

1 **Psychosocial care in DHB-based stroke services in Aotearoa: A**  
2 **survey of current practice**

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4 Type of manuscript: Original article

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23 Date of draft: 9 January 2023

24 Date of revisions: 7 February 2023, 10 March 2023

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## 1 Abstract

2 **Aim.** Stroke has significant psychosocial impacts which contribute to burden for the person with  
3 stroke and affect stroke outcomes. The Psychosocial Working Group of the National Stroke Network  
4 sought to survey current practices for assessing and supporting psychosocial needs within DHB-  
5 based stroke services to inform national service delivery initiatives.

6 **Methods.** The survey was conducted in 2021. It was distributed to senior clinicians in all District  
7 Health Boards (DHBs) via the National Stroke Network.

8 **Results.** 37 responses were received from stroke services, representing 90% of DHBs. 63% of  
9 services reported some process for screening for psychosocial needs. Of these, only 11% used  
10 validated screens. Variability in the type of psychosocial support was evident. 7% of services had  
11 routine access to psychology, while 53% could access psychology on referral. There was limited  
12 evidence of specific screening and support processes for Māori, Pacific Peoples, or those with  
13 communication impairments. Respondents identified training and resources needs to enable better  
14 psychosocial care.

15 **Conclusion.** Stroke services are not consistently meeting national guidelines which require all  
16 services have a process for screening for psychosocial needs. This survey has informed a work  
17 programme to support psychosocial care practices in stroke services in Aotearoa.

18

## 19 Introduction

20 Stroke is increasingly common in Aotearoa. It is the third most common cause of death and  
21 disability, with around 9,000 New Zealanders being affected by stroke each year.<sup>1</sup> Despite the  
22 incidence of strokes declining, as the population ages, the number of strokes is anticipated to  
23 increase, with a corresponding increase in the number of people living with stroke.<sup>1</sup> Many people  
24 with stroke live with on-going psychosocial impacts of stroke which affect their quality of life and  
25 stroke outcomes. Whilst the term 'psychosocial' can be understood in many ways, for this work, we  
26 use it to refer to the psychological, social and emotional impacts of stroke. Rates of psychological  
27 diagnoses are high with one in three stroke survivors experiencing depression<sup>2</sup> and one in five  
28 experiencing anxiety after stroke.<sup>3</sup> These can develop at any time post-stroke, with two-thirds of  
29 people with depression developing it at least three months after stroke<sup>4</sup>. Rates are higher in those  
30 with communication impairments.<sup>5</sup> People experience changes in roles and social networks.<sup>6</sup>  
31 Emotional impacts include grief, hopelessness, apathy, personality changes and loss of identity.<sup>7,8</sup>  
32 Depression, anxiety, and perceived social isolation are associated with poorer outcomes after

1 stroke<sup>9-11</sup> whilst social support is associated with positive outcomes.<sup>11</sup> There are clear associations  
2 between social supports, depression, and quality of life.<sup>12</sup> Given that psychosocial well-being is a  
3 priority outcome for people with stroke,<sup>13</sup> that psychosocial factors are associated with poorer  
4 rehabilitation outcomes<sup>9-11</sup> and many are modifiable,<sup>14</sup> it is important to identify impacts early and  
5 intervene in a timely manner to facilitate recovery after stroke.

6 In Aotearoa, research and policy documents have identified that psychosocial needs should be a  
7 priority area for services.<sup>15,16</sup> The National Stroke Network (NSN) developed a *Stroke Rehabilitation*  
8 *Strategy* in 2018 to specify core standards for rehabilitation.<sup>15</sup> This requires services to “ensure that  
9 all patients with suspected psychosocial needs are screened and where needs are identified, are  
10 offered appropriate timely interventions”.<sup>15</sup> *Take Action for Stroke Rehabilitation 2020* was  
11 developed to support the enactment of the Strategy,<sup>17</sup> and details high level practice  
12 recommendations and priorities for action.<sup>17</sup> With regard to psychosocial screening, it requires  
13 services have a documented process or protocol to ensure that *all* patients are screened for  
14 psychosocial needs – which reflects that all people with stroke are likely to have psychosocial  
15 needs.<sup>18</sup> To help services to meet the standards in Take Action for Stroke Rehabilitation, a  
16 psychosocial working group established to develop a model of care and produce resources to  
17 support services to meet the NSN standard. This working group incorporates service providers  
18 across the continuum of care and non-governmental organisations, people living with stroke and  
19 whānau, and academics. This paper reports the outcome of the first action of the working group: a  
20 2021 survey conducted to understand how psychosocial care is currently provided by stroke services  
21 in Aotearoa.

