

2020

What do we know about the nexus between culture, age, gender and health literacy? Implications for improving the health and well-being of young Indigenous males

Anthony Merlino

James A. Smith

Mick Adams

Jason Bonson

Richard Osborne

See next page for additional authors

Follow this and additional works at: <https://ro.ecu.edu.au/ecuworkspost2013>



Part of the [Public Health Commons](#), and the [Sociology Commons](#)

[10.22374/ijmsch.v3i2.34](https://doi.org/10.22374/ijmsch.v3i2.34)

Merlino, A., Smith, J. A., Adams, M., Bonson, J., Osborne, R., Judd, B., ... Christie, B. (2020). What do we know about the nexus between culture, age, gender and health literacy? Implications for improving the health and well-being of young Indigenous males. *International Journal of Men's Social and Community Health*, 3(2), e46-e57.

<https://doi.org/10.22374/ijmsch.v3i2.34>

This Journal Article is posted at Research Online.

<https://ro.ecu.edu.au/ecuworkspost2013/9832>

Authors

Anthony Merlino, James A. Smith, Mick Adams, Jason Bonson, Richard Osborne, Barry Judd, Murray Drummond, David Aanundsen, Jesse Fleay, and Benjamin Christie

WHAT DO WE KNOW ABOUT THE NEXUS BETWEEN CULTURE, AGE, GENDER, AND HEALTH LITERACY? IMPLICATIONS FOR IMPROVING THE HEALTH AND WELL-BEING OF YOUNG INDIGENOUS MALES

Anthony Merlino¹, James A. Smith¹, Mick Adams^{2,3}, Jason Bonson⁴, Richard Osborne⁵, Barry Judd⁶, Murray Drummond⁷, David Aanundsen⁸, Jesse Fleay³, Benjamin Christie¹

¹Menzies School of Health Research, Tiwi, Australia; ²Australian Indigenous HealthInfoNet, Mt Lawley, Western Australia; ³Edith Cowan University, Joondalup, Australia; ⁴Northern Territory Department of Health, Northern Territory, Australia; ⁵Swinburne University of Technology, Melbourne, Australia; ⁶University of Melbourne, Melbourne, Australia; ⁷Flinders University, Adelaide, Australia; ⁸Fred Hollows Foundation, Darwin, Australia.

Author for Correspondence: Anthony Merlino: anthony.merlino@menzies.edu.au

Submitted: April 14, 2020; Accepted: July 28, 2020; Published: September 8, 2020.

ABSTRACT

Health literacy, although diversely defined, refers to the abilities, relationships and external environments required for people to successfully promote health. Existing research suggests that health literacy is related to health inequities, including individual and community capacity to navigate health. A diverse range of factors shape health literacy abilities and environments, especially culture, gender and age. However, the nexus between these variables and their cumulative impact on health literacy development remains largely unexplored. Commentary that explores these dynamics among young Indigenous males is particularly scant. In turn, strategies to bridge health equity gaps have been obscured. This article brings together disparate research on health literacy, masculinities, youth studies and men's health in order to address this oversight. By outlining the collective conceptual contribution of these strands of scholarship, we show that young Indigenous males navigate health literacy through a complex cultural interface that balances both Western and Indigenous understandings of health. Alternative masculine identities, which simultaneously embrace and resist components of hegemonic masculinity, also shape this health literacy lens. We explain that the development of health literacy is important for young people, particularly young Indigenous males, and that this is negotiated in tandem with external support structures, including family and friends. By describing these intersections, we explore the implications for researchers, policymakers and practitioners seeking to achieve the dual goal of improving health literacy and reducing health inequities among this highly marginalised population.

INTRODUCTION

Health literacy is a determinant of population health and well-being among both younger and older populations.¹⁻⁴ Indeed, bolstering health literacy capabilities is one way to assist with reducing social inequities in health across the lifespan by helping individuals, families and communities to actively improve and

maintain their own health.⁵ Conversely, low functional health literacy is frequently associated with reduced health outcomes, including lower participation in health promotion and preventive health programmes, higher rates of hospitalisation, increased healthcare costs, and premature death.^{2,6-9} Building health literacy, as both an individual and environmental determinant of health,

DOI: <http://dx.doi.org/10.22374/ijmsch.v3i2.34>

Int J Mens Com Soc Health Vol 3(2):e46–e57; September 8, 2020

This article is distributed under the terms of the Creative Commons Attribution-Non Commercial 4.0 International License. © Merlino A et al.

has thus been acknowledged as one effective strategy to combat health disparities and improve equity.^{10–13}

Various studies reveal that a complex array of variables shape health literacy outcomes, especially culture, gender and age.^{13–18} However, minimal research has traced the nexus between these variables and their cumulative influence on health literacy. Even fewer studies have examined this from an Indigenous standpoint. This critical scholarship gap requires bridging, as Indigenous peoples, globally, experience health inequities across physical, emotional, mental and social dimensions of health, with historical, political, economic, environmental and socio-cultural influences implicated in these patterns of disparity.¹⁹ In many cases, these patterns of disparity are particularly pronounced among young Indigenous males.²⁰ Understanding how these influences impact health literacy among this population is a crucial measure to inform both Indigenous and equity-focussed research, policy and practice contexts towards improving men's health. With a recent study finding that increased global conformity to hegemonic masculine norms reduces international health literacy outcomes,²¹ greater explanation of the forces underpinning health literacy development is essential. However, the forces underpinning this dynamic are underexplored. Global strategies to promote equity—among Indigenous peoples and the general population—thus remain obscured.

