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Community Branding Framework for Malaysia's UNESCO Biosphere Reserves

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ABSTRACT

This study proposes a community branding framework for Malaysia's UNESCO biosphere reserves. The proposal is motivated by the limited implementation of structured branding strategies across existing reserves. It theorises a community branding framework aimed at strengthening local identity, fostering conservation stewardship, and promoting sustainable livelihoods. The framework was developed through a structured review of recent literature on biosphere reserves, branding, and community-based economic development, synthesising key concepts and themes. Central to the proposed model are stakeholder perceptions, core values, and brand identity elements aligned with the principles of UNESCO's Man and Biosphere (MAB). The human-biosphere connection is introduced as a pivotal variable in shaping community branding, contributing to theoretical advancement in place and community branding in the context of biosphere reserves. The model is expected to empower local communities as active co-creators, enhance socioeconomic resilience, and reinforce conservation efforts. Embedding a coherent branding framework within biosphere reserve management will support the dual goals of ecological preservation and inclusive economic development, thus supporting Goals 1 and 4 of the National Policy on Biological Diversity 2022-2023, which emphasises stakeholder empowerment in biodiversity conservation and equitable access to resources.

Keywords: innovative, sustainable, Man and Biosphere, sustainable development, value-belief-norm theory

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1.0 Introduction

Malaysia is home to four biosphere reserves: Tasik Chini in Pahang, the Crocker Range in Sabah, the Penang Hill Biosphere Reserve (PHBR), and the Kinabatangan River in Sabah. These sites have been inscribed in the UNESCO World Network of Biosphere Reserves (WNBR), recognising Malaysia's rich biodiversity and global importance. The inscriptions, made under the Man and Biosphere (MAB) programme, reflect Malaysia's commitment to balancing conservation with sustainable development. Biosphere reserves play a key role in national and bioregional planning, with a strong focus on sustainable use of natural resources (Ahmad et al., 2020). Of particular concern is how these reserves can help local communities thrive by leveraging natural and cultural resources for innovative and sustainable economic activities. Being part of the WNBR also means that Malaysia's biospheres are

expected to uphold core principles, such as harmonising biodiversity protection with human development and promoting integration between people and nature (Job et al., 2020). Failure to uphold these principles could result in the loss of the UNESCO status.

To support community development, UNESCO advocates branding as a strategy for strengthening local businesses and livelihoods. However, Malaysia's biosphere reserves have not widely adopted this branding. Weak community development can lead to unsustainable livelihoods and potentially jeopardise a site's UNESCO designation. This study argues that branding can serve as an important tool in fostering the human–biosphere connection and supporting sustainable economic development.

The UNESCO biosphere reserve designation requires a careful balance between improving community livelihoods and protecting ecosystems (UNESCO MAB, 2015). The case of Tasik Chini serves as a warning, whereby unregulated resource extraction has proven detrimental to both nature and human livelihoods (Hadi Azmi, 2020). This example highlights the importance of holistic, coordinated interventions and strong political will to align development with conservation efforts. Communities and stakeholders must have a strong understanding of the value of the biosphere and a sense of ownership of its protection.

Job et al. (2020) highlighted the growing importance of considering human dimensions in biosphere reserve management, noting that sustainable economic development is at the core of the conservation strategy. In Malaysia, biosphere reserves have become important sites for biodiversity research (Chik & Mustaffa, 2022; Razak et al., 2023; Yoh et al., 2020), forest ecosystem studies (Ioki et al., 2019; Marimuthu et al., 2020), and environmental assessments (Aziman et al., 2021; Hamdan et al., 2019). While there is growing interest in social aspects such as community participation (Jaafar et al., 2021; Suleiman et al., 2022), socioeconomic development (Sharip et al., 2018), and tourism (Haris et al., 2023; Salman et al., 2024), the role of branding in these areas has received little attention. Branding can help shape perceptions, build a shared sense of identity, and embed local values into governance practices (Aaker, 2023; Govers, 2020; Keller, 2021).

We argue that limited community involvement in conservation is often linked to a lack of awareness of the ecological importance of biosphere reserves and the economic benefits of sustainable practice. When benefits are not clearly communicated, local communities may feel disconnected or unmotivated to engage as stewards. Furthermore, overlooking cultural traditions in conservation narratives can weaken local support. Therefore, it is crucial to reposition communities as active participants rather than passive recipients. Branding offers a promising platform for fostering pride, inspiring collective action, and enhancing the visibility of community-based products and experiences (Vítališová et al., 2022).

