

Physiotherapist, Ms A
Physiotherapy Clinic

A Report by the
Deputy Health and Disability Commissioner

(Case 15HDC00947)



Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

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Executive summary

1. Ms B had been seeing Ms A for physiotherapy treatment of her scoliosis. On 24 June 2015, Ms A asked Ms B whether she was “open to acupuncture”. Ms B said yes, and Ms A documented in Ms B’s notes that Ms B gave verbal consent for the treatment.
2. The documentation does not record whether adverse reactions were discussed prior to Ms A gaining Ms B’s consent, or whether the increased risks Ms B’s scoliosis presented to the situation were discussed, and what safety-netting advice, if any, was provided to Ms B for when she left the physiotherapy clinic (the clinic).
3. Ms A performed a form of acupuncture called trigger point needling. As soon as Ms A activated the first needle, Ms B reported feeling a large pulse in her chest, and felt “slight” pain in her left lung area. Ms A said that occasional referred pain is not unusual with trigger point needling, and therefore she told Ms B that this was normal.
4. Ms B said that immediately after the appointment she felt extremely light-headed and began shaking. A few hours later she was in “extreme” pain on the left side of her chest. She called the clinic reporting right ribcage pain with breathing, and pins and needles into the left arm, and also complained of being short of breath. The clinic rang Ms A at home telling her to contact Ms B immediately.
5. Ms A rang Ms B about 10 minutes later. Ms A said that Ms B’s symptoms were “not shortness of breath but pain on inhalation”, and that Ms B complained of “pain in the chest, referred symptoms of ‘pins and needles’ in the left arm and an inability to take a deep breath”. Ms A told HDC that she specifically asked Ms B whether she was experiencing shortness of breath or dyspnoea, and that Ms B told her that her symptoms were “more, ‘unable to take a deep breath’”. Ms A told Ms B that her symptoms were normal, as it was the muscles tightening back up. Ms B was given a follow-up appointment for an assessment the following day.
6. After the telephone call, Ms A carried out some research into acupuncture-induced pneumothorax, and decided to contact Ms B with a text message advising her to go to the hospital if her symptoms worsened. Ms B was already at the hospital when she received Ms A’s text.
7. It was discovered that Ms B had a collapsed lung (a pneumothorax) at the site where the acupuncture needle had been placed. She had experienced a 30% collapse of the lung.

Findings

8. It was found that Ms A failed to provide Ms B with information that a reasonable consumer, in Ms B’s circumstances, would expect to receive. Accordingly, Ms A was found to have breached Right 6(1)¹ of the Code of Health and Disability Services Consumers’ Rights (the Code). Without this information, Ms B was not in a position

¹ Right 6(1) of the Code states: “Every consumer has the right to the information that a reasonable consumer, in that consumer’s circumstances, would expect to receive.”

to make an informed choice, and give her informed consent to having acupuncture. Accordingly, Ms A was also found to have breached Right 7(1)² of the Code.

9. It was further found that Ms B's reported symptoms of "unable to take a deep breath" should have raised concern that a pneumothorax might be present. By failing to turn her mind to this at the time of her initial telephone conversation with Ms B, Ms A failed to provide services to Ms B in a manner that minimised the potential harm to her. Accordingly, it was found that Ms A breached Right 4(4)³ of the Code.
10. In addition, adverse comment was made that it appeared that Ms A, in this instance, did not consider Ms B's scoliosis adequately prior to performing trigger point needling in this area. Criticism was also made that Ms A did not complete an incident report form immediately on learning of Ms B's adverse outcome. It was therefore over a week before Ms A formally documented the incident.
11. While the clinic was not found in breach of the Code, it was found that there were learnings from this case. In particular, it was noted that the clinic should review its current policies and procedures, in particular, its policies relating to time frames when there are reportable events.

Recommendations

12. It was recommended that Ms A:
 - a) Undertake further education and training on informed consent, and provide evidence of the training to HDC.
 - b) Review her practice in light of this report, including her process for obtaining informed consent, and report back to HDC on her learning.
 - c) Provide a written apology to Ms B for her breach of the Code.
13. It was also recommended that the clinic review its current policies and procedures, and report back to HDC on this.

Complaint and investigation

14. The Commissioner was referred a complaint from the NZ Physiotherapy Board about the services provided to Ms B by physiotherapist Ms A at the physiotherapy clinic. Ms B was contacted by this Office, and supported the complaint. The following issues were identified for investigation:
 - *Whether Ms A provided Ms B with an appropriate standard of care in June 2015.*

² Right 7(1) of the Code states: "Services may be provided to a consumer only if that consumer makes an informed choice and gives informed consent except where any enactment, or the common law, or any other provision of this Code provides otherwise."

³ Right 4(4) of the Code states: "Every consumer has the right to have services provided in a manner that minimises the potential harm to, and optimises the quality of life of, that consumer."

- *Whether the clinic provided Ms B with an appropriate standard of care in June 2015.*
15. This report is the opinion of Rose Wall, Deputy Commissioner, and is made in accordance with the power delegated to her by the Commissioner.
 16. The parties directly involved in the investigation were:

Ms A	Physiotherapist
Ms B	Consumer/complainant
Physiotherapy Clinic	Provider

Also mentioned in this report:

Mr D	Clinic owner
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 17. Information was reviewed from the district health board, the NZ Physiotherapy Board, and ACC.
 18. Independent expert advice was obtained from physiotherapist Ms Jillian McDowell (**Appendix A**).

Information gathered during investigation

Background

Ms B

19. Ms B had a medical history that included recurring lower back pain and right thoracic (upper and middle back) pain. On 20 April 2015, Ms B (27 years old at the time) had a thoracic spine⁴ X-ray which indicated “[s]ignificant congenital⁵ right sided scoliosis⁶”, and a lumbosacral⁷ spine X-ray, which indicated thoracic scoliosis.⁸

Ms A

20. Ms A worked at the clinic as a physiotherapist. She was formerly the director of the clinic. She sold it to the current owner, and became an independent contractor working at the clinic. Ms A had been a physiotherapist for many years at the time of these events. She has postgraduate training in mechanical diagnosis and treatment, which she said has “a considerable emphasis on diagnosing and treating spinal injuries” and provides her with an in-depth understanding of structures in the spine and how to differentiate spinal disorders, including scoliosis. She also has a

⁴ The thoracic spine refers to the upper and middle back. It joins the cervical spine and extends down about five inches past the bottom of the shoulder blades, where it connects with the lumbar spine. The thoracic spine is made up of 12 vertebrae, labelled T1–T12.

⁵ From birth.

⁶ Abnormal lateral curvature of the spine.

⁷ Lower back.

⁸ Curvature in the middle of the spine.

background in manual manipulation therapy,⁹ which she said helps her to understand how a scoliotic spine may differ from a non-scoliotic spine.

Physiotherapy appointment on 13 May 2015

21. On 13 May 2015, Ms B saw Ms A at the clinic for treatment for her scoliosis.
22. Ms A assessed Ms B. Ms A documented in Ms B's assessment notes that Ms B presented with right-sided lower thoracic pain, central low back pain, and left-sided hip pain with prolonged walking for more than 40 minutes. Ms A also documented that Ms B told her that the pain was aggravated with prolonged sitting and when she raised her arms. Ms A told HDC that Ms B also had restricted shoulder and arm movements, with movement in both shoulder joints being restricted owing to the thoracic stiffness. This was not documented.
23. Ms A documented that Ms B's spine showed scoliosis with a main convex curve to the right. Ms A also documented that the spine showed significant stiffness into extension,¹⁰ and told HDC that this was in both the lumbar and thoracic spine, as well as with thoracic rotation.¹¹
24. Ms A documented that treatment consisted of education on injury mechanism and treatment approach, and thoracic spine extension mobilisation exercises were explained and carried out. She told Ms B to perform the same exercises daily. Ms A told HDC that posture advice was also given. It is documented that Ms A provided education on long-term management, and that she would review Ms B in one week's time.

Physiotherapy appointment on 27 May 2015

25. On 27 May 2015, Ms B returned to see Ms A. Ms A documented at the time that Ms B's symptoms had improved. Ms A noted: "[M]obilisation of [the] thoracic spine seems to correct stiffness and restriction from scoliosis." She also recorded that alignment and rotation were significantly corrected, and that Ms B felt more mobile.
26. Ms A also documented that Ms B's stiffness was more local, and that she could now sit without discomfort, lift her arms up better, and "overall feels straighter". It is also documented that Ms B's left hip pain with prolonged walking had improved with thoracic mobilisation.
27. Ms A told HDC that at this appointment Ms B had a greater range of movement in her thoracic and lumbar spine, was more able to sit and walk, and that shoulder mobility was easier. Ms A documented that she told Ms B to continue with the exercises at

⁹ A physical treatment used to treat musculoskeletal pain and disability; it most commonly includes kneading and manipulation.

