


Disability workforce and the NDIS planning process in regional, rural and remote regions of Australia: Scoping review

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Abstract

Background: The Australian geographically rural and remote disability workforce has historically demonstrated difficulties to keep up with the demand for quality services and supports for people with disability. In 2013, the National Disability Insurance Scheme (NDIS) was launched to provide individualised disability support packages to meet people's needs. To receive funding, people with disability are required to develop a NDIS plan. That plan is then funded by the National Disability Insurance Agency (NDIA), the government agency responsible for managing the NDIS. Although the NDIS has been operating for almost 10 years, there is limited research into the planning experiences of the workforce in regional, rural and remote regions of Australia. This review aims to ascertain the level of scholarly investigation into workers' experiences of NDIS planning.

Methodology: Research publication databases were searched using a specific search string to identify publications that included reference to the workforce's experiences of the NDIS planning process in regional, rural and remote regions of Australia. The Mixed Methods Appraisal Tool (MMAT) was adopted to appraise the quality of the research publications. Research publications that focused on those working with Aboriginal and Torres Strait Islander people were also appraised using the Aboriginal and Torres Strait Islander Quality Appraisal Tool developed by the Centre for Excellence in Aboriginal Chronic Disease Knowledge Translation and Exchange. A thematic synthesis of the publications was undertaken to ascertain disability and health workforce experiences of the NDIS planning process.

Results: Seven papers met the selection criteria. Two papers were policy reviews and reported the improvements of the NDIS planning process since its inception. These studies reported four reoccurring themes: (1) cultural/socioeconomic and geographical factors; (2) administrative burden and bureaucracy; (3) values, culture and geography; and (4) burden on allied health workers.

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Conclusion: The NDIS planning process has developed and progressed since its rollout in 2013. There are limited research papers available that describe the workforce's experience of the planning process in regional, rural and remote regions. More research in this area is needed to identify the experiences of the disability workforce in relation to the NDIS planning process.

KEYWORDS

Aboriginal health, allied health, disability, rural health policy, rural health

1 | BACKGROUND

National Disability Services (NDS), the peak Australian government agency for disability service provider organisations, has long reported on the need to build the capacity of the disability services workforce to meet increasing demand for services and supports.^{1,2} The National Disability Insurance Scheme (NDIS) was introduced in 2013 by the Australian government to provide a social insurance model of support for people with disability. To be eligible for the NDIS, applicants must be under 65 years of age, or over 50 years old for Aboriginal and Torres Strait Islander people, and have a significant and permanent impairment that substantially reduces their ability to participate in the community. A NDIS participant is a person with disability who has been assessed as eligible to receive a funding package for purchasing services and supports. As of December 2021, the NDIA reported over 400 000 people were registered with the NDIS.³

Once a person is deemed eligible for a NDIS plan, they are required to complete the NDIS planning process. This process involves attending meetings with either a NDIS planner or meeting with an early childhood partner or a local area coordinator from a NDIS partner organisation to ascertain what supports are needed. The first part of the NDIS planning process is known as the preplanning process, which involves identifying the necessary assessments relating to the person's required support needs, activities of daily living and personal goals. These assessment reports (known in the NDIA as evidence) are often produced by workers in the allied health, medical, disability services and community services sectors. The second NDIS planning phase involves creating the plan once all the required evidence has been gathered. The NDIA planner examines the application for full or part approval using a set of principles and to ascertain whether plan items are 'reasonable and necessary' under the NDIS Act 2013.⁴ Essentially, the NDIA must be satisfied that the requested services/supports are required for a socially inclusive life.

According to recent reports, the NDIS planning process can take many months to complete and in rare cases up to a year. Tune's⁵ review of the NDIS Act 2013 concluded that

What this paper adds

- This paper provides an insight into the limited research on the NDIS planning process in regional, rural and remote regions of Australia.
- It also provides an insight into the experiences of the disability workforce of the NDIS planning process in these regions of Australia.

What is already known on this subject

- The disability workforce is under stress to meet the needs of people with disability under the NDIS.
- People with disability have reported that they find the NDIS planning process confusing, dehumanising and overwhelming.

the planning process was taking on average 66 days. At the time of the Tune⁵ Review, the NDIS Act 2013 did not specify a time frame for the planning process to be completed. Since the Tune review, the NDIA has been measuring their performance under the Participant Service Charter as a model of quality performance and monitoring. Under the Charter the NDIA reported that in 2021 86% of people had their plans approved in under 56 days since submission.⁶ However, the NDIA's⁷ report on the NDIS performance under their Rural and Remote Strategy 2016–2020 stated that people living in regional, rural and remote regions experience challenges in finalising plan reviews and implementing their plan due to a lack of available choice of allied health and disability services.

1.1 | Regional, rural and remote workforce

Prior to the NDIS, there was considerable evidence highlighting the difficulties in recruiting and retaining a health, allied health and disability workforce in regional, rural and remote locations.^{8–10} The NDIA lists

large numbers of providers available in regional, rural and remote areas, but Kuipers et al.¹¹ outline many reasons why this does not translate to appropriate services on the ground. Services are often provided in regional towns (hubs), which are typically larger population centres servicing surrounding rural areas and providing outreach to more remote communities. People requiring services must either travel to the hub or regulate their lifestyle to reflect the agency values or operations and therefore limiting choice and control of disability services. Workers based in hubs may also deliver outreach services to outlying rural and remote locations (the spokes;^{12–16}). Fly-in, fly-out (FIFO) and drive-in, drive-out (DIDO) are also common rural/remote service delivery models providing specialist input via workers making short-duration visits to communities. Both models have challenges due to the high cost of delivery, their infrequent and time-limited nature and typically high staff turnover.^{15,17}

