Received: 24 April 2020 | Revised: 2 November 2020 | Accepted: 3 November 2020

DOI: 10.1002/hpja.439

SPECIAL ISSUE ARTICLE

Health Promotion Journal of Australia | Australian Health Promotion Association | WILEY

"We are sacred": An intercultural and multilingual approach to understanding reproductive health literacy for Yolŋu girls and women in remote Northern Australia

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Funding Information
This project was funded through the Aboriginal Benefits Account: 4-1F39XNR.

Editor: James Smith

Abstract

Issue Addressed: Indigenous women continue to experience reproductive health inequities. While enhancing health literacy is suggested as an approach for reducing disparities and increasing equity, there is a paucity of literature exploring Indigenous women's conceptualisation of reproductive health literacy. This paper demonstrates one approach to developing a reproductive health literacy framework for Yolŋu (Indigenous) women in a remote Northern Australian setting.

Methods: Using a decolonising participatory action research approach, a senior Yolŋu researcher led interviews, group story sharing sessions, historic site visits and on-country cultural demonstration sessions with participants on reproductive health topics. Data were collected in the participants' first language(s) and occasionally in English. Data were digitally recorded on camera, Dictaphone, video and in handwritten notes. The senior Yolŋu researcher worked with a Yolŋu interpreter to translate the data into English. Data underwent a progressive verbal relational content analysis to map and build a framework.

Results: A reproductive health literacy framework that privileges Yolŋu reproductive knowledge, practices and language was successfully co-designed. The framework was embedded in the metaphor of Pandanus mat and uses key cultural domains of Yolŋu identity as a connecting foundation to women's reproductive knowledges and ceremonial milestones.

Conclusions: The framework offers a culturally responsive and multilingual approach to sensitively discuss and operationalise reproductive health literacy. The framework empowers Yolŋu cultural identities; accounts for both Yolŋu and Western medical knowledges; and honours participants' requests for "Two-Way" learning.

So What?: This research demonstrates an innovative approach to co-designing a culturally responsive framework for reproductive health literacy in a complex and multilingual context. Such approaches offer a promising way forward for empowering Indigenous women to define reproductive health literacy and contribute to improving their reproductive health outcomes.

KEYWORDS

equity, health literacy, Indigenous, reproductive health

1 | INTRODUCTION

Indigenous women in colonised Australia continue to experience inequitable reproductive health outcomes. In the Northern Territory (NT), Indigenous people comprise the highest percentage of the total population of all Australian states/territories; this is 58,248 people or around 26.5% of the NT population.[1] Many of these Indigenous people experience poorer health outcomes when compared to the non-Indigenous population and this is evidenced across reproductive health indicators. For example, the NT has the highest notification rates of all Australian states and territories for sexually transmitted infections such as chlamydia (1087.8 per 100 000 population), Gonorrhoea (832.2 per 100 000 population) and infectious Syphilis (81.3 per 100 000 population),[2] with disproportionality higher rates experienced by young Indigenous people living in remote areas.[3,4] Untreated sexually transmitted infections cause serious reproductive and health complications such as infertility, chronic pain, adverse pregnancy outcomes, infant infections, cancer and neurological disease.[5]

Such inequities are also apparent for maternal health. For example, Indigenous women in the NT are reported as having higher rates of tobacco smoking (46% versus 9%) and diabetes mellitus (16% versus 7%).[6] A higher percentage of Indigenous women also have preterm births (16% versus 7%) and low birthweight infants (14% versus 6%).[6] Alarmingly, many of these factors are linked to adverse maternal and/or infant health outcomes and a trajectory of cumulative health inequity across the life course. Growing evidence from research exploring the Barker and Foetal Origins Hypothesis suggests that many adult chronic diseases such as diabetes may be triggered by the latent impacts of poor maternal nutrition and in-utero conditions.[7] Furthermore, there is wide recognition that children born prematurely have higher risks of long-term health, developmental and behavioural problems with negative impacts to their schooling and educational attainment.[8]

While acknowledging these unacceptable health indicators is of course important, this paper heeds the calls for a strengths-based approach.[9] We acknowledge that the underlying causes of health inequities are complex but likely attributable to an interplay of social, historical and cultural determinants including the ongoing impacts of colonisation.[10,11] Health literacy has increasingly been recognised as an important social determinant of health, and interest in its application in Australian Indigenous settings has grown.[12-16] Therefore, in addressing reproductive health inequity, our paper seeks to explore reproductive health literacy from the perspectives of Indigenous women and the assets of their knowledge and culture.

