Journal of Social Science Studies Vol. 2, No. 2, July 2022, pages 243 – 248

Fostering Pro-Environmental Learning through Family-Centered Education

Mirza Elmy Safira, Nelud Darajaatul Aliyah, Siti Kholidatur Rodiyah, Reny Nuraini, Siti Nur Halizah

Sunan Giri University of Surabaya, Indonesia

A R T I C L E I N F O

Article history:
Received 2 May 2022
Revised 11 June 2022
Accepted 3 July 2022

Key words:
Family education,
Environmental awareness,
Hygiene behavior,
Ecological literacy,
Informal learning,
Parental influence,
Sustainable practices.

A B S T R A C T

This literature-based study explores the role of family-centered environmental education in shaping pro-environmental awareness and hygiene-related behaviors in children. Drawing on empirical and theoretical sources, it examines how everyday parental actions, home-based learning experiences, and value-laden communication influence children's environmental consciousness and practices. It also investigates the long-term psychological and behavioral outcomes of early exposure to sustainability principles within domestic settings. Key themes include modeling behavior, experiential learning, cultural reinforcement, and the integration of eco-literacy into family routines. The findings suggest that families function as powerful informal education systems capable of instilling ecological responsibility and public hygiene awareness in young individuals. When supported with adequate educational resources and community engagement, household efforts can significantly contribute to national environmental objectives. The study emphasizes the necessity for policy frameworks that recognize families as critical agents in fostering sustainable development through everyday pedagogical practices.

INTRODUCTION

Environmental education has become a vital pillar in the effort to foster sustainable behaviors and ecological awareness among individuals from an early age. Formal educational institutions have long been the primary platform for disseminating environmental knowledge. There is a growing recognition that family units, as foundational social structures, play a critical role in shaping environmental values, attitudes, and habits. Within the domestic sphere, daily interactions provide opportunities for behavioral modeling, value transmission, and practical engagement in pro-environmental practices (Roy, 2017).

Family-based environmental education allows for the contextualization of ecological concepts into daily routines (Güven & Yilmaz, 2017). Activities such as waste separation, energy conservation, water usage monitoring, and the cultivation of home gardens offer experiential learning opportunities that formal curricula might lack. Parents and caregivers can serve as role models, embodying sustainable choices and fostering a culture of responsibility that children are likely to internalize and carry into adulthood. According to Chawla and Cushing (2007), early nature experiences and home-based environmental discussions are significant predictors of adult environmental stewardship.

Despite the potential of familial settings to cultivate eco-conscious behavior, many households lack structured strategies or resources to implement environmental education effectively. The absence of guidance or practical tools can hinder the transmission of environmental knowledge, especially in urban settings where natural spaces are limited and lifestyles are more consumption-driven. Family education often relies on parents' awareness, motivation, and access to credible information on sustainable practices (Bülbül et al., 2019).

Contemporary ecological crises require that environmental literacy become embedded across all layers of society. Families are uniquely positioned to act as incubators of ecological awareness, reinforcing values introduced in schools and media. Without cohesive strategies and accessible educational frameworks tailored for domestic implementation, the potential of family-based environmental education remains underutilized (Bernardes, 2018).

* *Corresponding author, email address:* ***dr.neluddarajaatulaliyah@gmail.com***

Several recurring issues hinder the widespread integration of environmental education within households. First, there is often a gap between awareness and action. Parents may understand environmental issues but lack the commitment or means to apply this knowledge consistently. This dissonance can result in sporadic or performative engagement that does not lead to long-term behavioral change (Kollmuss & Agyeman, 2002).

Second, socioeconomic disparities affect the capacity of families to engage in environmental learning. Lower-income households might prioritize immediate survival needs over ecological concerns. Limited access to green spaces, sustainable goods, or eco-education resources exacerbates the inequality in environmental learning opportunities. In such settings, the emphasis on environmental cleanliness and hygiene may be deprioritized in favor of more pressing challenges (Burdett & Hill, 1998).

