



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

Exemplar for Internal Achievement Standard

Health Level 3

This exemplar supports assessment against: 91463

Evaluate health practices currently used in New Zealand

An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority

To support internal assessment

	Grade Boundary: Low Excellence
1.	<p>For Excellence, the student needs to evaluate, perceptively, health practices currently used in New Zealand.</p> <p>This involves making connections between a selection of underlying health concepts (hauora, socio-ecological perspective, health promotion, and attitudes and values), the underpinning philosophies of each practice, and the advantages and disadvantages of each practice; and drawing justified conclusions.</p> <p>The student has selected three health practices used for the management of birthing pain: WSM (epidural) and CAM (hypnobirthing, TENS).</p> <p>The student has introduced the evaluation with a general explanation of the difference between WSM, CAM and TM (1). This provides a useful reference point to which the student can link his/her explanations of the philosophies of the health practices.</p> <p>The student has explained the underpinning philosophy of each practice, and their respective procedures for managing birthing pain. The discussion of epidural (2) is evidence-based (using one source of evidence), and explains the link between epidural and WSM. The explanation of procedures includes the key aspects of using this practice.</p> <p>The student has explained advantages and disadvantages of each practice. A number of pros and cons to epidural (3) are explained (in some places, this is more of a list of ideas) with some explicit reference to underlying concepts (hauora, attitudes and values).</p> <p>An overall comparison has been made (4). This answer is concise and coherent; providing a justified conclusion based upon earlier explanations of advantages and disadvantages.</p> <p>For a more secure Excellence, the student would need to more fully develop some of the explanations and include further explicit links to the underlying concepts.</p>

Western Scientific Medicine (WSM) has a philosophy related to a technocentric approach – the body is a machine. Scientifically and medically proven processes are used to diagnose and treat an illness, disease or health condition (1), which is seen as something ‘going wrong’ with the body. Methods such as surgery and drugs are used to repair the body and get the ‘machine’ working smoothly again. In comparison, Complementary/Alternative Medicine (CAM) and Traditional Medicine (TM) have more holistic philosophies, where illness is seen as some imbalance in the body and the body is considered as a ‘whole’ (2) rather than parts that might need repairing. This aligns with the model of hauora. Complementary means it is used alongside another form of treatment and alternative means it is used instead of a more conventional treatment (2). TM comes from a cultural group’s attitudes, values and beliefs, so the specific philosophy depends on where it comes from. A widely used form of TM is TCM – Traditional Chinese Medicine, which includes use of herbs, acupuncture, moxibustion, cupping (3).

1

I have chosen the health condition of management of birthing pain and I will evaluate three health practices used for this: Epidural, hypnobirthing and TENS.

Epidural is an example of a WSM. It is used only in hospitals and must be administered by an anaesthetist, with medical staff used to monitor how the woman is responding. The philosophy behind epidural is that the use of a pain relief drug injected into the epidural space in the spinal column (4) is an effective form of pain relief, with no side effects for the baby. The injection results in a loss of feeling, including being able to feel pain, by blocking the transmission of signals through nerves in/near the spinal cord (4). This is therefore a WSM, as it is the use of a drug, given by medical staff in a hospital for pain relief. The procedures involved: The woman will be lying on her side and be given a local anaesthetic to numb the area. She will also have an IV drip inserted for fluids to be given. The anaesthetist will insert a needle into the spine. Then, a plastic tube (catheter) is inserted into the epidural space and this is where the pain relief drug flows through. The woman’s blood pressure and the baby’s heart rate are monitored throughout, and the epidural is removed after giving birth (4).

2

The philosophy behind using hypnobirthing [...]

TENS stands for [...]

There are many advantages and disadvantages of each type of health practice for managing birthing pain. I will explain these, and then make an overall comparison as a summary.