1.1 | Health literacy

While not directly informed by the perspectives and experiences of Indigenous people and communities, the concept of health literacy is described by the World Health Organization as the:

> Cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health.[17]

Health literacy is also suggested as a useful tool to improve the quality and safety of health care; and importantly for Indigenous peoples, an approach for reducing health disparities and improving equity.[18] While originally based on the premise that increasing an individual's basic functional English literacy can result in better health outcomes, health literacy has now evolved in sophistication and complexity. This evolution has moved away from an "individualised" model to an integrated one that acknowledges that an individual's health agency is limited (or likewise nurtured) by the health literacy environment they live and age in.[19] The Australian Commission on Safety and Quality in Health Care[18] supports this notion by identifying two components of health literacy as "individual health literacy" and the "health literacy environment."

Sørensen et al's[20] integrated model of health literacy incorporates recent literature into a comprehensive definition of health literacy across the continuum of Western health care settings. The model acknowledges the antecedents and consequences of health literacy while establishing the dynamism of the concept. That is, health literacy changes through an individual's life course and can be a characteristic of either an individual or population. The central core of the model revolves around the competencies of being able to access, understand, appraise and apply health information. This is a critical, sequential and interdependent process resulting in the generation of new knowledge that allows an individual to successfully navigate the continuum of Western health care: either as a sick person in an acute health care setting; as a person of risk in a disease prevention context or as a healthy person able to affect health promotion within places of social, political, economic and work participation.[20] As Sørensen et al[20] explain, the goal of being health literate means:

> Placing one's own health and that of one's family and community into context, understanding which factors are influencing it and knowing how to address them. An individual with an adequate level of health literacy has the ability to take responsibility for one's family health and community health.

1.2 | Conceptualising and applying reproductive health literacy

These generalised health literacy definitions[18,20] are readily transferable to conceptualising women's "reproductive health literacy." The World Health Organization's definition of reproductive health (see Text Box 1) embraces a human rights approach to health, whereby men and women have a universal right to be informed of and to have access to safe, effective and affordable methods of family planning,

along with other methods of fertility regulation, such as legal and safe abortion. For women, these reproductive health rights extend to accessing appropriate health care throughout their experiences of pregnancy and childbirth.[21] When a rights-based approach is combined with the concept of health literacy, reproductive health literacy shifts from being just skills and knowledge to involving approaches that enable the rights of girls and women to access, understand, appraise and apply information across their lifespan to negotiate healthy sexual experiences and reproductive outcomes. Reproductive health care and reproductive health literacy not only share the common goals of supporting normal human reproductive physiology (such as pregnancy) but also to reduce the impact of adverse health associated with reproduction and sexual activity.[22] The burden of adverse health outcomes are known to disproportionality affect women and adolescent people[22] and making them worthy groups to target interventions aimed at improving reproductive health literacy. In contexts of inequity where people's access to health information is limited by power relations and/or discrimination, enhancing reproductive health literacy becomes itself a tool of "empowerment."[23]

The Australian Women's Health Network[24] recommends increasing Australian women's health literacy as a key action priority. Yet, there is a paucity of literature exploring the conceptualisation and operationalisation of reproductive health literacy, especially from the perspective of Indigenous women. Smylie et al[25] suggest that Indigenous health literacy is worthy of further investigation but cautions this should be based upon Indigenous knowledge and perspectives with consideration given to the:

> Unique and culturally determined ways in which Aboriginal peoples and their languages conceptualize learning, education, and health; and the recognition that self-determination of language and learning are human rights (s21).

The aim of this paper is to share experiences from our "Caring for Mum on Country" project. This project was undertaken in a remote multilingual setting and involved exploring *Yolŋu* (Indigenous) and Western medical/midwifery reproductive health knowledge systems with the aims of empowering the community, increasing reproductive health literacy and capacity building a group of women to become childbirth companions. One of many project outcomes was a co-designed reproductive health literacy framework for Yolŋu women presented in this paper. We will explore its meaning and briefly consider broader insights in conceptualising reproductive health literacy for Indigenous women.

Box 1 Reproductive Health as Defined by the World Health Organization[21]

Reproductive Health Definition

Reproductive health is a state of complete physical, mental and social well-being; and not merely the absence of disease and infirmity, in all matters relating to the reproductive systems; and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide if, when and how to do so.