Although the disability services workforce has increased in size with the advent of the NDIS, in regional, rural and remote regions it still predominately operates on a FIFO/DIDO model. Although there is limited data on the workforce due to worker movements between sectors/occupations,¹⁸ the Australian Bureau of Statistics (ABS) data show that the *aged and disabled carers* workforce has doubled from just over 400 persons per 100 000 population in 2010 to 800 persons per 100 000 population in 2020 nationally. The Australian Government claims that by 2024 the NDIS workforce will require an additional 83 000 workers to support around 500 000 people, a workforce growth of 30% nationally.¹⁹ The Workforce Plan¹⁹ predicts that ‘the NDIS has already created a significant number of new jobs and is expected to continue to do so across each state and territory. Many of these jobs will be created in regional and remote areas’.

Although the workforce has increased in size over the last 10 years, reports and evaluations of the NDIS implementation^{20,21} and the disability services workforce^{22–24} show that the workforce is struggling to meet community service demand in a changing policy environment. Literature reviews by Gilroy et al.¹² and Trounson et al.²¹ reported that the disability services sector needs an Aboriginal and Torres Strait Islander designed and managed workforce strategy, which must include a cultural safety model underpinned by community-based rehabilitation principles. Such a strategy improves the quality of support and care for people with disability as it fosters cross-cultural pollination between Aboriginal staff and non-Aboriginal staff. In their State of The Sector report, NDS¹ concluded ‘the disability sector seems to be doing it tough ... [with]... 70 per cent of providers reported

problems recruiting support workers, up even further from the still significant 59 per cent in 2020’.

Despite the relatively recent national rollout of the NDIS, there are several published research papers which explore the NDIS planning process experiences of the disability workforce since the passing of the NDIS Act 2013.³ Given the critical importance of the NDIS planning process, the experiences of the planning process for disability workers living in regional, rural and remote regions need to be explored. This knowledge will assist the NDIA and disability providers and peak bodies to support people more effectively in the NDIS planning process.

2 | METHOD

A discussion was held amongst the authors in conjunction with a Librarian to ensure review results would best represent the question proposed. A protocol for the systematic scoping review was agreed upon in accordance with Arksey and O’Malley’s five-stage process involving: (1) identifying the research question; (2) identifying relevant studies; (3) study selection; (4) charting the data; and (5) collating, summarising and reporting the results.²⁵ There is an option of a sixth phase, where community stakeholders (e.g. practitioners and consumers) contribute to the project, such as forming an advisory committee. This stage was not adopted as two of the authors (Author 1 and Author 3) have lived experience of disability and the other authors are registered allied health workers. Furthermore, the authors believe that the experiences of planners and people engaged in the planning process can only be established through a high-quality qualitative study. An agreement was reached on key terms, search methods, screening, data extraction and analysis of literature.

2.1 | Stage 1: Identifying the research question

The aim of this scoping review is to appraise and review the literature about the experiences of workers involved in the NDIS planning process who live in regional, rural and remote regions of Australia. The research question is *what are the experiences of the NDIS planning process for disability workers who live in regional, rural and remote areas of Australia?* For this study, we define workers as those people who are in paid employment in the disability workforce who are involved in the NDIS planning process.

2.2 | Stage 2: Identifying relevant studies

Grey and peer-reviewed publications were included in this review. Identified publications were required to be written in English and have an abstract or report summary. In addition, the publications were required to have background, methodology, results and a discussion section relating to the study to be included.

2.3 | Stage 3: Study selection

This study adopted an Indigenous decolonising methodology that was led by three Indigenous scholars. In previous Indigenous disability lead research projects, Gilroy and Donnelly²⁶ argued that Indigenous disability scholars need to adopt and adapt decolonising disability research to challenge the 'academic imperialism' that oppresses Aboriginal peoples in Western science. Gilroy²⁷ states that as a result of academic imperialism:

There are volumes of knowledge, a whole epistemological library in fact, on Indigenous people with a disability. This knowledge is not owned by Indigenous people, rather this library operates as a resource for non-Indigenous researchers and government decision makers to legitimate themselves as the controllers and bearers of the 'truth' on disability.

Decolonisation is an intellectual, meta-physical approach to deconstruct and challenge the hegemony of traditional Western academic practices. A key component of decolonisation is to explore not just what is written about Aboriginal people but to also explore the ethical processes of the research and the quality of the research publications. This approach aims to prevent further deterioration of Indigenous cultures, ethics and values by locating Indigenous voices at the centre of the research paradigm. Such an approach has seen a significant shift of initiators and controllers of research away from the academic community.^{28,29}

There were two parts to our approach that occurred simultaneously during the workshop. Part 1 was the extraction and analysis of the data using the Mixed Methods Appraisal Tool (MMAT) version 2018 framework. First developed in 2006, the MMAT was designed to appraise multiple research publications no matter the methodology types (qualitative, quantitative and mixed method methods).³⁰⁻³⁴ Included publications were grouped into one of the following categories: Qualitative, quantitative randomised control trial (RCT), quantitative non-RCT, quantitative descriptive, mixed methods. The MMAT is

a good approach to explore the quality and trustworthiness of the actual research publications. Reflecting on the principles of decolonisation, examining the quality of the peer-reviewed and grey research publications will help ascertain the richness of the research process and findings.