Advantages of epidural include its effectiveness for pain relief during labour. It is known as the most effective form of pain relief, as the numbing means no pain is felt while the epidural is in place (8). It also means that, if a caesarean is needed, the woman can be awake for the

procedure. It is also known to reduce blood pressure which is an advantage if the woman's blood pressure is too high (9). Another important advantage is that the drugs have no effect on the baby and no long-term effects on the woman, so in terms of physical well-being for the mum and baby, this is a good option. Also having an epidural might remove some of the stress and anxiety associated with giving birth, which positively affects the woman's state of mind (8). In NZ, epidural does not cost any money, as it is part of the publically-funded pregnancy/birth care offered. Epidural is seen as acceptable by society, but may not be easily accessed – the woman needs to be giving birth in a hospital, and the timing is important – if the baby is too close to being born, she will not be able to have it. This is a disadvantage of epidural pain relief. Other disadvantages include: The woman might find it a lot harder to push the baby (especially if it is her first), as she will not have full feeling in her lower half. This can lead to more medical interventions for the birth, such as vacuum extraction or C-Section (9), which potentially have many disadvantages/dangers for the mother and baby. Some more side effects include headache, nerve-damage, drop in blood pressure, bleeding, and infection where the needle was inserted (10).

3

Advantages of hypnobirthing [...]

Advantages of TENS [...]

Overall, I believe that the best option for managing birthing pain is to use TENS. This is because, after considering the advantages and disadvantages, this is the one that is most likely to be effective in relieving pain while at the same time allowing the woman to have total control over her birthing experience. If she were to have an epidural, she wouldn't be able to move around and try different positions, and it is more likely that she will have trouble pushing. Hypnobirthing is not very common, is expensive and time-consuming in preparation for the birth and is less proven to be effective, as well as not being well respected by many people. With TENs however, the cost is only \$60 (online hire company – 15) and this can be used both at home and in the hospital. No pain relief option is perfect, so it is worth women researching all their options.

4

Note that a chart was provided by the student to show bibliographic details for the references used in the evaluation.

	Grade Boundary: High Merit
2.	<p>For Merit, the student needs to evaluate, in depth, health practices currently used in New Zealand.</p> <p>This involves comparing the advantages and disadvantages of the selected practices and drawing conclusions supported by reasoned arguments.</p> <p>The student has selected three health practices used to manage/treat depression: WSM (SSRI) and CAM/TM (acupuncture and St John's Wort).</p> <p>The student has explained the underpinning philosophy of each practice, and their respective procedures for managing/treating depression. The answer for St John's Wort (1) is evidence-based (using two sources), but the explanation of the philosophy does not link clearly to CAM/TM. A range of procedures are covered (how it is taken, dosage, frequency, where it is purchased, and the duration of treatment).</p> <p>The student has explained advantages and disadvantages of each practice. A number of pros and cons to St. John's Wort are explained (2) (in some places this is more of a list of ideas), with some explicit reference to the underlying concept of hauora. A range of evidence is used to support this answer.</p> <p>An overall comparison has been made (3). This answer covers all three health practices, and it is justified in relation to earlier explanations of advantages and disadvantages, but it makes few links to the underlying concepts.</p> <p>To reach Excellence, the student needs to more fully develop some of the explanations and include further explicit links to the underlying concepts. The philosophy of St. John's Wort needs more detail and needs to be linked back to CAM/TM, and the overall comparison needs to be further refined.</p>

The difference between Western Scientific Medicine (WSM) and Complementary and Alternative (CAM) and Traditional Medicine (TM) is [...]

My chosen health condition is depression. Three different health practices used to manage or treat depression in NZ are SSRIs (WSM), acupuncture (CAM/TM) and St. John's Wort (CAM/TM).

SSRI stands for Selective Serotonin Reuptake Inhibitor and is an example of a WSM used to manage/treat depression [...]

Acupuncture [...]

St John's Wort is another example of a CAM/TM that is used to manage depression in New Zealand. The underlying philosophy of St John's Wort is that an extract from the plant *hypericum perforatum* contains hypoformin which is the 'drug' that makes St John's Wort effective for treating depression (5). It is believed to work in a similar way to SSRIs (and therefore is not recommended if you are also using them). Because it is a herbal remedy, it is seen as an alternative treatment for depression. St John's Wort is most often taken in tablet form but can also be taken as a liquid or brewed as a tea (5). Tablets are sold in a 3,000 or 4,000 mg dosage in NZ, which means that one or two tablets per day are needed (6). The tablets can be purchased from supermarkets, pharmacies and online. Because St John's Wort is known to interact with some prescription medicines (including birth control), it is important to discuss its use with your doctor (5). It is likely that someone will need to take St John's Wort for a number of months.