1.3 | RESEARCH SITE

North East Arnhem Land in the Northern Territory (NT) is the homelands to many distinct Indigenous clans and nations who collectively identify themselves as Yolŋu; and speak the regions Yolŋu Matha languages. Our research site is a large remote island town in the region where over 90% of the population self-identify as being Yolŋu, and English is the minority language, spoken at home by only 4.9% of the population.[26] *Djambarrpuyŋu* is the dominant language spoken by the majority of people (78.1%) alongside the less frequently spoken languages including *Galpu* (2.4%), *Gumatj* (1.9%), *Daṯiwuy* (1.3%) and *Warramiri* (0.5%).[26] The region has inequitable reproductive health outcomes, including what seems to be the highest documented rate of preterm birth in Australia at around 21.5%.[6] Of the community's total population 50.5% are recorded as males and 49.5% as females. The community is classified as very remote and relies on sea barge for the delivery of all its food and freight to the island. English is the dominant language used in the provision of all health and welfare services. Darwin, the nearest capital city is around a one hour flight away.

2 | METHODOLOGY

We used a decolonising participatory action research (PAR) methodology.[27-29] Our approach explicitly prioritised Yolŋu ways of being, doing and seeing.[28,30] Author # 2 is a senior research academic but also a multilingual Yolŋu Elder from the community, whereas author #1 has a background in midwifery, nursing, community development and health research. Yolŋu research leadership was provided by Author #2 who was instrumental in establishing relationality between non-Yolŋu researchers, participants and the broader community. As Sherwood[28] explains, the rigour of health research and data collection is enhanced when guided by Indigenous experts – in our research, those living and dealing with the consequences of inequitable reproductive health outcomes. We were committed to building relationships between researchers and participants. With did this by spending time together in the community: sharing stories, attending community events such as funerals and school graduation, sharing meals and food together, exchanging knowledges, practicing cultural activities such as collecting bush foods and shells for jewellery making, and visiting places of cultural and historical significance.

2.1 | Gaining permission

With senior Yolŋu leadership (Author #2), the project gained local written support from the Shire Council and formal ethics approval from the Charles Darwin University Human Research Ethics Committee (Application # HI 8031). While the initial project concept was externally conceived, Yolŋu gave feedback that the proposed project was welcomed. This was because it addressed many longstanding community priorities around improving reproductive health; and used a participatory methodology flexible to their needs. The ethics protocol was guided by the national document "Ethical conduct in research with Aboriginal and Torres Strait Islander peoples and communities: Guidelines for researchers and stakeholders."[31] A Community Backbone Committee known as *Marŋgithinyaraw ŋaraka Ḏälkunhamirr Mala* (research reference group) was established to provide local governance and feedback to the project. The committee was hosted by a local Aboriginal controlled community organisation; and comprised of senior community members. Further consultations were made by Author # 2 with Yolŋu ceremonial knowledge managers to seek their permission and negotiate public use of some ceremonial knowledge.

3 | PARTICIPANTS

Female Yolŋu participants – self-identifying with the Yolŋu term *miyalk* (women) – were recruited by the project's senior Yolŋu researcher (Author #2) drawing on established kinship and social community networks. Kovach[30] explains that relationality and reciprocity of relationship are common sampling strategies used by Indigenous researchers. From these networks, females aged 18 years and over were purposively recruited as either meeting one or more of these criteria: cultural authority on women's health; Yolŋu midwifery practice and/or personal childbirth experience(s). We did not ask, record or exclude participants based on their gender self-identification. Miyalk were approached, verbally invited to participate and, if agreeable, their informed written or recorded verbal consent gained.

4 | METHODS

Our participatory-action research involved iterative cyclic phases of exploration, reflection and action.[29] This paper reports only on the process and outcome of co-designing a reproductive health literacy framework but there were other actions resulting from the project including the successful co-design and piloting of accredited Yolŋu doula training. Multiple fieldwork visits (n = 6) extended over many weeks occurred during a 2-year period. Data were collected by the senior Yolŋu researcher (Author #2) with support from a non-Yolŋu researcher (Author #1), other senior miyalk and a research technologist. The senior Yolŋu researcher led interviews, group story sharing sessions, historic site visits to birthplace locations and on-country cultural demonstration sessions with miyalk participants on reproductive health topics. Data were collected in the participants' first language(s), occasionally in English, and recorded using photographs, Dictaphone, video and handwritten observations/notes. Data collection was always negotiated with participants who had agency in choosing both the methods, topics and choice of recording.