The studies were also assessed for methodological validity by three of the authors (JG, SVG, and WW) who discussed and resolved any differences in the ratings. Aboriginal and Torres Strait Islander research publications were additionally screened using the Aboriginal and Torres Strait Islander Quality Appraisal Tool (CREATE).^{35,36} This tool appraises how the research met the values and ethics of working with Aboriginal and Torres Strait Islander communities. This tool reflecting the Australian Government's ethical guidelines for Aboriginal and Torres Strait Islander research, which was developed by Aboriginal and Torres Strait Islander scholars within the scope of decolonisation and Indigenous human rights liberation.³⁷

Part 2 was the thematic analysis of the included publication content. The thematic analysis was in accordance with Braun and Clarke's six-phase process involving: (1) familiarisation of data; (2) initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6) writing the paper.³⁸ To aid visual analysis and enhance disability inclusiveness, each code was allocated a colour and the three lead authors (JG, SVG, and WW) colour coded each publication's content to ensure consistent coding and rigorous discussion. Initial codes were discussed amongst the team, and as further reviewing occurred, overarching themes were identified. The preliminary findings of each phase were sent to the other authors for validation and verification.

2.4 | Stage 4: Charting the data

The electronic bibliographic databases searched were:

- Peer-reviewed publications: Medline, Cinahl, Scopus, informit, ProQuest and Web of Science.
- Grey literature: Australian Institute for Health and Welfare website, Google Scholar, NDIS publications webpage, National Library website, Australian Policy Online, Australian National University Open Research, Australian Institute for Aboriginal and Torres Strait Islander Studies and all state/territory library websites.

The team also engaged in citation tracking of the included studies for other potentially eligible papers. A hand search was undertaken that involved contacting key people in the research field and Google Scholar for grey literature. The search time frame was 1 January 2013 to 30 September 2020. Alerts were set on all databases, and

searches were re-run prior to final analyses to ensure capture of any new material that fit the search strategies. The search strategy and terms were as follows:

[All Fields: 'health personnel*' OR All Fields: 'health?care personnel' OR All Fields: 'allied health personnel*' OR All Fields: 'occupational therapist*' OR All Fields: 'speech therap*' OR All Fields: 'speech patholog*' OR All Fields: 'physical therapist*' OR All Fields: physiotherap* OR All Fields: 'occupational therap*' OR All Fields: psychologist* OR All Fields: psychiatrist* OR All Fields: nutritionist* OR All Fields: dietitian* OR All Fields: dietetic* OR All Fields: 'community health nurs*' OR All Fields: 'disability support worker*' OR All Fields: 'disability worker*' OR All Fields: 'social worker*' OR All Fields: 'youth worker*'] AND [All Fields: 'national disability insurance scheme*' OR All Fields: 'national disability insurance agenc*' OR All Fields: ndis OR All Fields: ndia].

This review considered studies that reported on disability workers who experienced the NDIS planning process in Australian regional, rural and remote areas. Combined searches from the below databases were imported into EndNote X8. The titles and abstracts were screened, respectively, by authors (Author 1, Author 2 and Author 3) using the Systematic Review software COVIDENCE.

Papers were only included if they fit the following eligibility criteria:

- Research solely on the perspective of people who work in disability/ health care workforce.
- Research on the NDIS planning process.
- Regional, rural and remote regions of Australia as defined by either the Monash model or the Australian Government Accessibility and Remoteness Index of Australia.³⁹

Excluded criteria:

- Research solely about the perspectives of people who have a disability/their family.
- Research that did not include information on the NDIS planning process (i.e. papers that discussed other components of the NDIS or other disability programs).
- Metropolitan regions of Australia or other countries.

Resulting disagreements on any papers were resolved by discussion between all three first authors until 100% agreement was achieved.

2.5 | Stage 5: Collating, summarising and reporting the results

As a member of our team has a visual impairment, we were unable to utilise common computer software systems as none were compatible with the visual assistive technology. The team adopted Gilroy's²⁷ disability-inclusive approach to data extraction and analysis. All members had hard copies of the papers printed in size 14 font. A 3-day workshop of the lead authors (Author 1, Author 2 and Author 3) occurred to conduct the review. Publications were stored and sorted on Covidence database and Endnote. A whiteboard was used to scribe the discussions, with text large enough for all present to read.

Our search yielded 322 articles, of which 124 were duplicates and excluded (Figure 2). Of the remaining 198 articles, 163 were excluded. After the full-text analysis, seven ($N=7$) articles were selected for inclusion as shown in the Preferred Reporting Items for the Preferred Reporting Systematic Reviews and Meta-Analyses (PRISMA) Statement (Figure 1).

All seven ($N=7$) papers assessed or described workers' experiences of the NDIS planning process. Table 1 shows the characteristics of the included publications. The studies included in this review utilised a variety of data collection methods including focus groups, interviews and surveys. Two of these studies, Tune⁵ and Mavromaras et al.,⁴⁰ were specifically focused on evaluation of the NDIS and were the only nonpeer-reviewed papers to consider the NDIS planning process in regional, rural and remote regions. Tune⁵ was an evaluation of the NDIS Act 2013 and Mavromaras et al.⁴⁰ involved reporting and reflecting on the NDIS trial sites. Three of the studies⁴¹⁻⁴³ explored the impact of the transition from the previous block-funded model to the NDIS.

2.6 | Results of the MMAT and CREATE tool

Tables 2 and 3 show that, of the included publications, three ($n=3$) used qualitative research methods (Table 2) and four used mixed methods ($n=4$; Table 3). Although there has been scant research on the experiences of workers of the NDIS planning process in regional, rural and remote areas, the findings of the MMAT analysis show that the quality of the research that has been undertaken is of high quality.

