How well are researchers applying ethical principles and practices in Aboriginal and Torres Strait Islander health and medical research? A cross-sectional study

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The known: Researchers conducting Aboriginal and Torres Strait Islander health and medical research must adhere to national, jurisdictional and local-level ethics guidance provided via guidelines, values and principles.

The new: This peer evaluation shows low levels of ethical research conduct being implemented in Aboriginal and Torres Strait Islander health and medical research.

The implications: Urgent attention is needed to develop and implement routine evaluations of research practices in Aboriginal and Torres Strait Islander health and medical research. Investing in training and resources for researchers working with Aboriginal and Torres Strait Islander communities is crucial.

thical guidelines are sets of principles and standards that provide a framework for ethical research practice. In Australia, established values, principles and guidelines that outline how research involving Aboriginal and Torres Strait Islander people should be implemented in an ethical and culturally safe manner have been in place since 1991. Over the past two decades, extensive work driven by Aboriginal and Torres Strait Islander people has directed new and communityspecific guidance for research conduct, and evaluated and revised national guidance.² Currently, those conducting research with Aboriginal and Torres Strait Islander people or their data have a range of national, jurisdictional and locallevel ethical guidelines, principles and processes to follow. These include nationally endorsed guidelines by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS code of ethics for Aboriginal and Torres Strait Islander Research)³ and the National Health and Medical Research Council (NHMRC) (Ethical conduct in research with Aboriginal and Torres Strait Islander peoples and communities: guidelines for researchers and stakeholders and Keeping research on track II).^{4,5} The NHMRC guidelines were both updated in 2018 following a comprehensive Aboriginal and Torres Strait Islanderled evaluation.^{2,5} Community-led, jurisdictional guidance includes: the South Australian Aboriginal Health Research Accord, the AH&MRC ethical guidelines: key principles (2020)⁷ and the recently launched Victorian Aboriginal Health, Medical and Wellbeing Research Accord.8 Local guidance and processes have also been developed for researchers working in defined communities such as: congress research core values and the associated A guide for health researchers working with Aboriginal people in central Australia and the Kimberley Aboriginal Health Research Alliance *Principles of KAHRA*.¹⁰

Abstract

Objective: Describe perceptions of how well researchers conducting Aboriginal and Torres Strait Islander health and medical research apply ethical research practices.

Study design: Cross-sectional online survey.

Setting, participants: Researchers who included Aboriginal and Torres Strait Islander people or their data in their projects, and current or past members (previous 5 years) of a human research ethics committee that assessed Aboriginal and Torres Strait Islander research.

Main outcome measures: Researchers' engagement with 15 ethical research practices (on a 5-point Likert scale, poor to excellent).

Results: 561 participants (382 researchers [68.1%] and 179 human research ethics committee members [31.9%]) completed the survey. Across all research practices, a rating of excellent was least frequently endorsed, with the highest frequency being for employing Aboriginal and Torres Strait Islander team members (38 participants [6.8%]). A rating of poor was most common for enacting Indigenous data sovereignty and governance principles (156 participants [27.8%]). Aboriginal and Torres Strait Islander respondents had significantly lower odds of perceiving high levels of adherence to ethical principles than non-Aboriginal and Torres Strait Islander respondents for all ethical principles, except employing Aboriginal and Torres Strait Islander team members. In particular, Aboriginal and Torres Strait Islander participants had 65% lower odds of perceiving that researchers have high rates of adhering to disseminating results back to the community (odds ratio [OR], 0.35; 95% CI, 0.22-0.57), 56% lower odds of perceiving that researchers have high rates of adhering to engaging Aboriginal community in research implementation (OR, 0.44; 95% CI, 0.27–0.73), and 54% lower odds of perceiving that researchers have high rates of adhering to engaging Aboriginal community in developing research questions (OR, 0.46; 95% CI, 0.28-0.75).

Conclusion: Researchers are not consistently implementing all ethical practices outlined in guidelines for research involving Aboriginal and Torres Strait Islander people. We call for commitment from researchers, institutions and funding bodies to address shortfalls, embed processes, and hold researchers accountable to Aboriginal and Torres Strait Islander people, communities and the principles and guidelines they have established.