¹⁰ When trying to extend.

¹¹ Mobility of the upper back and shoulders.

home, and added some new exercises to strengthen her back extensors.¹² It is documented that Ms A would review Ms B in four weeks' time.

Acupuncture at appointment with Ms A on 24 June 2015

28. On 24 June 2015, Ms B returned to Ms A. It is documented in the assessment notes for this visit that Ms B reported no more pain with walking or sitting, but that there was still persistent localised pain/stiffness in the thoracic spine with moving her arms overhead.
29. Ms A told HDC that Ms B's progress had "plateaued", and so she progressed to "more invasive techniques, such as trigger point needling¹³ and spinal mobilization/manipulation".
30. Ms A said that on assessment the stiff/painful area was the mid-thoracic, with stiff joints as well as "very tight M Erector spinae muscles,¹⁴ especially on the left". She told HDC that after mobilising the area with extension mobilisation in the prone position she asked Ms B's permission to use trigger point needling to address the "still very tight Erector spinae muscle on the left". Ms B advised HDC that Ms A asked whether she was "open to acupuncture", which she said she was.
31. It is documented that Ms B gave verbal consent for the procedure; however, the specifics of what was discussed with Ms B are not recorded. Ms A told HDC that she explained what the procedure involved, and she "discussed the reason why trigger point needling was in [her] opinion the best treatment at that point in time with Ms B". Ms A said that she explained that trigger point needling was an effective technique of muscle release for the M erector spinae muscles. She stated:

"I explained what to expect when using an acupuncture needle, as well as what to expect, when electro-stimulation¹⁵ using a hand-held device was used. I explained that there might be some treatment soreness. My focus was on the most relevant and likely symptoms she may experience with this form of acupuncture."

32. Ms A told HDC that she was "fully aware of anatomical variants in patients presenting with scoliosis and was also aware of what that means in terms of trigger point needling". She said that prior to these events, she used trigger point needling on a regular basis, almost daily. In addition, she told HDC:

¹² The extensor muscles are attached to the back of the spine and enable standing and lifting of objects. These muscles include the large paired muscles in the lower back (erector spinae), which help hold up the spine, and gluteal muscles.

¹³ Trigger point needling using an acupuncture needle is a form of treatment for spinal musculoskeletal conditions where muscle knots are present. Release of these knots can relieve symptoms of decreased range of motion, decreased strength, altered muscle activation patterns, increased tissue stiffness, and local and referred pain.

¹⁴ The muscles running along both sides of the spine.

¹⁵ Ms A intended to use a handheld electric device to invoke electrical simulation and to elicit a "contract/relax" reflex in the muscle.

“I was always aware of the angle and depth of the needle to avoid serious injury through needling and aware of ‘picking up’ the muscle especially when needling the upper trapez fibres to avoid reaching any underlying lung tissues.

In the case of [Ms B] I used the same care and anatomical understanding.”

33. She also said that she “informed [Ms B] about the possible side effects and experiences with trigger point needling using electro-stimulation, including what to expect after trigger point needling”.
34. Ms A acknowledged that she did not mention to Ms B the possible side effect of a pneumothorax¹⁶ or provide her with an acupuncture leaflet. Ms A told HDC that she was aware of the symptoms of pneumothorax, but was also aware of how rare they were.
35. In contrast, Ms B told HDC that “[a]t no point did [Ms A] explain any risks or what to expect afterwards”. Ms B said that Ms A asked her whether she had received acupuncture treatment previously, to which she said that she had not, and she said that Ms A told her that when she inserted the needle she would not feel any pain, but that she would feel a “slight ‘twinge’ when she activated the needle”. Ms B stated that, following this, Ms A inserted the first needle.
36. There is nothing documented to indicate what was discussed with Ms B regarding the proposed treatment.
37. Ms A went on to perform trigger point needling at the T7–T9 vertebrae using a 40mm length needle and a Pointer plus auriculoscope¹⁷ for electrical simulation and to elicit a “contract/relax” reflex in the muscle (a technique to relax the muscle without aggravating the muscle fibres).
38. Ms A told HDC that her training for needling with electrical stimulation had consisted of in-house training over several years with other physiotherapists who had attended courses and had formal postgraduate qualifications.¹⁸

¹⁶ The presence of air or gas in the cavity between the lungs and the chest wall, causing collapse of the lung.

¹⁷ Handheld electroacupuncture device with a typical frequency of 10Hz.

¹⁸ The Physiotherapy Board of New Zealand’s Position Statement for registered physiotherapists practising in a defined field provides the following regarding physiotherapists’ education, training and CPD: “It is the physiotherapist’s responsibility to — ensure they have undertaken an appropriate, relevant and recognised education and training programme for practising in their defined field, — ensure that they work within their scope of practice, have professional support and mentoring structures in place, and meet their professional and ethical obligations, — ensure that they maintain competence in their defined field of practice by undertaking relevant and ongoing CPD and peer review, and — ensure that a balance exists for the known benefit and the known harm of a treatment or modality before incorporating it into their practice.” The Board has not defined what it requires for the terms “appropriate, relevant and recognised education” to have been met, nor what frequency and amount of peer review and in-services training would be required as “proof” of maintenance of competence within a field of practice.

39. Ms A told HDC that the procedure on Ms B elicited the reaction she expected — a muscle contraction along the left M Erector spinae.
40. Ms B told HDC that, as soon as Ms A activated the first needle, she informed Ms A that she could feel a large pulse in her chest and “slight” pain in her left lung area, and that Ms A told her that this was normal. Ms A told HDC that Ms B reported “referred symptoms into the ribs on the left while the stimulation went on”. It is documented that Ms B “[f]elt referred pain¹⁹ into [left] rib cage during treatment ...?”.
41. Ms A told HDC: “As occasional referred pain is not unusual with trigger point needling, I re-assured [Ms B].” Ms A told HDC that when Ms B reported her symptoms to her, she considered what could be the most likely scenario, and symptoms that could be associated with needling a very tight myofascial spot.²⁰ Ms A said that “symptoms of referred pain from thoracic spine structures such as muscles, discs, and joints, into the chest area are well documented in the literature and not unusual in people with scoliosis that manifests itself mainly in the thoracic region”. In addition, she said that the “symptoms of shooting pain into the chest that was short lived during the treatment ... [is] commonly associated with a musculoskeletal problem in the thoracic”.
42. Ms A said that Ms B left the clinic “without further adverse reactions”, and a follow-up appointment was made for four weeks’ time.
43. Ms B told HDC that “[i]mmediately” after the appointment she felt “extremely light headed and began shaking. A few hours later [she] was in extreme pain on the left side of [her] chest. [She] had difficulty breathing and the pain was increasing.”
44. It is documented that Ms B called the clinic later that afternoon (around 2.30pm) but Ms A was not available. Ms B spoke to the afternoon receptionist reporting right ribcage pain with breathing, and pins and needles into the left arm. Ms B also told the receptionist that she was feeling short of breath. The receptionist rang Ms A at home, telling her to contact Ms B immediately. Ms A rang Ms B about 10 minutes later, which Ms A said was as soon as she could, and Ms B advised her of her symptoms as being “not shortness of breath but pain on inhalation”. Ms A said that Ms B complained of “pain in the chest, referred symptoms of ‘Pins and Needles’ in the left arm and an inability to take a deep breath”. Ms A told HDC that she specifically asked Ms B whether she was experiencing shortness of breath or dyspnoea, and that Ms B told her that her symptoms were “more, ‘unable to take a deep breath’”. Ms A told HDC that the symptoms Ms B was describing were “consistent with the side effects of needling a tight muscle and treating a stiff spinal joint unit with manipulation”.
45. In contrast, Ms B told HDC that she told Ms A that she felt short of breath, that it was difficult to breathe, and that she had to gasp for air as it hurt so much. She also told Ms A that she had a sharp pain on her left side. Ms B told HDC that Ms A told her

¹⁹ Pain felt in a part of the body other than its actual source.

²⁰ Myofascial spots, otherwise known as trigger points, are described as hyperirritable spots in the fascia surrounding the skeletal muscle.

that her symptoms were “normal and it was the muscles tightening back up”. Ms B was given a follow-up appointment for an assessment at 1pm the following day.

46. Ms A told HDC:

“On reflection, at that stage I should have told [Ms B] to immediately go to [Accident & Emergency] and get her lungs and thorax checked via an X-ray. While I was aware of the possibility of a pneumothorax with acupuncture, I thought it highly unlikely to have produced it through trigger point needling of the Erector spinae. I was rather thinking that the symptoms [Ms B] reported, were due to stiffening of the joint/muscle complex in the affected area, which is also a likely reaction to trigger point needling in combination with mobilisation, especially if the area has been stiff for a long time. I therefore told her to come back in[to] the clinic for a re-assessment the next day.”

