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Ecotheological Parenting from an Islamic Perspective in Early Childhood

Dwi Hastuti[1]*, Nia Kurniasari[2], and Ahmad Safi'i[3]
[1,2,3] STPI Bina Insan Mulia Yogyakarta, Yogyakarta, Indonesia
*dwikuzuma900@gmail.com

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ABSTRACT

Environmental degradation in Indonesia keeps getting worse, yet the literature on Islamic parenting seldom connects Islamic teachings about nature to what parents do at home. This article builds a conceptual model of ecotheological parenting for children aged 0–8 years through a structured qualitative literature review. We searched Google Scholar, Scopus, and official institutional websites for Indonesian- and English-language sources published between 2016 and 2026, running the searches from 1 September to 15 October 2026. We screened sources in three stages against written inclusion and exclusion criteria and kept only those whose bibliographic identity we could verify. The final set contained 55 scholarly works (50 journal articles and 5 books or guidelines), two Islamic normative documents, and three contextual data sources. We coded the data thematically and compared designs, samples, and findings. Islamic sources offer a coherent theological foundation built on khalifah (stewardship), mizan (balance), and fitrah (innate disposition). Empirical studies of ecotheology in early childhood are few, school-based, small, and rarely measure outcomes. Psychological research links children's environmental behavior to parental behavior that children can observe. Most of its samples are non-Muslim, however, and longitudinal evidence supports the "golden age" argument in part. The proposed model has five components: ecological tawhid, the child's ecological fitrah, observable parental modeling, guided participation, and a Muslim ecological community. The model stays conceptual and needs empirical testing.

1. INTRODUCTION

Global temperatures keep rising. Surface temperature in 2011–2020 already stood 1.1°C above the 1850–1900 average, and the scenarios assessed by the IPCC (2023) project that warming will cross the 1.5°C threshold between 2021 and 2040. The eleven warmest years on record fall between 2015 and 2025 (World Meteorological Organization [WMO], 2026). Indonesia faces comparable pressure. From 1991 to 2020 the country lost 28.4 million hectares of forest to deforestation, and about a quarter of its primary forest has vanished since 1990 (Parker et al., 2024). The Indonesian Council of Ulama (Majelis Ulama Indonesia, MUI) issued Fatwa No. 86 of 2023, which declares any act that damages nature and worsens the climate crisis *haram* (Majelis Ulama Indonesia, 2023). State-led conservation still has limited reach. Mangunjaya and McKay (2012) proposed grassroots education that merges Islamic principles with traditional conservation practices. Early childhood covers the years from birth to 8 (National Association for the Education of Young Children [NAEYC], 2022). Ardoin and Bowers (2020) reviewed 66 studies of environmental education in early childhood. Results were mostly positive, but most of the studies examined formal programs led by teachers. School programs do not always change behavior. In a randomized

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experiment across seven primary schools in Spain, a nature-based program improved children's attitudes more than the comparison condition did, yet children's behavior shifted little (Collado, Rosa, & Corraliza, 2020). The evidence points to the home instead. Children whose mothers held stronger pro-environmental attitudes behaved more pro-environmentally at age 18 (Evans, Otto, & Kaiser, 2018). Among children aged 9–13, parental behavior predicted children's behavior, with a stronger effect in younger children (Collado, Evans, & Sorrel, 2017). Studies in China (Jia & Yu, 2021) and in Israel, South Korea, and the United States (Katz-Gerro, Greenspan, Handy, & Vered, 2020) also tie parents' behavior to children's behavior. Bandura's (1977) social learning theory and Vygotsky's (1978) guided participation lead us to expect that parental modeling and involvement at home carry real weight.