While human research ethics committees (HRECs) are responsible for reviewing, evaluating, approving and monitoring research, researchers are on the front line of conducting studies. Their adherence to these values, principles

and guidelines therefore directly impacts the ethical integrity of research practice. Annual reporting on the activity of HRECs and certified institutions¹¹ does not currently evaluate the implementation of ethical principles and practices of researchers, which means there is limited information about the impact of ethical guidelines on research practices in Aboriginal and Torres Strait Islander health and medical research in Australia.

The aim of this research was to establish how well researchers working in Aboriginal and Torres Strait Islander health and medical research are perceived to uphold ethical research practices from the perspectives of other researchers and of HREC committee members who review and approve research. Consideration of both perspectives provides a comprehensive understanding of how ethical research principles and practices are perceived, implemented and reviewed within the research community.

Methods

Murru Minya is a multifaceted exploration of the experiences and perceptions of Aboriginal and Torres Strait Islander community members, researchers and HREC members about ethical research practices and processes for applying for and approving Aboriginal and Torres Strait Islander health and medical research. The data obtained from researchers and HREC members are reported across multiple articles to allow a nuanced exploration of ethical research practices, distinct from ethics processes. The reporting of this study adhered to the CONSolIdated critERia for strengthening the reporting of health research involving Indigenous Peoples (CONSIDER) statement (Supporting Information).

Research team

The concept of ethical practice is not new to Aboriginal and Torres Strait Islander peoples. Our ways of being incorporate a praxis of ethics that connects to our relational world view. We acknowledge that the ways in which this research is conducted are deeply rooted in our lived experience and relationality. Consequently, this intrinsically influences how Aboriginal and Torres Strait Islander people have engaged in the *Murru Minya* study.

This work was conducted in line with Indigenist methodology described by Lester-Irabinna Rigney, and aims to "delegitimate racist oppression in research and shift to a more empowering and self-determining outcome" through an exploration of the ways in which research is conducted, as examined by a collective of Aboriginal and Torres Strait Islander researchers.

The study was conceptualised and led by MK (Wiradjuri woman), in partnership with other Aboriginal (FC, CC, KEG, MW, PO, AB, SJE, KK, RL) and Torres Strait Islander (JH) researchers, and supported by non-Indigenous researchers (KB, JB, BH) located across these ancestral lands and geographies. We are situated in a range of settings, including academic and research institutions, community-controlled organisations and clinical settings. As such, we understand the duality and complexity of upholding relational research practices within Euro-Western structures.

This work is grounded in our standpoint which, as described by Martin Nakata, "is a distinct form of analysis, and is itself both a discursive construction and an intellectual device to persuade others and elevate what might not have been a focus of attention by others". Through an exploration of the field of Aboriginal and Torres Strait Islander health and medical research, by

Aboriginal and Torres Strait Islander researchers, this work repositions Euro-Western standard practices of research.

Study design

Two cross-sectional surveys — of researchers and HREC committee members — were conducted. Data were collected from 9 August 2022 to 31 May 2023.

Participant eligibility and recruitment

Further details on recruitment approaches have been reported elsewhere. 15,16 Briefly, Australian-based researchers were eligible to complete the researcher survey if they had included Aboriginal and Torres Strait Islander people or their data in their projects within the previous 5 years. Researchers were identified by reviewing the author list of articles included in a systematic review¹⁷ and reviewing grants funded by the NHMRC and Medical Research Future Fund in 2021, 2022 and up to March 2023. The corresponding author of each identified article was contacted using information included in the published manuscript and emailed a link to the survey. The lead investigator on each grant was contacted using publicly available information and emailed a link to the survey. A link to the survey was also promoted by the Lowitja Institute and the OCHRe (Our Collaborations in Health Research) network. Current and former (within the previous 5 years) members of an NHMRC-registered HREC involved in approving Aboriginal and Torres Strait Islander health and medical research were eligible to participate in the HREC member survey. All 189 NHMRC-registered HRECs were sent an email about the study, with a request for the survey link to be forwarded to individual committee members.

Data collection

Data were collected online using the REDCap (Research Electronic Data Capture) platform. Survey items were developed following a review of peer-reviewed literature and ethical guidelines (see the study protocol for details And then reviewed and refined by the Aboriginal and Torres Strait Islander investigators using feedback from communities to ensure they were culturally appropriate, acceptable, and effective for capturing the intended information. All responses from participants were anonymous.

