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From Household Environmental Challenges to Sustainable Consumption: An Analysis of Household Behavioral Practices among Teachers

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Abstract

Objectives: This study examined the extent of household environmental challenges and sustainable consumption practices and tested the relationship between these variables as basis for the development of intervention program in which the study also highlighted the role of teachers as household member.

Method: The study utilized a quantitative correlational design involving 111 teacher education graduate students from a state college in Camarines Sur, Philippines using a validated and reliable questionnaire. **Findings:** Results showed that teachers experienced moderate household environmental challenges in waste segregation ($CM=2.81$, $SD = \pm 1.09$) and household recycling ($CM = 2.85$, $SD = \pm 1.01$) but low challenges in resource conservation ($CM = 2.24$, $SD = \pm 1.26$) and they demonstrated high levels of responsible purchasing ($CM=3.70$, $SD = \pm 1.11$) and resource-efficient consumption ($CM = 3.87$, $SD = \pm 1.13$). Significant negative relationships were found between responsible purchasing and household environmental challenges in terms of waste segregation ($r = -0.319$, $p < 0.001$), household recycling ($r = -0.378$, $p < 0.001$) and resource conservation ($r = -0.608$, $p < 0.001$), while resource conservation exhibited a significant positive relationship ($r = 0.195$, $p = 0.04$) with resource-efficient consumption. **Novelty:** This study introduced the evidence-based Green Household Lifestyle Program which translates empirical findings into practical strategies guided by the Theory of Planned Behavior and Social Practice Theory for strengthening teachers' resource conservation and waste management, thereby contributing to educational management and community development.

Keywords: Educational management; Environmental education; Green purchasing; Resource conservation; Waste management

1 Introduction

Sustainable consumption has become a global priority where household consumption patterns significantly influence resource depletion, waste generation, and environmental sustainability. The United Nations Environment Programme in 2024 reported that household and municipal waste continue to increase worldwide due to unsustainable consumption patterns, with global municipal solid waste projected to rise from 2.1 billion tonnes in 2023 to 3.8 billion tonnes by 2050, highlighting the urgent need for households to adopt effective waste segregation, recycling, and resource conservation practices to reduce environmental degradation⁽¹⁾. In the Philippines, based on the recent projections by the National Solid Waste Management Commission estimate that the country will generate approximately 23.6 million metric tons of solid waste in 2025 which reflects the continuing increase in waste generation associated with population growth and household consumption⁽²⁾. With the increasing volume of waste, the environment suffers from all forms of pollution, soil contamination, loss of biodiversity and accelerated climate change which directly affect the people to have a sustainable ecosystem. The challenge always starts at home where every member of the household has the duty and responsibility to practice waste segregation, recycling, and resource conservation⁽³⁾. Likewise, responsible purchasing and resource-efficient consumption have been recognized as practical manifestations of sustainable consumer behavior that help reduce environmental footprints but still remain major problems of most communities⁽⁴⁾.

Teachers played a significant role in the community where they serve as models in various aspects of personal and professional behavior. They are expected to adopt behavioral practices that minimize environmental impacts leading to responsible purchasing, efficient resource utilization, and effective waste management. Many families continue to encounter environmental challenges that hinder the consistent practice of waste segregation, recycling, and resource conservation despite growing scholarly attention to household sustainability. Studies conducted in Philippine households reported varying levels of compliance with solid waste management practices and identified gaps in environmental knowledge, attitudes, and implementation of household waste disposal practices⁽⁵⁾. However, the existing body of literature has predominantly examined environmental awareness and waste management practices among students, including junior high school students, and senior high school learners⁽⁶⁾. Despite growing research on environmental awareness, waste management, and sustainable consumption, little empirical evidence explains how household environmental challenges influence sustainable consumption practices among in-service teachers acting as household decision-makers which creates an important research gap that warrants further investigation⁽⁷⁾.