There was only one Aboriginal and Torres Strait Islander-specific study.⁴⁴ Figure 2 illustrates the results of the CREATE analysis of Dew et al.,⁴⁴ which concluded

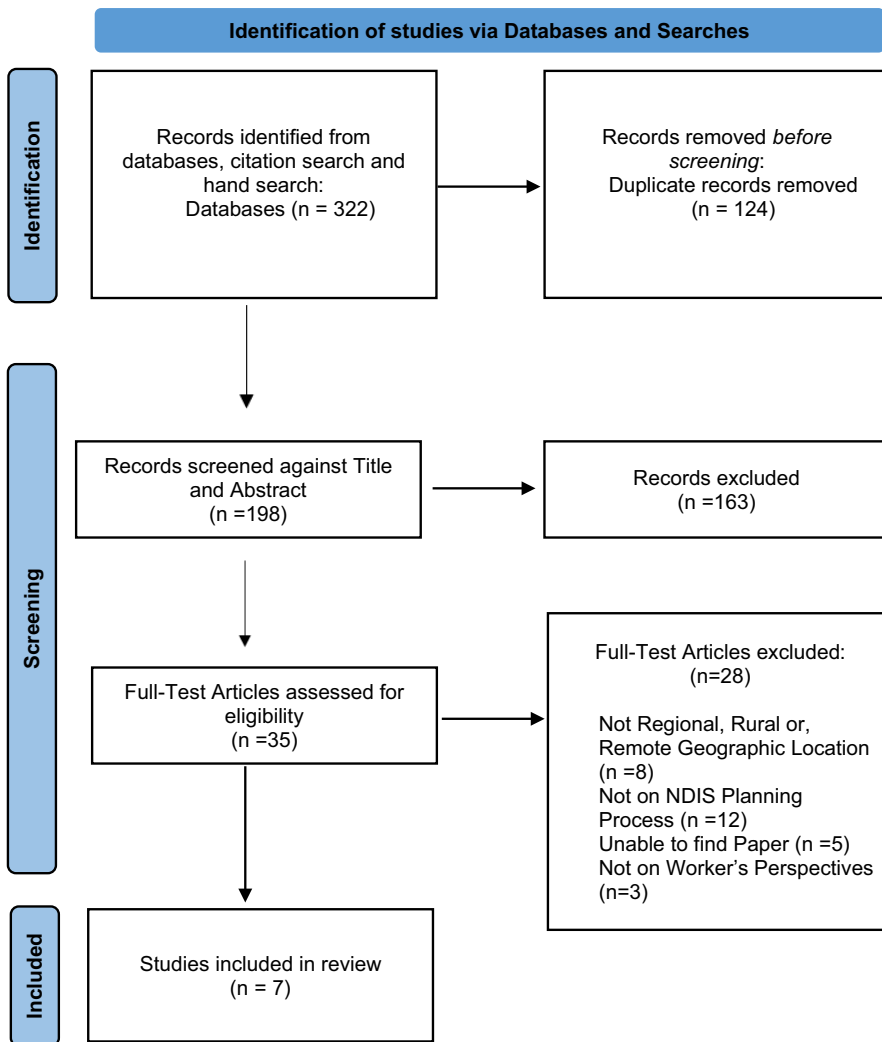


FIGURE 1 Identification, screening and selection process of research articles for review.

that the study was conducted in a culturally safe and inclusive way by using an Aboriginal modelled traditional community-embedded arts-based yarning methodology. Furthermore, the study was led by Aboriginal scholars and community Elders.

3 | RESULTS OF THE THEMATIC ANALYSIS

Part 2 of the review involved thematic analysis of the publications' content focused on workers' experience of the NDIS planning process in regional, rural and remote areas of Australia. The main themes identified via our thematic analysis are as follows:

1. Bureaucracy and Administrative Burden
2. Awareness and Training
3. Values, Culture and Geography
4. Burden on Allied Health Workers

3.1 | Bureaucracy and administrative burden

Three studies described that NDIS staff and allied health workers in regional, rural and remote regions reported the complexity of engaging with the NDIS process resulted in an increased administrative burden on all staff involved.^{40,41,43} In their NDIS trial site evaluation report, Mavromaras et al. (2018) reported that NDIA planners noted that although reform had increased the number of NDIA planning staff, inefficient information technology and complex processing systems contributed to staff burn-out and increased administrative load across the country. The study by Foley et al.⁴³ conducted during the period of transition to the NDIS noted that the frequently changing nature of NDIS policies, processes and ongoing bureaucratic reviews created an environment of uncertainty during the planning process. An NDIA workers' quote from Mavromaras et al. (page 81, 2018) describes NDIA workers' stress with the NDIS:

FIGURE 2 CREATE tool analysis of publications included in the review that focused on Aboriginal and Torres Strait Islander peoples.

ABORIGINAL AND TORRES STRAIT ISLANDER QUALITY APPRAISAL TOOL

Answer either "Yes", "Partially", "No" or "Unclear" to each question

Article citation: _____ Date: _____

Reviewer's name: _____



| Question | Yes | Partially | No | Unclear |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Did the research respond to a need or priority determined by the community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Was community consultation and engagement appropriately inclusive? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Did the research have Aboriginal and Torres Strait Islander research leadership? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Did the research have Aboriginal and Torres Strait Islander governance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Were local community protocols respected and followed? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Did the researchers negotiate agreements in regards to rights of access to Aboriginal and Torres Strait Islander peoples' <u>existing</u> intellectual and cultural property? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Did the researchers negotiate agreements to protect Aboriginal and Torres Strait Islander peoples' ownership of intellectual and cultural property <u>created</u> through the research? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Did Aboriginal and Torres Strait Islander peoples and communities have control over the collection and management of research materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Was the research guided by an Indigenous research paradigm? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Does the research take a strengths-based approach, acknowledging and moving beyond practices that have harmed Aboriginal and Torres Strait peoples in the past? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Did the researchers plan and translate the findings into sustainable changes in policy and/or practice? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Did the research benefit the participants and Aboriginal and Torres Strait Islander communities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Did the research demonstrate capacity strengthening for Aboriginal and Torres Strait Islander individuals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Did everyone involved in the research have opportunities to learn from each other? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

A lot of people here, of course, have really struggled with the changes over the last two and a half years. They're burnt out. It hasn't been well managed. They're at the end of themselves because this is the point at which we believed that we would actually have, now things would settle, now we'd have an understanding of what we needed to do....