The main outcome of interest that we assessed was perceptions of how well researchers working in Aboriginal and Torres Strait Islander health and medical research uphold ethical research practices. Participants rated 15 items covering different aspects of engagement with Aboriginal and Torres Strait Islander people in their research practice using a 5-point Likert scale (from 1 for poor to 5 for excellent, with the option of "I am unaware" when participants were not sure). Researchers were asked "We would like you to reflect on Aboriginal and Torres Strait Islander research as a whole. How well you think researchers working in Aboriginal health …". HREC members were asked "How well you think researchers in their ethics applications engage with Aboriginal and Torres Strait Islander people in each area?"

The covariates that we collected data on were age, gender, Aboriginal and Torres Strait Islander Identity and location. Participants were asked to self-report their age category as < 25 years, 25–34 years, 35–44 years, 45–54 years, 55–64 years, 65–74 years, or ≥ 75 years. Gender was determined by asking "What is your gender?", with response options being woman or female, man or male, non-binary, I use a different term (please specify),

or prefer not to say. Aboriginal and Torres Strait Islander identity was determined by asking participants to specify their identity as Aboriginal, Torres Strait Islander, both Aboriginal and Torres Strait Islander, or none. These responses were further categorised as Aboriginal and Torres Strait Islander or non-Aboriginal and Torres Strait Islander. Location was determined by asking participants to indicate their location as New South Wales, Victoria, Queensland, Northern Territory, Western Australia, South Australia, Tasmania or Australian Capital Territory, or to specify if they were located outside of Australia.

Data analysis

Participant characteristics and assessments regarding various ethical research practices are presented as numbers and percentages. To evaluate differences in perceptions of adherence to ethical guidelines between Aboriginal and Torres Strait Islander participants and non-Aboriginal and Torres Strait Islander participants (both researchers and HREC committee members), an ordinal regression analysis was conducted for each of the 15 ethical research practices separately. In all models, Aboriginal and Torres Strait Islander status was included as a predictor, and age and gender as covariates. To ensure the statistical models were reliable, age was re-categorised into three groupings (<35 years, 35-54 years and≥55 years) and gender into two groupings (male and not male [inclusive of participants who selected female, non-binary or prefer not to say]). All "I am unaware" responses were treated as missing and subsequently imputed using the *mice* (multivariate imputation by chained equations) package (developed by Stef van Buuren and Karin Groothuis-Oudshoorn). Separate imputations were performed for HREC members and researchers due to differences in surveys, with analysis conducted on the combined imputations. To facilitate the selection of appropriate predictors for the imputation model, the *quickpred* function from the mice package was used with a minimum threshold for absolute correlation of 0.35, and a minimum proportion of usable cases of 0.4. For each outcome, the data provided for imputation included variables for all answers to survey questions, with the exception of open-ended text responses and responses that were forced to be missing as a result of survey logic. We specified that all variables that would be included in subsequent analysis must be included in the imputation model, with quickpred determining the remaining predictors. Key predictors such as age, gender and Aboriginal or Torres Strait Islander status were specified for inclusion. Based on the maximum percentage of missing data for the outcome of interest (23.9%), 24 datasets were imputed with 20 iterations, using predictive mean matching. A seed of 123 was set for reproducibility. Sensitivity analysis was also conducted using only data with no missing responses. P < 0.05was considered statistically significant. Given the exploratory nature of the data, no corrections for multiple comparisons were made. Data were analysed using SPSS 27 (IBM) and R 4.4.1 (R Foundation for Statistical Computing).

Ethics approval

This research was developed in collaboration with Aboriginal and Torres Strait Islander researchers, Aboriginal community-controlled health organisation representatives, Aboriginal community members, and the National Health Leadership Forum (now known as the National Indigenous Health Leadership Alliance). The research was conducted in line with key ethical guidelines and principles. 4,5,7,20,21 Ethics approval was obtained from the Aboriginal Health and Medical Research Council of NSW HREC (1924/22), Australian Institute of

Aboriginal and Torres Strait Islander Studies Research Ethics Committee (EO323-20220414) and University of Newcastle HREC (H-2022-0211). All participants provided informed consent for participation.