Sustainable consumption extends beyond the acquisition of environmentally friendly products which encompasses daily behavioral practices that reduce waste and conserve natural resources⁽⁸⁾. Consumer behavior is shaped by individual attitudes, social norms, environmental contexts, and policy interventions that make sustainable consumption a multidimensional phenomenon and require behavioral and structural approaches⁽⁹⁾. This study is anchored based on the Theory of Planned Behavior to support why teachers who possess favorable attitudes, perceive social support, and believe they have control over environmentally responsible actions are more likely to practice sustainable consumption. Meanwhile, Social Practice Theory suggests that these behaviors are reinforced through habitual household routines, available infrastructure, and access to environmental resources rather than solely through individual intentions.

As response to this gap, the study seeks to explain the extent of household environmental challenges in terms of waste segregation, household recycling, resource conservation and the level of sustainable consumption practices of teachers in terms of responsible purchasing practices and resource-efficient consumption practices. The relationship between household environmental challenges and sustainable consumption practices is also tested in the study. The proposed green household lifestyle program for teachers serves as the output anchored in the educational management. The findings are expected to contribute to the growing literature on household sustainability and technology and livelihood education which provide evidence for designing targeted environmental education initiatives for teachers, and support the development of community-based programs that promote sustainable lifestyles within households.

2 Methodology

2.1 Research Design

This study employed a quantitative correlational research design to examine the relationship between household environmental challenges and sustainable consumption practices among teachers. According to Creswell and Creswell, correlational research is a nonexperimental quantitative approach that measures the degree and direction of association between two or more variables without manipulating them⁽¹⁰⁾. This design was appropriate because it determined the extent of household environmental

challenges, assessed teachers' sustainable consumption practices, and examined the relationships between these variables to provide a basis for developing the proposed Green Household Lifestyle Program.

2.2 Participants

The respondents of this study consisted of 111 out of 125 (88.8%) teacher education graduate school students enrolled during the midyear term of 2025 in one state college in Camarines Sur, Philippines. They were selected because they are practicing teachers who also serve as household members responsible for making daily decisions related to waste management, resource conservation, and consumption. Their dual roles as educators and household decision-makers make them appropriate respondents for examining household environmental challenges and sustainable consumption practices, as they are expected to demonstrate and promote environmentally responsible behaviors both at home and in their professional practice.

2.3 Instrument

This study developed the concepts and indicators through an extensive review of published literature and anchored them on the Theory of Planned Behavior of Ajzen in 1991⁽¹¹⁾ and Social Practice Theory of Shove *et al.* in 2012⁽¹²⁾. The construct for Household Environmental Challenges which consists of waste segregation⁽³⁾, household recycling⁽¹³⁾, and resource conservation⁽¹⁴⁾ was adapted and derived from several studies on household environmental practices. Meanwhile, the construct for Sustainable Consumption Practices which comprised of responsible purchasing and resource-efficient consumption was adapted from the sustainable consumption literature emphasizing environmentally responsible purchasing decisions⁽¹⁵⁾, efficient resource utilization⁽¹⁶⁾, and pro-environmental consumer behavior⁽¹⁷⁾. The multidimensional nature of the two major variables was adequately captured by the questionnaire through the integration of these theories and empirical studies, and a strong theoretical and empirical foundation for the study was established.

The questionnaire possessed excellent content validity where most items obtained an Item-Level Content Validity Index (I-CVI) of 1.00 which indicates complete agreement among the three experts in technology and livelihood education, educational measurement and evaluation and educational management regarding the relevance and representativeness of the items in measuring household environmental challenges and sustainable consumption practices. Only a few items received an I-CVI of 0.67 which indicates the need for revisions to improve item clarity or relevance; consequently, the researcher refined these items based on the experts' recommendations before administering the instrument to the respondents.

The computed Scale-Level Content Validity Index (S-CVI/Ave) of 0.94 further confirmed that the questionnaire demonstrated excellent overall content validity. This value exceeds the minimum acceptable criterion of 0.90 recommended by Polit and Beck⁽¹⁸⁾ which indicates that the instrument adequately represented the constructs of waste segregation, household recycling, resource conservation, responsible purchasing, and resource-efficient consumption. The questionnaire was considered appropriate for measuring the variables of the study and was deemed suitable for pilot testing and reliability analysis prior to its full administration.