To help address these gaps, we have collated disparate literature on Indigeneity (culture), youth (age) and masculinities (gender), which examine the interplay between age, gender and health literacy. In the process, we demonstrate how intersectional research approaches to health literacy can help combat equity gaps across diverse contexts.

In spite of accepting the sex–gender distinction—and, by extension, the respective distinction between males and men—this paper uses the term Indigenous *males*, as this expression includes individuals culturally initiated and uninitiated, as preferred by many Indigenous male health scholars. We respectfully use the term Indigenous when referring to First Nations peoples globally, and Aboriginal peoples when referring to the Aboriginal and Torres Strait Islander population in Australia.

EQUITY AND INTERSECTIONALITY

Recent literature centring upon equity and men's health has emphasised the importance of adopting an intersectional lens,^{22, 23} focussing upon “intersecting processes that produce, reproduce and resist power,” including age, culture and gender, that lead to the social and material disparities between groups and within them.^{22, 23} Significantly, this approach provides an insight into the fine-grained variables that collectively shape health outcomes, thus revealing opportunities for targeted public health initiatives.²³ For this reason, intersectional theoretical frameworks have been used extensively by men's health scholars to unpack health and social inequities experienced by young men of colour, including Indigenous males.^{22, 24, 25} Consequently, the major focus of this paper is exploring how several intersecting variables—age, gender and culture—impact upon the health literacy outcomes of young Indigenous males. With these findings in mind, tangible strategies that can be utilised by public health researchers, policymakers and practitioners to strengthen the health literacy of this cohort are presented.

WHAT DO WE KNOW ABOUT HEALTH LITERACY?

Empowering individuals and communities to hold autonomy over their own health has become a foundational principle of public health research, policy and practice. Consequently, the promotion of health literacy across population groups has aimed to facilitate self-determination and sovereign decision-making, particularly in the context of Indigenous-focussed public health efforts.¹ Conceptually, however, health literacy is diversely defined, applied and measured. Initially, the concept was predominantly considered an *individual* capacity allowing one to “access, understand and apply health information.”²⁶ In these traditional models, health literacy was operationalised through tests of health-related reading, writing and comprehension skills. Recently, though, the *environmental* dimensions of health literacy have been recognised, including the “infrastructure, people, policies and relationships of the health care system” that influence

the way individuals and groups navigate their own and others' health.²⁷ These nascent theories extend the remit of health literacy to include social skills, relationships and health-service environments that underpin health-seeking behaviours, thus reframing health literacy development as a dynamic and interactive process between individuals, communities and the healthcare system.^{14, 28, 29} Likewise, other scholars have argued that health literacy is often "distributed" across social networks and peer groups.³⁰ These developments reveal that health literacy includes health-related knowledge applicable to everyday life—not merely patient-oriented knowledge in healthcare settings.

By positioning the locus of health literacy beyond the individual, and emphasising environmental drivers external to healthcare systems, these new conceptualisations suggest that health literacy is entwined with broader social, economic and political determinants of health. Indeed, Sørensen et al. report that a network of intersecting factors, including cultural beliefs, language, disability, education, income, gender, age and health status, collectively mould health literacy abilities.¹⁵ Accordingly, health literacy forms one site where intertwining determinants collectively impact health and well-being. Consequently, improving health literacy functions as one of the mechanisms to combat broader forces fuelling health inequities. As such, Kickbusch argued that "the ability to make sound health decisions in the context of everyday life" constitutes "a critical empowerment strategy to increase people's control over their health."³¹ Deepening scholarly understanding of complex variables impacting health literacy is therefore essential to reducing health inequities in the context of men's health.

WHAT DO WE KNOW ABOUT AGE AND HEALTH LITERACY?

Obviously, health literacy and age share an intimate relationship—with the needs and outcomes of the former influenced by the latter. Traditionally, research has focussed upon the impact of ageing upon the health literacy abilities of older populations.³² This scholarship has identified several age-related changes that contribute to declining health literacy abilities, particularly

among adults aged 65 and above.³³ These include declining cognitive abilities, physical impairments and psychosocial factors reducing resilience.³⁴ Among this demographic, health literacy abilities are shaped by education, income, race and gender.² Enhancing health literacy in this population is therefore perceived to generate improvements in healthcare decisions, communication, compliance with treatment directions and overall health status.³⁵

Recent attention, though, has turned to the importance of addressing the unique health needs of younger age groups to shape healthy attitudes and behaviours that endure into adulthood. During childhood and youth, fundamental cognitive, physical and emotional development processes occur, shaping lifelong health behaviours and skills.³⁶ Likewise, health literacy is understood as a dynamic and malleable construct acquired through learning processes beginning in early childhood.³⁷ Targeting children and young people in health literacy research and interventions can thus promote healthy behaviours and environments, help to ameliorate future health risks and ultimately promote health equity across the lifespan.³⁸

Existing scholarship, focussing on the impact of parental health literacy, has demonstrated that health literacy is poorer among children with parents who lack the knowledge and skills required to make sound health decisions for themselves and their families,³⁹ which means family environments structure health literacy development. However, methods of measuring youth health literacy remain diverse, with Bröder et al. identifying myriad definitions of childhood health literacy in a recent systematic analysis. However, most definitions shared a "dominant demand or action-related focus" directed towards "the access, process and application of health information."⁴⁰ This indicates that children and young people are autonomous actors who can "actively and deliberately" participate in their own health literacy development.⁴⁰ Emphasising external forces, Fok and Wong considered youth health literacy abilities to include physical and psychosocial capacities, including personal resilience, emotional stability and enjoyment in school life.⁴¹ As such, "it is of importance to recognize the interrelatedness and contextualisation of health literacy" whereby "health,

social and education systems” shape health literacy outcomes.⁴⁰ Thus, in certain contexts, young people may autonomously navigate health literacy within the context of their external environments and relationships.