Results

The survey link was sent to the 802 researchers who we identified and all 189 NHMRC-registered HRECs. A total of 561 participants completed all survey questions and were included in the analysis. This included 382 (68.1%) researchers and 179 (31.9%) HREC members. Participant demographic characteristics are provided in Box 1. Participants were predominantly female (392 [69.9%]) and over half were located in New South Wales (146 [26.0%]) and Queensland (136 [24.2%]). Just over one in ten (81, 14%) participants were Aboriginal and Torres Strait Islander, of whom 70 (86%) were researchers. "I am unaware" responses constituted 12% (68 responses for embed Aboriginal and Torres Strait Islander governance, advisory and decision making) to 23.9% (134 responses for pay community for sitting fees) of the data.

Data on participant perceptions of researchers' ethical research practices are reported in Box 2. Across all ethical practices, a rating of excellent was the least frequently endorsed response, with the highest frequency being for employing Aboriginal and Torres Strait Islander project team members (38 [6.8%]). About half of the participants perceived practices as being implemented as fair or good (a rating of 2 or 3). The highest frequencies for poor implementation (a rating of 1) were for: enacting Indigenous data sovereignty and governance principles (156 [27.8%]); engaging Aboriginal and Torres Strait Islander community in developing the research questions (155 [27.6%]); engaging Aboriginal and Torres Strait Islander community in the analysis and interpretation of findings (141 [25.1%]); engaging Aboriginal and Torres Strait Islander community in identifying research priorities (115 [20.5%]); and involving community members as co-authors on publications and co-presenters on presentations (113 [20.1%]).

Results of the ordinal regressions for each of the 15 key ethical research practices are reported in Box 3. For all ethical research practices except for employing Aboriginal and Torres Strait Islander team members, Aboriginal and Torres Strait Islander respondents had significantly lower odds of perceiving high levels of adherence to ethical research practices than non-Aboriginal and Torres Strait Islander respondents. In particular, Aboriginal and Torres Strait Islander participants had 65% lower odds of perceiving that researchers have high rates of adhering to disseminating results back to the community (odds ratio [OR], 0.35; 95% CI, 0.22–0.57), 56% lower odds of perceiving researchers have high rates of adhering to engaging Aboriginal and Torres Strait Islander community in research implementation (OR, 0.44; 95% CI, 0.27-0.73), 54% lower odds of perceiving researchers have high rates of adhering to engaging Aboriginal and Torres Strait Islander community in developing the research questions (OR, 0.46; 95% CI, 0.28-0.75) and 53% lower odds of perceiving researchers have high rates of involving community members as co-authors on publications and co-presenters on presentations (OR, 0.47; 95% CI, 0.29–0.77). In the sensitivity analysis (Supporting Information, table 1), results of the ordinal regression analyses were consistent with the corresponding imputed models.

Discussion

To our knowledge, this is the first national assessment of ethical research practices in Aboriginal and Torres Strait Islander health and medical research, from the perspectives of researchers and

Characteristic	Total	Researchers	HREC members	
Participants	561	382		
Age				
< 25 years	3 (0.5%)	3 (0.8%)	0	
25–34 years	52 (9.3%)	43 (11%)	9 (5%)	
35–44 years	123 (21.9%)	93 (24%)	30 (17%)	
45–54 years	151 (26.9%)	115 (30.1%)	36 (20%)	
55–64 years	152 (27.1%)	91 (24%)	61 (34%)	
65–74 years	62 (11%)	32 (8.4%)	30 (17%)	
≥75 years	18 (3.2%)	5 (1%)	13 (7.3%)	
Gender*				
Woman or female	392 (69.9%)	290 (75.9%)	102 (57.0%)	
Man or male	165 (29.4%)	89 (23%)	76 (42%)	
Non-binary	1 (0.2%)	1 (0.3%)	0	
I use a different term	0	0	0	
Prefer not to say	3 (0.5%)	2 (0.5%)	1 (0.6%)	
Aboriginal and Torres Strait Islander identity $^{^\dagger}$				
Aboriginal and/or Torres Strait Islander	81 (14%)	70 (18%)	11 (6.1%)	
Non-Aboriginal and/or Torres Strait Islander	480 (85.6%)	312 (81.7%)	168 (93.9%)	
Location				
New South Wales	146 (26.0%)	108 (28.3%)	38 (21%)	
Victoria	93 (17%)	58 (15%)	35 (20%)	
Queensland	136 (24.2%)	91 (24%)	45 (25%)	
Northern Territory	44 (7.8%)	33 (8.6%)	11 (6.1%)	
Western Australia	63 (11%)	43 (11%)	20 (11%)	
South Australia	39 (7.0%)	28 (7.3%)	11 (6.1%)	
Tasmania	5 (0.9%)	2 (0.5%)	3 (2%)	
Australian Capital Territory	28 (5.0%)	15 (3.9%)	13 (7.3%)	
Prefer not to say	3 (0.5%)	0	3 (2%)	
Outside of Australia	4 (0.7%)	4 (1%)	0	

