustainable development goals in terms of society and environmental goals. The marital status of students and their knowledges about the environmental aim differ statistically significantly. This outcome was consistent with Cruz et al.'s 2018 conclusion that raising children is an essential part of addressing environmental issues.

The study's results showed that, in terms of societal and educational goals, female students had the highest mean scores for awareness of SDGs. The gender of pupils and their views towards the economic aim differ

statistically significantly. Regarding Egypt's Vision 2030, which aims to promote women's participation, this may be because women are starting to take greater initiative in civic engagement.

This outcome was consistent with Atmaca and Pehlivan's (2020) finding that female students had a greater understanding of SD/ESD than male students. They came to the conclusion that women are more likely than men to engage in environmentally-friendly activities in developed and developing nations.

This result disagreed with that of Aronsson et al. (2020), who discovered no appreciable variation in senior high school students' understanding of SD between males and females. Additionally, they noted that there was no correlation between student understanding of sustainable development goals and their gender.

V. Conclusion

It can be concluded that the maternal and newborn nursing students had a good understanding of sustainable development goals. Additionally, there are statistically significant differences in understanding of the SDGs amongst nursing students specialized in maternal and newborn care based on their age, marital status, and gender.

VI. Recommendations

- All faculties' curricula should incorporate lessons on SD.

- Host lectures to teach about the objectives of SD.

- Universities support new methods to SD by encouraging students to work on multidisciplinary projects that are connected to the SDGs.

VII. Further Studies

- The practice of withholding information must be changed. It is necessary to increase transparency and information exchange through the creation of reliable information systems, digital tools, websites, and regular gatherings of students from various grade levels.

- The media must continue to play a significant role in raising public awareness of the issue and winning the people's support.

- In order to promote welfare and lessen social inequality, the government should place more of a focus on higher education.

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