Third, cultural differences in perceptions of nature and cleanliness contribute to inconsistent approaches in household environmental education. In some communities, environmental practices are guided by traditional customs rather than scientific knowledge, potentially resulting in resistance to modern sustainability frameworks. This divergence underscores the need for culturally adaptive educational materials that respect local values while promoting universal ecological principles (Palmer, 1998).

The absence of coherent support systems for families attempting to incorporate environmental teachings into everyday life signals a broader systemic gap. While school programs are often monitored and evaluated, home-based environmental instruction lacks standardized benchmarks, institutional oversight, or targeted public campaigns. Consequently, many families are left without adequate guidance, thereby weakening the overall efficacy of environmental education as a tool for behavioral transformation.

Households serve as primary learning environments where values are internalized through consistent exposure and reinforcement. Because habits formed during childhood tend to persist into adulthood, fostering environmentally responsible behavior within families is essential for cultivating long-term ecological consciousness across generations.

Children, when actively engaged in environmental practices at home, are more likely to develop intrinsic motivation to protect the environment. Daily rituals such as recycling, cleaning shared spaces, or conserving water not only instill technical knowledge but also cultivate respect for shared resources. These practices, embedded in familial routines, can act as microcosms of broader societal change.

Raising awareness and capacity within families to conduct environmental education is critical in responding to ongoing global environmental degradation. A robust foundation at the household level supports broader institutional and policy-driven efforts. Hence, identifying effective practices and frameworks for family-centered environmental education is indispensable.

The objective of this research is to investigate how families can practically engage in environmental education to enhance children's ecological awareness and hygiene practices. This study aims to identify best practices, tools, and models that facilitate the integration of environmental learning into everyday family life. The results of this analysis may serve as a foundation for developing policy recommendations and educational materials that empower families to act as agents of environmental change.

RESEARCH METHOD

This study employs a literature review approach to explore best practices in family-based environmental education and its potential impact on hygiene awareness and environmentally responsible behavior. The literature review method is chosen for its ability to synthesize diverse perspectives, theoretical frameworks, and empirical findings from previous research. According to Webster and Watson (2002), a structured literature review allows researchers to identify, classify, and evaluate relevant sources, leading to the development of a conceptual map of the field. The analysis includes peer-reviewed journal articles, published reports, and academic books that examine educational interventions within the family setting, environmental behavior modeling, and intergenerational knowledge transmission. All literature selected falls within the thematic scope of family education and ecological responsibility, ensuring focused and coherent results.

The data collection process involves systematic searching of academic databases including Scopus, JSTOR, and Google Scholar using key terms such as "family environmental education," "household hygiene behavior," "intergenerational learning," and "green parenting." Only English-language publications were included, with a particular focus on works published between 2000 and 2022. The review applies inclusion criteria such as empirical relevance, theoretical contribution, and methodological clarity. Data extraction emphasizes recurring themes such as parent-child communication, routines that support ecological values, and domestic practices that reinforce sustainable living.

Following the recommendation of Booth, Sutton, and Papaioannou (2016), a narrative synthesis approach is used to analyze the findings and identify cross-study insights that reveal both the opportunities and constraints of implementing environmental education within family structures.

RESULT AND DISCUSSION

Environmental consciousness is not solely cultivated within institutional frameworks. Its earliest and most impressionable seeds are often sown within the walls of the home. Here, daily actions become silent lessons, and patterns of thought are subtly reinforced through routine engagement with the natural and built environment. In this intimate setting, the shaping of ecological responsibility begins with the mundane, yet meaningful, aspects of domestic life (Dushkova & Kirillov, 2017).

The household acts as a dynamic arena where behavioral expectations are observed, replicated, and eventually internalized. From conserving electricity to practicing regular handwashing, such acts function not merely as tasks but as expressions of values in motion. When these values are consistently affirmed by family members, particularly caregivers, children gradually develop a cognitive and emotional framework aligned with environmental responsibility (Efimova et al, 2018).