Islamic ecotheology has also grown in the education literature, but in a different setting. Hamdan (2026) reviewed 34 Scopus-indexed publications, and Sapitri, Hamami, and Muttakin (2025) reviewed 33 studies on integrating ecotheology into Islamic religious education. The primary studies concentrate on textbooks and higher education (Kadi & Tamam, 2025; Rahman, Ismail, Nurhayati, & Abu Nazar, 2025), curricula (Mustofa, Nurhasan, Farida, Zahra, & Nurseha, 2025; Rohman, Kurniawan, Syifauddin, Muhtamiroh, & Muthohar, 2024), ethics instruction (Nur, Nawas, & Guntur, 2026; Ramli, 2026), teacher professionalism (Munawir, Yani, & Syafi'i, 2026), and student character (Ilmiah, Hilmiyati, Ma'mur, Hasanah, & Rasyidi, 2026). Research on Islamic parenting has addressed character more often than ecology (Ahnan 'Azzam & Leany, 2024; Makruf & Puspitasari, 2021). At the family level, our search found one empirical study, an ethnography of 12 Muslim families in the Kajang community (Sulaeman et al., 2026), and one conceptual proposal, a Qur'anic eco-parenting framework for urban families drawn from Q. Luqman: 12–19 through library research (Derysmono, Faris, Afrini, & Syarifudin, 2026). Neither one uses tested evidence to explain what Muslim parents can do at home with children aged 0–8 years. In this article, ecotheological parenting means raising children by connecting Islamic teachings on the relationship between humans and nature with everyday environmentally friendly habits at home, in ways that suit how young children learn. We aim to develop a conceptual model of ecotheological parenting for children aged 0–8 years and pursue three questions. First, which theological foundations in Islamic sources can support environmentally friendly parenting? Second, what does the evidence show about how young children acquire environmental values and what role parents play in that process, including where findings diverge and where they reach their limits? Third, which model can we propose from the answers to the first two questions?

2. METHODS

2.1 Research Approach and Design

This study takes a qualitative approach and uses a structured narrative review (Snyder, 2019). We set the research questions in advance, followed written inclusion criteria for searching and selection, and assessed the strengths and weaknesses of each study before synthesis.

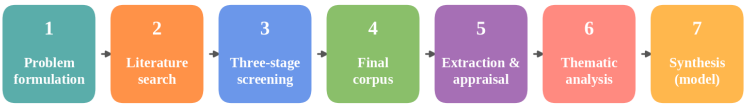


Figure 1. Steps of the structured narrative review

2.2 Sources, Search, Selection, and Analysis

Our sources fall into four categories. The first is Islamic normative texts: the Qur'an and the hadith in *Sahih al-Bukhari* and *Sahih Muslim*, which we read to identify the concepts of *khalifah*, balance, *fitrah*, the prohibition of excess, and exemplary conduct. The second is two contemporary

religious documents (MUI Fatwa No. 86 of 2023 and No. 41 of 2014). The third is the scholarly literature, and the fourth is climate data from two official institutions. We used Publish or Perish software to retrieve and export records from Google Scholar and Scopus, and we searched official institutional websites for climate documents and fatwas. The searches ran in Indonesian and English between 1 September and 15 October 2026. We read the Qur'an and the hadith collections as primary texts and did not search for them in databases. The search keywords joined three groups of concepts with AND: (1) "Islamic ecotheology" OR eco-theology OR "Islamic environmental ethics" OR "fiqh al-bi'ah" OR "ekoteologi Islam"; (2) parenting OR "parental role modeling" OR family OR "pola asuh" OR keteladanan; and (3) "early childhood" OR preschool OR "anak usia dini" OR "nature connectedness" OR "pro-environmental behavior" OR "environmental education". We also searched the reference lists of key reviews (Ardoin & Bowers, 2020; Hamdan, 2026; Sapitri et al., 2025). Selection moved through three stages: screening titles and abstracts, reading the full text or publisher page against the inclusion criteria, and verifying bibliographic identity. A source qualified when it met four conditions. Its topic had to be relevant (Islamic ecotheology, environmental ethics, or environmental education and nature experiences for children aged 0–8 years, including the role of the family). Its type had to allow an examination of its design (journal articles, reviews, academic books, official documents). Empirical work had to be published in 2016–2026, while classic theory and landmark studies had no date limit. It also had to be written in Indonesian or English. We excluded opinion pieces, blogs, commercial sites, unpublished theses, and sources whose identity we could not match, even when they were relevant. Table 1 lists these criteria. The final set contained 55 scholarly works (50 journal articles and 5 books or guidelines), two Islamic normative documents, and three contextual data sources.