Two foundational components therefore underpin the development of health literacy among young people. First, health literacy evolves and changes throughout the lifespan; depending on the complexity of health issues faced, it may increase or decrease in different conditions and health contexts. Second, young people may possess autonomy in navigating the nexus between health literacy and external influences. In this developmental process, several independent factors are at play that collectively constitute health literacy.⁴⁰ These include functional health skills, critical thinking, self-regulation and motivation.⁴⁰ Under this conceptualisation, health literacy also encompasses the capacity to successfully steer through media messages conveying sociocultural health norms. This includes navigating the recent and ongoing proliferation of health-related literacy on social media. Very little scholarship, however, has considered how young people navigate health literacy through social media channels.

WHAT DO WE KNOW ABOUT GENDER AND HEALTH LITERACY?

Much research reveals that health behaviours are shaped by socially constructed gender expectations imposed upon individuals according to their biological sex.⁴² Indeed, the practices, norms and behaviours associated with being male, *masculinities*, can influence health behaviours both beneficially and harmfully.²⁷ Hegemonic constructions of masculinity, which associate authentic manhood with static traits, including aggression, strength, stoicism and hypersexuality, are believed to produce especially harmful health outcomes.⁴³ Indeed, one study of Australian masculinity revealed that men personally identifying with hegemonic masculine norms exhibited significantly poorer health outcomes and riskier health behaviours.⁴⁴

Commentary on the intersection between masculinities and health literacy is scant.²⁷ Research has found that, on average, women have higher health literacy than men.⁴⁵ Also, identification with certain hegemonic masculine norms, especially self-reliance,

have been linked to lower mental health service engagement.²¹ Research has also shown that increased global conformity to hegemonic masculine norms is associated with international decreases in health literacy.²¹ Likewise, conformity to hegemonic masculine norms, when combined with depressive symptoms, is one predictor of low health literacy.²¹ However, the overall evidence base remains limited.

Notably, experts increasingly contend that constructions of masculinities influencing public health are embedded within and maintained through social structures rather than individuals.⁴⁶ Under these explanatory models, health practices are not entirely determined by individual masculine traits. Rather, health-related behaviours are restrained or facilitated by social gender norms, shaped by the relationships and environments in which individuals work, live and play. Australian studies vindicate these theories by demonstrating that men actively self-monitor their health prior to seeking help. Also, appropriately calibrating healthcare policies can “empower men to make informed decisions about their health.”⁴⁷ The development of health literacy is therefore an interactive process, mediated by understandings of masculinities, and embedded within various sociocultural structural frameworks. Emerging gender theories thus recognise the agency of men in creating alternative masculine identities that may simultaneously resist and/or embrace hegemonic masculinities.⁴⁸ Consequently, linking overall health literacy outcomes to homogenous typologies of masculinity is potentially misguided.

WHAT DO WE KNOW ABOUT AGE, GENDER AND HEALTH LITERACY?

Minimal scholarship measures health literacy among young men. Qualitative analysis reveals that young men who are cancer survivors, aged 15–29, predominantly access health-related materials from doctors and possess sufficient capabilities to understand, communicate and assess information.⁴⁹ Nevertheless, few men reported confidence in “critically analysing” the “validity and reliability” of such information. One Australian study found that among young people, aged 12–25, female respondents (60.7%) were more likely to correctly identify depression than male respondents (34.5%).⁵⁰ Conversely, males were significantly less

DOI: <http://dx.doi.org/10.22374/ijmsch.v3i2.34>

Int J Mens Com Soc Health Vol 3(2):e46–e57; September 8, 2020

This article is distributed under the terms of the Creative Commons Attribution-Non Commercial 4.0 International License. © Merlino A et al.

likely to endorse engaging with a doctor or psychologist for treating psychosis. Likewise, Drummond and Drummond contended that hegemonic masculine constructions of exercise and diet, partially inculcated through parental behaviours, influence health literacy abilities among young men with respect to nutrition.⁵¹ Current scholarship thus locates diverse health literacy strengths and gaps among young men.

Research discussed above conceptualises formation of health literacy as an iterative and ongoing process, with young men continuously updating their health abilities and behaviours throughout various developmental stages. Clearly, in certain contexts, hegemonic constructions of masculinities, circulated through personal and family structures, mediate this development. Young men thus navigate the nexus between masculinities and health literacy in tandem with external support structures. Additional research, explaining how young men construct alternative masculine identities when negotiating health literacy, is required. In addition, considerable public health scholarship recommends communicating through strengths-based narratives, rather than deficit discourses, to facilitate behaviour change among groups and individuals most at risk, particularly Indigenous peoples.⁵² Researchers, policymakers and practitioners should therefore focus on harnessing existing health literacy abilities and strengths that relate to both age and gender to enhance well-being and health among young men, particularly those most vulnerable.