Moreover, a pilot test was conducted among 40 graduate students who were not included in the actual study to establish the reliability of the research instrument. The results yielded a Cronbach's alpha coefficient of 0.84 for the Household Environmental Challenges scale and 0.91 for the Sustainable Consumption Practices scale where these values indicate good and excellent internal consistency, respectively, that exceeded the recommended minimum reliability coefficient of 0.70⁽¹⁹⁾. Therefore, the instrument was considered sufficiently reliable for measuring the study variables and was deemed appropriate for administration to the target respondents.

2.4 Procedure with Ethical Considerations

The researcher administered the validated questionnaire to the teacher education graduate students during the midyear term of 2025 within 4 weeks through online form. The respondents were informed of the study's purpose before data collection and were provided with an informed consent form explaining that their participation was voluntary and that they could withdraw from the study at any time without penalty. Confidentiality and anonymity were strictly maintained by ensuring that no personally identifiable information was collected, and all responses were used solely for research purposes. The database was securely stored, and the collected data were analyzed only in aggregate form to uphold the respondents' privacy and comply with established ethical standards in research.

2.5 Data Analysis

Prior to statistical analysis, the collected data were screened for completeness, consistency, and missing responses. The data were processed using IBM SPSS Statistics 27. Data normality was assessed using skewness, yielding values of -0.04 for Household Environmental Challenges and -0.11 for Sustainable Consumption Practices, indicating that both variables were approximately normally distributed and met the assumption for parametric analysis. Weighted mean and standard deviation are the descriptive statistics used to determine the extent of household environmental challenges and the level of sustainable consumption practices, while the Pearson product-moment correlation coefficient is employed to test the significant relationships between the two major variables. The researcher utilized the given scale to interpret the result of the survey: 1.00-1.50: Very Low/Never; 1.51-2.50: Low/Seldom; 2.51 – 3.50: Moderate/Sometimes; 3.51-4.50: High/Often; 4.51-5.00: Very High/Always.

The dataset generated and analyzed during the current study is available from the corresponding author upon reasonable request because it contains anonymized survey responses that are not publicly archived to protect participant confidentiality.

3 Results And Discussion

3.1 Household Environmental Challenges in terms of Waste Segregation

The teachers expressed moderate extent of household environmental challenges in terms of waste segregation as denoted by the composite mean of score 2.81 ($SD = 1.09$). The teachers often need to remind themselves to sort waste properly by separating recyclables, biodegradables, and non-recyclables which obtained the highest mean score ($M = 3.90$, $SD = 0.98$) which implies that consistent practice requires conscious effort and self-regulation although teachers recognize the importance of waste segregation, they still tend to forget in practice. On the other hand, teachers seldom experienced confusion in using labeled bins ($M = 2.40$, $SD = 1.06$) and disposing of kitchen waste without segregation ($M = 2.40$, $SD = 1.07$) which indicates a general awareness of proper waste classification. However, teachers sometimes disposed of hazardous waste together with regular trash ($M = 2.59$, $SD = 1.17$) and mixed different waste types due to the absence of labeled bins at home ($M = 2.75$, $SD = 1.12$) which highlights household conditions that may hinder proper waste management despite adequate environmental knowledge. This usually happens at home due to the absence of someone who checks and reminds everyone on how to do proper disposals. An understanding of waste segregation is possessed by teachers; however, practical barriers are still encountered that affect the consistent application of environmentally responsible practices in their daily routines.

Previous studies have shown that household waste segregation remains inconsistent due to behavioral and environmental barriers like Zheng et al. in 2020 who reported that household waste separation is influenced by social interactions, available facilities, and community participation⁽³⁾, while Cando III et al.⁽¹³⁾ found that although many Filipino households demonstrate adequate knowledge of solid waste management, the actual practices are not always consistently implemented. Araune et al. in 2024 further observed that compliance with domestic waste disposal practices varies across households because of inadequate facilities and inconsistent implementation of waste management guidelines⁽⁵⁾. Furthermore, the study of Arslan and Durmuş (2025) in contrary to the present findings revealed that prospective teachers exhibited strong sustainable environmental behaviors and consumption habits, indicating that environmental knowledge was more consistently translated into daily pro-environmental practices than observed among the teachers in the present study⁽⁷⁾. Meanwhile, the findings support the Theory of Planned Behavior and Social Practice Theory which suggest that environmentally responsible behaviors are shaped by individual intentions, perceived behavioral control, and household resources, infrastructure, and daily routines. Although teachers are expected to serve as advocates of environmental sustainability at home, the present findings indicate that they are not exempt from the household challenges that influence waste segregation practices. This serves as a good indicator in developing a program for teachers as household through involving all family members in waste segregation through shared responsibilities.