4.1 | Data Analysis

Data were collected in a total of seven languages: Djambarrpuyŋu, Liyakawumirr, Warramiri, Daṯiwuy, Gumatji, Galpu and English. The researchers worked with a Yolŋu interpreter (RB) to translate the combined data into written English. Translations were validated by Author #2 who is a multilingual and fluent in all languages used in data collection. Western qualitative analysis often prescribes breaking data into its smallest coded portions, examining it in detail and then using a linear logic to construct the analysis.[30,32] Our analysis was disruptive of this dominant approach and instead drew influence from the work of Indigenous scholars[30,32] to undertake a type of relational content analysis. Our relational content analysis sought to understand the data as a holistic system of relationships[32] and avoided breaking it into compartmentalised codes or themes.

Both authors undertook a progressive verbal discussion and exploration of the data's inter-connectedness and mapped these connections on a whiteboard. We used analysis techniques described by Kovach[30] as "observation, sensory experience, contextual knowledge, and recognition of patterns." For the Yolŋu researcher (Author #2), this extended to drawing on contextual knowledge about Yolŋu ancestors, creation stories and her home-ground country. As Indigenous scholar Wilson[32] suggests, this analysis requires an "intuitive" logic to examine an "entire system of relationships as a whole." Wilson[32] explains relational data analysis:

> You could try to examine each of the knots in the net to see what holds it together, but it's the strings between the knots that have to work in conjunction in order for the net to function. So any analysis must examine all of the relationships or strings between particular events or knots of data as a whole before it will make sense.

Using a similar but contrasting metaphor, our analysis was guided by the imagery of skeleton (structure) and flesh (knowledge) and the cohesion between that brings physical form and movement to a living creature. As skilled food hunters and gatherers, Yolŋu are very familiar with the internal anatomy of living food sources. We used this as a uniting metaphor to guide our approach to interpreting the data and building a health literacy framework. Our final hand drawings were then used to create a digital representation of the framework with the assistance from the project's Research Technologist (PJ). The framework was validated and modified using iterative cycles of feedback with participants and collective community feedback during its use in

workshops. The images used in the framework were sourced from data collected during fieldwork.

5 | RESULTS

In total, 53 Yolŋu miyalk and one Yolŋu male ceremonial knowledge custodian participated in our project. The participation of this one man demonstrated respect for Yolŋu knowledge management protocols which includes gendered divisions and processes for protecting and passing on information. Participants ranged in age from 22 to 87 years old with representation across both moiety groups: 55.5% *Dhuwa* and 44.4% *Yirrtja*. Shared representation across the two moiety groups was an important Yolŋu sampling strategy to ensure the cultural rigour of the research.

5.1 | Ŋanakmirriyam Dharuk Ga Mayalimirryaman Miyalkgu Rom- the flesh & skeleton for following women's law

We successfully constructed a Yolŋu women's reproductive health literacy framework. It is named as *Ŋanakmirriyam Dharuk Ga Mayalimirryaman Miyalkgu Rom* – Flesh and Skeleton for following Women's Law. It explicitly privileges Yolŋu knowledge and the framework is produced in two languages: the local community dominant language Djambarrpuyŋu (see Figure 1) and the health service providers' dominant language English (see Figure 2).

The framework is centred on the image of a ceremonially painted miyalk who is surrounded by a triad of knowledge domains: (a) menstruation; (b) reproductive and (c) childbirth knowledges. Each of the knowledge domains are punctuated by a ceremonial milestone: the first period ceremony, the pregnancy ceremony and the postnatal smoking/steam ceremony. The woman is further connected to eight Yolŋu cultural concepts/practices. The woman and the framework as a whole are embedded within a Pandanus mat. The individual parts of this framework have significant meanings and will now be explored in more detail.

5.1.1 | Pandanus mat metaphor

The framework is embedded on a woven Pandanus *(pandanus spiralis)* mat. The mat is a Yolŋu metaphor for "Two-Way" health literacy pedagogy. Two-Way health literacy upholds women's rights and responsibilities to maintain the continuity of their ancestral languages and cultural practices, alongside the right to access Western health knowledge and, if required, choose parts for integration into contemporary Yolŋu knowledge system. This is a decolonising learning approach asserting Yolŋu sovereignty over their knowledge systems, physical bodies and ancestral lands. Two-Way learning, also known as "both ways" learning,[33] is based on addressing the complexities of the cultural interface of Western and Indigenous knowledge systems.[34] Though it was once believed that these two knowledge systems were irreconcilable and should always remain separate,[35] more recent pedagogical

