

A study to assess the effectiveness of a Semi-Structured Information Booklet(SIB) on the Knowledge, Attitudes, and Practices(KAP) on Climate Change that affects the three elements (air, water and soil)

and its impacts on the Community Mental and Physical Health amongst FMS students

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Introduction

Climate Change has been an alarming subject for environmental scientists in the 21st century. It is defined as a change in global or regional climate patterns. The threat which the global climate crisis poses on the three elements: air, water and soil and human mental and physical health served as the foundation in the development of a Semi-structured Information Booklet (SIB) on Climate Change which was used to assess its effectiveness on Knowledge, Attitudes and Practices (KAP) and its impacts on community mental and physical health among the study participants as a health promotion prevention strategy.

Objectives

1. To determine the socio-demographic variables (SDVs) of the study participants.
2. To find the effectiveness of SIB by comparing the pre and post interventional knowledge, attitude and practice (KAP) levels on climate change among the participants.
3. To correlate the level of post-interventional knowledge with the attitudes and practices on climate change among the participants.
4. To associate the pre-interventional knowledge, attitudes and practice levels of the participants with their selected SDVs on climate change

Methodology

✦ **Research Approach, design and Setting:** This study used a quantitative research approach to conduct a quasi-experimental survey design in an online setting at the University of the West Indies at the St. Augustine campus in Trinidad & Tobago.

✦ **Target Population and Sample Size:** The target population of first year FMS was 452 students. Using the Rao soft calculator, the sample size was 170 students however, the response rate was poor and the final sample size concluded was 44 students.

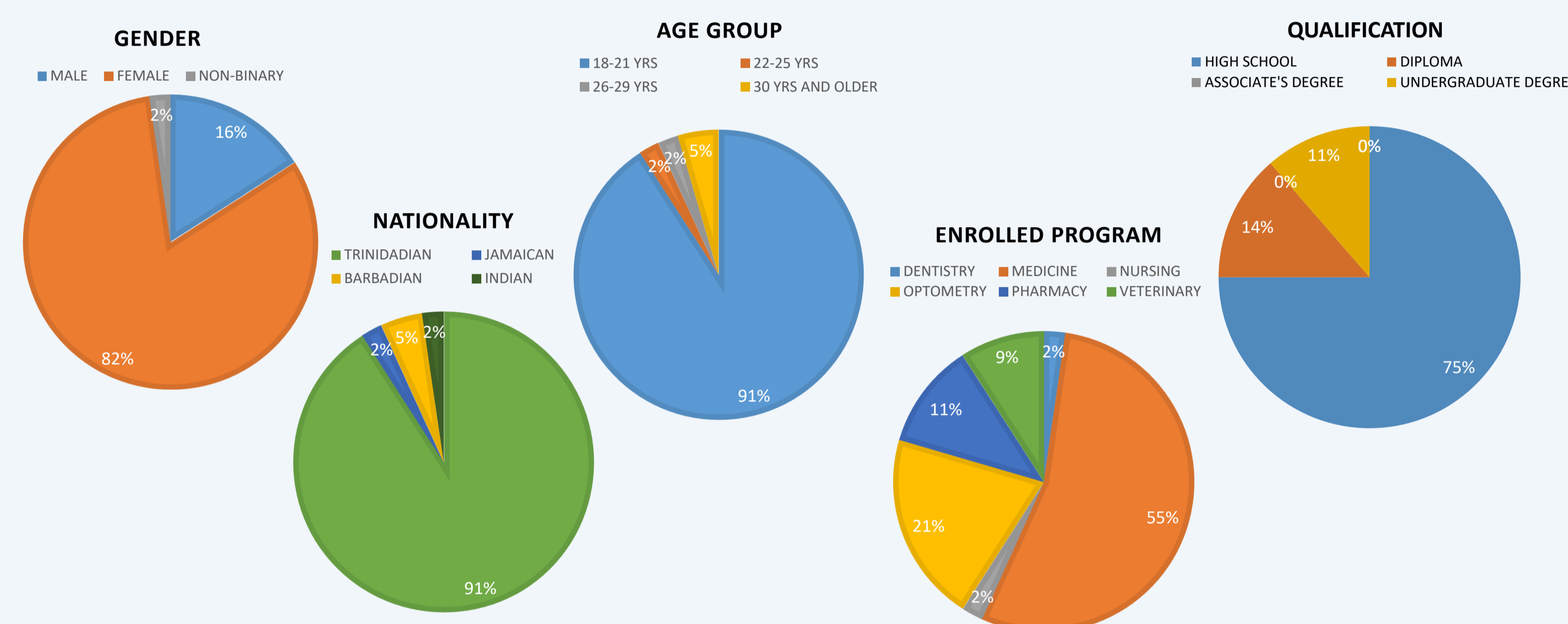
✦ **Data Collection:** Primary descriptive and categorical data were collected using the tools prepared by the researchers which entailed a socio demographic data sheet, a questionnaire to assess Knowledge on Climate Change (MCQ) and a Likert scale to assess Attitudes and Practices towards climate change. The SIB was developed as an interventional package. Data was collected in pre and post intervention phases using self administered online tools. Independent variable was the SIB and the dependent variables were KAP on Climate Change.