3.2 Household Environmental Challenges in terms of Household Recycling

Teachers encountered moderate level of household environmental challenges in terms of household recycling. The composite mean of 2.85 ($SD = 1.01$) indicates that teachers occasionally experience difficulties in consistently practicing recycling and reuse within their households. The respondents expressed they throw recyclable materials such as plastic bottles, paper, and cans in the regular trash bin ($M = 3.25$, $SD = 0.96$) with the highest-rated indicator which reveals that recyclable materials are not always properly recovered for recycling, which may reduce opportunities for resource conservation. Likewise, respondents moderately reported using disposable paper plates and cups during household celebrations ($M = 2.90$, $SD = 1.28$), disposing of reusable materials as garbage ($M = 2.67$, $SD = 1.07$), and discarding containers or bags after a single use despite their potential for reuse ($M = 2.98$, $SD = 0.88$). Conversely, they don't keep reusable products because it adds to unnecessary waste at home

which obtained the lowest mean ($M = 2.44$, $SD = 1.09$) which indicates that teachers generally recognize the value of retaining reusable household items. Overall, the findings have practical contribution to the design of professional development program of teacher through participating in community recycling drives and environmental campaigns.

Although teachers may possess favorable attitudes toward recycling, the absence of convenient recycling systems and established household routines may limit the consistent practice of recycling behaviors. From the perspective of Social Practice Theory, recycling is embedded in everyday household practices that depend on the interaction of materials, competencies, and routines; therefore, environmentally responsible behavior is strengthened when households have the necessary facilities and habitual practices that support waste recovery and reuse. Study of Boz et al. in 2020 supports this finding where they emphasized that sustainable consumption requires consumers to adopt behaviors that reduce waste throughout the product life cycle, including proper disposal and reuse of packaging materials⁽²⁰⁾. In contrast, Cando et al. (2022) reported that a majority of urban households actively practiced recycling (70.4%) which suggests a higher level of household recycling engagement than the moderate recycling challenges experienced by teachers in the present study⁽¹³⁾.

Although teachers are expected to model environmentally responsible behaviors, they still encounter practical household challenges that may impede effective recycling practices. This underscores the importance of interventions that encourage reuse habits, improve household recycling systems, and reinforce sustainable consumption behaviors which serves as input to the development of lifestyle program for teachers.

3.3 Household Environmental Challenges in terms of Resource Conservation

The teachers encountered low level of household environmental challenges in terms of resource conservation as denoted by the composite mean of 2.24 ($SD = 1.26$) which indicates that teachers generally practice responsible use of resources in their households. The lowest-rated indicators were *"I tend to ignore leaks in faucets, pipes, or toilets"* ($M = 1.62$, $SD = 0.81$), *"I often forget to turn off the light in my room before leaving"* ($M = 1.79$, $SD = 0.96$), and *"I tend to leave the faucet running while brushing teeth or washing dishes"* ($M = 1.79$, $SD = 0.991$), implying that respondents seldom engage in behaviors that unnecessarily waste electricity and water. Likewise, using electric appliances to reheat food ($M = 2.13$, $SD = 1.18$) and ironing clothes before every use ($M = 2.49$, $SD = 1.09$) were reported as low-level challenges. However, teachers moderately agreed that they tend to charge electronic devices overnight ($M = 2.52$, $SD = 1.324$) and cannot sleep without using an air conditioner or electric fan ($M = 3.31$, $SD = 1.432$), indicating that energy consumption associated with comfort and convenience remains an area of concern. Although teachers generally demonstrate responsible resource conservation practices at home, certain daily routines and lifestyle preferences continue to influence their household energy consumption which contributes to the development of lifestyle program for teachers through actively participating in advocacy campaigns to encourage more households to practice energy and water conservation not only during the time of crisis.