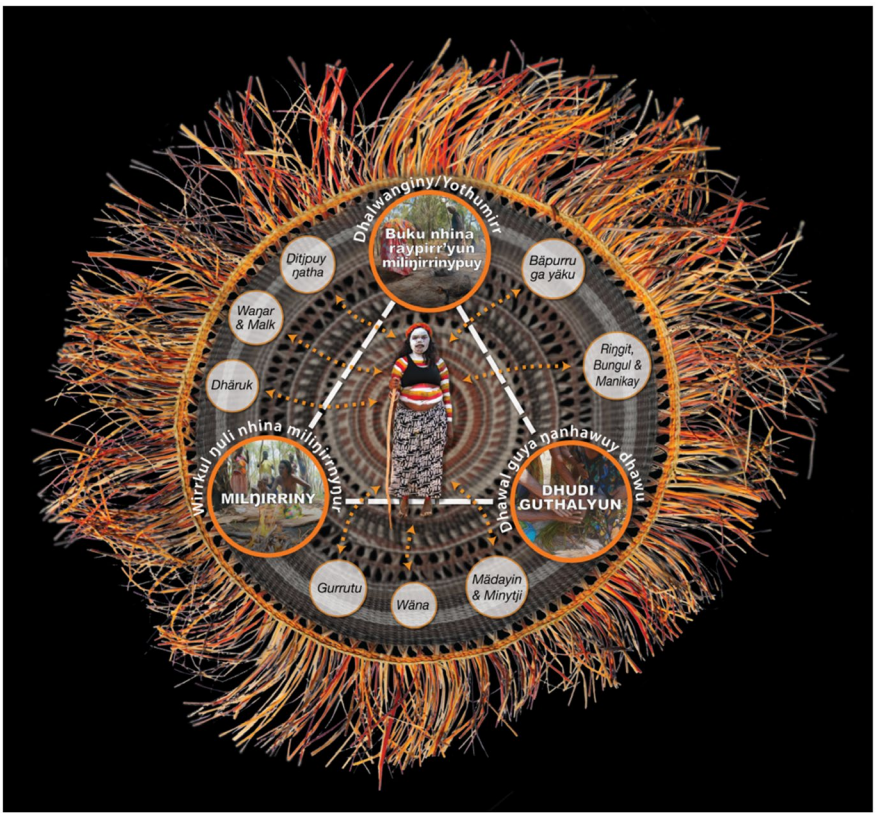

FIGURE 1 Ŋanakmirriyam Dharuk Ga Mayalimirryaman Miyalkgu Rom – the Flesh & Skeleton for following Women's Law©: A reproductive health literacy framework for Yolŋu girls and women [Colour figure can be viewed at wileyonlinelibrary.com]

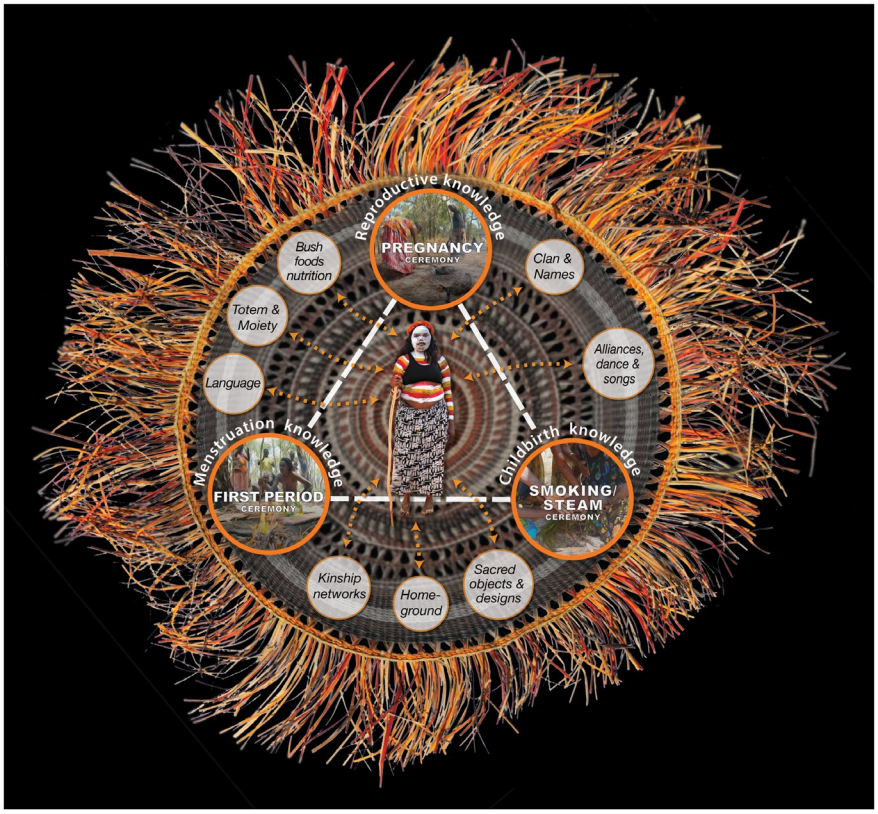

FIGURE 2 Flesh & Skeleton for following Women's Law – Ŋanakmirriyam Dharuk Ga Mayalimirryaman Miyalkgu Rom©: A reproductive health literacy framework for Yolŋu girls and women [Colour figure can be viewed at wileyonlinelibrary.com]