✦ **Data Analysis:** The processed data was analyzed using IBM-SPSS software version 28, using the descriptive statistics (frequency, percentage, independent t-test, Chi-squared test) and inferential statistics (Pearson's correlation test).

Results

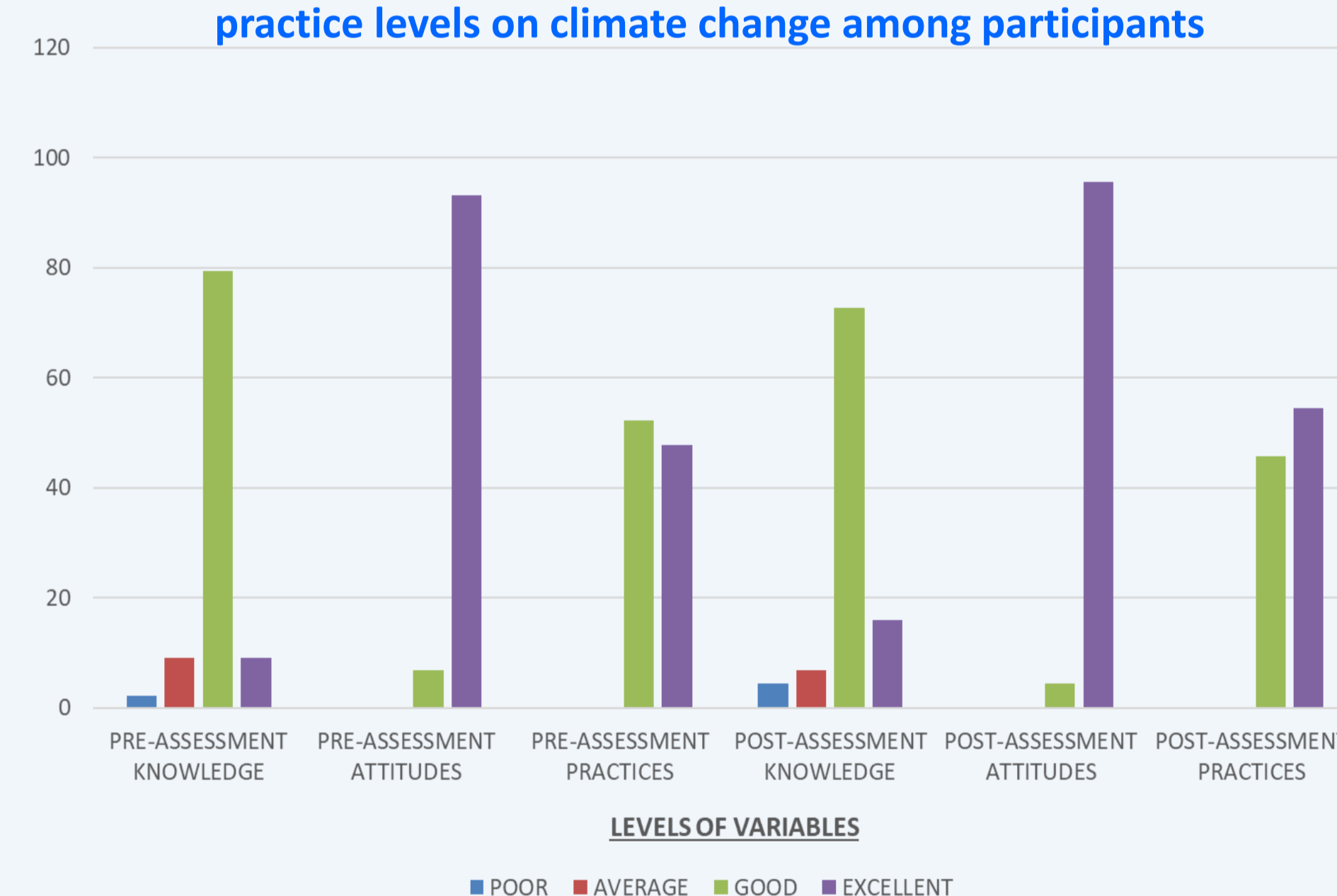
OBJECTIVE 1.