WHAT DO WE KNOW ABOUT CULTURE AND HEALTH LITERACY?

Culture and health literacy are closely connected concepts. In the United States, low health literacy disproportionately affects racial and ethnic minority populations.⁵³ Such disparities are often fuelled by divergent cultural perspectives between patient and providers. These differences, left unaddressed, generate poorer health literacy outcomes through misunderstanding, value conflicts and disparate concepts of health and illness.⁵⁴ Enhancing cultural competence training in medical contexts is thus linked to improved health literacy among ethnically, linguistically and culturally diverse patients.⁵⁵ However, currently, there is only minimal international research exploring intersections

between health literacy and Indigeneity. In one study, Boot and Lowell found that in Australia, Canada and New Zealand, Indigenous knowledges, paradigms and practices receive little recognition and promotion in health literacy policy and practice documents, with a significant unmet need for “constructive support, resources, and training opportunities” for “Indigenous knowledges to be recognised and promoted within health services.”⁵⁶

Another study conducted by Crengle et al. found that the mean health literacy abilities among Indigenous peoples in New Zealand, Canada and Australia were below their non-Indigenous counterparts, per Western standards of measurement.⁵⁶ Nevertheless, health literacy capabilities, including medication adherence, improved considerably among these populations following the implementation of culturally responsive engagement approaches. Therefore, the dynamic relationship between culture and health literacy can be transformed by recalibrating the way health and medical services, frameworks and practices pay attention to culture.

Aboriginal health literacy remains an underexamined research field. In 2006, the only comprehensive measurement of Australian health literacy was undertaken, with 59% of adults identifying as having low health-related reading and writing ability.⁵⁷ Aboriginal health literacy abilities were not evaluated. One subsequent study concluded that, among Aboriginal peoples, reduced health literacy is correlated with lower dental health outcomes.⁵⁸ Treloar et al. reported that “awareness, knowledge, and experience of cancer were largely absent” from Aboriginal patients in New South Wales, illustrating that “some beliefs about cancer (particularly equating cancer to death) differed from mainstream Western biomedical views.”⁵⁵ Such research, however, was conducted in specific locations and often relied upon small sample sizes, limiting generalisability. Rheault et al. produced the first multidimensional and quantitative measurement of Aboriginal Australian health literacy.⁵⁹ Increased education and income, lower age and chronic disease status, and being female were significant predictors of higher health literacy among this cohort.¹⁹ Scholarship highlights that a paucity of culturally responsive health service responses is

hindering Aboriginal health literacy development, which in turn appears to disproportionately impact Aboriginal males. Lower socioeconomic position and education levels, and increased chronic disease status, were additional compounding factors.

Aboriginal Australian constructions of health literacy, which explicitly incorporate a cultural lens, are largely undocumented. Vass, Mitchell and Dhurkay argue that “language and worldview” constitute “linchpins that determine the advancing of health literacy in the Indigenous context where English is a second language.”⁶⁰ Therefore, oral education and information dissemination in the first language of patients can counteract communication failures and epistemic devaluation.⁵² Promoting connection to culture, land, spirituality, community and family is also entwined with enhanced health outcomes among Aboriginal peoples.^{61, 62} When translating conceptual information between languages, health practitioners should “find points of worldview crossover,” to mitigate against misunderstanding. Clearly, Aboriginal people can negotiate health through a mixture of cultural lenses and thereby skilfully construct complex interfaces, balancing Western and Aboriginal worldviews, when navigating health literacy.⁶⁰ Further research is required to examine how this health literacy interface is approached within differing health and medical contexts. Importantly, Aboriginal peoples do not comprise one homogenous group. Rather, hundreds of unique nations and communities connected through complex kinship systems, with many possessing distinct languages and cultural practices, are brought under this broad umbrella.⁶³ Profound diversity in cultural perspectives must therefore be accommodated. Additional place-based research, sensitive to local contexts and practices, is required to further elucidate the unique cultural interfaces from which Aboriginal males construct and negotiate health literacy.

WHAT DO WE KNOW ABOUT GENDER, CULTURE AND HEALTH LITERACY?

Historically, masculinities studies have captured non-indigenous constructions and performances of manhood. Indigenous masculinities, however, have recently begun receiving greater attention. This growing corpus of scholarship critiques (Western) hegemonic

masculinity, often considering the imposition it has placed upon Indigenous males globally.⁶⁴ In doing so, scholars have often highlighted and advocated for culture-specific, alternative masculinities. Indeed, some Indigenous masculinities scholars have convincingly argued that Indigenous masculinities existed long before colonisation. For instance, Bob Antone reported that the “collective wisdom of past generations” can assist Indigenous males to undertake “self-examination and healing.”⁶⁵ Similarly, Mukandi et al. reported that Aboriginal males, in some urban environments, articulate masculinity in relation to their community, including spouses, children, family members and nation, with unique meanings and responsibilities attached to each.⁶⁶ These masculine identities emphasise both vulnerability and strength, often transitioning across time and place.⁶⁶ Evidently, this cohort simultaneously resists and embraces components of hegemonic masculinities.

