



Inpatients' use, understanding, and attitudes towards traditional, complementary and alternative therapies at a provincial New Zealand hospital

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Abstract

Aim: To assess the use and attitudes towards traditional, complementary and alternative medicine and therapies (TCAM) by inpatients of a provincial hospital.

Methods: Ninety-two Gisborne Hospital inpatients were interviewed face-to-face over a 4-week period using a standardised questionnaire.

Results: Of the 92 people interviewed, 84 patients (91%) had used an average of 6.4 TCAM modalities. Most common therapies used were massage (n=62), vitamins (n=5), chiropractor (n=45), and herbal therapies (n=41). Of the 84 people who have used TCAM, 79 (94%) used more than one therapy. Nineteen patients (23%) used 10 or more different therapies. Māori and Non-Māori respondents used the majority of TCAM modalities equally apart from a few notable exceptions. Only 10 (11%) of the 92 patients in this study recalled having been asked by a doctor if they were using TCAM. Fifty-five (65%) of those who use TCAM believed that it is safe.

Conclusion: This study of in-patients interviewed at Gisborne Hospital had the highest rate of TCAM use published to date. Most of these patients intend to continue using TCAM (86%), seek pluralistic care for their maladies and select from a broad array of modalities rooted in the community. Patients are not telling their doctors about this use, not because patients fear disapproval, but they are simply not being asked. Patients do not volunteer this information because they believe that TCAM use is safe and are unaware of its potential risks. There are ethnic trends in the selection of TCAM modalities and potential exists to reach some hard to reach populations through integrated care. The high prevalence of TCAM use in an in-patient population and patients' naivety regarding risks and interactions underscores the need for greater cooperation between orthodox and complementary practitioners, effective regulation with emphasis given to public safety, the need for new funding for TCAM research, increased undergraduate and postgraduate medical TCAM education, and better information made available to the public.

Traditional, complementary and alternative medicines or therapies (TCAM) are widely used by members of the public.^{1,2} A growing body of evidence confirms the widespread use of TCAM, although this evidence is largely gained from questionnaire-based studies in larger centres or for specific groups (e.g. cancer patients).³

There are few published studies, and none in New Zealand, of TCAM use in an inpatient setting, or in a provincial or rural population where over 45% of people identify as Māori.^{4,5} In addition, relatively little is known about reasons for use.⁶

It appears from recent studies that the majority of people use TCAM as a complement to conventional medicine and not as an alternative.⁷ Complementary and alternative medicine has been defined as ‘a broad domain of healing resources that encompasses all health systems, modalities, and practices and their accompanying theories and beliefs, other than those intrinsic to the politically dominant health system of a particular society or culture in a given historical period.’

CAM includes all such practices and ideas self-defined by their users as preventing or treating illness or promoting health and wellbeing’.⁸ We have added “T” to CAM to include all forms of Traditional healing systems.

Many TCAM modalities are not actually classified as medicines under existing legislation in New Zealand and there is little regulation over what people use and from where they obtain them.⁹ In spite of the growing scientific evidence that some TCAM therapies may be effective for specific conditions, many of these therapies may have unanticipated negative consequences or are known to interact with conventional medicines.¹⁰⁻¹³

It is also widely acknowledged nationally and internationally that disclosure of patients’ usage to health professionals is limited.^{4,14} This makes it difficult for health professionals to know how to advise patients on the use, risks, and benefits of TCAM because they simply do not know who is taking what, at what time, and what interactions pharmaceuticals may have.

Even if conventional healthcare providers are aware that their patients are using TCAM modalities, they ought to also have an understanding of the scientific literature [evidence base] on potential interactions, risks, and efficacy. Understanding the prevalence and reasons for using TCAM are a first step in improved, best practice patient care for those patients selecting TCAM in addition to conventional treatment.

This study sought to investigate the prevalence of TCAM use in an inpatient setting, through one-on-one interviews with a small representative sample of patients at Gisborne Hospital.

Methods

Gisborne Hospital is a 120-bedded provincial hospital on the east coast of New Zealand’s North Island. It has a catchment population of approximately 45,000 people with 47% identified as Māori in the 2006 census.¹⁵

Patients in the following areas were included in the study: general surgical, general medical, rehabilitation, maternity, and day ward.