22

## 23 Method

24 The purposes of the survey were to: (a) collect information on current psychosocial screening and  
25 intervention practices; and (b) gather clinician and service perspectives on resources needed to  
26 improve psychosocial care. The survey questions are provided in Appendix One. The survey was  
27 designed by the authors before being trialled with members of the working group; questions were  
28 refined after their feedback. Within the survey, nine questions were asked relating to six topics:

- 29 • Disciplines available
- 30 • How psychosocial needs are identified
- 31 • Current practices for supporting psychosocial needs
- 32 • Resources used to support well-being
- 33 • Services available beyond organised stroke care

- Identified resource and training needs

The survey was circulated to clinical leads across medical, nursing and allied health disciplines using the mailing list of the NSN in July 2021. This included staff from every DHB. Recipients were requested to complete the survey (online via Survey Monkey) with their teams; it was suggested that it should be completed at a service level (e.g. with one response from the acute stroke unit) rather than by multiple individuals within the service. In the instance of multiple services across one DHB, it was suggested that each service should provide a response as staffing and care practices and processes may differ across services or sites.

Data management presented challenges due to variability in the responses received. This reflects the different ways stroke services are structured across New Zealand and reflects how each organisation provided its responses. Some DHBs provided one response on behalf of all stroke services (hyperacute, acute, inpatient and community rehabilitation) whilst others provided responses for each service. For the purposes of analysis, if the responses only discussed the continuum and it was not possible to identify what related to each type of service, this was classified as “continuum of care”. When it was possible to identify which responses related to specific services (e.g. acute or inpatient rehabilitation), then the data were analysed with like data. Many DHBs operated hybrid stroke services (e.g. integrated acute care and inpatient rehabilitation); in these instances, data were analysed alongside other acute data *and* inpatient rehabilitation data. Some responses addressed some, but not all questions.

Data were analysed using descriptive statistics and content analysis of qualitative responses.

## Results

37 responses were received from stroke services within 18 of the 20 DHBs. Of the responding DHBs, 14 were North Island DHBs and 4 were South Island. They represented DHBs in urban, regional and rural settings. The New Zealand clinical guidelines for stroke management<sup>19</sup> define DHBs as large, medium and small, based on population catchment and stroke occurrence. Responses were received from 7/7 large DHBs, 6/6 medium DHBs and 5/7 small DHBs. Of the 37 responses, 11 responses described the continuum of care within a DHB, six were from an acute service, two from a combined acute/inpatient rehabilitation service, eight an inpatient rehabilitation service, two combined inpatient rehabilitation and community services, and eight from a community service

1 Psychosocial screening practices  
 2 Respondents were asked to say how psychosocial needs are identified, and if routine screening  
 3 occurs, how this occurs, including details of screening approaches and/or tools used. We received 35  
 4 responses to these questions, from 16 DHBs, and results are summarised in Table 1.

5

6 **Table 1:** Current screening practices

Service type	No routine screen	Screened within disciplinary or transdisciplinary assessment	Screened using validated psychosocial screening tool
Continuum of care (n=5)	80% (4)	20% (1)	-
Acute (n=10)*	27% (3)	70% (7)	10% (1)
Inpatient rehabilitation (n=11)*	45% (5)	45% (5)	18% (2)
Community rehabilitation (n=9)*	22% (2)	56% (5)	33% (3)

7 \* Percentage given is greater than 100% as some services use multiple screening approaches  
 8

9 Variation in screening processes was evident. 40% of respondents (n=14) reported there was no  
 10 routine screening of psychosocial needs within their service. In services that reported *some*  
 11 approach to screening, initial disciplinary assessments were the primary occasion for identifying  
 12 psychosocial issues. Free text responses described this with phrases such as “asked by MDT in  
 13 subjective assessments” in acute care or “medical and nursing screen” in inpatient rehabilitation. As  
 14 such, what was screened was not clear for most services. Several services described comprehensive  
 15 and holistic screening processes. One inpatient service considered multiple domains of well-being  
 16 such as motivation, behaviour, sleep, whānau support and carer stress, which then were discussed  
 17 and addressed within daily rapid rounds and weekly multi-disciplinary team meetings. Several  
 18 community services described gathering information about well-being on the referral form, asking  
 19 specific questions relating to holistic domains of well-being in initial transdisciplinary assessments  
 20 (holistic assessments covering different domains relevant to stroke, completed by one team  
 21 member) such as asking about mood, social supports, finances, sexuality, relationships, and in some  
 22 instances, also completing validated screening. These examples reflect clear processes for reviewing  
 23 and addressing well-being. Five services used validated psychosocial screening tools. These included