scholarship suggests that many parts of these two knowledge systems can actually be integrated, resulting in transformative learning for Indigenous people and an associated reduction in inequitable outcomes.[34]

To understand the mat as a metaphor for Two-Way health literacy, it is necessary to first understand a brief Yolŋu history of weaving Pandanus. Though a contemporary practice, miyalk have collected Pandanus for processing and weaving over countless generations spanning many thousands of years. Ancestors used mats during pregnancy and childbirth, and through the passing of time, woven fibre objects have become gendered with strong links to miyalk, fertility and birth. Though the ancestors knew about the vegetable dyes, the available tools and technology made it difficult to use them with Pandanus. The fibre needs prolonged soaking and at best boiling to set the colour. The only options available to the ancestors were rock holes or pools for soaking the Pandanus. Due to this environmental context, most mats were woven and finished only with the natural beige tones of the dried Pandanus.

When Western missionaries arrived on Yolŋu lands, they introduced metal tins, buckets and axes. These Western tools allowed miyalk to rapidly change their weaving practice and incorporate dyed Pandanus. Through understanding these historic changes, it allows us to appreciate the Pandanus mat as a Yolŋu metaphor about integrating knowledge systems. This integration occurs in a way in which Yolŋu have control and agency but in which they are able to maintain the validity of their knowledge system.

5.1.2 | Miyalk centred and linking the present to ancestral creation stories

The miyalk in the centre of the framework is painted in a ceremonial design linked to a significant sacred ancestral Yolŋu story of creation. The creation story is about the *Djaŋgawu* sisters who travelled east to west creating all the Yolŋu clan groups and their languages. Our senior Yolŋu researcher (Author #2) is a *djuŋgaya*- knowledge manager – responsible for this story and though having cultural authority to talk about it, the story is classified for only women. She consulted with other djuŋgaya who also gave their support to recognise and use this story.

The centring of the women in the framework is purposeful and communicates that miyalk are both powerful and sacred. Women's power includes their fertility and this is a source of sacredness existing deep within the physical body. It cannot be stolen or taken away from them.[1] For all women, this is a clear message of gender empowerment. As one participant explained:

This knowledge can be used by both Balanda [non-Indigenous] and Yolŋu. Where we carry our children as mothers- this place in our body, this is sacred.

5.1.3 | The triad of two-way reproductive knowledges and Yolŋu ceremonial milestones

The triad of knowledge domains and associated ceremonial milestones represent the crucial knowledge and experiences that girls

TABLE 1 Yolŋu concept/s, English translation and associated health literacy rights

Yolŋu concept/s	English translation	Associated health literacy rights and responsibilities
Dhäruk	Language	The right and responsibilities to learn, speak and teach your ancestrally inherited languages
Wäŋa	Homeground and place	The right and responsibilities to know, visit and spend time in your ancestrally inherited homegrounds, including your mother's and father's homeground
Waŋarr & mälk	Totem & moiety	The right and responsibilities to understand and teach relationality to others and the natural world through Yolŋu social organisation and ordering of the environment
Ḏiltjpuy ŋatha	Bush food nutrition	The right and responsibilities to access ancestral food sources and spend time with senior Yolŋu learning knowledge and skills to hunt, fish, gather and prepare food
Bäpurru ga yäku	Clan & names	The right and responsibilities to teach and self-identify through Yolŋu clan and names.
Riŋgitj, bungul & manikay	Alliances, dance & songs	The right and responsibilities to learn, teach and perform alliances, dances and songs
Mäḏayin & minytji	Sacred objects & painting designs	The right and responsibilities to be inducted and apprenticed through sacred knowledge systems, and practice the artistic expression and representation of these systems
Gurruṯu	Kinship	The right and responsibilities to understand your relationality to other Yolŋu and the natural world, and practice social beahvioural protocols of respect, duty and avoidance

and women need to access to manage their reproductive health. It includes information and support around (a) positive menstruation experiences; (b) fertility regulation and management and (c) healthy pregnancies and positive childbirth experiences. In support of Two-Way health literacy, this includes access to both Yolŋu and Western knowledges. Access and continuity of Yolŋu knowledge is dependent on the mechanisms of intergenerational transmission and shared experiences. It is accessed through protocols of relationality, and requires women and girls of varied ages to share experiences together on their ancestral home grounds. Yolŋu knowledge systems are profoundly place-based and have developed through human relationship to country/place over the millennia of Yolŋu occupation. As one participant clearly articulated:

> Yolŋu don't have books for their knowledge, we have a living library reaching back thousands and thousands of years taught to us by our ancestors.