The Lima Action Plan (UNESCO, n.d.) calls for societal transformation, offering a timely opportunity for Malaysia's biosphere reserves to contribute to the development of resilient and thriving communities. However, progress has been uneven. For example, less than 1% of the Orang Asli at Tasik Chini participate in entrepreneurship despite producing high-quality traditional craft products (Bakar et al., 2020). Lack of marketing knowledge was identified as a barrier. In contrast, more proactive initiatives at the Crocker Range Biosphere Reserve, such as eco-labelling efforts, have shown some success in revitalising the local community's economy.

Unlike other UNESCO designations, such as World Heritage Sites, Malaysia's biosphere reserves have not fully leveraged the brand equity associated with the "UNESCO" label, which can improve visibility and foster public support (Hanafiah et al., 2021). Community branding can help integrate local traditions, indigenous knowledge, and scientific insights to ensure cultural and ecological relevance. For example, by positioning PHBR as an umbrella brand with sub-brands for community products and services, the economic resilience of the local community can be strengthened. Therefore, this study proposes a community branding model for biosphere reserves that reflects human-biosphere relationships and supports environmental conservation and sustainable local development.

2.0 Literature Review

Biosphere reserves under UNESCO's WBNR, within the Man and Biosphere Programme, are designed to integrate three primary functions: conservation of biodiversity, promotion of sustainable socio-economic development, and support logistic functions through research and stakeholder education (Ahmad et al., 2020). These reserves serve as learning laboratories for sustainable development and platforms for testing interdisciplinary approaches to understanding socio-ecological linkages in managing changes and conflicts (UNESCO, n.d.). Additionally, biosphere reserves serve as building blocks for bioregional planning, supporting regional and national spatial development frameworks that emphasise the sustainable utilisation of resources (Ahmad et al., 2020).

As of January 2026, there are 784 biosphere reserves in the UNESCO WBNR across 142 countries (UNESCO, n.d.). These sites are expected to contribute meaningfully to achieving the United Nations Sustainable Development Goals 2030 (Ahmad et al., 2020). Malaysia has shown a strong commitment to the MAB programme, with four biosphere reserves already designated. This commitment is further underscored by the launch of the National Policy on Biological Diversity on 24 October 2023 by the Ministry of Natural Resources, Environment, and Climate Change (National Policy on Biological Diversity 2022-2030, 2022). Goal Four of the policy specifically aims to implement an access and benefit-sharing framework, ensuring the equitable sharing of benefits derived from biodiversity by 2030 (National Policy on Biological Diversity 2022-2030, 2022).

Malaysia's four UNESCO-designated biosphere reserves, namely, Tasik Chini, Crocker Range, Kinabatangan River, and Penang Hill, represent a diversity of ecological landscapes. These reserves play a vital role in harmonising biodiversity conservation with sustainable community development. The Tasik Chini biosphere reserve, designated in 2009, covers approximately 6,951 hectares and includes lake catchment, feeder rivers, and adjacent forested hills (UNESCO, n.d.). The reserve features a network of 12 interconnected lakes, known locally as *laut*, which are sustained year-round by the Chini River system (UNESCO, n.d.). This site is home to various endemic species and lowland habitats that are increasingly rare in Peninsular Malaysia (UNESCO, n.d.). The Indigenous Jakun (Orang Asli) community depends on the lake for their livelihood and actively participates in ecotourism and resource management (UNESCO, n.d.). Additionally, the site hosts the UKM Tasik Chini Research Centre which conducts research on ecosystem health, ecohydrology, pollution monitoring, and integrated, water resource management (UNESCO, n.d.).

The Crocker Range Biosphere Reserve is the second biosphere reserve inscribed under UNESCO's MAB programme. Designated in 2014, the biosphere reserve encompasses 350,584 hectares of terrestrial ecosystems and natural landscapes located south of Mount Kinabalu World Heritage Site (UNESCO, n.d.). The reserve ranges from 6 to 2,076 m above sea level. Its core zone (144,492 ha) includes the Crocker Range Park and three forest reserves, surrounded by a buffer zone (60,313 ha) and a transition area (145,779 ha) (UNESCO, n.d.). The reserve serves as a vital water catchment for surrounding towns, agriculture, industry, and local communities while supporting rich biodiversity and numerous, endangered species.