1

There are a number of advantages and disadvantages of SSRIs [...]

Advantages of acupuncture when used to manage/treat depression [...]

Advantages of St John's Wort include that it is relatively inexpensive (about \$1 per day for the tablets - 11) and is seen as effective for mild/moderate depression (12). This might be a good option for people who do not want to go to the doctor or who prefer to try natural medicines before using drugs. Some studies have shown that it is effective, but others have shown it is not effective, especially for more severe depression, which is a disadvantage (5). It may be seen as more acceptable by family members/friends or the patient than using antidepressants. If it works, it will have positive impacts for a patient's well-being, as they will feel happier, more confident and be able to function normally in social and life/work situations. There are, however, some important disadvantages of St John's Wort. As mentioned earlier, it may not be effective and this means money is wasted. Also mentioned earlier is that it can interact with a number of other medicines, such as SSRIs, the contraceptive pill, HIV and cholesterol medications (5). For example it can reduce

2

effectiveness of the pill and this could result in unplanned pregnancy (12). Some side effects include dizziness, nausea, loss of appetite, diarrhea (12).

Overall, I think that a combination of acupuncture and SSRIs are the most effective forms of treatment for depression, unless the depression is very mild, in which case it is worth trying St John's Wort first. I think it is probably important to see a doctor, however, as they are knowledgeable about St John's Wort as it is very popular. When balancing the advantages and disadvantages of the three health practices, it is clear that there are costs and side effects of each practice, but it is important to choose a treatment that is suitable for a patient's specific symptoms and severity of depression.

3

Note that a chart was provided by the student to show bibliographic details for the references used in the evaluation.

	Grade Boundary: Low Merit
3.	<p>For Merit, the student needs to evaluate, in depth, health practices currently used in New Zealand.</p> <p>This involves comparing the advantages and disadvantages of the selected practices and drawing conclusions supported by reasoned arguments.</p> <p>The student has selected three health practices used for obesity: WSM (laparoscopic gastric band and green prescription) and CAM (hypnosis).</p> <p>The student has explained the underpinning philosophy of each practice, and their respective procedures for weight loss. The response for hypnosis (1) is evidence-based (using two sources). The explanation of the philosophy links accurately to CAM and is somewhat detailed - key beliefs underpinning hypnosis are covered. The procedures of hypnosis when used for weight loss are covered briefly.</p> <p>The student has explained advantages and disadvantages of each practice, with laparoscopic gastric band surgery exemplified (2). A number of pros and cons to this practice are explained (in some places, this is more of a list of ideas) with some explicit reference to the underlying concept of hauora, but the links to well-being are not expanded upon. Evidence from one source is used to support this answer.</p> <p>An overall comparison has been made (3). This answer covers all three health practices and is a clear summary, but is only a brief justification, without clear links to the underlying concepts.</p> <p>For a more secure Merit, the student would need to further develop the comparison of health practices, with some links to underlying concepts and additional detail provided.</p>

My selected health condition is obesity and I have chosen to evaluate surgery, hypnosis and green prescription. These health practices are WSM (surgery and green prescription) and CAM (hypnosis). WSM refers to “Western Scientific Medicine” and this means [...]

A number of surgeries are offered in NZ and I will explain the laparoscopic gastric bypass option. This is a WSM [...]

Hypnosis is a CAM that is used in NZ. The type that is increasingly popular for weight loss is the ‘gastric band hypnosis’. The philosophy behind hypnosis is that it is a CAM – it can be used alongside other treatments, but it is also viewed as alternative, used instead of other treatments. It is a ‘mind-body’ type of CAM (4). The belief with hypnotherapy is that the mind is powerful and can be ‘trained’ in a specific way in order to provide a treatment. For hypnotic gastric band, this means that the mind is tricked into thinking you have had a band inserted via surgery, so your body behaves as if this is the case – you eat less and therefore lose weight (5). You will need to find a hypnotherapist for this (there are not many in NZ who can offer this), or there is also an app available (e.g. www.paulmckenna.com). For the sessions in NZ, it depends on the hypnotherapist, but it may consist of around 4 sessions with ongoing help via a CD (5). The hypnotherapist will ‘install’ the gastric band on the first visit (5) and the following sessions will continue to train the mind.