47. Ms A told HDC that after the telephone call with Ms B she carried out some research into acupuncture-induced pneumothorax, “as that was a diagnosis at the back of my head”, and decided to contact Ms B on her cell phone at around 4.45pm, but was unable to reach her. Ms A then sent Ms B a text message that “advised her to go to the A&E department if symptoms worsen, rather than wait till the appointment with me the next day”. However, by the time Ms A messaged Ms B (at around 4.50pm), owing to her increasing pain Ms B had already telephoned a tele-health advice service, and was told to go to the hospital emergency department (ED) immediately. Ms B went to ED and was triaged at 5.10pm. She was already at the hospital when she received Ms A’s text (about two hours after Ms A had spoken to Ms B about her symptoms).

48. It is documented in Ms B’s clinical notes from the public hospital that Ms B had shortness of breath. It is also documented that she advised clinicians that she had had acupuncture earlier that day at 1.00pm, and that she vomited after this and developed back pain and pain in her left arm, as well as shortness of breath, racing heart rate, and a tight chest.

49. X-rays were performed of Ms B’s chest, and it was discovered that she had a partially collapsed lung (pneumothorax) at the site where the acupuncture needle had been placed. She was given analgesia and admitted for observation. She had experienced a 30% collapse in her lung.

50. Initially Ms A told HDC that she was “rather shocked about the fact that trigger point needling of spinal muscles can cause a pneumothorax”, and that she felt awful for not having advised Ms B to go to the ED immediately. However, she later clarified that she meant that a pneumothorax in practice is so rare that she thought it was “highly unlikely” to have occurred.

Following these events

51. On 25 June 2015, Ms B informed the clinic of her pneumothorax, and Ms A was told of the incident. Ms A said that she informed the clinic’s Safety Officer of the incident and asked for a copy of the Physiotherapy Board’s Patient Adverse Reaction Form. In response to my provisional opinion, however, the clinic advised that this was not correct, and stated that Ms A was provided with the forms on 2 July 2015.

52. Also on 25 June 2015, Ms B complained about these events to the Physiotherapy Board (the Board).
53. On 26 June, the owner of the clinic, Mr D, learnt of the incident and, on 1 July 2015, the Board informed Ms A of the complaint, and the complaint was forwarded to this Office.
54. Various conditions were placed on Ms A's practice while the Board and HDC looked into these events. On 2 July 2015, Ms A completed the Patient Adverse Reaction Form. She said that she did not complete a separate incident report as the information requested was the same as that on the adverse reaction form. Ms A acknowledged to the Board that she should have filled out an incident report immediately on learning of Ms B's adverse outcome.
55. On 3 July, Mr D was made aware of Ms B's complaint to the Board and, on 6 July, he contacted Ms B. Mr D told HDC that, during this conversation, Ms B told him that she had not heard from anyone since making her complaint, and that she had not received a formal apology from Ms A. Mr D offered to oversee Ms B's lung rehabilitation at no extra cost, if she wished, and he apologised on behalf of Ms A and the clinic.
56. On 14 July 2015, Ms A wrote a letter of apology to Ms B. On 17 July 2015, Ms A held an in-house training session at the clinic to raise awareness of the possibility of causing pneumothorax through trigger point needling, and what the immediate response should be. She said that the session had an emphasis on risk factors and symptoms.

Other information provided to this Office

57. Ms A told HDC that during her four-month role as a physiotherapy contractor at the clinic, she was not monitored or supervised in her clinical practice by the clinic. She said that, based on her experience and time at the clinic, it was she who was providing support to the clinic. On the other hand, in response to my provisional opinion, the clinic said that it was monitoring Ms A during this time, although no documentation was provided to support this.

Responses to provisional opinion

58. Ms B, Ms A, and the clinic were given the opportunity to respond to relevant sections of my provisional opinion.
 59. Ms B and Ms A had no further comment to make.
 60. The clinic advised that it no longer provides acupuncture. Other responses from the clinic have been incorporated into this report where relevant.
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Opinion: Ms A — breach

61. This report focuses on the care provided to Ms B at her appointment of 24 June 2015 and the days following that appointment. There are no issues of concern regarding the care provided to Ms B by Ms A at the earlier appointments.

Informed consent — breach

62. Ms B had been seeing Ms A for treatment of her scoliosis. On 24 June 2015 Ms B had a third appointment. Ms A had not performed acupuncture on Ms B at any of the earlier appointments and, at this one, she asked Ms B whether she was “open to acupuncture”. Ms B said yes, and Ms A documented in Ms B’s notes that Ms B gave verbal consent for the treatment.
63. Nothing is documented regarding whether adverse reactions were discussed prior to gaining Ms B’s consent, or whether the increased risks Ms B’s scoliosis presented to the situation were discussed, and what safety-netting advice, if any, was provided to Ms B for when she left the clinic.

Ms A’s recollection of events

64. Ms A told HDC that she was fully aware of anatomical variants in patients presenting with scoliosis, and was also aware of what that means in terms of trigger point needling.
65. Ms A stated that she asked Ms B’s permission to use trigger point needling. Ms A said that she explained to Ms B what the procedure involved, and discussed the reason why trigger point needling was, in her opinion, the best treatment for Ms B. Ms A said that she explained that trigger point needling is an effective technique of muscle release for the erector spinae. She further stated:

“I explained what to expect when using an acupuncture needle, as well as what to expect, when electro-stimulation using a hand-held device was used. I explained that there might be some treatment soreness. My focus was on the most relevant and likely symptoms she may experience with this form of acupuncture.”

66. In addition, Ms A told HDC: “I informed [Ms B] about the possible side effects and experiences with trigger point needling using electro-stimulation, including what to expect after trigger point needling.” Ms A acknowledged, however, that she did not mention the possible side effect of a pneumothorax or provide Ms B with any literature such as a leaflet on acupuncture. Ms A told HDC that she was aware of the symptoms of pneumothorax, but was also aware of how rare they are.

Ms B’s recollection of events

67. Contrary to Ms A’s recollection, Ms B said that the only information given to her from Ms A regarding the procedure and any risks/side effects was telling her that when she inserted the needle Ms B would not feel any pain, but that she would feel a slight ‘tinge’ when Ms A activated the needle. Ms B said that at no point did Ms A explain any risks or what to expect afterwards.

Expert advice

68. As part of this investigation I obtained expert advice from physiotherapist Ms Jillian McDowell.
69. Ms McDowell said that it is recommended that, when needling over the thoracic wall/lung fields, the specific warning of pneumothorax (or collapsed lung) is mentioned, in conjunction with instructions that the patient must avoid moving, coughing or sneezing whilst the needles are in place.
70. Ms McDowell advised that, in addition, Ms B should have been made aware that her potential anatomical variance, due to the presence of scoliosis, meant that the needle had the potential to reach lung tissue.
71. Furthermore, Ms McDowell advised that patients must also be warned of what to expect after treatment. She stated: “When the needle is inserted into a muscle knot in the thoracic multifidi (one of the erector spinae muscles), the patient will often complain of a deep aching cramp as a referred pain sensation.” She advised that other warnings should include the possible development of transient symptoms during and/or after the treatment, such as point bleeding, bruising, fatigue, light-headedness, or temporary aggravation of the symptoms. She also said that advice following the treatment, such as care with driving after treatment, and the avoidance of alcohol, should also be given.
72. Ms McDowell advised that the signs of acupuncture-induced pneumothorax (eg, shortness of breath on exertion, increased respiratory rate, chest pain, dry cough, blue tinge appearance to the face and lips, excessive sweating, and decreased breath sounds) commonly do not occur until after the treatment session, sometimes taking several hours to develop. She said that, therefore, patients need to be told about the possible symptoms of pneumothorax, and what to do in the event of such symptoms.

Finding

73. Ms B had the right to receive information that a reasonable consumer in her circumstances would expect to receive, including an explanation of the treatment and how it would affect her condition, and the risks and side effects of that treatment.
74. While conflicting evidence has been provided to me about what Ms B was told regarding acupuncture treatment and its risks, it has been acknowledged by Ms A that she did not discuss the possible risk of a pneumothorax.
75. In addition, no information was provided to Ms B regarding how her scoliosis presented an increased risk and, furthermore, it seems more likely than not that no safety-netting advice was provided to Ms B outlining what to expect and what symptoms she might experience once she left the clinic, including what to do in such cases. I consider this to be information that a reasonable consumer, in Ms B’s circumstances, would expect to receive.
76. In my opinion, overall, I find that Ms A’s failure to provide Ms B with information that a reasonable consumer, in Ms B’s circumstances, would expect to receive, was a breach of Right 6(1) of the Code of Health and Disability Services Consumers’ Rights

(the Code). Without this information, Ms B was not in a position to make an informed choice, and give her informed consent to having acupuncture. Accordingly, Ms A also breached Right 7(1) of the Code.