The third biosphere reserve under the MAB programme is the Penang Hill Biosphere Reserve, which was inscribed in 2021 (Penang2030, 2021). It encompasses 12,481 hectares of terrestrial and marine tropical ecosystems (UNESCO, n.d.). The reserve includes key areas such as Penang Hill, Penang National Park, Penang Botanical Gardens, Teluk Bahang Dam, Ayer Itam Dam, six permanent forest reserves, and multiple water catchment areas (UNESCO, n.d.). The PHBR integrates natural landscapes with cultural and historical assets, offering potential for conservation, tourism, and community development.

The most recent addition, the Kinabatangan River Biosphere Reserve, was inscribed in September 2025 (UNESCO, n.d.). Covering an area of 413,867 hectares, the reserve encompasses one of Malaysia's longest waterways and integrates forests, wetlands, and community landscapes into a dynamic conservation corridor. The reserve is positioned as a model for balancing conservation and community welfare.

Both the federal and state governments of Malaysia have reaffirmed their commitment to preserving the ecological integrity of these reserves while supporting innovative, culturally appropriate, and environmentally sustainable economic activities.

2.1 Branding

Branding is generally understood as the process of building awareness and shaping meaning by offering distinctive and consistent value (Batra, 2019; Keller, 2021). A brand serves multiple roles, such as conveying personality, influencing self-image, and shaping attitudes, while also signalling value and credibility (Keller, 2021). Branding is increasingly regarded as a strategic managerial resource (Mijan et al., 2020). Branding can be especially beneficial for promoting local community products through the development of integrated themes and coordinated marketing strategies (Vitálišová et al., 2022). Aaker (2023) observed that branding efforts are often overlooked in the context of social causes and non-profit programmes; thus, in the non-profit world, branding is often “underfunded, understaffed, underappreciated and inadequately understood” (p.187). This study aims to highlight the critical role of branding for biosphere reserves, not only as a marketing tool but also as a means of enhancing livelihood and strengthening community identity.

Unlike the UNESCO WBNR, branding has been studied more extensively in relation to UNESCO World Heritage Sites (Santamarina, 2023). Within this body of literature, branding is typically associated with efforts to position sites as tourist destinations (Kusumaningrum, 2021; Wang & Yuan, 2020), promote community participation (Hanafiah et al., 2021) and respond to issues related to climate change and sustainability (Chhabra, 2019; Lafrenz Samuels & Platts, 2020). While these studies underscore the value of branding in heritage conservation contexts, the branding of UNESCO biosphere reserves should be approached through a different lens, one that is more closely related to biodiversity and the human-biosphere relationship.

Branding in the context of biosphere reserves should draw attention not only to its economic benefits but also to its potential to cultivate a sense of stewardship for biodiversity. In a review of branding practices at World Heritage Sites across Asia, Widodo (2023) cautioned that policy and planning often prioritise investment and tourism agendas over community well-being. His study highlighted issues such as commodification, reduced authenticity, gentrification, and declining ecological carrying capacity, all of which threaten both tangible and intangible heritages. Similarly, Liu et al. (2022) found that WHS designation may adversely affect community livelihoods because of the application of Western-based sustainable livelihood frameworks that may not align with local realities.

Considering these concerns, this study proposes a branding model for biosphere reserves that is rooted in biodiversity conservation and sustainable livelihoods. The model emphasises the significance of local communities’ relationships with nature, incorporating their cultural traditions, everyday practices, economic practices and activities as core branding elements. Thus, the model offers a more inclusive and culturally grounded approach to community-based branding in the context of biosphere reserves.