1

The final health practice I have chosen is green prescription and although this can be considered as a complementary treatment (it can work ‘with’ other treatments), it is more closely matched to the WSM category because of the way it is used in NZ.

Each of these three health practices has advantages and disadvantages that relate to well-being.

Firstly, for the WSM practice of laparoscopic gastric band surgery, there are advantages such as: Proven effectiveness and being carried out by a highly skilled and experienced health practitioner. This is more effective than the lap band surgery option, and is a reasonably straightforward surgery as it is ‘keyhole’ surgery (10). Because it is effective, it will mean that the patient loses weight, which is a positive effect for all aspects of well-being. Being keyhole surgery means less recovery time and less potential for complications. This is still a major surgery and so has a number of disadvantages, such as bleeding, infection and problems during/after surgery. Having a gastric band means someone will lose weight, but will have to eat/drink only small amounts after the surgery, which could interfere with social life. It is a major cost to the patient if done privately, and if done publicly, has a long waiting list and costs the taxpayer. It is said that some weight will be gained back over time (10).

2

Hypnosis also has a number of advantages and disadvantages...

Green prescription has the advantage of [...]

Comparison of health practices: After looking at the advantages and disadvantages of each health practice, I believe the green prescription is the best practice to use at first. This is because it gets patients into healthy eating and activity habits which are more likely to be sustainable than something like the hypnosis (which is unproven) and the gastric band, which is a serious intervention to make.

3

Note that a chart was provided by the student to show bibliographic details for the references used in the evaluation.

	Grade Boundary: High Achieved
4.	<p>For Achieved, the student needs to evaluate health practices currently used in New Zealand.</p> <p>This involves applying a critical perspective and evidence-based consideration of health practices through:</p> <ul style="list-style-type: none"> • explaining the procedures involved in each practice, the underpinning philosophy or knowledge foundation of each practice in relation to Western scientific medicine (WSM), complementary and alternative medicine (CAM) and/or traditional medicine (TM) • explaining the advantages and disadvantages of each practice in relation to the concept of hauora. <p>The student has selected three health practices used for the management of birthing pain: WSM (epidural) and CAM (hypnobirthing, TENS).</p> <p>The student has explained the underpinning philosophy of each practice, and their respective procedures for managing birthing pain. The response for hypnobirthing (1) is evidence-based (using two sources), and it explains the link between hypnobirthing and CAM. The explanation of procedures is brief. Some description is given with regard to what happens at a hypnosis session, but key information is missing (the length, frequency and duration of sessions).</p> <p>The student has explained advantages and disadvantages of each practice. A number of advantages and disadvantages of hypnobirthing (2) are explained, with explicit reference to the underlying concept of attitudes and values.</p> <p>An overall comparison has been made, albeit briefly (3). The justification is not convincing, because the effectiveness of a given treatment is only one aspect to consider when weighing up options.</p> <p>To reach Merit, the student would need to provide a more convincing and detailed comparison of the selected practices, drawing conclusions that are supported by reasoned arguments. It would also strengthen this response to include more key information about the procedures involved in using hypnosis for managing birthing pain.</p>

I have chosen the health condition of management of birthing pain and I will evaluate three health practices used for this: Epidural, hypnobirthing and TENS.

Epidural is an example of a WSM [...]

The philosophy behind using hypnobirthing relates to the CAM philosophy that the body is to be treated holistically, as a whole, and also that birthing is natural which should be experienced in a calm and relaxing way (4). By staying calm and relaxed during birth, endorphins can be released and fear/anxiety stopped and this means the woman won't feel pain (4). The procedures involved is that late in pregnancy, a woman will have sessions with a therapist to prepare for the birth (5). The hypnotherapist will put the woman into a state of relaxation and will be taught relaxation and visualization techniques for coping with the birthing pain (5).

1

TENS stands for [...]

There are many advantages and disadvantages of each type of health practice for managing birthing pain.