1 the Patient Health Questionnaire-4 (PHQ-4) or the Patient Health Questionnaire-9 (PHQ-9),  
2 Generalized Anxiety Disorder Scale (GAD-7), Depression Intensity Scale Circles (DISCs) or the Stroke  
3 Aphasic Depression Questionnaire (SADQ) for those with communication impairments. Even with  
4 specified screening policies and tools, screening did not consistently occur. In the free text box, one  
5 respondent identified that whilst they had a DHB-wide policy and screening process using a  
6 validated tool, in practice “this does not always occur”. No services used culturally-specific tools, or  
7 described screening processes which reflected Māori models of hauora.

8 In the absence of routine screening (37% of responses), respondents described psychosocial needs  
9 being identified through staff observations and conversations with patients and families. However,  
10 free text responses indicated this could be “ad hoc” or “hit and miss”.

11

### 12 Interventions to support well-being

13 Three patterns of support were identified through free-text responses to the question “How is the  
14 psychosocial wellbeing of people with strokes currently supported within the service?”, a question  
15 answered by 32 of the 37 respondents.

16 The first pattern (n=3 responses, one each from acute, inpatient and community rehabilitation  
17 services) was that respondents stated psychosocial well-being supports were limited, with responses  
18 such as “it is not supported”, “poor”, and “not supported beyond general enquiry”.

19 The second pattern (n=24 responses) predominantly described referrals to different providers:  
20 psychologists or social workers within the team, chaplains, cultural support services, liaison  
21 psychiatry within hospital services, or external supports such as General Practitioners or stroke-  
22 centred non-governmental organisations. These respondents provided little detail regarding  
23 everyday psychosocial supports provided by multidisciplinary members of the stroke team.

24 The third pattern (n=5 responses, three joint acute/inpatient services, one acute, and one  
25 community rehabilitation service) reflected multi-layered approaches to psychosocial care provided  
26 by multidisciplinary team members within the stroke service. A variety of interventions were  
27 described, from universal approaches with all patients through to specialist input for identified  
28 psychological needs, shown in Table 2. These respondents also described models of care that  
29 prioritised holistic care, which included regular staff training on well-being, a ward environment that  
30 supported whānau involvement, and attending to staff well-being, seeing this as a core aspect of  
31 them supporting patient and whānau well-being.

32

1 **Table 2:** Intervention approaches

	<b>Examples</b>
Universal care for most people with stroke	<ul style="list-style-type: none"> <li>• Building therapeutic relationships</li> <li>• Individualising rehabilitation for people’s mood, personality and fatigue</li> <li>• Exploring values and priorities and incorporating into care</li> <li>• Goal-setting</li> <li>• Supporting social interactions on the ward (e.g. groups)</li> <li>• Encourage active patient involvement in rehabilitation</li> <li>• Relaxation and breathing exercises</li> <li>• Education (individual and group interventions, written and verbal)</li> <li>• Regular discussion with the patient about well-being</li> <li>• Whānau engagement including regular whānau hui</li> <li>• Whānau room</li> <li>• Monitoring mood and discussion at team meetings</li> <li>• Involvement of cultural support services</li> </ul>
Targeted psychosocial supports for people with possible or identified psychosocial needs	<ul style="list-style-type: none"> <li>• Allied health team with experience in positive psychology, Motivational Interviewing and Cognitive Behavioural Therapy</li> <li>• Referral to social worker</li> <li>• Identify individual risks and issues and develop intervention plans (e.g. sleep – side room)</li> <li>• Clinical psychology advice to staff to support work with patients</li> <li>• Support from Clinical Psychology for joint sessions</li> <li>• Referral to GP for community-based patients for possible referral to health improvement practitioners or similar located within primary care</li> </ul>
Specialist input for people with identified psychological needs	<ul style="list-style-type: none"> <li>• Psychiatry involvement in diagnosis, medical management, treatment planning, liaison with mental health services</li> <li>• 1:1 Clinical Psychology sessions including shared formulations, psychoeducation, counselling, psychological interventions, sleep or pain management</li> </ul>

2

3 The survey prompted some services to identify how they supported the psychosocial needs of Māori  
 4 and Pacific people. Responses predominantly specified referring to cultural support services; several  
 5 specified whanau involvement through regular communication between staff and whānau, whānau  
 6 rooms, and longer visiting hours as strategies in supporting well-being. One non-urban community  
 7 service described connecting with visiting kaumatua and supporting connection with valued  
 8 community activities.