Minimal scholarship catalogues the nexus between alternative Indigenous masculinities and health outcomes. Two recent Australian studies have found that Aboriginal males are motivated to engage with primary and preventative healthcare, with cultural safety and a sense of masculine belonging and solidarity facilitating health engagement.^{67,68} Likewise, peer support groups can offer opportunities for Aboriginal males to collectively improve social and emotional well-being, modify lifestyle behaviours and transform gendered roles within personal interactions.⁶⁹ When navigating health literacy, both within and outside medical environments, Indigenous males fluidly construct alternative masculine identities, alongside family and friends. This symbiotic relationship between culture and gender enables Indigenous males to build well-developed understandings of health and express a willingness to access health services, thereby improving health literacy at individual and population levels.

WHAT DO WE KNOW ABOUT CULTURE, AGE AND HEALTH LITERACY?

Very minimal research specifically examines intersections between youth, culture and health literacy. One study shows that during their youth, many Canadian Indigenous peoples develop critical consciousness about community and culture that shape health literacy

capabilities.⁷⁰ As discussed above, childhood and youth are critical moments of health literacy development, with culture intricately influencing this process. Engaging with young Indigenous males is therefore critical in helping shape health literacy behaviours that promote well-being and health equity across the life course. In many countries, Indigenous peoples are significantly younger than the non-Indigenous population. In Australia, for instance, 53% of Aboriginal peoples were aged less than 25 years, compared with 13% of the non-Indigenous population.⁷¹ These gaps are symptomatic of profound disparities in life expectancies that are disproportionately pronounced among Indigenous males. Understanding the unique connections between culture, health literacy and youth is thus vital to inform policies and practices that support improved health literacy outcomes among Indigenous populations.

WHAT DO WE KNOW ABOUT CULTURE, GENDER, AGE AND HEALTH LITERACY?

To date, the nexus between culture, gender, age and health literacy has not received sustained attention. One 2019 Australian study conducted by Smith et al. investigated the nexus between culture, gender, age and health literacy with a cohort of young Aboriginal and Torres Strait Islander males.⁷² The study revealed that identity formation among this cohort involved a complex interrelationship between culture and gender; with masculine identities, shaped by multiple cultural paradigms, influencing health literacy knowledge, attitudes and behaviours. During this process, outreach services offered in community-based settings were highly valued. Recognising key milestones and celebrating positive achievements, while challenging negative public perceptions and stereotypes, were also identified as crucial measures to support the life aspirations and improved health literacy outcomes of these young Aboriginal males.

IMPLICATIONS FOR RESEARCH, POLICY AND PRACTICE

Existing scholarship highlights that Indigenous males conceptualise and negotiate health from both Western and Indigenous worldviews, underscoring strong potential for health literacy autonomy and

capability among this population. Public health policies, frameworks and strategies in local, national and global contexts have the potential to shape this interface. However, this must be done in ways that acknowledge and support the involvement of family and friends. Socioeconomic position, educational attainment and chronic disease status also have notable relationships with health literacy outcomes and should be a focus of future research. Therefore, while Indigenous males face disparities in health outcomes, the health inequities they face can be mitigated by culturally responsive approaches that support this cohort to navigate culture, gender and youth in the context of health literacy. Helping foster environments that promote connection to culture, land, spirituality, community and family will further aid this process. Further place-based research is needed to explain how unique, localised practices and structures can shape these diverse cultural paradigms.

In framing cultural interfaces, many Indigenous males construct alternative masculine identities by navigating gender, in tandem with support networks, to resist and embrace hegemonic masculine traits—often simultaneously. While evidence suggests hegemonic masculine traits, in isolation, are associated with reduced health literacy behaviours, alternative masculine identities, influenced by cultural connection and ancestral wisdom, have the potential to foster positive health literacy behaviours and environments. Age also influenced the nexus between culture, masculinities and health literacy among Indigenous males. As demonstrated, youth is a formative stage for the development of health literacy, when the interplay between these influential variables is moulded. Creating environments that support all dimensions underpinning health literacy development—during childhood and youth—can thus reduce inequities among individuals and communities across the lifespan. Given these implications, public health researchers, policymakers and practitioners can strengthen health literacy abilities among young Indigenous males, in tandem, by following two distinct strategies. These are important next steps in translating this research into practice.

The first strategy involves implementing and advocating for outreach health promotion programmes and services in community-based settings using

strengths-based narratives.⁷² Engaging with peer and family groups to strengthen the support structures already promoting health literacy among young Indigenous males is imperative. Aiming to support existing community-controlled health organisations may prove especially influential.⁶⁸ Asking young Indigenous males themselves about what strategies they require, in the first instance, is pivotal. In this process, paying attention to the broader social determinants of health that are entangled with health literacy will be necessary. Likewise, supporting and investing in community-led education programmes, which promote connection to culture and country, will help respond to the interconnectedness between the health and education systems. As part of this, expanding culturally appropriate men's groups, which respond to the diverse masculine and cultural identities of young Indigenous males, appears particularly promising.⁷³ Harnessing existing strengths and abilities among this cohort, by providing sustainable and long-term investment in the leadership of young Indigenous males, will help to amplify insightful community-based voices.