Table 1. Inclusion and exclusion criteria

Aspect	Inclusion	Exclusion
Topic	Islamic ecotheology or environmental ethics; environmental education or nature experiences for children aged 0–8 years and their influence on pro-environmental attitudes or behavior; the family's role in transmitting values; concepts of child-rearing in Islam	Technical environmental topics with no educational, family, or values dimension
Source type	Journal articles with an examinable design; systematic and narrative reviews; academic books; official documents (IPCC, WMO, MUI) for context and norms	Opinion pieces, blogs, commercial sites; unpublished theses
Publication period	Empirical studies and reviews published 2016–2026; classic theoretical works and landmark studies with no date limit; contextual data 2023–2026	Empirical studies published before 2016, other than landmark studies
Language	Indonesian and English	Other languages
Verification	Title, authors, year, publication, and DOI or permanent link can be matched on the publisher’s or indexer’s page	Bibliographic identity cannot be verified

We recorded each source in an extraction matrix (design, sample, context, outcome measures, findings, limitations) and sorted the sources into four themes: theological foundations, how young children learn environmental values, the role of parents and family, and implementation in institutions or at home. We compared divergent findings by design, sample, and outcome measures. We appraised the evidence qualitatively and used no standard scoring scheme**.**

3. RESULTS AND DISCUSSION

RESULTS

3.1 Theological Foundations in Islamic Sources

Islamic sources supply four foundations that reinforce one another. First, human beings serve as *khalifah* on earth (Q. Al-Baqarah: 30; Q. Al-An'am: 165). Humans carry a trust (*amanah*) and answer for it; they do not own the earth and cannot exhaust it at will. Second, the earth was created in balance (*mizan*), and humans are commanded not to transgress it (Q. Ar-Rahman: 7–9). Third, the Qur'an forbids excess (Q. Al-A'raf: 31) and corruption on earth (Q. Al-A'raf: 56; Q. Ar-Rum: 41). Fourth, the Prophet Muhammad (peace be upon him) is an exemplar to follow (Q. Al-Ahzab: 21). An authentic report says that a Muslim who plants a tree or sows seed earns the reward of charity whenever a bird, a person, or an animal eats from it (*Sahih al-Bukhari* no. 2320; *Sahih Muslim* no. 1553). Hamdan (2026) sums up the Qur'anic ecological ethic as stewardship, *tawhid*, balance, and the prohibition of waste (*israf*). Syamsudin, Muslihan, and Rasyidi (2026) build an ecological paradigm for Islamic education from Surah Ar-Rum: 41 and Surah Al-An'am: 141. MUI Fatwa No. 86 of 2023 is a contemporary document that converts these foundations into a call to action. It declares any act that damages nature and worsens the climate crisis *haram*, and it requires everyone to contribute to mitigation and adaptation (Majelis Ulama Indonesia, 2023). MUI Fatwa No. 41 of 2014 declares littering *haram*, including the disposal of items that still have use, and makes recycling waste into useful goods a collective obligation (*wajib kifayah*) (Majelis Ulama Indonesia, 2014). A note on interpretation is needed here. The hadith tradition reads the hadith "every child is born upon the fitrah" (Sahih al-Bukhari no. 1385; Sahih Muslim no. 2658) as an innate inclination toward tawhid, and the hadith names parents as the ones who direct the child. Reading fitrah as closeness to nature is our own conceptual step, because the text does not say it. The step holds up only if psychological evidence supports it, and that evidence is thin. Barrable and Booth (2020a) describe nature connectedness as a strong predictor of pro-environmental attitudes and behavior, but researchers have mostly studied time in nature with cross-sectional designs (DeVille et al., 2021), and the one preschool study we found examined attitudes alone (Li et al., 2024). For this reason, we treat children's closeness to nature as a potential that still needs testing.

3.2 The Concept of Child-Rearing in Islamic Education

Discussions of education in Islam usually rely on three Arabic terms: tarbiyah (nurturing growth), ta'dib (instilling proper conduct), and ta'lim (imparting knowledge) (Halstead, 2004). The choice of term matters. Al-Attas (1980) judged tarbiyah inadequate and proposed ta'dib, the recognition of the proper place of everything in the order of creation. This difference helps our topic. Using tarbiyah puts the emphasis on caring for and nurturing the child, which suits early childhood parenting. Using ta'dib puts the emphasis on proper conduct toward fellow creatures and nature, which suits environmental ethics. We use both: tarbiyah for how parents raise children, and ta'dib for the content of the values they instill. The fitrah hadith also gives parents the responsibility to shape the child. The family acts as the primary agent of values education in early childhood.