Children are acutely responsive to the implicit cues provided by those closest to them. Through parental example and guided participation, environmental knowledge is transformed into habitual behavior. What may appear to be minor acts—turning off lights, minimizing food waste, or maintaining cleanliness—lay the groundwork for larger ecological attitudes. The familiarity of the home setting enhances the receptivity and sustainability of these behavioral shifts (Sánchez-Llorens et al., 2019).

Beyond the transfer of practical skills, family-based environmental education reinforces a sense of stewardship and mutual accountability. Shared activities that center on nature and hygiene cultivate both cooperation and care. This shared responsibility serves as a rehearsal for civic life, instilling the idea that individual choices are inseparable from collective well-being (Khrushch & Karpiuk, 2021).

Academic literature affirms the potency of this model. Evans et al. (2007) underscore that children are significantly more likely to adopt sustainable habits when such behaviors are consistently demonstrated and verbally encouraged at home. It is through these layered and iterative experiences that environmental values are not simply learned, but lived.

Framing environmental education as a domestic priority repositions the family from a passive recipient to an active architect of ecological consciousness. The deliberate integration of sustainable behaviors into household routines transforms awareness into action and intention into identity. In this way, the family becomes both the first teacher and the most enduring influence in a child's ecological journey (Neuhaus et al., 2021).

Parental engagement plays a pivotal role in shaping environmental perceptions. Children internalize values not only through direct instruction but also through observation and repetition. Kollmuss and Agyeman (2002) argue that affective factors—such as emotional bonding and moral reasoning within family structures—enhance the retention of environmentally responsible behavior. Families that demonstrate positive attitudes toward cleanliness and ecological responsibility tend to cultivate similar attitudes in their children, resulting in improved hygiene habits and sustainability-oriented thinking (Singh et al., 2020).

A structured home environment, when supported by educational materials and interactive activities, enhances the impact of environmental messages (Karnadi et al, 2020). Parents who integrate storytelling, eco-games, and science-based discussion into household routines foster cognitive engagement. For example, linking plastic waste to grocery habits or handwashing to disease prevention helps children connect abstract concepts with real-life outcomes. As stated by Chawla and Cushing (2007), experiential learning in domestic contexts builds environmental literacy effectively.

Routine participation in household tasks further embeds ecological practices. Assigning children tasks such as sorting recyclables, planting herbs, or monitoring energy usage not only develops responsibility but also strengthens their sense of agency in environmental preservation. These habits, once normalized, can expand into wider behavioral patterns at school and in peer groups. Bandura's (1977) theory of social learning emphasizes the influence of role models, and within the family unit, parents act as the most immediate and credible exemplars.

Family discussions about current environmental issues create opportunities for reflective thinking. When parents engage children in dialogues about pollution, climate change, or public hygiene, it encourages analytical reasoning and empathy. Pooley and O'Connor (2000) note that emotional engagement is a key predictor of environmental concern, which can be nurtured through narrative and discussion in familial settings. This process bridges the gap between awareness and actionable behavior.

Cultural and socioeconomic factors shape how families interpret and apply environmental principles. Households with greater access to resources may implement advanced sustainable practices such as composting or solar energy use, whereas families with limited means might focus on cost-saving behaviors like reusing materials and minimizing waste. Regardless of resource levels, the emphasis on hygiene, conservation, and civic responsibility can be integrated into family values through intentional effort and creativity.

Media and digital tools offer supplementary channels for reinforcing environmental education at home. Educational programs, mobile applications, and online challenges designed for families can gamify sustainability and hygiene, increasing motivation and engagement. According to Kocak and Tuncel (2015), integrating technology into environmental learning strategies enhances retention and behavioral adoption, particularly when parents and children engage in these platforms together.