The second strategy involves adjusting mainstream primary healthcare programmes and medical services, and respective engagement strategies, to better respond to the health literacy needs of young Indigenous males. Increasing oral education and information dissemination in the first languages of this cohort is crucial. Similarly, mainstream primary healthcare and medical services should develop culturally responsive engagement procedures to facilitate a deeper understanding of Indigenous and Western worldviews, and the intersections between them, in health encounters. Building relationships with Aboriginal community-controlled health organisations, and privileging Indigenous voices, will aid this process. Relatedly, mainstream primary healthcare and medical services need to support resource development and training that better promotes, and responds, to Indigenous knowledge systems and practices. Additional qualitative research, which investigates the unique health literacy needs and skills of young Indigenous males, paying particular attention to the fine-grained variables—such as socioeconomic status and geographical location—is required to influence

this dynamic. From a policy perspective, focussing on additional equity categories within this population group, and intersections between age, race and gender, will help to facilitate targeted health promotion and outreach strategies.^{74–76} Likewise, developing policy frameworks that embrace a commitment to gender, equity and health—and which promote gender-relations and gender-transformative approaches that benefit marginalised populations of boys and men—seems to be especially promising.^{75–77}

CONCLUSION

Overall, Indigenous males experience diverse and complex processes of health literacy development, uniquely shaped by masculinities, culture and age. Various forces, both internal and external to the immediate social world of Indigenous males, influence this process. Practices and policies at all levels—from healthcare contexts to family environments—are implicated in health literacy development among this population. Responding to this broad spectrum of influences therefore requires integrated action from diverse groups. Greater emphasis from policymakers, practitioners and researchers on the social determinants underpinning health literacy will help to reduce global health inequities. In the process, more explicitly prioritising the needs and aspirations of young Indigenous males would amplify strengths-based narratives and subsequently assist this cohort in developing and maintaining healthy constructions of masculinities and culture. Cumulatively, such approaches have strong potential to reduce health literacy disparities across the lifespan and improve health equity outcomes.

REFERENCES

1. Muscat D, Smith S, Dhillon H, Morony S, Esther D, Shepherd H, et al. Incorporating health literacy in education for socially disadvantaged adults: An Australian feasibility study. *Int J Equity Health*. 2016;15:1–10. <http://dx.doi.org/10.1186/s12939-016-0373-1>
2. Berkman N, Sheridan S, Donahue K, Halpern D, Viera A, Crotty K, et al. Health literacy interventions and outcomes: An updated systematic review. *Ann Intern Med*. 2011;155(2):97–107. <http://dx.doi.org/10.7326/0003-4819-155-2-201107190-00005>

3. World Health Organisation. Shanghai declaration on promoting health in the 2030 agenda for sustainable development. Shanghai; 2016.
4. Batterham R, Hawkins M, Collins P, Buchbinder R, Osborne R. Health literacy: Applying current concepts to improve health services and reduce health inequalities. *Public Health*. 2016;132:3–12. <http://dx.doi.org/10.1016/j.puhe.2016.01.001>
5. Flecha A, Garcia R, Rudd R. Using health literacy in school to overcome inequalities. *Eur J Educ*. 2011;46(2):209–18. <http://dx.doi.org/10.1111/j.1465-3435.2011.01476.x>
6. Amoah P. The relationship between functional health literacy, self-rated health, and social support between younger and older adults in Ghana. *Int J Environ Res Public Health*. 2019;16(17):3188–98. <http://dx.doi.org/10.3390/ijerph16173188>
7. Zhang N, Terry A, McHorney C. Impact of health literacy on medication adherence: A systematic review and meta-analysis. *Ann Pharmacother*. 2014;48(6):741–51. <http://dx.doi.org/10.1177/1060028014526562>
8. Mitchell S, Sadikova E, Jack B, Paasche-Orlow M. Health literacy and 30-day postdischarge hospital utilization. *J Health Commun*. 2012;17:325–38. <http://dx.doi.org/10.1080/10810730.2012.715233>
9. Bush R, Boyle F, Ostini R, Ozolins I, Brabant M, Jimenez E, et al. Advancing health literacy through primary health care systems. Canberra: Australian Primary Health Care Research Institute; 2010.
10. Clouston S, Manganello J, Richards M. A life course approach to health literacy: The role of gender, educational attainment and lifetime cognitive capability. *Age Ageing*. 2017;36(3):493–9. <http://dx.doi.org/10.1093/ageing/afw229>
11. Logan R, Wong W, Villaire M, Daus G, Parnell T, Willis E, et al. Health literacy: A necessary element for achieving health equity. Washington, DC: National Academy of Medicine; 2015.
12. Beauchamp A, Batterham R, Dodson S, Astbury B, Elsworth G, McPhee C, et al. Systematic development and implementation of interventions to OPTimise Health Literacy and Access (Ophelia). *BMC Public Health*. 2017;230. <http://dx.doi.org/10.1186/s12889-017-4147-5>
13. Beauchamp A, Mohammadreza M, Cooper A, Pridmore V, Livingston P, Scanlon M, et al. The impact of translated reminder letters and phone calls on mammography screening booking rates: Two randomised control trials. *PLoS One*. 2020;15(1). <http://dx.doi.org/10.1371/journal.pone.0226610>
14. Guzys D, Kenny A, Dickson-Swift V, Threlkeld G. A critical review of population health literacy assessment. *BMC Public Health*. 2015;15:215–22. <http://dx.doi.org/10.1186/s12889-015-1551-6>
15. Sørensen K, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, et al. Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*. 2012;12(80):80–93. <http://dx.doi.org/10.1186/1471-2458-12-80>
16. Nutbeam D. The evolving concept of health literacy. *Soc Sci Med*. 2008;67(12):2072–8. <http://dx.doi.org/10.1016/j.socscimed.2008.09.050>
17. Beauchamp A, Buchbinder R, Dodson S, Batterham R, Elsworth G, McPhee C, et al. Distribution of health literacy strengths and weaknesses across socio-demographic groups: A cross-sectional survey using the Health Literacy Questionnaire (HLQ). *BMC Public Health*. 2015;15(678). <http://dx.doi.org/10.1186/s12889-015-2056-z>
18. Friis K, Lasgaard M, Osborne R, Maindal H. Gaps in understanding health and engagement with healthcare providers across common long-term conditions: A population survey of health literacy in 29,473 Danish citizens. *BMJ Open*. 2016;14(6). <http://dx.doi.org/10.1136/bmjopen-2015-009627>
19. Rheault H, Coyer F, Jones L, Bonner A. Health literacy in Indigenous people with chronic disease living in remote Australia. *BMC Health Serv Res*. 2019;19:523–33. <http://dx.doi.org/10.1186/s12913-019-4335-3>
20. Azzopardi P, Sawyer S, Carlin J, Degenhard L, Brown N, Brown A, et al. Health and wellbeing of Indigenous adolescents in Australia: A systematic synthesis of population data. *Lancet*. 2018;391:766–82. [http://dx.doi.org/10.1016/S0140-6736\(17\)32141-4](http://dx.doi.org/10.1016/S0140-6736(17)32141-4)
21. Milner A, Shields M, King T. The influence of masculine norms and mental health on health literacy among men: Evidence from the ten to men study. *Am J Mens Health*. 2019;13(5):1–9. <http://dx.doi.org/10.1177/1557988319873532>
22. Watkins D, Mitchell J, Mouzon D, Hawkins J. Physical and mental health interventions for black men in the United States. Online: Equal Measure; 2017.
23. Robertson S, Kilvington-Dowd L. Masculinity and men's health disparities: Conceptual and theoretical