3.3 Environmental Psychology and Early Childhood Education

NAEYC (2022) argues that care and education from birth to age 8 must fit the child's developmental stage, individual uniqueness, and sociocultural context. Social learning theory holds that people learn behavior from models they observe (Bandura, 1977). Vygotsky (1978) described development within the zone of proximal development, where adults give gradual support (*scaffolding*). Ardoin and Bowers (2020) reviewed 66 studies of early childhood environmental education published between 1995 and 2018. Most studies reported positive results for environmental literacy and for cognitive and social-emotional development, and nature-rich play-based approaches

stood out. Most programs, however, were formal and led by teachers, so evidence on parenting at home remains limited. Three studies followed experiences from childhood into adulthood. Wells and Lekies (2006) surveyed about 2,000 adults in the United States. They found that interaction with "wild" nature before age 11 formed a strong pathway to environmental attitudes and behavior in adulthood, while activities such as tending plants showed a weaker relationship. Evans et al. (2018) followed children from age 6 to 18. Maternal pro-environmental attitudes and time outdoors predicted behavior at age 18, maternal behavior showed only a marginal association, and children's own attitudes and behavior at age 6 predicted nothing. Otto, Evans, Moon, and Kaiser (2019) observed children aged 7 to 18 (N = 118). Attitudes and behavior began to form around age 7, behavior stabilized from age 10, and attitudes kept changing into young adulthood. Other studies show how parental influence may work. Katz-Gerro et al. (2020) analyzed 1,653 parent–child dyads in Israel, South Korea, and the United States. Children's environmental behavior correlated positively with their parents' behavior, and the association was weaker in South Korea. Jia and Yu (2021) studied 518 families in China. The relationship ran entirely through children's perception of parental actions and only slightly through communication and engagement. In other words, parental behavior may have little effect unless children can observe it, whether they hear it discussed, see it done, or take part. Jia, Sorgente, and Yu (2022) later validated a scale of parental participation in environmental activities with children. Collado et al. (2017) found that the behavior of parents and best friends predicted the behavior of children aged 9–13, and that parents influenced younger children more. Grønhøj and Thøgersen (2017) connected adolescents' motivation to family norms and an autonomy-supportive parenting style. Retrospective studies and one review of 23 studies, mostly from Western contexts, agree with these findings (Collado, Staats, & Sancho, 2019; Papa, Cuzzocrea, Cannavò, Liga, & Gugliandolo, 2025; Scopelliti, Barni, & Rinallo, 2022). Giancola et al. (2024) studied 229 families in Italy, each made up of a child aged 6–11, a father, and a mother. They found that children's moral judgment of harm to animals and plants shaped how strongly parents passed the behavior down. Studies of nature connectedness, most of them cross-sectional, point in the same direction. Among 1,463 parents in Finland, children aged 2–7 who visited nature with an adult at least once a week felt more connected to nature (Kokkonen et al., 2023). Among 2,357 parent–child dyads, parents' childhood nature experiences made them more connected to nature. That connectedness led them to arrange more nature experiences for their children, and those children were in turn more connected to nature (Tam, Ma, Lam, & Ng, 2026). Children aged 1–8 who attended nature kindergartens were more connected to nature, and parents' connectedness predicted children's connectedness (Barrable & Booth, 2020b). Among 673 parents of Chinese children aged 3–6, parents' positive thinking and psychological flexibility were associated with children's connectedness through family functioning (Ma, Yan, Yang, Yuan, & Xiao, 2026). Among 1,000 urban residents in Australia, both childhood and current nature experiences predicted nature connectedness (Cleary, Fielding, Murray, & Roiko, 2020).

3.4 Islamic Education and Muslim Families in Indonesia

Mangunjaya and McKay (2012) mapped Indonesian initiatives grounded in Islamic teachings: religious leaders, environmentally friendly Islamic boarding schools (*pesantren*), nongovernmental organizations, and policy. Syafaruddin (2025) proposed a holistic approach. Safiyah (2025) aligned Islamic teachings with Sustainable Development Goal priorities in Islamic education in Australia and named the curriculum, teacher readiness, and policy alignment as obstacles. At the early childhood level, Qamariah et al. (2025) studied one Islamic kindergarten in Samarinda (17 children aged 5–6 years). Teachers wove Islamic values into prayer, stories, modeling, habituation, and outdoor activities. Puspita, Murtopo, and Dewi (2024) ran a case study at a kindergarten in Palembang and reported that gardening and waste management raised children's environmental awareness. At the family level, Sulaeman et al. (2026) lived for two weeks with 12 Muslim families

in Kajang Luar. In those families, parents instilled tawhid, amanah, and customary (adat) ecological ethics through habituation, modeling, ritual, and children's involvement. Derysmono et al. (2026) proposed Qur'anic eco-parenting for urban families, the ECO-HIKMAH model, which links Q. Luqman: 12–19 with child protection, digital literacy, and environmental ethics. The model rests on library research and has not been tested empirically.