2.2 From Place Branding to Community Branding

In general, our work contributes to the place branding literature by viewing biosphere reserves as both space and place (Dupre, 2019; Kavaratzis & Hatch, 2021; Nursanty, 2021). A common thread in place branding research is the promotion of places as tourist destinations that eventually translates into the improvement of the livelihood of the local communities (Dupre, 2019). However, place branding is not necessarily confined to tourism. Increasingly, research on place branding has turned to community-based issues, employing branding frameworks as a lens and tool to understand aspects such as community-perceived identities and realities, relationships with the environment, place objects (for example, heritage artefacts and infrastructure), and their representations, as well as the creation or enhancement of place values to communities (Daldanise, 2020; Nursanty, 2021; Willer, 2022). Central to this stream of place branding research is the development and management of brand identities and leveraging the identity to encourage positive attitudes and behaviours (Acuti et al., 2019) and improve competitiveness, such as in attracting talent (Barkun et al., 2021) and investment (Aali et al., 2019). Therefore, we approach branding from a community-based branding perspective that utilises brand

identity as the central theme and coordination tool for generating ideas for action. Govers (2020) documented imaginative initiatives such as policies, infrastructure, projects, and investments, which he attributed to place branding.

Community branding entails a collaborative decision-making process involving key stakeholders. Saraniemi and Kompula's (2019) analytical framework, which outlines the factors and actions contributing to destination brand identity development, plays a central role in this study. Their work, situated at the community level, emphasises that destination branding is not merely a strategic construct imposed from the top but one that emerges through social interactions among stakeholders, including local communities, institutions and intermediaries. This aligns well with the biosphere reserve context, where branding efforts must reflect the shared values and meanings co-created across stakeholder groups. In our model, Saraniemi and Kompula's framework supports the understanding of community-level dynamics, such as how place identity and values are negotiated, reinforced or challenged through interactions.

2.3 Human-Biosphere Connection

In line with the goals of the Man and Biosphere programme, our proposed branding framework is grounded in the idea of strengthening the relationship between people and the biosphere. At the heart of the framework are the fundamental branding principles of clarifying the brand's vision, meaning, and values (Aaker, 2023) applied in the context of biosphere reserves. Here, the brand is not just about visibility or identity; it reflects a deep-rooted connection between the community and the natural landscape in which they live.

Drawing from our earlier work (Jaafar et al., 2021), the framework assumes that when people feel a strong connection with their biosphere, they are more likely to engage in activities that contribute to its conservation. This includes sustainable practices, participation in edutourism, and active involvement in local initiatives that support biodiversity and community development. In this sense, the brand becomes a platform to communicate shared values and aspirations, helping inspire stewardship and pride among the local population.

To identify and express these shared values, we apply Kapferer's (2009) brand identity prism, a tool that is widely used in place branding. The prism identifies six key dimensions: physique, personality, culture, self-image, reflection and relationships. These elements help structure how the biosphere reserve is perceived and experienced by local stakeholders and visitors. When these identity dimensions are thoughtfully developed and aligned, they form a cohesive brand identity that is attractive, authentic, and meaningful to consumers.

In this context, the biosphere reserve is framed not merely as a protected site but as a living space that reflects the values, traditions, and aspirations of its people. The branding process, therefore, does more than shape perception; it facilitates participation, builds a sense of belonging, and nurtures a collective sense of responsibility for the reserve's future.

3.0 Methods

This study adopts a structured conceptual review framework to identify, select, and synthesise relevant literature to propose a community branding framework for Malaysia's biosphere reserves. The aim is to integrate relevant academic perspectives to construct a model that is theoretically and contextually sound. The following procedures were applied to enhance methodological rigour.

3.1 Search strategy

A literature search was conducted between June and November 2024 using the Web of Science, Scopus, and Google Scholar databases to ensure comprehensive coverage of both high-impact and regionally relevant research. The following keyword combinations were used: "biosphere reserve" AND "UNESCO;" Man and Biosphere" OR "MAB;" community branding" OR "place branding" OR "destination branding;" sustainable livelihoods" AND "community development;" human-biosphere" OR "ecological stewardship." Boolean operators and search filters were used to limit the results to

English-language publications between 2000 and 2024, focusing on peer-reviewed journal articles, scholarly books, conference proceedings, and key institutional reports (e.g. UNESCO documents, national biodiversity policy papers).

3.2 Inclusion and Exclusion Criteria

To ensure relevance and conceptual clarity, the following inclusion criteria were applied: 1) studies that discuss biosphere reserves, particularly under the UNESCO MAB Programme; 2) research focused on branding, community development, or place identity within environmental or conservation contexts; and 3) conceptual or empirical studies related to sustainable livelihoods, local participation, and branding in nonprofit or public-sector development. Studies were excluded if: 1) they focused solely on commercial or corporate branding without community or environmental relevance; 2) they lacked theoretical or practical insights applicable to biosphere reserves; or 3) they were not available in full text.