challenges. In: Griffith D, Bruce M, Thorpe R, editors. Men's health equity: A handbook. 1st ed. New York: Routledge; 2019.

24. Bowleg L, del Río-González AM, Holt SL, Pérez C, Massie JS, Mandell, JE, et al. Intersectional epistemologies of ignorance: How behavioural and social science research shapes what we know, think we know, and don't know about U.S black men's sexualities. *J Sex Res.* 2017;54(4–5):577–603. <http://dx.doi.org/10.1080/00224499.2017.1295300>

25. Smith JA, Ireland S. Towards equity and health literacy. *Health Promot J Aust.* 2020;31(1):3–4. <http://dx.doi.org/10.1002/hpja.317>

26. Nutbeam D. Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promot Int.* 2000;15(3):259–67. <http://dx.doi.org/10.1093/heapro/15.3.259>

27. Peerson A, Saunders M. Men's health literacy in Australia: In search of a gender lens. *Int J Mens Health.* 2011;10(2):111–35. <http://dx.doi.org/10.3149/jmh.1002.111>

28. Finn S, Fallon L. The emergence of environmental health literacy—From its roots to its future potential. *Environ Health Perspect.* 2017;125(4):495–501. <http://dx.doi.org/10.1289/ehp.1409337>

29. Sentell T, Zhang W, Davis J, Baker K, Braun K. The influence of community and individual health literacy on self-reported health status. *J Gen Intern Med.* 2014;29(2). <http://dx.doi.org/10.1007/s11606-013-2638-3>

30. Edwards M, Wood F, Davies M, Edwards A. “Distributed health literacy”: Longitudinal qualitative analysis of the roles of health literacy mediators and social networks of people living with a long-term health condition. *Health Expect.* 2015;18(5):1180–93. <http://dx.doi.org/10.1111/hex.12093>

31. Kickbusch I. Health literacy: Engaging in political debate. *Int J Public Health.* 2009;54:131–2. <http://dx.doi.org/10.1007/s00038-009-7073-1>

32. Baker D, Wolf M, Feinglass J, Thompson J, Gazmararian J, Huang J. Health literacy and mortality among elderly persons. *JAMA Intern Med.* 2007;167(14):1503–9. <http://dx.doi.org/10.1001/archinte.167.14.1503>

33. Berens E, Vogt D, Messer M, Hurrelmann K, Schaeffer D. Health literacy among different age groups in Germany: Results of a cross-sectional survey. *BMC Public Health.* 2016;16(1):1151–9. <http://dx.doi.org/10.1186/s12889-016-3810-6>

34. Kobayashi L, Wardle J, Wolf M, von Wagner C. Cognitive function and health literacy decline in a cohort of aging English adults. *J Gen Intern Med.* 2015;30(7):958–64. <http://dx.doi.org/10.1007/s11606-015-3206-9>

35. Chesser A, Woods N, Smothers K, Rogers N. Health literacy and older adults: A systematic review. *Gerontol Geriatr Med.* 2016;2:1–13. <http://dx.doi.org/10.1177/2333721416630492>

36. Oberklaid F. Prevention and early detection in young children: Challenges for policy and practice. *Med J Aust.* 2014;7:369–70. <http://dx.doi.org/10.5694/mja14.01200>

37. Zarcadoolas C, Pleasant A, Greer D. Advancing health literacy: A framework for understanding and action. San Francisco, CA: John Wiley and Sons; 2006.