It has been a good practice among teachers to realize the lessons they give to students in their personal daily activities. The results support the Theory of Planned Behavior, which explains that individuals are more likely to perform environmentally responsible behaviors when they possess favorable attitudes, perceive greater control over their actions, and recognize the benefits of resource conservation. Similarly, Olatunde et al.⁽²¹⁾ and Shittu⁽¹⁴⁾ emphasized that household energy and resource consumption are largely influenced by daily behaviors and consumption patterns which underscore the importance of adopting energy-efficient practices and conserving water and electricity to promote sustainable consumption and environmental sustainability. Furthermore, unlike the present finding that teachers generally practice responsible use of household resources, Lytle et al. emphasized that responsible resource consumption cannot be attributed solely to individual behavior, as household decision-making is shaped by complex social interactions and shared practices among family members⁽²²⁾. Therefore, while teachers generally exhibit commendable resource conservation practices, targeted interventions promoting efficient energy use and sustainable household routines can further strengthen their contribution to environmental sustainability.

3.4 Sustainable Consumption Practices in terms of Responsible Purchasing

The teachers expressed high level of sustainable consumption practices in terms of responsible purchasing as denoted by the composite mean score of 3.70 ($SD = 1.11$) which indicates that teachers generally make deliberate and informed purchasing decisions in managing their household consumption. They plan their storage needs before buying products in bulk to avoid waste and spoilage ($M = 3.96$, $SD = 0.98$) which demonstrates that respondents carefully consider household needs to minimize food waste and unnecessary expenses. Similarly, teachers highly practiced checking product expiration dates ($M = 3.79$, $SD = 1.24$) and they evaluate whether products were necessary before purchasing ($M = 3.71$, $SD = 1.03$) and compare prices and reading reviews before making purchasing decisions ($M = 3.69$, $SD = 1.09$). These results showed that teachers exercise prudence in household purchasing by considering product quality, necessity, and value for money. However, they moderately consider

the environmental impact and eco-friendliness of products before purchasing them ($M = 3.44$, $SD = 1.067$) which suggests that environmental considerations are incorporated into purchasing decisions less consistently than economic and practical concerns.

Part of Filipino culture as an example, practicality is observed due to limited household resources, and the needed supplies for one or two weeks are listed before going to the grocery store. However, the comparatively lower consideration of environmental impacts indicates that sustainable purchasing is still influenced by practical concerns such as price, necessity, and convenience. The findings confirm based on the Theory of Planned Behavior that individuals are more likely to engage in responsible consumption when they hold positive attitudes toward planned purchasing, perceive social support for sustainable behaviors, and believe they can effectively manage their consumption decisions. Likewise, according to Social Practice Theory, purchasing behaviors are shaped by routine household practices, available resources, and everyday decision-making rather than by environmental awareness alone. Findings of Elhoushy and Lanzini⁽¹⁶⁾ identified financial constraints, product accessibility, and contextual factors as significant determinants of sustainable consumption. In contrast, Adlinda et al. emphasized that conscious consumerism requires consumers to deliberately evaluate the environmental and ethical implications of products before making purchasing decisions, whereas teachers in the present study only moderately considered the environmental impact and eco-friendliness of products despite demonstrating high levels of responsible purchasing practices⁽²³⁾. Many Filipino teachers carefully compare prices and check product expiration dates, and they only purchase essential household items to maximize their limited household resources. Although teachers demonstrate commendable responsible purchasing practices within their households, greater emphasis on the environmental attributes of products which contribute to the development of lifestyle program of teachers through sustainability education and consumer awareness initiatives which further strengthen their support to sustainable consumption.