LGBTQ+ = lesbian, gay, bisexual, transgender, queer, and other non-heteronormative or non-binary sexual and gender identity; HREC = human research ethics committee. * Participants were asked to describe their gender (not to be conflated with "sex"). Response options were: "woman or female"; "man or male"; "non-binary"; "prefer not to say"; and "luse a different term" (with an open-text field). Response options included gender and sex identifiers to allow inclusive participant preference in line with guidelines from leading LGBTQ+ health organisation ACON.²² † Non-Aboriginal and/or Torres Strait Islander participants included researchers who identified as being from an Indigenous population other than Aboriginal or Torres Strait Islander.

HREC members in the sector. Engaging both HREC members and researchers involved in the conduct and oversight of research in the field, this study offers a comprehensive understanding of how ethical research principles and practices are perceived, implemented and reviewed within the research community. Aboriginal and Torres Strait Islander participants reported overall lower ratings of the research practices of researchers working in Aboriginal and Torres Strait Islander health and medical research on almost all ethics principles examined. Acknowledging that ethical principles and standards for Aboriginal and Torres Strait Islander health research have been driven for and by Aboriginal and Torres Strait Islander people, these findings indicate that urgent attention is required to uphold ethical principles, values and guidelines in the conduct of health and medical research.

Our study was conducted in response to previous recommendations to involve Aboriginal and Torres Strait

Islander people and communities in the monitoring and evaluation of research to address the limited benefit Aboriginal and Torres Strait Islander people and communities have received from research.²³ Concerningly, our study showed that a rating of excellent was the least frequently endorsed response across all ethical research practices examined. This finding of a failure to consistently implement ethical research practices echoes evidence from Aboriginal and Torres Strait Islander communities,²⁴ aligns with observations from international Indigenous populations, ²⁵ and suggests that the "dirty" name of research²⁶ might still be present. A recent review of research conducted in the Kimberley reported "questionable 'research world' behaviours", highlighting the continued unethical behaviours of researchers working in the Kimberley over the past 15 years.²⁴ These findings indicate clear gaps in the implementation of ethical research principles and practices,

	Poor	Fair	Good	Very good	Excellent	I am unaware
Engage Aboriginal community in identifying research priorities	115 (20.5%)	165 (29.4%)	126 (22.5%)	71 (13%)	15 (2.7%)	69 (12%)
Engage Aboriginal community in developing the research questions	155 (27.6%)	168 (29.9%)	108 (19.3%)	40 (7.1%)	14 (2.5%)	76 (14%)
Embed Aboriginal governance, advisory and decision making on the project	77 (14%)	170 (30.3%)	165 (29.4%)	59 (11%)	22 (3.9%)	68 (12%)
Enact Indigenous data sovereignty and governance principles	156 (27.8%)	153 (27.3%)	97 (17%)	46 (8.2%)	17 (3.0%)	92 (16%)
Develop research agreements with Aboriginal communities	92 (16%)	150 (26.7%)	140 (25.0%)	68 (12%)	17 (3.0%)	94 (17%)
Embed opportunities in the research for capacity building for Aboriginal communities	85 (15%)	165 (29.4%)	144 (25.7%)	63 (11%)	21 (3.7%)	83 (15%)
Embed opportunities in the research for capacity building of the research team for research with Aboriginal communities (ie, developing cultural capabilities)	80 (14%)	163 (29.1%)	144 (25.7%)	66 (12%)	22 (3.9%)	86 (15%)
Engage Aboriginal community in research implementation	89 (16%)	152 (27.1%)	150 (26.7%)	56 (10%)	17 (3.0%)	97 (17%)
Employ Aboriginal project team members	58 (10%)	152 (27.1%)	149 (26.6%)	82 (15%)	38 (6.8%)	82 (15%)
Engage Aboriginal community in the analysis and interpretation of findings	141 (25.1%)	162 (28.9%)	113 (20.1%)	33 (5.9%)	20 (3.6%)	92 (16%)
Reimburse costs to communities for partnership and involvement	87 (16%)	138 (24.6%)	130 (23.2%)	63 (11%)	25 (4.5%)	118 (21.0%)
Pay community members for sitting fees (ie, for research meetings)	97 (17%)	140 (25.0%)	106 (18.9%)	63 (11%)	21 (3.7%)	134 (23.9%)
Disseminate results back to the community	67 (12%)	154 (27.5%)	148 (26.4%)	82 (15%)	29 (5.2%)	81 (14%)
Involve community members as co-authors on publications and co-presenters on presentations	113 (20.1%)	164 (29.2%)	105 (18.7%)	49 (8.7%)	23 (4.1%)	107 (19.1%)
Translate the findings into policy and/or practice	100 (17.8%)	160 (28.5%)	132 (23.5%)	49 (8.7%)	18 (3.2%)	102 (18.2%)