Use of acupuncture and trigger point needling — adverse comment

77. Ms A performed a form of acupuncture called trigger point needling. She did this at Ms B's 7–9 vertebrae using a 40mm length needle and a Pointer Plus auriculoscope (electroacupuncture device) for electrical stimulation; this was to elicit a “contract/relax” reflex in the muscle.
78. As soon as Ms A activated the first needle, Ms B reported feeling a large pulse in her chest; she said she also felt “slight” pain in her left lung area. Ms A said that occasional referred pain is not unusual with trigger point needling, and therefore she told Ms B that this was normal. Ms A said that Ms B left the clinic “without further adverse reactions”.
79. I note that Ms McDowell advised that acupuncture was an appropriate treatment choice for Ms B's presentation. In addition, Ms McDowell advised that, while not common practice, the application of trigger point needling with a handheld electrical point stimulator is acceptable.
80. I note, however, that with this form of treatment there is a risk of an electrically induced muscle contraction pushing the needle deeper, and Ms McDowell advised that special care must be taken when providing electroacupuncture near vulnerable anatomy such as lung fields.
81. Ms McDowell advised that if tissue compression is applied during needling, it lessens the depth further from the surface of the lungs. A needle of 40mm length is adequate to reach lung tissue at the erector spinae at these levels. Also, she advised that in the presence of a scoliosis, the angle needed to treat the erector spinae would change due to the presence of a rotated segment. She advised that it would be possible to thread a needle between the vertebrae to the lung tissue at the T7–9 level.
82. Ms McDowell noted that the PAANZ²¹ guidelines since 2014 have specifically warned practitioners about electroacupuncture causing muscle contraction, advising that muscle contraction may potentially encourage needle movement or for the needles to be drawn deeper into the tissue layers. She said that special care must be taken, particularly when providing low frequency electroacupuncture near the lung fields. Ms McDowell advised that the Pointer plus auriculoscope used by Ms A would qualify as low frequency.
83. I note Ms McDowell's advice that the presence of a scoliosis is a contraindication to trigger point needling of the erector spinae because the vertebral rotation can alter bony landmarks and no longer ensure safety of needle insertion into the targeted tissue.

²¹ The Physiotherapy Acupuncture Association of New Zealand (PAANZ). The expert quotes from the 2014 guidelines.

84. Ms A said that she was “fully aware of anatomical variants in patients presenting with scoliosis and was also aware of what that means in terms of trigger point needling”. She said that prior to these events, she had used trigger point needling almost daily. She said that she understood how a scoliotic spine may differ from a non-scoliotic spine, and stated:

“I was always aware of the angle and depth of the needle to avoid serious injury through needling and aware of ‘picking up’ the muscle especially when needling the upper trapez fibres to avoid reaching any underlying lung tissues. In the case of [Ms B] I used the same care and anatomical understandings.”

85. There is no evidence, however, that Ms A actually paused prior to carrying out the procedure to turn her mind to the affect Ms B’s scoliosis could have on this form of treatment. Ms B has told HDC that Ms A did not discuss any risks of acupuncture with her. In addition, there is no mention in the documentation of Ms A’s consideration of Ms B’s scoliosis in relation to acupuncture.
86. I note that Ms A had been a physiotherapist for many years at the time of these events; I further note that she believed her training had had an emphasis on diagnosing and treating spinal injuries, and that she understands how a scoliotic spine may differ from a non-scoliotic spine. However, I am not convinced, on the evidence presented to me, that Ms A, in this instance, adequately considered Ms B’s scoliosis prior to performing this type of needling in this area, and I am critical of this.

Follow up care — breach

87. Ms B said that immediately after the appointment she felt extremely light-headed and began shaking. A few hours later she was in “extreme” pain on the left side of her chest. She said that she had difficulty breathing, and that the pain was increasing. She called the clinic and spoke to the afternoon receptionist reporting right ribcage pain with breathing and pins and needles into the left arm. According to the receptionist, Ms B also complained of being short of breath. The receptionist rang Ms A at home telling her to contact Ms B immediately. Ms A rang Ms B about 10 minutes later. Ms A said that Ms B’s symptoms were “not shortness of breath but pain on inhalation”, and that Ms B complained of “pain in the chest, referred symptoms of ‘pins and needles’ in the left arm and an inability to take a deep breath”. Ms A told HDC that she specifically asked Ms B whether she was experiencing shortness of breath or dyspnoea, and that Ms B told her that her symptoms were “more, ‘unable to take a deep breath’”.
88. Ms A told HDC that the symptoms Ms B was describing were “consistent with the side effects of needling a tight muscle and treating a stiff spinal joint unit with manipulation”.
89. In contrast, however, Ms B said that she told Ms A that she had a sharp pain on her left side, and that she was short of breath. Ms B stated that she told Ms A that it hurt and was difficult to breathe, and that she had to gasp for air. Ms B said that Ms A told her that her symptoms were normal, as it was the muscles tightening back up. Ms B was given a follow-up appointment for an assessment the following day.

90. Ms A said to HDC that, on reflection, she should have told Ms B to go to the emergency department immediately. Ms A stated:

“While I was aware of the possibility of a pneumothorax with acupuncture, I thought it highly unlikely to have produced it through trigger point needling of the Erector spinae. I was rather thinking that the symptoms [Ms B] reported, were due to stiffening of the joint/muscle complex in the affected area, which is also a likely reaction to trigger point needling in combination with mobilisation, especially if the area has been stiff for a long time.”

91. After the telephone call, Ms A carried out some research into acupuncture-induced pneumothorax, “as that was a diagnosis at the back of [her] head”. Ms A decided to contact Ms B with a text message that advised her to go to the emergency department if her symptoms worsened, rather than wait till the appointment with Ms A the next day. However, by the time Ms A sent the text message to Ms B, Ms B had obtained advice from a tele-health advice service to go to the emergency department immediately. Ms B was already at the hospital when she received Ms A’s text.

92. Ms B’s clinical notes from the hospital presentation document that she had shortness of breath. It was discovered that she had a collapsed lung (a pneumothorax) at the site where the acupuncture needle had been placed. She had experienced a 30% collapse of the lung.

93. Ms A told HDC that as a pneumothorax in practice is so rare, she thought it “highly unlikely” to have occurred, and she felt awful for not having advised Ms B to go to the emergency department immediately.

94. I note the discrepancy between Ms A’s recollection of events regarding the telephone call with Ms B, and Ms B’s recollection. Ms B recalls reporting that she had a sharp pain on her left side and felt short of breath, whereas Ms A recalls Ms B reporting that she was unable to take a deep breath owing to pain. Ms McDowell advised that shortness of breath would be the most obvious symptom of a pneumothorax, whereas pain on breathing may be common to both pneumothorax and post-treatment soreness to the thoracic spine. However, I also note Ms McDowell’s advice that the rarity of a pneumothorax should not preclude it from clinical reasoning, and a high index of suspicion (of a pneumothorax) should always be present when needling over the thoracic spine.

95. Ms McDowell advised that an awareness of the signs and symptoms of pneumothorax is necessary for all practitioners using acupuncture and needling in the thoracic region. She advised:

“The failure to consider pneumothorax as a potential cause of respiratory symptoms after needling over the lung fields is [a] serious departure from accepted practice.”

96. While I note that Ms A did consider the possibility of a pneumothorax and changed her advice, she did not immediately recognise the symptoms and recommend going to the emergency department. While I am unable to make a finding as to whether or not

Ms B used the words “short of breath” with Ms A, I find that in these circumstances, Ms B’s reported symptoms of “unable to take a deep breath” should have raised concern that a pneumothorax might be present. By failing to turn her mind to this at the time of her initial telephone conversation with Ms B, Ms A delayed Ms B’s referral for medical treatment. Ms A failed to provide services to Ms B in a manner that minimised the potential harm to her and, accordingly, I find that Ms A breached Right 4(4) of the Code.

Actions following the complaint — adverse comment

97. On 2 July 2015, Ms A completed a Patient Adverse Reaction Form. She said that she did not complete a separate incident report as the information requested was the same as that on the adverse reaction form. I note that Ms A acknowledged that she should have filled out an incident report immediately on learning of Ms B’s adverse outcome (on 25 June 2015). It was therefore over a week before Ms A formally documented the incident. I am critical of this delay.

Opinion: Physiotherapy Clinic — adverse comment

98. As a provider of health services, the clinic is responsible for the operation of the services it provides, and is responsible for any service failures. In my view, it is the responsibility of the clinic to have adequate systems in place and appropriate oversight of staff.