3.5 Sustainable Consumption Practices in terms of Resource-Efficient Consumption

Teachers expressed a high level of sustainable consumption practices in terms of resource-efficient consumption as denoted by the composite mean of 3.87 ($SD = 1.13$) which indicates that teachers generally adopt household practices that promote the efficient use of resources and minimize unnecessary consumption. They prefer cooking and preparing their own meals at home rather than eating out ($M = 4.51$, $SD = 0.753$) reflects a very high preference for home-prepared meals, which can contribute to reduced food waste, lower packaging consumption, and better household resource management. Respondents also reported high levels of purchasing fresh ingredients for home cooking ($M = 4.05$, $SD = 1.01$), actively monitoring household electricity and water consumption ($M = 4.07$, $SD = 0.97$), possessing knowledge and application of sustainable consumption habits ($M = 3.65$, $SD = 1.17$), and using public transportation whenever possible ($M = 3.61$, $SD = 1.35$). However, preparing meals at home instead of eating out or ordering takeout received only a moderate rating ($M = 3.34$, $SD = 0.95$) which indicates that teachers occasionally rely on dining out or food delivery services due to convenience or work-related demands.

Teachers learned how to make purchasing decision from their experience more efficient due to limited household income and salary, family size and number of dependents and other expenses on instructional materials used for their teaching. They tried to become resourceful in all aspects of life. Olatunde et al. underscored the importance of actively managing household energy and water consumption to improve resource efficiency⁽²¹⁾, while according to Andrade and Vieites⁽²⁴⁾ that an eco-friendly but expensive product will likely be unappealing to many consumers, thus people tend to choose affordable products without considering the impact to the environment. Contrary to the present finding, García-Vinuesa⁽²⁵⁾ highlighted that effective sustainable climate action extends beyond environmental awareness to the consistent adoption of daily behaviors that reduce environmental impacts, suggesting that the moderate preference for home meal preparation reflects an area where teachers' resource-efficient consumption practices can still be strengthened. Although the findings support the Theory of Planned Behavior, which indicates that positive attitudes toward conservation and confidence in managing household resources encourage sustainable consumption practices, the moderate preference for preparing meals at home also highlights the influence of everyday routines and convenience, consistent with Social Practice Theory. The findings contribute to the development of lifestyle program related to meal planning based on the available household resources, while considering the social contexts that reinforce environmentally responsible practices.

3.6 Correlation Between Household environmental challenges and Sustainable Consumption Practices

The relationship between household environmental challenges and sustainable consumption practices among teachers is presented in Table 1 which revealed that waste segregation ($r = -0.319$, $p < .001$), household recycling ($r = -0.378$, $p < .001$), and resource conservation ($r = -0.608$, $p < .001$) have significant weak to moderate negative relationships with responsible

Table 1. Correlation Between Household environmental challenges and Sustainable Consumption Practices

	Responsible Purchasing Practices		Resource-Efficient Consumption Practices	
	r-value	p-value	r-value	p-value
Waste Segregation	-0.319**	<0.001	0.130	0.173
Household Recycling	-0.378**	<0.001	0.077	0.419
Resource Conservation	-0.608**	<0.001	0.195*	0.040

*Significant at $p < 0.05$; **Significant at $p < 0.001$

purchasing practices. The negative coefficients indicate that as teachers experience fewer household environmental challenges, they are more likely to demonstrate responsible purchasing behaviors, such as carefully evaluating product necessity, comparing prices, planning purchases, and minimizing waste. Among the three dimensions, resource conservation exhibited the strongest relationship which suggests that teachers who consistently practice conserving household resources also tend to make more responsible purchasing decisions. In contrast, waste segregation ($r = 0.130$, $p = .173$) and household recycling ($r = 0.077$, $p = .419$) showed no significant relationship with resource-efficient consumption practices. However, resource conservation demonstrated a weak but significant positive relationship with resource-efficient consumption ($r = 0.195$, $p = .040$) that indicates teachers who experience fewer challenges in conserving household resources are slightly more likely to adopt efficient consumption behaviors, including preparing meals at home, monitoring electricity and water use, and utilizing resources more responsibly. Resource conservation serves as the influential household environmental factor associated with teachers' sustainable consumption practices.