Ceremonial practice is a collective expression of the Yolŋu knowledge system and an important opportunity to enhance the moral and social development of Yolŋu citizenship through administering *raypirri*. The cultural construct of raypirri transcends a singular English translation, but is a type of strong encouragement and discipline promoting well-being and valued attributes of Yolŋu citizenship. Raypirri features strongly in all three female ceremonies and contributes to the development of girls into balanced and responsible women. Of course, the ceremonies also mark important biological/social milestones and facilitate the exchange of related health information.[2]

Access to Western reproductive health knowledge is also equally crucial but often reliant on having adequate functional English literacy. This is a systemic barrier for many Yolŋu who have low functional English literacy and therefore struggle to access health resources and information written or spoken in English. The barriers to accessing Western knowledge make many Yolŋu feel that this knowledge is purposively withheld and being hidden from them. Western knowledge is indeed valued and respected by Yolŋu women who know it contributes to their well-being. Women and girls are best placed to negotiate healthy sexual and reproductive outcomes when resourced with reliable and unbiased knowledge.

5.1.4 | Strong Yolŋu identity

The miyalk in the centre of the framework is linked to eight important cultural concepts (see Table 1). Together, these concepts establish a strong foundation for Yolŋu identity; and have similarly been reported in other collaborative community research as important aspects to develop and nurture in early Yolŋu childhood.[36] Yolŋu identity is crucial to the reproductive health of miyalk by establishing their place in the world including social roles, support networks; and rights and responsibilities. Colonisation and its diverse destructive impacts are threatening the continuity and strength of many of these concepts. Yolŋu believe this is negatively impacting their health and well-being. A rights-based approach is helpful in acknowledging that despite colonisation, Yolŋu have an inherent right to communicate in their first languages alongside the right to maintain the continuity of their cultural caring and health-promoting practices. While it is outside the scope of this paper to provide detailed descriptions of each concept, Table 1 provides an overview including an English translation and a description of the associated health literacy rights and responsibilities.

6 | DISCUSSION

In the context of Indigenous women's inequitable outcomes, this paper contributes to addressing a known literature gap on reproductive health literacy. It provides one example of how reproductive health literacy can be conceptualised albeit from a distinctly Yolŋu perspective in one remote community. Like all research, this study has limitations. This includes its small number of participants, one research location; and its reliance on participant's expression of sex and gender through a binary model. There could be merit in further research to explore the perspectives of Yolŋu gender-diverse people and frameworks of health literacy that are relevant to them.

While the direct application of our reproductive health literacy framework is certainly limited to a small group of women in one Yolŋu community in Northern Australia, our overall approach provides important insights into the complexities of working towards shared intercultural understanding about reproductive health literacy. For Indigenous people and their communities, this complexity is amplified by the impacts of colonisation. Despite health promotion generally aspiring to the empowerment and participation of Indigenous communities in taking control over their health, it is still framed by colonial values and processes[37] which likely perpetuate health inequities and the subjugation of Indigenous knowledge systems and languages.[28,38,39] It is ironic and destructive from an Indigenous perspective, that these Indigenous knowledge systems and languages, that have actually promoted health and well-being over at least 60,000 years,[40] are so disregarded by current approaches in the Australian health system. Acknowledging colonisation as a driver of health inequity, then logically challenges us to decolonise health literacy. Perhaps this requires what Akena[41] suggests as an unpacking of the power dynamics which result in the dominance of the Western knowledge system.

Along with other emerging scholarship,[16,42,43] this paper provides some insights into how power dynamics can be disrupted so that Indigenous people can use their own knowledge and lived experiences to define health literacy. With senior Yolŋu leadership and a decolonising PAR methodology, our project has demonstrated that conceptualising reproductive health literacy from an Indigenous perspective may require much more than the basic notion that health literacy involves only an individual's motivation and ability to access, understand and use health information.[17] Rather, it is a complete paradigm shift incorporating multiple languages, knowledges and literacies; and the inherent rights to communicate in Indigenous first languages and to maintain the continuity of cultural caring and health promoting practices. These cultural rights are supported by the United Nations Declaration on the Rights of Indigenous People.[44] These qualities of health literacy such as being multi-literate are rarely discussed in current literature. As Smith[27] articulates:

> When Indigenous people become the researchers and not merely the researched, the activity of research is transformed. Questions are framed differently, priorities are ranked differently, problems are defined differently, people participate on different terms.