Figure 1. Pie Charts showing the distribution of the socio-demographic data of participants.



OBJECTIVE 2.

Figure 2. showing the comparison of pre and post interventional knowledge, attitudes and practice levels on climate change among participants



OBJECTIVE 3.

Table 1. showing the correlation between the levels of post-interventional knowledge with the attitudes and practices on climate change among the participants

VARIABLE	KNOWLEDGE		ATTITUDES		PRACTICES	
	PEARSON CORRELATION (r)	SIGNIFICANT (2-TAILED)	PEARSON CORRELATION (r)	SIGNIFICANT (2-TAILED)	PEARSON CORRELATION (r)	SIGNIFICANT (2-TAILED)
KNOWLEDGE OF CLIMATE CHANGE	1	-	.414**	.005	.190	.216
ATTITUDES TO CLIMATE CHANGE	.414**	.005	1	-	.494**	<.001
PRACTICES TO CLIMATE CHANGE	.190	.216	.494	<.001	1	-

** Correlation is significant at the 0.01 level (2 tailed)

• Knowledge showed a statistically significant and positive correlation with attitude, similarly, attitude showed a positive correlation with knowledge and practices of the study participants.

OBJECTIVE 4.

Association of frequencies between practice levels and selected socio demographic characteristics of subjects

The results found that out of the five socio-demographic variables, the only variable i.e., "previously participated in climate change projects" showed a statistically significant association with practice levels.

Discussion

- The numerous hazards of climate change were recognized by the target population based on the educated questionnaire responses received.
- The knowledge and practices toward climate change were generally good (79.5% of population) across the faculties regardless of socio- demographics which can be compared to a Bangladeshi study where 80% of participants had good knowledge and practices [1]
- The attitudes toward climate change as revealed in our data collection were not adeptly developed hence strategies revolving around the mitigation of climate change may need to be discussed more through forums, poster presentations and conferences.
- The SIB though ineffective in our study allowed us to enlighten the population on the detrimental effects of climate change which as outlined in an American based project was 'largely human-induced' as well as the various mitigation strategies that can minimize the negative health issues.
- The SIB is a useful tool that can be distributed in educational institutions as it comprehensively breaks down a wealth of knowledge in relation to climate change, an emerging global health threat[2]

Conclusion

The present research aided in comprehending that "Climate Change" continues to be a global threat and its causes are multifactorial and its impacts are serious on the physical elements on earth, human, mental, and physical health.

The present quasi-experimental study did not show significant changes in the pre-and post-intervention (the semi-structured information booklet on climate change) among the Medical Science participants' knowledge, attitudes and practices. This could have been due to an extraneous variable which was their prior knowledge exposure on climate change.

References

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- 2) Wachholz S, Artz N, Chene D. Warming to the idea: university students' knowledge and attitudes about climate change. International Journal of Sustainability in Higher Education [Internet]. 2014 Jan 1 [cited 2022 Jun 16];15(2):128–41. Available from:<https://doi.org/10.1108/IJSHE-03-2012-0025>

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