Environmentally responsible behaviors are influenced by individuals' attitudes, perceived behavioral control, and behavioral intentions based on the Theory of Planned Behavior where teachers who encounter fewer barriers in managing household resources are more likely to exercise greater control over their purchasing decisions and consumption habits which result in more sustainable behaviors. The absence of significant relationships between waste segregation, household recycling, and resource-efficient consumption suggests that these environmental practices may be influenced by external household conditions, such as the availability of recycling facilities and waste management systems, rather than directly translating into broader consumption behaviors. Previous studies likewise reported that sustainable consumption is affected by both individual and contextual factors wherein Geiger et al.⁽⁸⁾ emphasized that sustainable consumption encompasses multiple behavioral domains that may not always occur simultaneously. In contrast, Perera et al.⁽²⁶⁾ emphasized that sustainable purchasing and consumption practices are primarily influenced by households' shared motivations, collaborative decision-making, and contextual routines rather than by household environmental challenges alone, suggesting a more complex pathway to responsible consumption than the significant negative relationships observed in the present study. Therefore, strengthening teachers' household resource conservation practices is emphasized in the lifestyle program for teachers through attending more personal or professional development training, together with supportive household and community environments which may enhance responsible purchasing decisions and foster more comprehensive sustainable consumption practices.

3.7 Proposed Green household lifestyle program for teachers

The proposed lifestyle program was developed based on the findings of the study which revealed that although teachers demonstrated high levels of responsible purchasing and resource-efficient consumption, they continued to experience moderate challenges in waste segregation and household recycling. Furthermore, resource conservation was found to have a significant relationship with sustainable consumption practices, highlighting the importance of strengthening everyday household behaviors that support environmental sustainability. As teachers are expected to model environmentally responsible practices both in their homes and in their schools, the program seeks to reinforce sustainable household routines through environmental education, practical waste management strategies, responsible purchasing, recycling initiatives, and resource conservation activities. This program differs from existing research in terms of its design which integrates empirical evidence on household environmental challenges with actionable behavior-change strategies that provides practical model for cultivating a culture of sustainable household living among teachers rather than merely describing their environmental practices. The program is also anchored on the Theory of Planned Behavior and Social Practice Theory which contributes to the enhancement of educational management practices and supporting community development which aims to transform environmental knowledge into

consistent household practices by promoting positive behavioral intentions, strengthening sustainable daily routines, and fostering a culture of environmental responsibility among teachers and their families.

4 Conclusion

Teachers generally encounter moderate household environmental challenges in waste segregation ($CM=2.81$, $SD = \pm 1.09$) and household recycling ($CM = 2.85$, $SD = \pm 1.01$), while experiencing low challenges in resource conservation ($CM = 2.24$, $SD = \pm 1.26$). Despite these challenges, they demonstrate high levels of sustainable consumption practices, particularly in responsible purchasing ($CM=3.70$, $SD = \pm 1.11$) and resource-efficient consumption ($CM = 3.87$, $SD = \pm 1.13$) which indicates that they are capable of adopting environmentally responsible behaviors within their households. Furthermore, the household environmental challenges, especially resource conservation, were significantly related to sustainable consumption practices, showing the importance of improving household conservation behaviors for encouraging responsible buying habits and resource-efficient lifestyles. The findings contribute to the Theory of Planned Behavior and Social Practice Theory by demonstrating the influence of household environmental conditions and daily routines on teachers' sustainable consumption practices. Additionally, the study contributes to the environmental sustainability literature by conceptualizing teachers as household decision-makers and by introducing the evidence-based Green Household Lifestyle Program as a practical framework for promoting sustainable household living, thus contributing to educational management, community development, and environmental sustainability.

The Green Household Lifestyle Program is recommended for implementation as part of faculty development and extension initiatives by providing regular training, household sustainability campaigns, and monitoring activities that strengthen teachers' waste segregation, recycling, resource conservation, and sustainable consumption practices both at home and in the workplace. Future research may include a larger and more diverse sample of teachers from different educational institutions and examine additional factors, such as environmental attitudes, household characteristics, and policy support, to better explain sustainable consumption practices and evaluate the effectiveness of the proposed Green Household Lifestyle Program.

This study was limited to 111 teacher education graduate students from one state college in Camarines Sur, which may limit the generalizability of the findings. It employed a cross-sectional correlational design using self-reported data, preventing causal inferences and introducing the possibility of response bias. Additionally, the study examined only selected dimensions of household environmental challenges and sustainable consumption practices.

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