3.5 Five Domains of Parental Green-Living Practices

We constructed the five domains in Table 2 ourselves from the Introduction and Sections 3.1, 3.3, and 3.4.

Table 2. Five domains of parental green-living practices and their basis

Domain	Examples of activities with children	Normative and evidentiary basis
Waste management	Sorting organic and non-organic waste at home; making toys from used materials; visiting a waste bank (*bank sampah*)	Q. Ar-Rum: 41; MUI Fatwa No. 86 of 2023; case study (Puspita et al., 2024)
Saving energy and water	Turning off lights and taps when not in use; taking only as much food as needed	Q. Al-A'raf: 31 (prohibition of *israf*)
Halal and *tayyib* food	Buying local vegetables at the market; finishing meals; preparing seasonal fruit	Q. Al-Baqarah: 168; Q. Al-A'raf: 31
Planting and caring for plants	Watering, tending, and harvesting plants in pots or in the yard	*Sahih al-Bukhari* no. 2320 and *Sahih Muslim* no. 1553; case study (Puspita et al., 2024); domesticated nature has a positive but weaker effect (Wells & Lekies, 2006)
Outdoor play and active movement	Walking to the mosque; playing in safe parks, rice fields, rivers, or beaches	"Wild" nature before age 11 (Wells & Lekies, 2006); time outdoors (Evans et al., 2018; DeVille et al., 2021)

3.6 An Ecotheological Parenting Model for Early Childhood

We built a model with five components from these sources (Table 3). Each component carries one testable proposition.

Table 3. Five components of the ecotheological parenting model for early childhood and their testable propositions

Component	Content and mechanism	Basis	Testable proposition
Ecological *tawhid*	Nature is understood as a sign and a trust; caring for the environment is understood as worship, so that everyday practices acquire religious meaning	Nasr (1996); Hamdan (2026); Rahman et al. (2025); Q. Al-Baqarah: 30; Q. Ar-Rahman: 7–9	P1: Children from families that link environmental practices to the meaning of worship show more stable commitment than children from families that practice without that meaning
Ecological *fitrah* of the child	The child's early closeness to nature is regarded as a potential nurtured by direct contact	*Sahih al-Bukhari* no. 1385; Ahnan 'Azzam & Leany (2024); Li et al. (2024); DeVille et al. (2021); Kokkonen et al. (2023)	P2: The amount and variety of free contact with nature in early childhood predict pro-environmental behavior up to primary school age, controlling for parental education

Component	Content and mechanism	Basis	Testable proposition
Observable parental modeling	Parents' attitudes and behavior that the child can see, hear discussed, or take part in	Bandura (1977); Evans et al. (2018); Collado et al. (2017); Jia & Yu (2021); Katz-Gerro et al. (2020); Giancola et al. (2024); Q. Al-Ahzab: 21	P3: Parents' pro-environmental attitudes predict children's behavior more strongly than the observed frequency of parental behavior
Guided participation	The child takes part in tasks with parental help; activities are repeated, enjoyable, and play-based	Vygotsky (1978); Barrable & Booth (2020a); Ardoin & Bowers (2020); Collado et al. (2020)	P4: Activities that emphasize play and joy increase children's closeness to nature more than activities focused on delivering religious texts
Islamic ecological community	Mosques, Qur'an learning centers (Taman Pendidikan Al-Qur'an, TPQ), early childhood education institutions (PAUD), religious study groups (*majelis taklim*), and local environmental services that give meaning to practices at home	Mangunjaya & McKay (2012); Qamariah et al. (2025); Ramli (2026); Al Hadi (2025)	P5: Household waste-sorting practices last longer in families living where waste services function

We see the five components as a chain that reinforces itself. The chain remains a working hypothesis, since no study in our set of sources tests all five components together.