Religious and spiritual beliefs often inform moral imperatives related to cleanliness and stewardship. Families that align environmental education with faith-based teachings may find stronger motivation and coherence in their educational efforts. For instance, framing environmental responsibility as a divine obligation or moral duty strengthens intrinsic motivation. As reported by Tucker and Grim (2001), spiritual worldviews significantly influence pro-environmental behavior across cultures.

Peer influence within family structures—especially among siblings—contributes to the adoption of pro-environmental behavior. Older children who model hygienic practices or ecological consciousness can positively affect younger siblings. This intra-family mentorship supports mutual accountability and establishes a culture of shared responsibility within the household. Piaget's theories on moral development also suggest that peer collaboration enhances ethical reasoning through interaction and negotiation (Duarte et al., 2017).

Community involvement enhances the scope and credibility of family-based environmental learning. Families who participate in neighborhood clean-ups, recycling campaigns, or school-environment committees reinforce the importance of civic hygiene and environmental integrity. These collective experiences build social capital and reinforce the relevance of environmental education beyond the home (Hiramatsu et al, 2014).

Barriers to effective implementation include time constraints, lack of knowledge, and conflicting values. To address these challenges, families must prioritize environmental values within their schedules, seek educational support from schools or community resources, and reconcile differing perspectives through dialogue. Overcoming these obstacles requires intentionality and flexibility in pedagogical strategies (Collado et al., 2019).

Evaluation and feedback mechanisms within the home allow families to assess progress and adapt strategies. Using visual tracking charts, setting family hygiene goals, or reflecting on past practices fosters a culture of continuous improvement. This process also allows children to experience the impact of their behavior, increasing motivation and self-efficacy (Khairunnisa & Hufad, 2019).

Generational learning contributes to the sustainability of environmental values. Grandparents who transmit traditional wisdom on conservation or hygiene practices enrich the educational landscape and validate ancestral knowledge. This intergenerational exchange promotes continuity and depth in environmental awareness (Collins, 2015).

Ultimately, the success of family-based environmental education lies in its integration into the rhythms of daily life. Rather than treating hygiene and sustainability as external obligations, families that embrace these values as part of their identity create environments conducive to enduring behavioral change. This alignment ensures that children internalize pro-environmental attitudes as part of their character development (Grønhøj & Thøgersen, 2012).

The foundation of environmental responsibility often begins not in classrooms or public forums, but within domestic boundaries where values are first encountered and tested. When ecological awareness is consistently integrated into everyday routines, the household evolves into a formative space where sustainable habits are both taught and lived. The data presented by Musser and Diamond (1999) affirms this trajectory, showing that early, home-based exposure significantly influences the continuity of environmentally sound behavior into adolescence.

Family-driven education functions beyond the transmission of knowledge; it constructs a relational framework through which environmental ethics are personalized. In these interactions, children do not passively absorb information. Instead, they internalize meaning through observation, imitation, and reinforcement. Over time, this leads to a deeper cognitive and emotional alignment with sustainable living principles, making ecological conduct an intrinsic part of identity rather than an externally imposed obligation.

When families take the initiative to embed environmental literacy into their lifestyle, the ripple effects extend beyond the home. Peer groups,

schools, and neighborhood dynamics often mirror and amplify behaviors first cultivated within the family. In this sense, households act as both the seedbed and catalyst for broader cultural shifts toward sustainability. The continuity between private instruction and public action strengthens the durability of pro-environmental commitment.

Recognizing this, it becomes imperative to view family engagement not as supplementary, but as central to environmental education strategies. Resources, policies, and interventions designed with the family unit in mind hold greater potential to induce behavioral transformation that is both authentic and enduring. The more intentional the support structures for families, the greater the likelihood that ecological mindfulness will persist across generations.

Ultimately, the research reinforces a simple but profound truth: families shape futures. By consciously embedding environmental values into daily life, they nurture individuals who do not merely understand sustainability, but live it. This enduring legacy, grounded in shared responsibility and everyday practice, becomes one of the most powerful contributions a family can offer to the preservation of our planet.