The two reports identified high burnout amongst NDIA staff.^{5,40} In their evaluation report, Mavromaras et al.⁴⁰ reported that NDIA staff indicated that the Agency had misjudged workload expectations and failed to provide a disability-supportive environment for staff who had a disability. Both Mavromaras et al.⁴⁰ and Tune⁵

reported that NDIA planners felt the competing nature of increased applications and NDIA's enforced key performance indicators (such as completion times) reduced the capacity of planners and local area coordinators (LACs) to spend adequate time with people with disability and their families. Foley (2021) reported the NDIA's bureaucratic processes had resulted in disability staff chasing up LAC/Early Childhood Early Intervention (ECEI) workers for updates on NDIS plan reviews for current/new clients, adding to the administrative workload. White et al.⁴⁵ stated that local NDIS engagement staff (called the Access Program, in the remote Western Australian town in the Kimberly region) have continued to support NDIS clients (Aboriginal and non-Aboriginal clients) from the eligibility phase through to developing

and implementing NDIS plans due to the lack of service providers and confusion relating to the NDIS processes.

3.2 | Staff awareness and training

Half the studies identified areas where staff awareness and training regarding the NDIS planning process was

lacking.^{5,40,42,43} Two studies noted that poor staff training contributed to inconsistencies in the NDIS plan items and funding amounts.^{42,43} Three of the publications^{5,40,41} reported that NDIA staff required further education on disability, language and jargon, cultural competence, and the experiences and issues relating to people living in regional, rural and remote settings. It was widely reported that many NDIA staff had a lack of health literacy and

TABLE 1 Summary of reviewed papers.

| Author/year | Title | Is it peer-reviewed (Y/N) | Research aims | Methods used |
|------------------------------------|---|---------------------------|---|---|
| White et al. (2021) ⁴⁵ | Equity in access: A mixed methods exploration of the National Disability Insurance Scheme access program for the Kimberly Region, Western Australia | Y | A NDIS access program was developed in the Kimberly region of Western Australia. This program aimed to foster pathways to the NDIS application and planning process. The research team's aim was to evaluate the effectiveness of the program for people with disability. | The research team adopted a mixed method approach. A qualitative approach was used to interview staff who were involved in the Access Program. The data were analysed using thematic analysis. A quantitative approach was adopted to analyse program participant data. The data were analysed by profiling the program participants to ascertain service referral, participation and outcomes rates. |
| Bailey et al. (2021) ⁴¹ | Purchasing power and self-determination: Social worker perspectives | Y | Explored the experiences and views of social workers of the 'purchasing power' held by people with disability on the NDIS and how that impacts on social work practice during the development and implementation of their NDIS Plans. | Exploratory mixed methods study based in NSW. Quantitative and qualitative data from a survey of social workers. Participants were recruited using purposive and snowballing sampling models. Data were analysed using descriptive analysis approach. Qualitative data from semistructured interviews with social workers. Participants were recruited using purposive and snowballing sampling models. Data were analysed using thematic analysis. |
| Foley et al. (2021) ⁴³ | Impact of transition to an individualised funding model on allied health support of participation opportunities | Y | Researched the participation opportunities for people with disability during the formation and transition from block funding to the NDIS. | Qualitative data obtained via interviews and workshops with service providers, agencies involved in the NDIS rollout, and people who have NDIS packages. The research adopted a convenience and snowballing sampling approach. Data were analysed using deductive coding analysis reflecting on the ICF. |

demonstrated poor communication with the ECEI, and LACs agencies, resulting in inadequate NDIS plans.^{5,40,42} Dintino et al. (page 5, 2019) provided an example of an OT's experience:

If you call the NDIS to ask them a question... you'll get five different answers from five different people.

The two reports acknowledged that whilst the skills of the NDIS planning workforce (particularly the NDIA) have improved over time, poor staff retention has significantly impacted the planning experience and outcomes for people with disability.^{5,40} They also noted that a barrier to having a trained workforce was the high staff turnover amongst NDIA staff and further reflected that this turnover has often impacted the relationships between