Training

99. Ms McDowell advised that there is no set minimum level of training before a physiotherapist may practise acupuncture or dry needling within New Zealand; she said that the parameters are not defined by the Board. Ms A’s training for the type of needling used in this instance with Ms B had come solely from several years of in-house training with other physiotherapists who had attended courses and had formal qualifications.
100. Ms McDowell further advised that both the physiotherapist and the employer are to ensure continuing professional development activities that support their defined area of practice. I note that Ms A told HDC that during her four-month role as a physiotherapy contractor at the clinic, she was not monitored or supervised in her clinical practice by the clinic but, rather, due to her experience and time at the clinic, it was she who was providing support to the clinic. On the other hand, the clinic stated that Ms A was being monitored, although no documentation has been provided to support this. I note, however, that Ms A was a very experienced physiotherapist, and I note Ms McDowell’s advice that as the Board’s parameters on what it considers “appropriate, relevant and recognised education” has not been defined, I am unable to comment on whether the clinic and Ms A were ensuring continued professional development adequately.

Policies

101. Ms McDowell advised that as the clinic is an accredited practice through the New Zealand Physiotherapy Accreditation Scheme, its policies and procedures in place at the time had been audited externally and deemed to have met the Allied Health Standards.²² However, Ms McDowell advised that the clinic's incident reporting process did not have specific time frames for each step required, with the exception of the requirement that an incident must be reported within 48 hours, and did not impose expectations on how soon after an incident occurred certain steps should be taken. Ms McDowell advised that these steps include the time till reporting, the time till the patient is called back, the time till the director is notified, and the time till an apology is sent. She noted that adding further timeframes to its policies in the future would be beneficial. I consider that there is certainly room for improvement, to provide more clarity regarding when certain steps should be taken.
102. Ms McDowell advised that it is standard practice for accredited physiotherapy practices to have leaflets on acupuncture, and that the clinic would benefit from having an acupuncture policy. I accept Ms McDowell's advice that an acupuncture policy would benefit the clinic, as would an information leaflet on acupuncture, to be given to patients prior to giving their informed consent. However, I note that the clinic have stated that acupuncture is no longer carried out at the clinic.

Conclusion

103. While I do not find the clinic in breach of the Code, I consider that there are some learnings from this case. In particular, as noted above, the clinic should review its current policies and procedures. In particular, the clinic should review its policies relating to time frames when there are reportable events.
-

Recommendations

104. I recommend that Ms A:
- a) Undertake further education and training on informed consent, within three months of the date of this report. Ms A is to provide evidence of this training to HDC within four months of the date of this report.
 - b) Review her practice in light of this report, including her process for obtaining informed consent, and report back to HDC on her learning, within three weeks of the date of this report.
 - c) Provide a written apology to Ms B for her breach of the Code. The apology is to be sent to HDC within three weeks of the date of this report, for forwarding to Ms B.

²² Standards have been set to try to establish consistently safe and reasonable levels of care for consumers and for the continuous development of quality improvement systems across the health sector. Being an accredited practice means that the practices are audited to ensure that the agreed standards have been met.

105. I recommend that the clinic review its current policies and procedures, and report back to HDC within three months of the date of this report.
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Follow-up actions

106. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to the NZ Physiotherapy Board, and it will be advised of Ms A's name.
107. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be sent to Acupuncture New Zealand.
108. A copy of this report with details identifying the parties removed, except the expert who advised on this case, will be placed on the Health and Disability Commissioner website, www.hdc.org.nz, for educational purposes.

Appendix A: Independent physiotherapy advice to the Commissioner

The following expert advice was obtained from Jillian McDowell, physiotherapist:

“I, Jillian Marie McDowell have been asked to provide an opinion to the Health and Disability Commissioner of New Zealand on case number 15HDC00947. I have read and agree to follow the Commissioner’s Guidelines for Independent Advisors.

Qualifications:

Diploma of Physiotherapy
Diploma of Manipulative Physiotherapy
Register of Physiotherapy Acupuncturists
Postgraduate Certificate of Sports Medicine (Otago)
Credentialed Therapist, McKenzie Institute Mechanical Diagnosis and Therapy
Member of the New Zealand College of Physiotherapists (Manipulation)
Accredited Sports Medicine N.Z. — Physical Conditioning Level 1
Member of the New Zealand College of Physiotherapy (Acupuncture)
Credentialed Mulligan Concept Teacher
Masters of Physiotherapy (Distinction) endorsed in Acupuncture, University of Otago

Professional Memberships:

Physiotherapy New Zealand
Sports Medicine New Zealand
Physiotherapy Acupuncture Association of New Zealand
New Zealand Manipulative Physiotherapists Association
The McKenzie Institute of New Zealand
Member of the Mulligan Concept Teachers Association

Other Positions Held:

Recognised Provider, Regional Network for New Zealand Netball
Past Recognised Provider, New Zealand Academy of Sport
Tutor, Physiotherapy Acupuncture Association of New Zealand
Past Tutor, Otago University, Postgraduate Certificate in Acupuncture, PHTX530
Past Tutor, Otago University, Postgraduate Paper Professional Issues in Physiotherapy PHTX502
Executive member and Research Officer, Physiotherapy Acupuncture Association of New Zealand
Member of the Professional Development Committee, Physiotherapy New Zealand

Experience relevant to the area of expertise to be called on in compiling this report:

I have 24 years of physiotherapy experience, of which 22 have been in private practice predominantly assessing and treating musculoskeletal injuries (including spinal conditions). I have 23 years of acupuncture experience and I have taught acupuncture for the Physiotherapy Acupuncture Association of New Zealand for

14 years. I assisted Physiotherapy New Zealand (PNZ) with the redevelopment of their national adverse reaction reporting form, having completed a Masters degree looking at adverse reaction reporting, specifically those related to acupuncture treatments. In conjunction with Susan Kohut I am responsible for reviewing the Physiotherapy Acupuncture Association of New Zealand's (PAANZ) Guidelines for safe acupuncture and dry needling practice biannually. I was a New Zealand College of Physiotherapy (NZCP) reviewer for the accreditation of the Dry Needling Plus seminars run by Andrew Hutton in 2009. I have published five articles (Appendix 1) on the topic of adverse reactions to acupuncture and presented at the International Scientific Acupuncture and Meridian Symposium in 2015.

Disclosure

I have received referrals for treatment from [Ms A] in the past [and] I have met [Ms A] in person [...] but we have never socially interacted. I believe I am still able to give an impartial review of this case. I am on the PAANZ executive and education team.

Referral instructions

To provide expert advice on the standard of care provided to [Ms B] (file number 15/00947) by [Ms A] at [the clinic].

To specifically comment on:

- the appropriateness of treatment provided to [Ms B],
- whether the acupuncture was performed with reasonable care and skill,
- what risk would you expect a physiotherapist to discuss with a patient prior to providing acupuncture treatment for scoliosis,
- should the risk of pneumothorax have been discussed,
- the incidence rate of pneumothorax caused by acupuncture and
- the quality of advice given by [Ms A] when [Ms B] contacted her about the symptoms.

Sources of information reviewed

Copy of complaint

[Ms A's] account of the incident (in email to [Registrar] at Physiotherapy Board of New Zealand)

Copy of [Ms B's] clinical notes

Copy of adverse event report

Copy of [Ms B's] Emergency Department discharge summary from [the public] Hospital

Copy of email from [Ms A] outlining her [acupuncture education, including training in Dry Needling Plus]

Factual Summary

[Ms B] saw [Ms A] at [the clinic] for treatment for thoracic and lumbar pain associated with her scoliosis. During the session on 24 June 2015, [Ms A] offered [Ms B] acupuncture treatment and she agreed to this. Verbal consent to trigger point acupuncture was recorded in her notes. Treatment targeted the left erector

spinae muscle at the level of T7–9 using a .30x40mm Hwato needle and a Pointer plus auriculoscope (electroacupuncture device). The needle was inserted and electrically stimulated to elicit a ‘contract relax’ reflex in the muscle, which was visually witnessed by [Ms A]. During the acupuncture, [Ms B] felt a large pulse and slight pain in her left lung area, but was advised this was normal. The session finished, but [Ms B] experienced discomfort (light headedness, shaking) immediately afterwards. A few hours later she remained in pain and had difficulty breathing. [Ms B] contacted [the clinic] for advice, but [Ms A] was not available. [Ms A] later contacted [Ms B] by telephone and advised her that her symptoms were normal and that it was the ‘muscles tightening back up’ and a check up appointment was made for the next day. [Ms A] followed up with a text two hours later to advise a visit to Accident and Emergency if symptoms worsened after further consideration of her case.

However meanwhile after experiencing increasing pain, [Ms B] had phoned [a telephone health advice service] and was advised to go to Accident and Emergency. At [the public hospital], it was discovered she had a punctured lung at the site of the acupuncture needle and she was diagnosed with a pneumothorax (30% collapse). She was kept in hospital overnight. [Ms A] filled in an adverse reaction reporting form for Physiotherapy New Zealand’s anonymous adverse reaction reporting scheme.

Current practice

Trigger point or dry needling, using an acupuncture needle, is a valid treatment choice for spinal musculoskeletal conditions where myofascial trigger points are present.(1) Myofascial trigger points (or in lay terms ‘muscle knots’) can contribute to impairments of the musculoskeletal system including decreased range of motion, decreased strength, altered muscle activation patterns, increased tissue stiffness, muscle fatigability and local and referred pain.(2) Release of these ‘knots’ can relieve these symptoms.