3.3 Scope of Literature Reviewed

Ninety-four sources were initially retrieved, and after screening the titles, abstracts, and full texts, forty-three were selected for the final analysis. The literature covered four key domains: UNESCO biosphere reserve functions and policy frameworks; branding theory encompassing brand identity and community branding; theoretical perspectives on the human-biosphere connection; and community development and sustainable livelihoods in protected areas.

3.4 Analytical and Synthesis Process

The selected literature was analysed using a thematic synthesis approach. First, the studies were categorised by domains. Recurring themes, constructs, and frameworks were identified. The synthesis involved: 1) mapping the conceptual intersections of human-biosphere and branding theory; 2) integrating the human-biosphere connection using VBN theory; and 3) identifying key brand identity dimensions.

The synthesised insights were then used to construct the proposed Community Branding framework, which is structured around foundational values, collective identities, and critical community brand identity dimensions. The conceptual framework is designed to reflect the values and roles of stakeholders and the potential branding to revitalise local livelihoods while reinforcing conservation values.

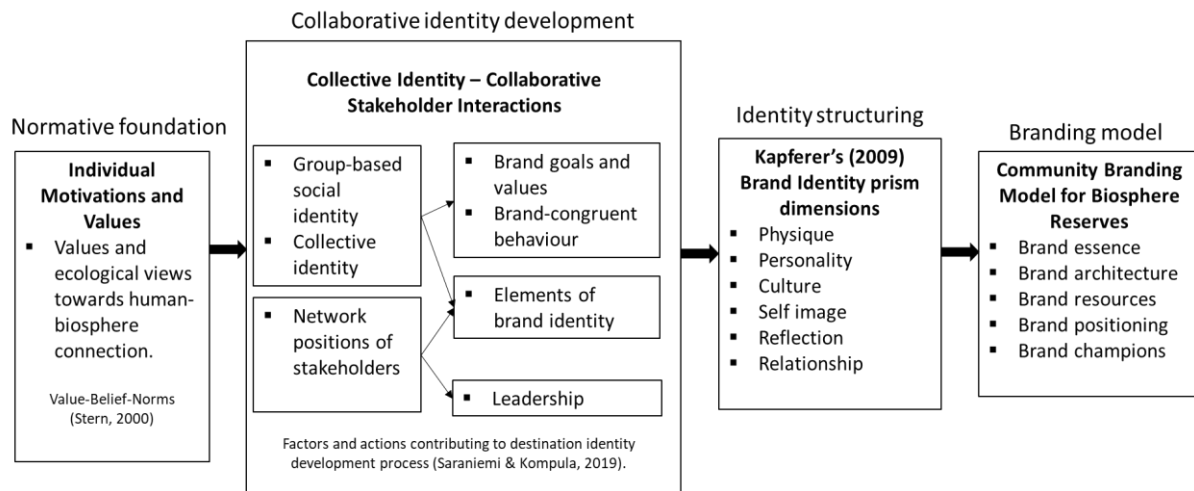
This study did not include field data collection, as it is a conceptual paper. Instead, the strength of this study lies in its ability to integrate diverse streams of literature into a coherent framework that aligns brand with the human–biosphere connection. The limitations of this approach include dependency on available published literature and the possible omission of emerging works.

4.0 Results

The Community Branding framework proposed in this study is presented in Figure 1. It integrates multiple theoretical perspectives, namely UNESCO’s Man and Biosphere (MAB) principles, the values-belief-norm (VBN) theory, and destination and brand identity frameworks, into a coherent model of community branding in biosphere reserves. The framework explains how individual-level human-biosphere connections are translated into community-level brand identity and, ultimately, into branding strategies that support sustainable livelihoods.

Figure 1

Conceptualisation of Community Branding Model for Biosphere Reserve



At the individual level, the framework draws on value-belief-norm (VBN) theory (Stern, 2000) to explain how people's values and ecological worldviews shape their sense of responsibility for the biosphere. VBN provides a theoretical basis for understanding why individuals, such as residents, community leaders, and small producers, develop pro-environmental orientations and are willing to engage in conservation-related and livelihood activities. These individual values form foundational inputs for the branding process.