and a need for significant improvement to ensure research conducted with Aboriginal and Torres Strait Islander people adheres to high ethical standards, and truly benefits Aboriginal and Torres Strait Islander people and communities.

Our study showed that Aboriginal and Torres Strait Islander participants perceived researchers to not have excellent practices in disseminating results back to the community, engaging Aboriginal and Torres Strait Islander community in research implementation, engaging Aboriginal and Torres Strait Islander community in developing research questions, and involving community members as co-authors on publications and co-presenters on presentations. While the extent to which researchers can achieve some of these principles may depend on the characteristics of individual projects, each of these principles and practices are important and are consistently reflected in ethical guidelines that were mapped to develop this evaluation.^{3-7,21} Our findings align with those of other research that has assessed how NHMRC ethics guidelines for Indigenous health and medical research have been implemented.²⁶ A survey of people engaged in Indigenous health research in Australia also showed inadequate Indigenous governance and data sovereignty, and inadequate Indigenous governance and participation at each stage of the research process. Furthermore, our findings align with recent national consultations undertaken by the NHMRC in reviewing their Indigenous Research Excellence Criteria, which are used to assess funding applications involving Aboriginal and Torres Strait Islander people. Participants at these national dialogues emphasised the need for community engagement, shared governance and data sovereignty, and also raised concerns about the accountability of researchers in implementing research that is beneficial and acceptable to Aboriginal and Torres Strait Islander people. ²⁵

We found that the ethical practice ^{24,26} of employing Aboriginal and Torres Strait Islander project team members was the practice most reported as very good and excellent, with no differences between reporting by Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islander participants. This finding coincides with recent researchers' reports on their own research practice. ²⁷ It is critical to note that employment of Aboriginal and Torres Strait Islander staff alone does not ensure Aboriginal and Torres Strait Islander control over the research process, and does not equate to ethical adherence. For example,

3 Summary of ordinal regression for perceptions of researchers' adherence to key ethical research practices, with Aboriginal or Torres Strait Islander status as a predictor

Outcome	Odds ratio (95% CI)*
Engage Aboriginal community in identifying research priorities	0.58 (0.36–0.94)
Engage Aboriginal community in developing the research questions	0.46 (0.28-0.75)
Embed Aboriginal governance, advisory and decision making on the project	0.53 (0.33–0.85)
Enact Indigenous data sovereignty and governance principles	0.58 (0.36-0.93)
Develop research agreements with Aboriginal communities	0.59 (0.37–0.93)
Embed opportunities in the research for capacity building for Aboriginal communities	0.60 (0.37–0.97)
Embed opportunities in the research for capacity building of the research team for research with Aboriginal communities (ie, developing cultural capabilities)	0.49 (0.3–0.79)
Engage Aboriginal community in research implementation	0.44 (0.27–0.73)
Employ Aboriginal project team members	0.67 (0.42–1.05)
Engage Aboriginal community in the analysis and interpretation of findings	0.51 (0.31–0.82)
Reimburse costs to communities for partnership and involvement	0.48 (0.3–0.76)
Pay community members for sitting fees (ie, for research meetings)	0.53 (0.33–0.84)
Disseminate results back to the community	0.35 (0.22–0.57)
Involve community members as co-authors on publications and co-presenters on presentations	0.47 (0.29–0.77)
Translate the findings into policy and/or practice	0.58 (0.35–0.96)
* The adds of reporting a higher level of persoived adherence	o of rocoarchors to the specific