Prospective studies and retrospective surveys have determined that acupuncture and dry needling is very safe in the hands of competent practitioners who have completed adequate training programs. However acupuncture and dry needling have been identified as causes of pneumothorax.(3) Incident rates vary in the literature.

McCutcheon stated the incidence of acupuncture-induced pneumothorax is less than 1/10 000, which is classed as very rare by the WHO classification.(3)

Fernandez-de-las-Penas, Layton and Dommerholt considered that although trigger point dry needling by physical therapists is safe, it cannot be implied that there is no risk of potentially serious complication. The risk of occurrence of a significant adverse event was calculated to be 0.04%.(2)

Witt (4) found 2 cases of pneumothorax in a prospective observational study of 229,230 patients who received on average 10 treatments each.

Three pneumothoraces have been reported to the PNZ anonymous adverse reaction scheme over the past 15 years⁽⁵⁾ with two being secondary to trigger point needling.

Informed consent prior to acupuncture is standard practice. Informed consent requires communication of information about possible adverse effects of treatment.⁽⁶⁾ Explanation of the acupuncture mechanisms utilised should also be provided to the patient.⁽⁷⁾ A number of information leaflets already exist and are available to physiotherapy acupuncturists in New Zealand through PAANZ.⁽⁷⁾ Several are also available on line. It is anticipated in standard practice that the patient is at least offered a leaflet to read, overnight if necessary, before consenting to acupuncture. Whilst professionals may express concern that the provision of risk information may make patients unduly anxious and change their mind about the proposed treatment, Garrud, Wood and Stainsby ⁽⁶⁾ showed that provision of detailed information about possible adverse consequences of treatment can improve patients' understanding and satisfaction without increasing anxiety.

It is recommended that when needling over the thoracic wall/lung fields that the specific warning of pneumothorax (or 'collapsed lung' in layman's terms) is mentioned in conjunction with instructions that the patient must avoid moving, coughing or sneezing whilst they are in place. The patient must also be warned of what to expect after treatment. When the needle is inserted into a muscle knot in the thoracic multifidi (one of the erector spinae muscles), the patient will often complain of a deep aching cramp as a referred pain sensation; however, symptoms can also refer to the chest, along a rib (mimicking an intercostal neuralgia), or downward and/or outward several thoracic segments. Other warnings should include the possible development of transient symptoms during and/or after the treatment, such as point bleeding, bruising, fatigue, light-headedness or temporary aggravation of the symptoms.⁽³⁾ Advice following the treatment that may be pertinent for the individual patient, such as care with driving after treatment and the avoidance of alcohol, or in regards to the use of heat or local ice following trigger point needling, should be given.⁽⁷⁾

An awareness of signs and symptoms of pneumothorax is necessary for all practitioners using acupuncture and dry needling in the thoracic region.⁽³⁾ The signs and symptoms of a pneumothorax may include shortness of breath on exertion, increased respiratory rate, chest pain, dry cough, blue tinge appearance to the face and lips, excessive sweating, and decreased breath sounds.⁽³⁾ The symptoms of acupuncture-induced pneumothorax commonly do not occur until after the treatment session, sometimes taking several hours to develop. Patients need to be cautioned as to the possible symptoms of pneumothorax and what to do in the event of such symptoms.⁽³⁾

Physiotherapists are expected to know their anatomy and depth of needle insertion before commencing treatment.⁽⁷⁾ Normal anatomy and its variants must be appreciated to minimize risk to the lung tissue.⁽³⁾ Anatomically the lung fields extend to the sixth rib anteriorly at the mid-clavicular line, to the eighth rib

laterally at the mid-axillary line and to the tenth rib posteriorly. The pleura extends a further two ribs below each of these levels. This is particularly important to note posteriorly where at the lateral border of the erector spinae the pleura extends down to the twelfth rib (T12) and care should be taken when needling the erector spinae at these levels.

Posteriorly, the surface of the lungs is 15–20 mm beneath the dermal surface in the parascapular zone(3) and additional care must be taken if tissue compression is applied during needling as this would lessen the depth further. Lin, Chou and Chu(8) have published a review article on proposed safe depths of acupuncture. This article is freely available online and on the PAANZ website. At T10 the lung depth may vary profoundly under different angles from 20.2mm to 40mm,(8) and may be as little as 12mm between T1–T12. A needle of 40mm length is adequate to reach lung tissue at the erector spinae at these levels.

The presence of a rotated segment (in the presence of a scoliosis) would change the angle needed to treat the erector spinae and it would be possible to thread a needle between the vertebrae to the lung tissue at the T7–9 level. Fernandez-de-las-Penas, Layton and Dommerholt (2) go as far as to state:

‘The presence of a scoliosis is a contraindication to trigger point needling of both the thoracic multifidi and longissimus thoracis muscles (erector spinae), because of the vertebral rotation, which can alter bony landmarks and no longer ensures safety of needle insertion into the targeted tissue.’

However this is not currently a recommendation adopted by PAANZ.

The style of acupuncture utilized by [Ms A], Integrated Dry Needling (IDN),²³ is an alternative dry needling approach (see Appendix 2 for definitions of acupuncture styles). Whilst it has not yet been validated by research specific to its style, it draws on other research to support its mode of delivery and has been accredited by the New Zealand College of Physiotherapy. It is not standard practice to apply electroacupuncture (EA) to IDN.

A Pointer plus auriculoscope is an electrical stimulator, used to provide EA and may be applied directly to the skin over acupuncture points, or more commonly to a needle to release a stuck needle in a muscle spasm. PAANZ in its safety guidelines(7) specifically warn about causing muscle contraction with EA.

Furthermore muscle contraction may encourage needle movement; for needles to fall out, or be drawn deeper into tissue. Thus special care must be taken when providing EA (particularly low frequency EA), near vulnerable anatomy, such as lung fields.

The Pointer plus auriculoscope commonly has a 10Hz frequency and would qualify as low frequency.

²³ Please note that in subsequent expert advice provided by Ms McDowell it was identified that Ms A was not utilising the integrated dry needling technique.

Opinion

Acupuncture was an appropriate treatment choice for [Ms B's] presentation, however it was not performed to an expected standard of care. [Ms A] should have been aware of the potential anatomical variance in the presence of [Ms B's] scoliosis, the location and depth of the lung tissue relative to the erector spinae muscle and the ability of the needle length chosen to reach lung tissue. The use of electroacupuncture with an Integrated dry needling style is not standard practice and may have increased risk further with the electrically stimulated muscle contraction pushing the needle deeper.

All physiotherapy acupuncturists should give adequate informed consent and specifically use the words 'collapsed lung' or 'pneumothorax' when needling over the chest wall. This could not be established from the documents reviewed.

All physiotherapy acupuncturists should warn patients of what to expect after trigger point needling. It would appear that [Ms A] mistook the patient's symptoms of pneumothorax for 'expected discomfort' post treatment. An index of suspicion should always exist if a patient reports any respiratory symptoms after needling over the lung field. [Ms A's] admission that she thought it was 'highly unlikely to have produced it (a pneumothorax) through trigger point needling of the erector spinae' speaks to her lack of understanding of the anatomy of the area, and possibly led her to suspect treatment soreness rather than pneumothorax. The advice given at the time of the patient phone call was appropriate for expected muscle response/treatment soreness after trigger point needling. It was not appropriate for the management of a pneumothorax, and delayed [Ms B's] referral to medical treatment.

Limitations

Conflicting versions of whether the symptom of shortness of breath was discussed in the initial phone call exist.

The clinical notes provided do not state if or what possible adverse reactions were discussed prior to treatment in gaining verbal consent, or what warnings were given.

Conclusion

In my view the standard of care for applying acupuncture over the lung fields was not met. The failure to consider pneumothorax as a potential cause of respiratory symptoms after needling over the lung fields is a serious departure from accepted practice for the reasons outlined above. My peers would review the failure to know the anatomy under the acupuncture needle with severe disapproval.²⁴

Jillian McDowell

²⁴ Please note that in subsequent expert advice provided by Ms McDowell she changed her criticisms around the final part of this sentence.

Appendix 1

McDowell JM. Reported adverse reactions to physiotherapy acupuncture in New Zealand 1999–2003. In Proceedings of the 4th International Pan Pacific Medical Acupuncture Forum; 2004; Taupo, New Zealand

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McDowell, JM, Kohut, SH, Johnson, GM. Trigger point acupuncture (dry needling) and associated fecal incontinence in multiple sclerosis: a case report. *Medical Acupuncture*. 2015. DOI 10.1089/acu.2015.1102

McDowell JM, Johnson GM (2015) Adverse reactions to acupuncture: the New Zealand scene. iSAMS Conference paper, University of Otago, Dunedin.