Our Ŋanakmirriyam Dharuk Ga Mayalimirryaman Miyalkgu Rom – the Flesh & Skeleton for following Women's Law is one example of how research can identify different priorities and problems. For Yolŋu women in our research community, reproductive health literacy is firmly attached to the priority goal of Two-Way learning: ensuring continuity of Yolŋu knowledge and access to the Western knowledge system. Yet, both of these systems are becoming increasingly difficult to access and the Yolŋu knowledge system harder to maintain. Many older generation women fear that young miyalk will grow up without adequate literacy in either of the systems. Colonisation, centralised living, high population morbidity and mortality, alongside the costs of private transport make intergenerational visits to ancestral country very difficult. Likewise, there are many barriers that Yolŋu face when trying to access Western reproductive health information. This contributes to a growing body of research clearly indicating that Indigenous people want access to Western medical information that can impact

well-being, and crucially, they often feel they are receiving incomplete information.[45]

Our framework and its underlying metaphor for integrating Western and Yolŋu knowledge systems have now been used in our project by Yolŋu women in several consultations with community, health service providers and service managers around priorities for reproductive health education and health service reform. It has also been used as a learning resource in the piloting of doula – childbirth companion – training. In this setting, the Pandanus mat (as featured in the framework) was used in our classroom as a physical symbol and resource for explaining our process and commitment to Two-Way reproductive health and well-being. Our approach has similarities to Two-Way Seeing as originally proposed by Canadians Bartlett, Marshall & Marshall.[46] Now featured in many research projects, Two Eyed Seeing has been used as an approach for bringing Indigenous and Western knowledges together,[47] including Australian research on medical education.[48] Our framework, just like Two Eyed Seeing, can validate and make space for Indigenous Knowledge while creating access pathways to Western knowledge. We suggest that in collaboration with Indigenous communities, approaches like these should be better explored in the conceptualisation and operationalisation of health literacy.

7 | CONCLUSION

If health literacy is to be transformative and address inequity for Indigenous communities, our research suggests that innovative, decolonising and human rights-based approaches are required. Yet, in many ways, our health workforce is poorly equipped to operationalise health literacy in ways that honours multiple languages, knowledges and literacies; and supports the inherent rights to communicate in Indigenous first languages. To achieve this goal, we need to urgently increase and build capacity in the Indigenous workforce. We also need to invest in collaborative and interdisciplinary ways of working, especially with Interpreters to ensure our intercultural health promotion communication is effective. It is crucial that our approaches are taken in partnership with Indigenous communities where unbalanced power dynamics are disrupted; and where Indigenous knowledge and practices are legitimised as important assets for well-being. As many Indigenous people have repeatedly explained, colonisation is indeed bad for your health.[10] Now is the time to decolonise health literacy and let Indigenous experts guide the way to health equity.

ACKNOWLEDGEMENTS

We acknowledge the talent and skills of Ms Rachel Baker (RB) who worked with us translating the data. Her lived experiences as a Yolŋu woman contributed to the rigour of our project and we thank her. We also acknowledge the hard work and creativity of Research Technologist – Pat Josse. We acknowledge Evelyn Djota and Dorothy Yuŋirrŋa for their contributions in supporting the project; and in data collection and validation. We express gratitude to Yalu Aboriginal Organisation who hosted the Backbone Committee. Lastly, we thank Marina Coorey & Sophie Hickey for assistance in proof-reading the manuscript.

CONFLICT OF INTEREST

The authors have no conflicts of interest to declare.

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ENDNOTES

[1] Yolŋu with seniority and advanced cultural training will recognise deeper knowledge layers and meanings communicated by the image of the women. This deeper knowledge is protected as untrained eyes are unable to read the coded information.

[2] A detailed public discussion of these ceremonies is not possible due to restricted knowledge classification.

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How to cite this article: Ireland S, Maypilama EL. "We are sacred": An intercultural and multilingual approach to understanding reproductive health literacy for Yolŋu girls and women in remote Northern Australia. *Health Promot J Austral.* 2021;32(S1):192–202. https://doi.org/10.1002/hpja.439