| Worker participation rate reporting | Findings | Conclusions/recommendations |
|--|---|---|
| Of the 20 staff working for the program at the time, 11 program staff (four were Aboriginal people) were interviewed. A purposive sampling model was adopted to voluntarily recruit people to the research. | <p>Three themes came from the qualitative dataset:</p> <p>Perceptions of disability: program staff reported that Aboriginal people experience and define disability differently to non-Aboriginal people. In some cases, people do not identify as having a disability.</p> <p>Engagement as a precursor for NDIS access: the program engagement with community fostered rapport building with people with disability. This model built trust between the NDIS and people with disability.</p> <p>The importance of getting it right: the advocacy/case management model of the program helped make the NDIS be successful.</p> | The results demonstrate that the Aboriginal community-controlled Access Program has increased Aboriginal communities' awareness and participation in the NDIS. The program should continue to be funded by the Australian Government. |
| <p>45 social workers completed a survey. It is unknown how many worked in regional, rural, or remote regions.</p> <p>Two interviewees were from regional locations; the rest were resided in metropolitan regions.</p> | <p>The survey found there is not a strong alignment between the NDIS approach and traditional social work values around choice, self-determination and participation.</p> <p>Five key themes were identified from the qualitative data:</p> <p>Knowledge and information: workers expressed concern about the inadequate and poor access to information about the NDIS relating to choice and control.</p> <p>Overwhelming system: people with disability find the NDIS process overwhelming.</p> <p>Definitions of self-determination: participants defined it as autonomy, choice within the concept of diversity.</p> <p>Changes in social work practice: the introduction of the NDIS has changed the provision and practice of social work for people with disability.</p> <p>Worker–client relationships: the NDIS has strengthened relationships between social workers and people with disability in some instances. The purchase model of the NDIS impacts on rapport building between clients and social workers.</p> | The study concluded that social workers are adapting to the NDIS. The study recommends areas where the NDIS plan development and implementation could be improved for people with disability and workers in regional and remote/rural environments. |
| <p>Three collection strategies: 8 in-depth interviews</p> <p>One workshop consisting of 10 people</p> <p>Two advisory groups, consisting of 21 for both.</p> <p>The study was focused on Australia-wide. The report has no information on geographic location of participants.</p> | The results were organised into three ICF domains of environmental factor, activity and participation and personal factors. These themes enabled the research to uncover how the transition and changes from block funding service model to the NDIS. These domains overlapped each other. | Concluded that the transition from block funding to the NDIS has removed barriers whilst simultaneously created new barriers to community participation for people with disability. Provided recommendations for the NDIS to provide avenues that foster community/NDIS engagement and participation. |

(Continues)

TABLE 1 (Continued)

| Author/year | Title | Is it peer-reviewed (Y/N) | Research aims | Methods used |
|--|---|---------------------------|--|--|
| Dew et al. (2019) ⁴⁴ | Our ways to planning: preparing organisations to plan with Aboriginal and Torres Strait Islander people with disability | Y | Development of a culturally appropriate NDIS planning framework for service providers, called <i>Our Ways to Planning</i> . | Indigenous research methodologies; Aboriginal and Torres Strait Islander arts-based yarn ups. Data were analysed using thematic analysis and constant comparison analysis. |
| Dintino et al. (2019) ⁴² | Powerless facing the wave of change: the lived experience of providing services in rural areas under the National Disability Insurance Scheme | Y | Explored the experiences of workers and service providers of the transition to the NDIS in rural and remote regions. | Qualitative data collected by interviews with representatives and workers of disability service providers in rural and remote areas of NSW, Australia. Data were analysed using thematic analysis. |
| Tune (2019) ⁵ | Review of the National Disability Insurance Act 2013: removing red tape and implementing the NDIS participant service guarantee | N | A review of the NDIS Act 2013 to provide recommendations and solutions to introduce the Participant Service Guarantee/ | Mixed methods study. A broad consultation and written public submission process was undertaken, with a targeted approach for rural/remote regions. The consultation targeted people with disability, service providers and advocates and government representatives. Quantitative data were collected via a survey of peoples' experience of the NDIS and from the NDIA's NDIS participant datasets. |
| Mavromaras et al. (2018) ⁴⁰ | Evaluation of the NDIS: final report | N | Evaluate the NDIS trial sites impact on people with disability and their families and carers, the disability sector and its workforce, mainstream providers and services, and stakeholders and the wider communities. The trials were located in South Australia (SA), Tasmania (TAS), New South Wales (NSW), Victoria (VIC), the Australian Capital Territory (ACT) and the Barkly region in the Northern Territory (NT). | Mixed methods study. A longitudinal survey of people with disability, workers and stakeholders was undertaken. Semistructured interviews were also undertaken. Thematic and comparative analysis was undertaken. |