Appendix 2

Physiotherapy Acupuncture Association of New Zealand (PAANZ) definitions:(7)
Traditional Acupuncture: Utilisation of meridian or extra points based on a Traditional Chinese Medicine approach which includes diagnosis and clinical reasoning using various Chinese Medicine assessment methods and/or paradigms. Utilisation within the context of physiotherapy will include a diagnosis based on clinical reasoning as part of an overall management approach.

Western Acupuncture: Western acupuncture utilises meridian points but applies it to Western scientific reasoning with particular consideration to neurophysiology and anatomy. It does not utilise any traditional Chinese medicine assessment methods. Utilisation within the context of physiotherapy will be based on clinical reasoning as part of an overall management approach.

Trigger Point/Dry Needling: Rapid, short term needling to altered or dysfunctional tissues in order to improve or restore function. This may include (but is not limited

to), needling of myofascial trigger points, periosteum and connective tissues. It may be performed with an acupuncture needle or any other injection needle without the injection of a fluid. This is a practice utilised by both Traditional and Western acupuncturists.

Dry Needling Plus definition:(9)

The Integrated Dry needling (IDN) training programme provides an alternative dry needling approach to trigger point needling. It utilises a range of needling techniques applied to stimulate change in tissue anomalies, which result from neuro-physiological load on the system leading to tissue irritation, inflammation and pain sensitivity. The needle stimulate alters the neurophysiological drive to the tissue and so alters these tissue processes.

The relevant tissue is located during a non-provocative examination using a process of light palpation, refined tissue sensitivity testing, movement analysis and neurodynamic assessment. The IDN approach employs more superficial and less vigorous techniques than those used in other approaches. This has obvious benefits for patient and practitioner alike such as reduced discomfort and reduced risk of adverse outcomes. The incremental addition and varied level of stimulation provided to each patient's tissue during an IDN treatment means the issues of non response and over stimulation are far less a concern. Both are known issues in other dry needling approaches.

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The following further expert advice was received from physiotherapist Ms Jillian McDowell on 12 January 2017:

“I, **Jillian Marie McDowell** have been asked to provide additional opinion to the Health and Disability Commissioner of New Zealand on case number **C15HDC00947**. I have read and agree to follow the Commissioner’s Guidelines for Independent Advisors.

Qualifications:

Diploma of Physiotherapy
Diploma of Manipulative Physiotherapy
Register of Physiotherapy Acupuncturists
Postgraduate Certificate of Sports Medicine (Otago)
Credentialed Therapist, McKenzie Institute Mechanical Diagnosis and Therapy
Member of the New Zealand College of Physiotherapists (Manipulation)
Accredited Sports Medicine N.Z. — Physical Conditioning Level 1
Member of the New Zealand College of Physiotherapy (Acupuncture)
Credentialed Mulligan Concept Teacher
Masters of Physiotherapy (Distinction) endorsed in Acupuncture, University of Otago

Professional Memberships:

Physiotherapy New Zealand
Sports Medicine New Zealand
Physiotherapy Acupuncture Association of New Zealand
New Zealand Manipulative Physiotherapists Association
The McKenzie Institute of New Zealand
Member of the Mulligan Concept Teachers Association

Other Positions Held:

Recognised Provider, Regional Network for New Zealand Netball
Past Recognised Provider, New Zealand Academy of Sport
Tutor, Physiotherapy Acupuncture Association of New Zealand
Past Tutor, Otago University, Postgraduate Certificate in Acupuncture, PHTX530
Past Tutor, Otago University, Postgraduate Paper Professional Issues in Physiotherapy PHTX502
Executive member and Research Officer, Physiotherapy Acupuncture Association of New Zealand
Member of the Professional Development Committee, Physiotherapy New Zealand

Experience relevant to the area of expertise to be called on in compiling this report:

I have 25 years of physiotherapy experience, of which 23 have been in private practice predominantly assessing and treating musculoskeletal injuries (including spinal conditions). I have 24 years of acupuncture experience and I have taught acupuncture for the Physiotherapy Acupuncture Association of New Zealand for 15 years. I assisted Physiotherapy New Zealand (PNZ) with the redevelopment of their national adverse reaction reporting form, having completed a Masters degree looking at adverse reaction reporting, specifically those related to acupuncture treatments. In conjunction with Susan Kohut I am responsible for reviewing the Physiotherapy Acupuncture Association of New Zealand's (PAANZ) Guidelines for safe acupuncture and dry needling practice biannually. I was a New Zealand College of Physiotherapy (NZCP) reviewer for the accreditation of the Dry Needling Plus seminars run by Andrew Hutton in 2009. I have published five articles (Appendix 1) on the topic of adverse reactions to acupuncture and presented at the International Scientific Acupuncture and Meridian Symposium in 2015.

Disclosure

I have received referrals for treatment from [Ms A] in the past [and] I have met [Ms A] in person [...] but we have never socially interacted. I believe I am still able to give an impartial review of this case. I am on the PAANZ executive and education team.

Referral instructions

To provide additional expert comment on the standard of care provided to [Ms B] (file number [15/00947]) by [Ms A] at [the clinic].

In light of additional responses and information received, to specifically comment on:

- Whether my opinion would change in light of additional information provided

Sources of information reviewed

1. Response from [Ms B] to additional questions from [HDC] dated 13/10/16
2. Response from [Mr D] to additional questions from [HDC] dated 14/10/16
3. Response from [Ms A] as requested by [HDC] dated 11/1/16, with attachments
 - Response to [Ms B's] complaint Ref 15 00947 pdf
 - Apology to [Ms B](1)(1) pdf
 - Communication 1 pdf
 - Communication 2 pdf
 - [Physiotherapist's] email pdf
 - 2016 course calendar pdf
 - [Another physiotherapist's] letter
4. Email from PBNZ and relevant information on reporting time frames (appendix 1)

Change in opinion

‘The use of electroacupuncture with an Integrated Dry Needling style is not standard practice and may have increased risk further with the electrically stimulated muscle contraction pushing the needle deeper’. (original expert report)

[Ms A] has clarified that she did not use the Integrated Dry Needling style for her treatment. She used classical dry needling with the addition of a hand held electrical point stimulator. Whilst this is not common practice in treatment it is acceptable clinical practice, more commonly used to release a muscle spasm from around an acupuncture needle over 1–2 minutes (Physiotherapy Acupuncture Association of New Zealand Guidelines 2013). This changes my opinion on her application of standard needling practice, but the risk of electrically induced muscle contraction pushing the needle deeper still needed to be considered.

‘It would appear that [Ms A] mistook the patient’s symptoms of pneumothorax for “expected discomfort” post treatment. An index of suspicion should always exist if a patient reports any respiratory symptoms after needling over the lung field. [Ms A’s] admission that she thought it was “highly unlikely to have produced it (a pneumothorax) through trigger point needling of the erector spinae” speaks to her lack of understanding of the anatomy of the area, and possibly led her to suspect treatment soreness rather than pneumothorax. The advice given at the time of the patient phone call was appropriate for expected muscle response/treatment soreness after trigger point needling. It was not appropriate for the management of a pneumothorax, and delayed [Ms B’s] referral to medical treatment’. (original expert report)

[Ms A] has clarified that ‘highly unlikely’ was not actually in relation to her appreciation of the anatomy of the region but the fact that a pneumothorax in practice is so rare that she thought it was ‘highly unlikely’ to have occurred. This changes my opinion on her lack of anatomical knowledge of the lung fields.

No change to opinion

Failure to provide adequate informed consent

[Ms A] has herself confirmed a momentary lapse in usual care protocol occurred and that she ‘did not mention possible side effects of a pneumothorax or hand the leaflet to her’ before her treatment. [Ms B] confirms that the risk of pneumothorax was not explained to her and ‘at no point did she explain any risks or what [to] expect afterwards ... or give me follow up points’.

A pneumothorax occurred secondary to acupuncture treatment

The needle location over the lung field, the subsequent symptoms, and time frame between treatment and onset of symptoms makes the acupuncture the most likely cause of the injury. The patient had none of the risk factors for a spontaneous pneumothorax. [Ms A] reported good technique in needle angle but a treatment accident still occurred. [Ms B’s] underlying scoliosis could have been a

contributing factor with rotation of the spinal segment allowing the needle to either thread between the lamina or transverse processes to reach the pleura. This may have been facilitated by the muscle contraction discussed above.

Delay in referral for further treatment

[Ms B's] treatment was delayed by the subsequent communication between [Ms A] and [Ms B]. This links to the discrepancy between the patient and therapist's recollections of a subsequent phone call, with the [Ms B] recalling 'I said I had a sharp pain on my left side and I felt short of breath' versus [Ms A] recalling she said she was 'unable to take a deep breath' due to pain. Shortness of breath would be the most obvious symptom of a pneumothorax whereas pain on breathing may be common to both pneumothorax and post treatment soreness of the thoracic spine. The rarity of a pneumothorax should not preclude it from clinical reasoning, and a high index of suspicion should always be present when needling over the thoracic spine. [Ms A] did consider this and later changed her advice to the patient with a second phone call.