9 Whilst specific disciplines and services were reported to be instrumental in providing psychosocial  
 10 support (specifically social work, psychology, and cultural support services), limited availability was  
 11 also reported. This is summarised in Table 3. Some free text responses suggested that the *actual*  
 12 availability of these disciplines may be less than what the numbers suggest. For instance, one DHB

**Table 3:** Disciplines in stroke services

	Acute % (n=8)			Inpatient Rehabilitation % (n=13)			Community rehabilitation % (n=11)		
	Routine	Referral	None	Routine	Referral	None	Routine	Referral	None
Social work	63% (5)	37% (3)	-	92% (12)	8% (1)	-	81% (9)	9% (1)	-
Psychology	13% (1)	50% (4)	37% (3)	15% (2)	54% (7)	31% (4)	9% (1)	55% (6)	36% (4)
Māori cultural support	50% (4)	50% (4)	-	46% (6)	46% (6)	8% (1)	-	55% (6)	45% (5)
Pacific cultural support	25% (2)	63% (5)	12% (1)	15% (2)	31% (4)	54% (7)	-	45% (5)	55% (6)
Asian cultural support	25% (2)	50% (4)	25% (2)	15% (2)	15% (2)	69% (9)	-	27% (3)	73% (8)

with two acute services stated that at one hospital, social work was available one to two times a week, while in the larger hospital, social work was routinely available. Another acute service indicated that the only specialist mental health support was from liaison psychiatry but was difficult to access as psychosocial responses were considered a normal reaction to stroke, rather than something requiring specialist input. One DHB-wide community service highlighted geographical differences within the service, stating “psychology (almost entirely non-existent) can only be accessed on referral” in one part of the DHB that only 10% of patients resided within. The other 90% of stroke patients in the DHB had no access to psychology or social work. The nature of their involvement was rarely specified, for instance, whether services were stroke-specific or if staff were resourced and able to provide comprehensive psychosocial support.

#### Resource needs to improve psychosocial screening and care

Using open-ended questions, we asked respondents to identify training and resource needs. Respondents sought a national approach to screening which was culturally appropriate, reflected holistic understandings of well-being such as addressing identity, values, whānau, and adjustment, and incorporated Māori models of health. Alongside this, respondents identified the need for better training in understanding and identifying psychosocial needs, and the need for care pathways so that there were clear processes and supports available and accessible if psychosocial issues were identified. To equip clinicians to provide comprehensive psychosocial support, a number of needs were identified:

1. Education addressing:
  - a. The importance of providing psychosocial support. Respondents suggested this education should be provided to the whole team, including support and ward-based staff.
  - b. Specific interventions such as Motivational Interviewing.
  - c. Specific psychosocial issues such as risk assessment, emotional changes, supporting engagement in people who are depressed or anxious, managing difficult behaviour, knowing when specialist support is required.
2. Resources for patients and family on the different impacts of stroke.
3. Improved staffing within the team, including routine access to social workers and psychology, and ensuring that staff with specialist psychosocial skills and knowledge have capacity to support patients, whānau and teams.

## Discussion

This survey sought to identify current psychosocial screening and intervention practices in Aotearoa New Zealand, and to resource needs to support service development.

Clear variability in screening was evident, both *within* DHBs and *between* DHBs. Current approaches to screening are inconsistent. Five services reported routine screening using a validated screening tool and/or psychosocial assessment. This is an improvement on 2014 research which showed only 7% of services completed screening for >90% of patients.<sup>20</sup> However, there is still progress to be made. Screening processes should be universal, attend to different domains likely to be impacted by stroke, and be embedded throughout the continuum of care to ensure issues are identified in a timely manner.<sup>18,21</sup> This includes on-going review in primary care.