38. Rothman R, Yin H, Mulvaney S, Co J, Homer C, Lannon C. Health literacy and quality: Focus on chronic illness care and patient safety. *Pediatrics.* 2009;124:315–26. <http://dx.doi.org/10.1542/peds.2009-1163H>

39. Sanders L, Federico S, Klass P, Abrams M, Dreyer B. Literacy and child health: A systematic review. *JAMA Pediatr.* 2009;163(2):131–40. <http://dx.doi.org/10.1001/archpediatrics.2008.539>

40. Bröder J, Okan O, Bauer U, Bruland D, Schlupp S, Bollweg TM, et al. Health literacy in childhood and youth: A systematic review of definitions and models. *BMC Public Health.* 2017;17(1):361–86. <http://dx.doi.org/10.1186/s12889-017-4267-y>

41. Fok M, Wong T. What does health literacy mean to children? *Contemp Nurse.* 2002;13(2):249–58. <http://dx.doi.org/10.5172/conu.13.2-3.249>

42. Watts JH. Gender, health and healthcare: Women's and men's experience of health and working in healthcare roles. Burlington, VT: Ashgate Publishing Company; 2015.

43. Baum F. Governing for health: Advancing health and equity through policy and advocacy. New York: Oxford University Press; 2019.

44. Project TM, Flood M. The man box: A study on being a young man in Australia. Melbourne, Australia; 2018.

45. Shah L, West P, Bremmeyr K, Savoy-Moore R. Health literacy instrument in family medicine: The “newest vital sign” ease of use and correlates. *J Am Board Fam Med.* 2010;23(2):195–203. <http://dx.doi.org/10.3122/jabfm.2010.02.070278>

DOI: <http://dx.doi.org/10.22374/ijmsch.v3i2.34>

Int J Mens Com Soc Health Vol 3(2):e46–e57; September 8, 2020

This article is distributed under the terms of the Creative Commons Attribution-Non Commercial 4.0 International License. © Merlino A et al.

! "#\$%&' () * + & # \$ ' \$ ' . , / \$ ' # ' ') \$ 0 , # 2 3 4 5 ' 6 ') 7 ' 2 3) 7 \$ ' " # \$ m # 2 ' op \$
!" # in "#& / \$ & \$ " # 2 & % 5 \$ # ' \$ ' " # \$) 7 \$ ' 1 1 W ' n 5 \$ & \$ &) 5 \$) 7 n ') & / \$ " 1 ' /

community. *AlterNative*. 2019;15(3):253–60. <http://dx.doi.org/10.1177/1177180119876721>

67. Lakhan P, Askew D, Harris MF, Kirk C, Hayman N. Understanding health talk in an urban Aboriginal and Torres Strait Islander primary healthcare service: A cross-sectional study. *Aust J Prim Health*. 2017;23(4). <http://dx.doi.org/10.1071/PY16162>

68. Canuto K, Wittert G, Harfield S, Brown A. “I feel more comfortable speaking to a male”: Aboriginal and Torres Strait Islander men’s discourse on utilizing primary health care services. *Int J Equity Health*. 2018;17:185–96. <http://dx.doi.org/10.1186/s12939-018-0902-1>

69. McCalman J, Tsey K, Weintong M, Wilson A, McEwan A, James YC, et al. Indigenous men’s support groups and social and emotional wellbeing: A meta-synthesis of the evidence. *Aust J Prim Health Promot*. 2010;16(2):159–66. <http://dx.doi.org/10.1071/PY09032>

70. Stewart S, Riecken T, Scott T, Tanaka M, Riecken J. Expanding health literacy: Indigenous youth creating videos. *J Health Psychol*. 2008;13(2):180–9. <http://dx.doi.org/10.1177/1359105307086709>

71. Australian Bureau of Statistics. Life tables for Aboriginal and Torres Strait Islander Australians, 2015–2017. Canberra: ABS; 2018.

72. Smith J, Christie B, Bonson J, Adams M, Osborne R, Judd B, et al. Health literacy among young Aboriginal and Torres Strait Islander Males in the Northern Territory. Darwin: Menzies School of Health Research; 2019.

73. Smith JA, Merlino A, Christie B, Adams M, Bonson J, Osborne R, et al. “Dudes are meant to be tough as nails”: The complex nexus between masculinities, culture and health literacy from the perspective of young Aboriginal and Torres Strait Islander males—Implications for policy and practice. *Am J Mens Health*. 2020 (May–June):1–17. <http://dx.doi.org/10.1177/1557988320936121>

74. Smith J, Watkins D, Griffith D. Equity, gender, and health: New directions for global men’s health promotion. *Health Promot J Aust*. 2020;31(2):161–5. <http://dx.doi.org/10.1002/hpja.337>

75. Smith J, Griffith D, White A, Baker P, Watkins D, Drummond M, et al. COVID-19, equity and men’s health: Using evidence to inform future public health policy, practice and research responses in pandemics. *Int J Mens Soc Community Health*. In Press.

76. Baker P. From the margins to the mainstream: Advocating the inclusion of men’s health in policy. A scoping study. London: Global Action on Men’s Health; 2020.

77. Baker P, White A, Morgan R. Men’s health: COVID-19 pandemic highlights need for overdue policy action. *Lancet*. 2020;395:1886–7. [http://dx.doi.org/10.1016/S0140-6736\(20\)31303-9](http://dx.doi.org/10.1016/S0140-6736(20)31303-9)