| Worker participation rate reporting | Findings | Conclusions/recommendations |
|---|--|---|
| <p>Five communities in urban and rural areas. 26 Aboriginal people, of whom 6 were workers. However, some participants held multiple roles (e.g. a worker and a person with a disability). Participants were recruited using purposive sampling technique in five communities.</p> | <p>The data were placed under the four subthemes:</p> <p>Our history: NGOs need to understand the ongoing impact of colonial history, including the stolen generations.</p> <p>Our places: refer to the geographic location that people with disability identify.</p> <p>Our people: must capture the diversity of how families and communities engage in roles and responsibilities for caring for people with disability.</p> <p>Our workers: refers to the paid employment of Aboriginal staff in the disability sector. In addition, that people have a choice of workers and service providers.</p> <p>These subthemes went under an umbrella theme called Our Ways, which depicts how Aboriginal people in regional and rural areas want the planning process to follow.</p> | <p>The framework provides a basis for agencies to support Aboriginal and Torres Strait Islander people with disability during the NDIS planning process using a culturally safe and respectful process.</p> |
| <p>Eight allied health workers from rural and remote regions. Participants were recruited through the NDIS service provider database.</p> | <p>Three themes emerged from the findings:</p> <p>Beyond my depth: service providers experienced a shift in their roles as the NDIS is very individualised.</p> <p>A sea of uncertainty: workers described the transition to the NDIS as inconsistent and always uncertain of the outcomes for people with disability. This is a direct result of the lack of, or poor access to, knowledge of the NDIS.</p> <p>Drowning in the wave: as the number of NDIS participants increased, the workload of services increased causing high waiting times for people with disability who were either wanting to join the NDIS, need evidence for planning, or has funds for allied health services.</p> | <p>Providers and workers felt overwhelmed by the transition in disability funding from block funding to the NDIS. There are many challenges facing clinicians and service providers under the new model of the NDIS in rural and remote regions.</p> |
| <p>201 written submissions from stakeholders; a total of 1273 responses to the online survey. Half of the participants were from rural/remote regions.</p> <p>Targeted consultations with Aboriginal and Torres Strait Islander people. No information on regional coverage.</p> <p>Seven focus groups with people with intellectual disability, culturally diverse people and people with psychosocial disability in metro-only regions.</p> | <p>The report heard evidence that the planning process is traumatic and scary experience for many people with disability. Many found the planning review process difficult due to challenges in spending current funding within small markets. Many participants reported that the time frame for getting plans and plan reviews ranges from weeks to months. The language, process and requirements to conduct the planning process are complicated and inconsistent.</p> | <p>With regards to the planning process, the report identified that the Government needs to provide greater clarification around the phrase 'reasonable and necessary'. The study identified the strengths and weaknesses of the NDIS. The implementation of the NDIS has not been smooth. Study concluded that the NDIS Planning process was overly bureaucratic and administratively overwhelming. Many of the NDIA's administrative processes are recent and not fully evolved. The experience is worse for people living in rural and remote regions.</p> |
| <p>In the Barkley site, 18 workers who worked in the Barkley trial site were interviewed but not all lived in the region but serviced the LGA from a metro region.</p> <p>The regional location of the interview participants from the other trial sites was not reported.</p> <p>The report stated that participation in the survey had many problems, such as low numbers in the first of the two collection periods.</p> | <p>Several main findings emerge from the evaluation of the NDIS.</p> <ul style="list-style-type: none"> • The Scheme has been designed and built on sound fundamentals. • The NDIS has been delivering the outcomes that it was designed to deliver. • Some design aspects and implementation outcomes are not person-centred as originally desired, and several outcomes are not attained at the speed that was originally expected. | <p>With regards to the NDIS planning, the report recommended that the government improve the time frames for the planning and planning reviews. Furthermore, define the phrase 'reasonable and necessary'. The report also concluded that people living in rural and remote regions experience do not benefit as much as people in metropolitan regions under the NDIS.</p> |

TABLE 2 Qualitative appraisal of included qualitative papers.

| Publication authors/year | Screening for all types | | | | Are the qualitative data collection methods adequate to address the research question? | Are the findings adequately derived from the data? | Is the interpretation of results sufficiently substantiated by data? | Is there coherence between qualitative data sources, collection, analysis and interpretation? |
|-------------------------------------|---|--|--|--|--|--|--|---|
| | S1. Are there clear research questions or aims? | S2. Do the collected data allow to address the research questions? | Is the qualitative approach appropriate to answer the research question? | Are the qualitative data collection methods adequate to address the research question? | | | | |
| Dew et al. (2019) ⁴⁴ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Dintino et al. (2019) ⁴² | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Foley et al. (2021) ⁴³ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

TABLE 3 Mixed methods appraisal of included qualitative/quantitative papers.

| Publication authors/year | Screening for all types | | | | | 5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted? | 5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed? | 5.5. Do the components of the study adhere to the quality criteria of each tradition of the methods involved? |
|--|---|--|--|--|--|--|---|---|
| | S1. Are there clear Research questions or aims? | S2. Do the collected data allow to address the research questions? | 5.1. Is there an adequate rationale for using a mixed methods design to address the research question? | 5.2. Are the different components of the study effectively integrated to answer the research question? | 5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted? | | | |
| Bailey et al. (2021) ⁴¹ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Mavromaras et al. (2018) ⁴⁰ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| White et al. (2021) ⁴⁵ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Tune (2019) ⁵ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

the NDIA planners and NDIS package holders during the planning process.^{5,40} High staff turnover was exacerbated in remote regions due to further difficulties in recruiting and retaining skilled health professionals and LAC/ECEI staff.^{5,40}

3.3 | Values, culture and geography

The research publications identified that workers are struggling to support people with disability who require language interpreters during planning presenting a major hurdle for people who speak English as a second language and people who are deaf or hard of hearing. Three papers highlighted problems in accessing interpreters during the planning process contributed to inadequate NDIS plans for people with English as a second language and people who are deaf or hard of hearing.^{5,40,43} One example was provided in Mavromaras et al.'s report (page 217, 2018):

A family cannot be expected to sit down with a planner and talk about their goals and aspirations and dreams for their child, when they've just arrived here. They have no idea what services are available, what their child even needs, what they're entitled to. It's just hugely problematic for CALD families.

(Mavromaras et al., 2018)

Four papers^{42,44,45} reported that the NDIA needed to improve the cultural safety of the NDIS planning workforce for Aboriginal and Torres Strait Islander communities. Mavromaras et al.'s⁴⁰ report noted that the NDIA's workforce strategies under the National Disability Insurance Agency Rural and Remote Strategy 2016–2019⁴⁶ have failed to recruit and retain Aboriginal and Torres Strait Islander workers (Mavromaras et al., 2018). Other barriers reportedly faced by NDIA staff when liaising with Aboriginal and Torres Strait Islander clients was the location of NDIA offices. Some NDIA offices, mainly in regional, rural and remote communities, co-reside with government departments such as Centrelink.^{40,45} The reluctance of Aboriginal and Torres Strait Islander people to engage with services also stems from a history of distrust with Governmental services as well as a lack of understanding of those services.⁴⁴ Dew et al.⁴⁴ reported that Aboriginal people with disability want Aboriginal workers as they are connected to community and were perceived to be less judgemental of people with disability and their families.