No services identified using culturally-informed screening processes for Māori or people of other cultural groups. It is imperative that screening processes are culturally responsive, reflect cultural perspectives on well-being, and are culturally safe<sup>22</sup>. Additionally, all clinicians and services are able to be culturally safe, responsive to and supporting people's cultural needs and broader sense of *oranga* (well-being), to avoid perpetuating inequities in experience and outcome.<sup>23,24</sup>

When psychosocial issues are identified, timely, evidence-based intervention is important.<sup>25</sup> A wide variety of approaches to supporting well-being were evident. Some respondents identified psychosocial care was an area that was not addressed well; this reflects patients' experiences of services<sup>26</sup> Some responses focused on referrals to specialist support (cultural support, social work, psychology); however, there were also comprehensive examples of holistic psychosocial care within services. These examples reflect best practice approaches such as the Stepped Care Model,<sup>27</sup> and may provide a useful model for clinicians and services wishing to enhance practice.

All staff working in stroke care, across the continuum of care, should be able to provide support for common post-stroke psychosocial changes.<sup>27</sup> Specialised support should be available from appropriately trained staff, and from specialist psychologists and psychiatrists for those with more significant psychosocial and psychological difficulties. This is important as best-practice guidelines recommend talking therapies are a first line treatment for depression; medical teams can also consider a trial of antidepressants.<sup>18</sup> It is clear from survey results, however, that access to specialist psychological services is limited.

This survey indicates there is a need for better and wider access to specialist psychological support; however, it also highlights there is a need and appetite for building the knowledge, skills, and supports for stroke-specialist staff. Building capability within the stroke team is likely to improve

psychosocial care and better meet the needs of patients.<sup>5,27</sup> The creation of Te Whatu Ora and larger localities may offer more opportunities for providing education for multidisciplinary staff, and collaboration and connection with specialist support across hospitals and services and between tertiary and primary care.

The results of this survey have led to the development of a resource to support services to identify and address psychosocial needs after stroke.<sup>28</sup> It provides scripts for asking about well-being, and recommends that specific validated screens are completed at transition points, or if staff have concerns. These are: PHQ-9 and GAD-7, or the HADS. If the person has communication impairments, clinicians could consider the SADQ-10 or DISCs, and Behavioural Observation of Anxiety (BOA). It also identifies a range of strategies clinicians can use to support well-being. Ongoing professional development will occur throughout 2023.

This findings of this survey do have some limitations. There were inconsistencies in how services responded, limiting our ability to draw conclusive findings from comparisons within and across service types; this would require a different research approach. Responses to open-ended questions varied significantly in the depth provided. This does not reflect that one represents a better approach to care than others. Instead it reflects the nature of the survey design and possibly respondent time.

There is clear recognition of the need for improved psychosocial care for people with stroke in Aotearoa New Zealand. The high rate of responses to this survey indicate a wide-spread interest in enhancing care. This survey provides a valuable platform for future practice and policy development, which should aim to better equip clinicians to support well-being. It is vital that services improve psychosocial care to enable better experiences and outcomes for people impacted by stroke.

**Competing interests:** Nil.

**Acknowledgments:** We thank the members of the Psychosocial Working Group who helped pilot and refine the survey and commented on the survey findings. We also thank the stroke clinicians who completed the survey.

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## Appendix One

### Survey questions

#### ***Service information***

1. Please indicate in which DHB your service is located
2. Please indicate which services you work within (options: Hyperacute, acute, inpatient rehab, community rehab, primary care, NGO, other)
3. Please indicate which disciplines/roles are represented within your team (as routine or by referral only) (options: medical, nursing, occupational therapy, physiotherapy, speech-language therapy, social work, assistant, psychologist, community stroke advisor, Māori cultural support, Pacific cultural support, Asian cultural support, other)

#### ***Current service provision***

1. How are psychosocial needs identified in your service?
2. If routine screening occurs, please provide details of this
3. How is the psychosocial well-being of people with stroke currently supported within the service
  - a. For stroke survivors
  - b. For family and whānau
  - c. For Māori and Pacific People
4. What resources do you use to support your patients and whānau (e.g. educational material, community support groups)?
5. What psychosocial supports are available once a person has left the DHB stroke service?

#### ***What needs to change?***

1. There are a number of groups who report limited psychosocial support from services e.g. Maori, people with communication / cognitive impairments, residential care. What would help your service better support the psychosocial needs of these groups?
2. What would help increase the confidence and competence of your team when supporting people's psychosocial needs?
3. Do you have any other comments or reflections that would be helpful for the working group who are developing a model of psychosocial care for stroke services?

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