^{*}The odds of reporting a higher level of perceived adherence of researchers to the specific key ethical research practices.

a recent review of the implementation of Yarning method in Aboriginal and Torres Strait Islander health research found that Aboriginal and Torres Strait Islander people were most often employed in the data collection phase of the research with limited involvement in analysis and interpretation of findings.²⁸ While establishing research pathways for Aboriginal and Torres Strait Islander people is a key inclusion in the strategic plans of institutions and funding bodies,²¹ there is limited evidence that employment on projects is leading to career progression for Aboriginal and Torres Strait Islander people. Aboriginal and Torres Strait Islander people and communities should be leading research that aims to improve their lives to ensure that research is culturally appropriate, can effectively address the unique challenges faced by Aboriginal and Torres Strait Islander people, and can empower ownership of the research process. While current targets and annual reporting by the NHMRC on Aboriginal and Torres Strait Islander researchers are promising — noting the current agreed target for research led by Aboriginal and Torres Strait Islander people is only $3.4\%^{29}$ — the field of research will continue to be dominated by non-Indigenous researchers, and therefore continue to centre non-Indigenous world views and research practices.²⁷ Given the dominance of non-Indigenous researchers in leading roles within the sector, alongside our findings of low perceived ethical practice, we call for a mechanism of oversight to monitor ethical practice, additional targeted capacity-building programs for Aboriginal and Torres Strait Islander researchers and the establishment of collaborative partnerships that prioritise Indigenous knowledge and perspectives. We join calls for a fundamental shift in Aboriginal and Torres Strait Islander health research, from participation to leadership, "from being the examined to being the examiners".³⁰

In reference to recent national concerns raised during the Indigenous Research Excellence Criteria consultations and the low reports of ethical practices in our study, we call for researchers, institutions and funding bodies to acknowledge their role and influence in the implementation of ethical research practice. Our study adds to the continuing evaluation of ethical research practice driven by Aboriginal and Torres Strait Islander people, and draws attention to areas which need actioning by researchers, institutions and funding bodies. Localised and targeted evaluations of ethical research practice should be embedded into institutional and funding body structures to provide in-process evaluations of individual researchers, institutions and funding schemes, implementing accountability structures that have been requested by Aboriginal and Torres Strait Islander people for decades.³¹

The review of ethical guidelines published in 2013 recommended: "A program for researchers working in the Aboriginal and Torres Strait Islander health research sector. This program should include a particular focus on gaining the understanding of and commitment to the Guidelines by senior leadership in research organisations".³² To date, no comprehensive program has been implemented, but such calls have recently been re-ignited.³⁰ Our findings further support the urgent need to establish researcher training and support to ensure ethical research moves beyond a focus on the process of obtaining ethics approval and towards upholding ethical research practices. It is time to action the findings of this assessment and other evaluations past. It is time to embed processes and models that yield real change to ethical research practices, and hold researchers to account for their practice beyond receiving ethics approval.

Limitations

Our study findings should be considered with regard to several limitations. Firstly, this evaluation was designed as an overall assessment of research practices rather than an assessment of the quality of individual researchers or research studies. Secondly, given the sampling methods used, a response rate for the study cannot be determined. It is therefore difficult to determine the representativeness of the sample, which may affect the generalisability of our study findings. Finally, all questions regarding the perceptions of ethical research practices had > 10% "I am unaware" responses. This suggests that a proportion of participants may not have had adequate knowledge to complete the survey, potentially affecting the validity of our findings; however, this was accounted for in the statistical analysis.

Conclusion

For nearly four decades, Aboriginal and Torres Strait Islander people and communities have provided guidance on ethical research practice by developing, reviewing and evaluating key principles and guidelines. Despite the robust work of Aboriginal and Torres Strait Islander people to guide ethical research practice, HREC members and researchers from the sector perceive clear shortfalls in researchers implementing these. We urgently call for commitment among researchers, institutions and funding

bodies to embed processes to address these shortfalls and hold researchers to account to Aboriginal and Torres Strait Islander people and communities, and the corresponding principles and guidelines they established.

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Data sharing: In line with Indigenous data sovereignty and Aboriginal and Torres Strait Islander ethical research principles, no data sharing is available from this study.

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Supporting Information

Additional Supporting Information is included with the online version of this article.