These individual orientations do not operate in isolation. Individuals are embedded within communities, and their values are expressed, negotiated, and reinforced through social interaction. At the community level, the framework adopts Saraniemi and Kompula's (2019) model of destination-brand-identity development. Saraniemi and Kompula's framework conceptualises brand identity as an outcome of collaborative processes among stakeholders rather than as a fixed, managerially imposed construct. This perspective is particularly relevant for biosphere reserves, where place meanings emerge through ongoing interactions among local communities, authorities, scientists, NGOs, and private sector actors. In this study, Saraniemi and Kompula's framework explains how individual beliefs and values, shaped by human-biosphere relationships, are collectively translated into shared meanings, roles, and place identity.

To structure these shared meanings into a coherent and communicable identity, the framework applies Kapferer's (2009) brand identity prism to the data. The six dimensions in the prism, namely physique, personality, culture, self-image, reflection, and relationship, are used to organise the values and meanings that emerge from community interaction into clear brand identity elements that serve to inform the eventual community branding model. The framework provides conceptual clarity and ensures that the biosphere reserve's identity is articulated in a way that is both internally meaningful and externally recognisable.

5.0 Discussion

Throughout the framework, UNESCO's MAB principles serve as the overarching normative reference. They define the boundaries within which identity formation and branding must occur, ensuring alignment with conservation objectives, sustainable development goals, and inclusive governance. Therefore, MAB principles anchor the framework at the institutional level, linking local branding efforts to global sustainability commitments.

Insights from these theoretical layers are integrated to develop a Community Branding Model comprising key brand pillars, such as brand essence, brand positioning, brand architecture, and brand

champions. These elements not only represent the identity of the reserve but also activate stewardship, strengthen community participation, and support sustainable livelihood.

By explicitly linking individual-level values (VBN), community-level identity formation, and structured brand articulation, this framework coherently bridges different levels of analysis. This study responds to calls to focus on the human dimensions of biosphere reserves (Job et al., 2020) and offers an approach to community branding that supports both conservation and economic resilience.

The conceptual framework is anticipated to provide insights into strengthening governance in Malaysia's biosphere reserves, directly supporting Goal 4 of the National Policy on Biological Diversity 2022-2030 on equitable access and benefit sharing, as well as Goal 1, which emphasises empowering and mobilising stakeholders for biodiversity conservation. The conceptual framework presents branding as a strategic managerial resource that will pave the way for a deeper understanding of community-perceived identities, fostering stronger connections with the environment and enhancing place values to encourage positive behaviours and long-term resilience (Aali et al., 2019; Barkun et al., 2021).

6.0 Conclusion

The proposed community branding framework aims to foster stewardship and revitalise local livelihoods by encouraging entrepreneurship and developing such enterprises. By integrating the human-biosphere connection, the model emphasises active community participation and inclusivity, turning local communities from passive beneficiaries into active co-creators and stewards of the biosphere. This shift can increase community pride, strengthen cultural identity, and create sustainable economic opportunities rooted in local traditions and biodiversity.

Moreover, this study advances theoretical understanding by integrating the human-biosphere connection as a crucial variable within community and place branding frameworks. This study demonstrates how community values, ecological worldviews, and value-belief-norm (VBN) theory collectively shape brand-related outcomes such as brand engagement, trust, and loyalty in the context of conservation. By aligning branding efforts with ecological and cultural priorities, this study presents an approach to balancing conservation goals with community-driven economic development.

In the Malaysian context, this conceptual framework provides nuanced insights into the core brand identities associated with biosphere reserves from the perspectives of local communities and stakeholders. It highlights how these identities can mobilise community participation, reinforce pro-environmental behaviour, and support broader sustainable development goals. Ultimately, the community branding framework proposed in this study serves as a strategic tool for balancing conservation imperatives with economic growth, thereby contributing to the resilience, sustainability, and vitality of Malaysia's biosphere reserves.

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Conflict of Interest

The authors have declared that no competing interests exist.

Author Contribution Statement

SMN: Conceptualisation, Review, Methodology, Writing – Original Draft Preparation; MJ: Revision and validation; NAR: Revision and validation.

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Ethics Statement

This research did not require IRB approval because it did not involve human participants.

Data Access Statement:

Research data supporting this publication are available upon request to the corresponding author.

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