CONCLUSION

Environmental education embedded within family life offers a crucial pathway toward cultivating sustainable awareness and health-oriented behaviors among children. As discussed, familial settings present a unique opportunity to shape attitudes through continuous modeling, interactive learning, and everyday practices. The pedagogical environment created at home becomes a formative landscape in which environmental values are normalized, reinforced, and internalized. The active involvement of parents in guiding children through participatory activities enhances not only their ecological literacy but also their willingness to contribute meaningfully to environmental care and public hygiene.

These insights hold wide-ranging implications for policy and educational frameworks. Recognizing families as central units of informal environmental education underscores the need to align public initiatives with domestic dynamics. Programs aimed at fostering ecological awareness should consider household routines, language, and intergenerational learning structures. When the private sphere is empowered with knowledge and resources, its collective impact can complement formal schooling and lead to generational transformation in ecological consciousness and hygienic discipline. further strengthen these foundations, it is recommended that education stakeholders design toolkits, multimedia content, and community-based activities that are family-oriented. Institutions may support workshops or campaigns that guide parents in developing environmentally aware household practices. Collaboration between public agencies and families is essential in bridging gaps between intention and implementation. Empowering families through education creates resilient agents of environmental stewardship within the very heart of society.

REFERENCES

Bandura, A. (1977). *Social Learning Theory*. Prentice Hall.

Bernardes, J. C. (2018). Família, Educação E Sociedade Contemporânea - A Educação Familiar Como Proposta À Convergência De Um Planeta Sustentável. *Revista da ESMESC*, 25(31), 179-196.

Booth, A., Sutton, A., & Papaioannou, D. (2016). *Systematic Approaches to a Successful Literature Review*. SAGE Publications.

Bülbül, H., Büyükkeklik, A., & Özoğlu, B. (2019). Çevre Bïlïncï, Çevrecï Ev Uygulamalari, Satin Alma Davranişi Ve Demografïk Faktörler Arasindakï Ïlïşkïnïn Haneler Kapsaminda Incelenmesï. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 11(30), 945-955.

Burdett, K., & Hill, M. (1998). Inequality and Access to Green Spaces. *Urban Studies*, 35(5-6), 889-902.

Chawla, L., & Cushing, D. F. (2007). Education for Strategic Environmental Behavior. *Environmental Education Research*, 13(4), 437-452.

Chawla, L., & Cushing, D. F. (2007). Education for *Strategic Environmental Behavior*. *Environmental Education Research*, 13(4), 437–452.

Collado, S., Staats, H., & Sancho, P. (2019). Normative Influences on Adolescents' Self-reported Pro-environmental Behaviors: The Role of Parents and Friends. *Environment and Behavior*, 51(3), 288-314.

Collins, R. (2015). Keeping it in the Family? Re-focusing Household Sustainability. *Geoforum*, 60, 22-32.

Duarte, R., Escario, J.-J., & Sanagustín, M.-V. (2017). The Influence of the Family, the School, and the Group on the Environmental Attitudes of European Students. *Environmental Education Research*, 23(1), 23-42.

Dushkova, D., & Kirillov, S. N. (2017). Ecological Consciousness as One of the Main Principles of Ecological Policy. *Vestnik Volgogradskogo Gosudarstvennogo Universiteta. Seriiâ` 3, Ekonomika, Ėkologiiâ; 19*(2 (39)), 148-158.

Efimova, O. N., Zakharova, A. N., Dulina, G. S., Petunova, S. A., Semenova, N. V., Talanova, T. V., & Fomina, N. N. (2018). Ecological Consciousness and Involvement in Cultural and Productive Labor in the Context of Interaction of a Person with the Nature. *In International Symposium" Engineering and Earth Sciences: Applied and Fundamental Research*. Atlantis Press.