DISCUSSION

Divergent Findings and Evidence Gaps

The popular version of the "golden age" argument holds that attitudes instilled early last for life. Longitudinal evidence supports the strong version in part. Children's attitudes and behavior at age 6 did not predict behavior at age 18, while maternal attitudes and time outdoors did (Evans et al., 2018). That study was small and used measures adapted for six-year-olds, though, so the null result may reflect measurement problems as much as child development. Attitudes and behavior begin to form around age 7 and keep changing into young adulthood (Otto et al., 2019), while Wells and Lekies (2006) relied on respondents' recall of the past. People usually understand modeling as parental behavior that children can imitate, but the evidence points to a narrower condition. In Jia and Yu (2021), the relationship between parents' and children's behavior ran entirely through parental actions that children perceived and only slightly through communication and engagement. Among 196 preschool children in Italy, nature connectedness also correlated only marginally with parents' pro-environmental behavior (Pirchio, Costa, & Ferri, 2025). Influence can also flow from children to parents (Fabel et al., 2024), so readers should not take P3 as one-way transmission. We likewise treat the role of meaning, for example through *tawhid* and *amanah*, as a hypothesis, in line with Sulaeman et al. (2026). Researchers have studied nature-rich play-based approaches most heavily (Ardoin & Bowers, 2020). We found no study that compares play-based religious instruction with text-based instruction, so P4 remains a proposition. Environmental psychology offers firmer ground than ecotheology in early childhood, where the evidence is almost entirely descriptive or conceptual. The Samarinda study observed a single school and used no outcome measures, and the authors of the Kajang study state that they do not intend their findings for broad generalization. We therefore cannot yet answer the question "does ecotheological parenting work?" The studies have answered a different one: "how do families bring these values into practice?" Religiosity and public policy influence

Muslims' green behavior (Al Hadi, 2025). In a cross-sectional study of 429 university students, Islamic religiosity moderated the relationship between environmental moral education and pro-environmental behavior (Begum, Jingwei, Haider, Ajmal, Khan, & Han, 2021). One review of Muslim engagement with climate change found that the research is mostly theoretical and normative, so it remains unclear how far Islamic environmentalism changes everyday practice (Koehrsen, 2021). Most quantitative evidence also comes from non-Muslim samples in the United States, Europe, and China. Indonesia has extended families, dense settlements, and institutions such as TPQ and mosques, and researchers must test whether the findings apply there before anyone assumes they do.

Challenges, Strategies, and Implications

We see four challenges. First, urban life can distance children from nature (DeVille et al., 2021). Second, without validated indicators, judging whether a program works is hard (Sapitri et al., 2025). Third, home and institutions may send inconsistent messages. Fourth, environmental services such as waste collection are spread unevenly. The last two come from our own observations and do not appear as findings in the reviewed sources. We propose three untested steps. PAUD, TPQ, and mosques can prepare simple guides for parents on attitudes and meaning. Families can schedule free contact with nature each week. Mosques can partner with waste banks

4. CONCLUSION

This review answers its three questions with qualifications. Islamic sources give a coherent theological foundation (*khalifah*, *mizan*, *fitrah*). Psychological evidence backs parental influence and contact with nature but does not back the strong "golden age" claim. The model joins the two in five components, each with one testable proposition. Evidence that the model works for Muslim children aged 0–8 years remains thin and mostly descriptive. The review makes a theoretical contribution in three parts. First, it moves the focus of Islamic ecotheology from institutions, curricula, and fatwas to the household, and it names the mechanisms that turn norms into practice: religious meaning, parental modeling, guided participation, and community support. Second, it merges normative Islamic concepts with social learning theory and guided participation into a single model whose propositions can be falsified, which sets it apart from conceptual proposals such as Qur'anic eco-parenting (Derysmono et al., 2026). Third, it qualifies two assumptions common in this literature: that early childhood is a "golden age" whose opportunity exists only then, and that gardening alone represents children's contact with nature. The model remains conceptual for three reasons: the reviewed literature is limited, we did not design the search to be exhaustive, and most quantitative data come from outside Indonesia and from non-Muslim samples. The next step is to develop validated indicators and instruments, then test these propositions in prospective cohort studies of Muslim families in Indonesia

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