Further comment

Scope of practice

There is no set minimum level of training before a physiotherapist may practise acupuncture or dry needling in New Zealand. The Physiotherapy Board of New Zealand's (PBNZ) positional statement 'New Zealand registered physiotherapists practising in a defined field' currently covers the practice of acupuncture by physiotherapists. It is one of self-regulation and requires the physiotherapist and employer to ensure that continuing professional development activities support their defined area of practice, in this case that of acupuncture.

[Ms A] had received acupuncture training on the handling of needles and safe practice from her attendance at the two day Dry Needling Plus course. However the PAANZ guidelines she quoted in her response to the initial expert opinion are from 2003. The guidelines are updated every 2 years and the information regarding muscle contraction potentially encouraging deeper needle movement into deeper tissue layers has been in the PAANZ guidelines since April 2014.

In the case under review, [Ms A] did not practise Dry Needling Plus (for which she had previously attended a two day post graduate course) but used classical dry needling with the addition of electrical stimulation in this case. Her training for dry needling with electrical stimulation had come solely from in-house training with other physiotherapists (who had attended courses and had formal postgraduate qualifications), over several years. This raises further questions. Does this meet the PBNZ's definition of 'appropriate, relevant and recognised education'? What frequency and amount of peer review and in-services training would be required as 'proof' of maintenance of competence within a field of practice?

If the Board are unable to define these parameters then I am also unable to comment further.

The adequacy of [the clinic]’s policies in place at the time

[The clinic] was an accredited physiotherapy practice at the time of this incident. This means an external auditor has reviewed their policies and procedures and determined that they meet the Allied Health Standards for New Zealand.

I reviewed [the clinic]’s policies and procedures provided (1.1.2, 1.1.3, 2.4.10, 2.4.6). My only comment is that their reporting process is not specifically time framed for each step. Many of the debated facts raised in this complaint have been related to timeframes (time till reporting, time till patient called back, time till director notified, time till apology sent). Updating and timeframing the policies in the future may reduce a significant amount of stress for all parties.

A key component of the complaint and its subsequent defence has been the lack of provision of printed acupuncture information prior to informed consent. [Ms A] stated there was an acupuncture leaflet available to patients. However the practice manager and the director were unaware of its existence or location. It is standard practice for accredited physiotherapy practices to have their practice ‘Patient Information Folder’ in the waiting room for patients to sit and read, as well as some photocopied smaller specific leaflets to take home (on acupuncture, manipulation, the complaints process, rights and responsibilities as a patient etc). [The clinic] did not have a specific acupuncture policy that I viewed. The current Informed Consent Policy and procedure asks for verbal consent for treatment and does not specify any additional detail in regards to acupuncture practice. [The clinic] did not appear to have a policy in place specifically stating an acupuncture leaflet must be offered.

An acupuncture policy would benefit the practice. Alternatively the practice should state it follows the safety guidelines written by PAANZ and have the PAANZ Guidelines inserted into their policy and procedure manual. The PAANZ Guidelines state patients should be offered the chance to read an information leaflet on acupuncture before giving informed consent. PAANZ also provide leaflets for patients for their members.

Please comment on [Ms A] not completing an incident report immediately on learning of [Ms B’s] admission to hospital

The PNZ (formerly NZSP) adverse reaction reporting form is voluntary and non-compulsory. There are no recommended time limits on reporting. I have viewed the PNZ adverse reporting form, which is filled out adequately but does not include a date field.

The [clinic’s] policies and procedures state an expected time frame of 48 hours for the Safety Officer to be informed verbally and their ‘Accident form’ to be completed. [Ms A reports she asked the Safety Officer] for a report to complete on the 25th of June, the day after the incident and the day she was notified of the incident. I have not viewed [the clinic’s] ‘Accident report’.

The Complaints Officer was [Mr D] at the time of the incident. The [clinic’s] Complaints Policy does not state the time frame that staff must notify the

Complaints Officer of a complaint once they become aware of it.

The Physiotherapy Board of New Zealand do not have a timeframe for expected reports but defer to the Health Quality and Safety Commission New Zealand policy which expects a report within 15 days of the incident coming to the attention of the practitioner. The Board were aware of the incident and had forms returned to them by [Ms A] by the 5th of July, which was within the stipulated time frame.

Unable to comment

I believe the subsequent restrictions placed on [Ms A's] practice by the PBNZ is outside of the scope of this expert comment on the clinical factors pertaining to [Ms B's] treatment and outcome. I was surprised that the Board placed the restriction of all thoracic treatment on [Ms A]. I would have expected the use of the modality of acupuncture to be halted but not all other facets of physiotherapy for an anatomical region. I myself had to read the Board's recommendations several times to understand this and would have interpreted it the same way as [Ms A] on the first read.

Personal Comment

[Ms A] is recognized as an advanced musculoskeletal therapist with MDT qualifications. [...] She has shown genuine remorse in her written responses. It is distressing to see that this complaint has affected her career in such a profound manner over such an extended period. When one small lapse in technique or procedure happens and a subsequent treatment accident occurs, it has significant consequences for both patient and therapist alike, and should cause reflection by all physiotherapists practising acupuncture in New Zealand.

Yours faithfully



Appendix 1

Sources of additional information: Email PNZ

20/10/16

Kia ora Jill

Thank you for your email. In short, yes we would expect that the Board is notified. There is a national Adverse Reaction Register (MoH I think). See reporting adverse events/near misses in our Position Statement on Cervical Manipulation <http://www.physioboard.org.nz/sites/default/files/CervicalManipulationJune2015%20.pdf>

In the case of anonymous complaints and notifications — whilst we cannot ‘investigate’ we do log these and report against them.

The context is the following:

The Physiotherapy Board is the responsible authority for ensuring that registered physiotherapists in New Zealand are competent and fit to practise, and that the health and safety of patients and the public is protected.

Section 34 of the Health Practitioners’ Competence Assurance Act (the Act) allows for a notification to be made to the Board in cases where it is believed that a practitioner’s competence or fitness to practise may be in question.

If the Board has reason to believe that a practitioner may pose a risk of harm to the public, the Board must provide written notice to ACC, Director General of Health, HDC, and the practitioner’s employer (S35 HPCA).

If the Board has received a notification under Section 34, a practitioner’s competence may be reviewed. If after having carried out such a review, the Board has reason to believe that the practitioner fails to meet the required standard, the Board has a number of options. In certain cases, the Board has the power to suspend, or place conditions on, the practitioner’s practising certificate.

If, as a result of an incident such as that which you have described below, the Board were to receive a complaint from a patient (or a third party), the Board would then act in accordance with Part 4 of the Act — Complaints and Discipline.

Where a health consumer (such as a patient) is affected, the Board must inform the office of the Health and Disability Commissioner (HDC) who may investigate. The Board must wait until the conclusion of the HDC decision to investigate or not, before taking further action, but can place interim orders such as imposing conditions on a practising certificate if there are doubts raised about the practitioner’s conduct, whilst awaiting the outcome from HDC.

After HDC has made a decision, they may refer the complaint to the Board to address in accordance with the provisions of the HPCA Act. The HPCA Act provides the Board with a number of options, including but not limited to the power to refer the practitioner to a Professional Conduct Committee or a Competence Review.

The Board cannot do anything in the case of anonymous notifications or complaints. This is because of the principles of natural justice, along with the practicalities — the practitioner needs to be able to respond to a notification or a complaint. Both the person making the notification/complaint and the practitioner need to be aware of each other’s identity.

In all cases, all complaints and notifications are considered by the Board. It is vital that we ensure we have robust processes both for the profession and primarily to meet our obligations to the public.

I trust this answers your query, but if you have any further questions, please do not hesitate to contact me.

Ngā mihi

[Senior Registration/Recertification Officer PBNZ]

website: www.physioboard.org.nz

From the linked file on cervical manipulation above:

Reporting adverse events and near misses

In the situation where an adverse event or near miss occurs as a result of cervical manipulation, the immediate requirement is to ensure patient safety.

The Physiotherapy Board of New Zealand expects physiotherapists to report any cervical manipulation adverse event or near miss to the Central Repository of the Health Quality and Safety Commission (HQSC) in accordance with their guidelines (Health Quality and Safety Commission New Zealand — Kupu Taurangi Hauora o Aotearoa, 2013). Reporting guidelines and forms as well as the severity assessment matrix are available on the HQSC website.

Physiotherapy New Zealand (PNZ) members are also requested to send a report to PNZ for their adverse reaction database.

From the link to the HQSC above:

- 3. **The Health Quality and Safety Commission New Zealand expect a report within 15 working days** from the date the practitioner is made aware of the incident.”*