Advantages of epidural include its effectiveness for pain relief during labour. It is known as the most effective form of pain relief [...]

Advantages of hypnobirthing include the fact that it is a natural therapy that does not involve use of drugs or medical intervention, so it poses no risks to the woman and her child (8). Although it is not widely studied or proven effective (a disadvantage), some evidence does exist that says hypnosis can reduce length of labour, reduce pain and increase a woman's feelings of being in control, accomplishment and satisfaction with birth (8). It is also said to reduce fear associated with birth. Some disadvantages are that it is not widely available in NZ and it is somewhat controversial, meaning that it may not be accepted by everyone in society. If it doesn't work for controlling pain during labour, the woman may experience a painful birth, or have to resort to using other pain relief, such as epidural.

2

Advantages of TENS [...]

Overall, my research shows that the best option of these three is the epidural. This is because, as the evidence stated, "the epidural is the most effective form of pain relief in labour" (9). Although the other two practices have some good advantages, they are not as effective so I wouldn't recommend them as the best option.

3

Note that a chart was provided by the student to show bibliographic details for the references used in the evaluation.

	Grade Boundary: Low Achieved
5.	<p>For Achieved, the student needs to evaluate health practices currently used in New Zealand.</p> <p>This involves applying a critical perspective and evidence-based consideration of health practices through:</p> <ul style="list-style-type: none"> • explaining the procedures involved in each practice, the underpinning philosophy or knowledge foundation of each practice in relation to Western scientific medicine (WSM), complementary and alternative medicine (CAM) and/or traditional medicine (TM) • explaining the advantages and disadvantages of each practice in relation to the concept of hauora. <p>The student has selected three health practices used to manage/treat depression: WSM (SSRI) and CAM/TM (acupuncture and St. John's Wort).</p> <p>The student has explained the underpinning philosophy of each practice, and their respective procedures for managing/treating depression. The response for acupuncture (1) is evidence-based (using two sources). The explanation of the philosophy contains some key points relating to CAM/TM, but is brief. The explanation of procedures is also brief, and not specifically related to depression.</p> <p>The student has explained advantages and disadvantages of each practice. A number of pros and cons to acupuncture (2) are explained (in some places, this is more of a list of ideas) with some explicit reference to the underlying concept of hauora in the consideration of advantages.</p> <p>The overall comparison provides a reasoned argument as to why acupuncture is the preferred treatment, however this answer does not make any comparisons to SSRIs and St John's Wort, instead re-stating ideas from earlier in the work.</p> <p>For a more secure Achieved, the student would need to provide more detail in the explanations of philosophies and procedures, as well as advantages and disadvantages linked to depression.</p>

Student 5: Low Achieved
NZQA Intended for teacher use only

The difference between Western Scientific Medicine (WSM) and Complementary and Alternative (CAM) and Traditional Medicine (TM) is [...]

My chosen health condition is depression. Three different health practices used to manage or treat depression in NZ are SSRIs (WSM), acupuncture (CAM/TM) and St. John's Wort (CAM/TM).

SSRI stands for Selective Serotonin Reuptake Inhibitor and is an example of a WSM used to manage/treat depression [...]

Acupuncture is an example of a CAM/TM. It is often used alongside other treatments for health conditions but also has a long history as a Traditional Chinese Medicine. The philosophy of acupuncture is that illness is a result of imbalances of energy flow (Qi) in the body (3). Qi travels through meridians in the body. Certain illnesses relate to specific meridians – so acupuncture is the use of fine needles in the relevant places to 'unblock' the problem and restore flow/balance (3). For depression, acupuncture is believed to work by stimulating the part of the brain that is to do with emotions (3). The procedures are that a patient will book sessions with an acupuncturist. Firstly, the problem will be diagnosed using traditional methods, and then the needles will be inserted and stimulated (4). A session will be between 30-60 minutes and it is recommended that weekly sessions are carried out, for at least 12 weeks (4).

1

St John's Wort is another example of a CAM/TM that is used to manage depression in New Zealand [...]

There are a number of advantages and disadvantages of SSRIs [...]