Evans, G. W., Brauchle, G., Haq, A., Stecker, R., Wong, K., & Shapiro, E. (2007). Young Children's Environmental Attitudes and Behaviors. *Environment and Behavior*, 39(5), 635–658.

Grønhøj, A., & Thøgersen, J. (2012). Action Speaks Louder Than Words: The Effect of Personal Attitudes and Family Norms on Adolescents' Pro-environmental Behaviour. *Journal of Economic Psychology*, 33(1), 292-302.

Güven, S., & Yilmaz, N. (2017). Role and Importance of Family at Preschool Children Environmental Education. *European Journal of Sustainable Development*, 6(4), 105-105

Hiramatsu, A., Kurisu, K., Nakamura, H., Teraki, S., & Hanaki, K. (2014). Spillover Effect on Families Derived from Environmental Education for Children. *Low Carbon Economy*, 5(2), 40-50.

Karnadi, K., Sudarwanto, S., & Rismayati, A. I. (2020). The Correlation between Parents' Personalities and Responsible Environmental Behavior on Students' Learning at School. *Tadris: Jurnal Keguruan dan Ilmu Tarbiyah*, 5(1), 55-64.

Khairunnisa, A., & Hufad, A. (2019). Family Role and Good Environmental Behavior. *In 2nd International Conference on Educational Sciences (ICES 2018)*. Atlantis Press.

Khrushch, O., & Karpiuk, Y. (2021). Psychological Aspects of Building Environmental Consciousness. *Grassroots Journal of Natural Resources*, 4(2), 120-135.

Kocak, S. A., & Tuncel, G. (2015). The Effects of Digital Environmental Education on Environmentally Responsible Behavior. *Journal of Education and Practice*, 6(33), 1–9.

Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do People Act Environmentally and What are the Barriers to Pro-environmental Behavior? *Environmental Education Research*, 8(3), 239-260.

Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do People Act Environmentally and What Are the Barriers to Pro-environmental Behavior? *Environmental Education Research*, 8(3), 239–260.

Musser, L. M., & Diamond, K. E. (1999). The Children's Attitudes Toward the Environment Scale for Preschool Children. *Journal of Environmental Education*, 30(2), 23–30.

Neuhaus, S., Sommer, R., Pedrosa, T. D., Duarte, A. D., Araujo, O. V., & Silva, G. L. da. (2021). The Relationships Between Knowledge, Behavior and Environmental Education Among Families from Vulnerable Socioeconomic Conditions. *Research, Society and Development*, 10(10), 1-9.

Palmer, J. A. (1998). *Environmental Education in the 21st Century: Theory, Practice, Progress and Promise*. Routledge.

Pooley, J. A., & O'Connor, M. (2000). Environmental Education and Attitudes: Emotions and Beliefs are What is Needed. *Environment and Behavior*, 32(5), 711–723.

Roy, T. S. (2017). Environmental Education, as a Means of Developing the Sense of Responsibility and Solidarity Among the School Children. *International Journal of Applied Research*, 3(2), 227-231.

Sánchez-Llorens, S., Agulló-Torres, A., Del Campo-Gomis, F. J., & Martinez-Poveda, A. (2019). Environmental Consciousness Differences Between Primary and Secondary School Students. *Journal of Cleaner Production*, 227(3), 712-723.

Singh, P., Sahadev, S., Oates, C., & Alevizou, P. J. (2020). Pro-environmental Behavior in Families: A Reverse Socialization Perspective. *Journal of Business Research*, 115, 110-121.

Tucker, M. E., & Grim, J. (2001). Religion and Ecology: Can the Climate Change? *Daedalus*, 130(4), 1–23.

Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, 26(2), 13-23.

***Safira, M. E., N. D. Aliyah, S. K. Rodiyah, R. Nuraini, & S. N. Halizah. (2022). Fostering Pro-Environmental Learning through Family-Centered Education, *Journal of Social Science Studies*, 2(2), 243 – 248.**