The reports by Mavromaras et al.⁴⁰ and Tune (2019) reported that overall, NDIA staff recognised problems in accessing and assisting people from CALD and Aboriginal and Torres Strait Islander backgrounds due to difficulties

engaging in culturally appropriate practices. Many NDIA staff reported decreased awareness of culturally sensitive practices when interacting with Aboriginal and Torres Strait Islander people.^{5,40,45}

Several studies discussed the experiences of rural/remote clinicians. The research reported that the NDIA staff have poor understanding about the experience of clinicians and allied health workers living in regional, rural and remote regions.^{5,40,42} Face-to-Face training for service providers to assist with the planning process was a rarity for people living in rural and remote areas.⁴²

3.4 | Burden on allied health workforce

Over half of the publications reported that the allied health workforce are key stakeholders in the NDIS planning process. These publications reported that allied health workers advocate for people with disability during the NDIS planning process and often must justify the recommendations in their clients' reports.^{5,40,43} Foley⁴³ reported that when the NDIA does not fully accept allied health workers' client reports, this can lead to inadequate NDIS plans for people with disability. Given the chronic workforce shortages and resultant access difficulties to allied health professionals in regional, rural and remote regions, this additional reporting burden for sometimes no added benefit to the participant has resulted in an increase workload burden on this already overstretched workforce.

Four papers^{40–43} stated that the NDIS planning process has increased the workload of the allied health workforce (e.g. providing multiple supplementary reports, supporting documentation for the NDIS planning meetings and advising people with disability). Three of these papers^{40,42,43} reported dissatisfaction amongst the allied health workforce when NDIS planners disregarded, or hardly reflected on, allied health clients' reports during the planning process, resulting in inadequate NDIS plans. One example was provided by Dintino et al. (Page 5, 2019):

You might do a report and submit it to the family to give to their local area coordinator... and the plan comes back completely ballsed up because that person hasn't had the comprehension about what speech and language and cognition's about.

4 | DISCUSSION

This review provided a comprehensive appraisal of peer-reviewed and grey research literature relating to workers' experiences of the NDIS planning process in

regional, rural and remote areas of Australia. This review found that there is limited scholarly inquiry into the experiences of workers of the NDIS planning process in these geographic regions. This poses a serious problem for the NDIA as the voices of professionals in the disability services sector in regional, rural and remote regions are not properly captured in the development and reform of the NDIS.

Although the relatively small number of publications met the standards of the MMAT and CREATE, the findings of this review demonstrated significant gaps in the evidence base of policies that are being established relating to the NDIS planning process. The first gap relates to the lack of clarity about the location of studies, and so it was impossible to derive clear distinctions between the characteristics and experiences of the workforce in regional, rural and remote regions, despite evidence in the health literature which clearly outlines these differences.⁴⁷ The second gap in the literature relates to workers' understanding of the quality of people's NDIS plans produced through the planning process. Three papers reported that the recommendations of highly skilled allied health professionals who had spent considerable time with participants and families during assessment processes were not always included in plans.

Although workforce skills and knowledge have improved since the introduction of the NDIS, the reviewed papers highlighted that regional, rural and remote regions have an underskilled disability planning workforce who must deal with the complicated bureaucracy in the NDIS planning process. The addition of increased staff numbers within the NDIS to lighten the burden of administration loads for the planning process has given rise to other issues, including upskilling and the impact of staff training due to the significant rates of staff turnover. The experiences of the workforce identified in this review show that meeting the Australian Government target of 353 000 disability service workers by 2024 will be very challenging.

Added to these challenges, this review found that the workforce requires significant improvement in cultural safety to support people with disability from CALD and Aboriginal and Torres Strait Islander communities. Research shows that a vibrant culturally safe workforce is essential to address cultural and social barriers to accessing disability services for Aboriginal and Torres Strait Islander people with disability.¹² Gilroy⁴⁸ and Gilroy et al.⁴⁹ found that Aboriginal and Torres Strait Islander prefer to build trust and rapport with disability workers who are known in the community.

Allied Health professionals continued to feel overwhelmed by the increased workload of advocating for clients during the NDIS planning process. Allied health

professionals in rural and remote areas had the dual issues of limited capacity to take on new clients, lack of knowledge of the planning process as well as a diminished ability to work collaboratively with other health professions due to geographic isolation. Research⁵⁰ has shown that the rise of telehealth may help reduce the workload in regional, rural and remote areas if the technology and the staff are properly resourced.

5 | CONCLUSION

Overall, progress is needed in relation to the NDIS planning process to improve workforce experiences, especially in regional, rural and remote geographic areas. Main areas of concern identified were the need to address the high staff turnover, improve staff skillset and increase the inclusion of allied health recommendations in plans during the planning process and address cultural barriers to the NDIS planning process.

Although there are limitations of this review, mainly the limited studies identified, the review highlights the need for further research into the planning process particularly in regional, rural and remote geographic areas. The review also raises considerations for policy-makers regarding the NDIS workforce and areas of concern in order to enhance the outcomes for NDIS package holders.

AUTHOR CONTRIBUTIONS

Sarah Veli-Gold: Writing – original draft; formal analysis; data curation; writing – review and editing. **Wayne Wright:** Formal analysis; writing – original draft; writing – review and editing; validation. **Angela Dew:** Methodology; validation; writing – review and editing. **Heather Jensen:** Methodology; validation; writing – review and editing. **Kim Bulkeley:** Formal analysis; validation; conceptualization; writing – review and editing. **Michelle Lincoln:** Writing – original draft; validation; writing – review and editing. **John Gilroy:** Conceptualization; data curation; formal analysis; writing – original draft; methodology; investigation; supervision; project administration; validation; writing – review and editing.

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