Advantages of acupuncture when used to manage/treat depression is that some studies have found this to be as effective as medical interventions (12). It is also holistic and has few side effects, and may be more acceptable than using antidepressants. There are more and more providers of acupuncture in NZ and so it is easy to find a treatment centre, even in smaller towns in NZ. It is generally pain free and symptoms can be improved even after 1-2 sessions (12). In the short-term, patients will therefore feel better and be able to cope with stress better. Long term, there are a range of benefits to well-being, including for social life and relationships, and feeling confident. There are also some disadvantages of acupuncture. For example, cost: It is not funded in NZ, and costs \$60+ per session. This adds up quickly if a session is needed each week. There is a risk of infection if needles are not sterilised properly, and it might not work.

2

Advantages of St John's Wort include:

Overall, based on the advantages and disadvantages I have explained above, I believe that acupuncture is the best treatment to try first. This is because it is holistic, has few side effects and has been proven effective. It is, however, expensive as it is not funded.

3

Note that a chart was provided by the student to show bibliographic details for the references used in the evaluation.

	Grade Boundary: High Not Achieved
6.	<p>For Achieved, the student needs to evaluate health practices currently used in New Zealand.</p> <p>This involves applying a critical perspective and evidence-based consideration of health practices through:</p> <ul style="list-style-type: none"> • explaining the procedures involved in each practice, the underpinning philosophy or knowledge foundation of each practice in relation to Western scientific medicine (WSM), complementary and alternative medicine (CAM) and/or traditional medicine (TM) • explaining the advantages and disadvantages of each practice in relation to the concept of hauora. <p>The student has selected three health practices used for obesity in NZ. These are WSM (laparoscopic gastric band and green prescription) and CAM (hypnosis).</p> <p>The student has attempted to explain the underpinning philosophy of each practice as well as the procedures involved in using each practice to lose weight. The answer for green prescription is exemplified (1). The response is evidence-based (using one source). The philosophy is accurately linked to WSM, but is only briefly dealt with. The procedures are also briefly covered.</p> <p>The student has explained advantages and disadvantages of each practice. A number of advantages and disadvantages of green prescription (2) are covered, some thoughtfully, with some explicit reference to the underlying concept of hauora. No evidence is provided and further depth is needed.</p> <p>To reach Achieved, the student would need to provide more detail across the philosophies, procedures, advantages and disadvantages, with consistent use of evidence to support the explanations.</p>

My selected health condition is obesity and I have chosen to evaluate surgery, hypnosis and green prescription. These health practices are WSM (surgery and green prescription) and CAM (hypnosis).

A number of surgeries are offered in NZ and I will explain the laparoscopic gastric bypass option. This is a WSM [...]

Hypnosis is a CAM that is used in NZ. The type that is increasingly popular for weight loss is the 'gastric band hypnosis'. The philosophy behind hypnosis is [...]

The final health practice I have chosen is green prescription and although this can be considered as a complementary treatment (it can work 'with' other treatments), it is more closely matched to the WSM category because of the way it is used in NZ. This is because it is 'prescribed' by a doctor, nurse or other health professional (MOH, 4). The way this works is that the prescription is written advice to the patient about diet and physical activity options, with follow-up support. This involves both face-to-face and telephone support sessions and/or group sessions (4) over a number of months.

1

Each of these three health practices has advantages and disadvantages that relate to well-being.

Firstly, for the WSM practice of laparoscopic gastric band surgery, there are advantages such as [...]

Hypnosis also has a number of advantages and disadvantages [...]

Green prescription has the advantage of allowing the patient to be in control of their healthy lifestyle choices in order to lose weight, but with the support of health professionals or other people in their life, such as a partner, family members and friends. It is an inexpensive way to lose weight, and slow weight loss involving better lifestyle choices is more likely to allow the weight to stay off in the long-term. This means that the effects of obesity (such as diabetes, heart disease, low confidence) are avoided, and the person is more likely to be well, in all aspects of well-being. There are disadvantages too. The first is that this relies on willpower and the commitment of the patient to eat healthier and exercise regularly. This may be difficult and probably does not address the causes of the obesity in the first place. Weight loss may be slow, which may make it harder to see progress and stick with the plan.

2

Note that a chart was provided by the student to show bibliographic details for the references used in the evaluation.