Patients were not approached if they were being ventilated, were severely breathless, in severe pain, heavily medicated, had any condition that impaired adequate communication, or if they could not communicate comfortably.

Two healthcare assistants were utilised to approach patients admitted to the medical, surgical, and maternity wards. The healthcare assistants were in regular discussion with senior nursing staff to determine which patients were appropriate to participate. The healthcare assistants asked patients whether they wished to participate in a survey of TCAM use. Those patients willing to participate were approached by the interviewer. To reduce variation in approach of questioning, only one interviewer was involved.

The survey took place face to face, either at the bedside or in an alternative, suitable place.

A standardised questionnaire was developed to include basic demographic-, disease-, and treatment-related data. The core of the questionnaire was a list of 25 therapies that the interviewer would list one-

by-one and the patient would name whether they had “heard of” or “have used” the therapy. If the patient had not used any TCAM in their lifetime they were asked “would they use them in the future?” and “if therapies were available in the hospital would they use them?” If they had heard of therapies they were asked “how they learnt about them?”

Patients who reported using TCAM were asked about their reasons for its use; if they thought they were helpful; if they considered them safe; if they had experienced any side effects; and if they were aware of interactions between orthodox treatments and TCAM. They were asked their opinion about whether TCAM should be regulated and questioned about how comfortable they felt talking to hospital staff about TCAM use; if they had ever been asked by doctors what alternative methods they may use and whether they felt “judged” if they admitted to their use.

The final question asked if TCAMs were available in hospital would they use them and, if so, which ones they would like to use.

The questionnaire took a minimum of half an hour to complete and data was entered into an Excel spreadsheet and analysed using SPSS v13.0 software.

This study was approved by the Northern Y Regional Ethics Committee, with Locality Assessment by the Clinical Board of Gisborne Hospital. Further consultation was completed with local Māori health providers.

Results

The interviews were held in hospital wards during January and February 2006. Hospital staff considered 51 patients too sick to participate. Of the remaining 156 suitable adult admissions for the period, 92 patients were eventually interviewed: 25 had been discharged between the healthcare assistants obtaining their interest and the interviewer managing to get to them; 24 people declined to be interviewed; and 15 were not available on the ward on the day of the scheduled interview.

Demographics—The average age of the patients interviewed was 54 years, ranging from 18 to 89. Table 1 summarises the demographic features of the 92 participants.

Table 1. Demographic characteristics of participants (N=92)

Age (years)	Number	Percentage
<30	9	10
31–45	17	18
46–60	33	36
61–74	17	18
>75	16	17
Gender	Number	Percentage
Male	38	41
Female	54	59
Ethnicity	Number	Percentage
Māori	40	44
Non-Māori	51	55
Pacific Islander	1	1
Employment	Number	Percentage
Full time	26	28
Part time	7	8
Retired	27	29
Unemployed	2	2
Homemaker	8	9
Sickness benefit	15	16
Other	7	8

The participants had a wide range of clinical conditions that were categorised into Acute or Chronic from the information that the patient provided the interviewer and not based on their medical records. Acute conditions represented 40%, Chronic conditions 51%, and the maternity ward represented 9% of all participants. The patients surveyed were considered representative of the hospital's general population in age, gender, ethnicity, and clinical condition.

Utilisation of TCAM—Of the 92 patients interviewed, only 4 (4%) reported no knowledge or use of TCAM. Of the remaining 88 patients, 79 (90%) reported the use of two or more TCAM modalities—4 had reported knowledge only and none used vitamins or spiritual healing only.

Most respondents used more than one modality (Table 2) and the average number of modalities used by all patients was 6.4 (SE=0.472). Women averaged eight and men five modalities used. The variety and usage of TCAM modalities is summarised in Tables 2 and 3.

Table 2. Number of modalities used by respondents who had some knowledge to TCAM (N=88)

Number of modalities used	Number (% cases)
0	4 (5%)
1–3	20 (23%)
4–9	45 (51%)
10–15	16 (18%)
>16	3 (3%)

The majority of the 25 modalities listed were used proportionately equal by ethnicity; however, Māori did have higher usage of Rongoa Māori/traditional Māori medicine [*Rongoa*: take care of, look after, medicine, remedy for sickness],¹⁶ hypnotherapy, spiritual healing, and imagery/visualisation.

Non-Māori had higher adoption proportionately of yoga, chiropractic, homoeopathy, osteopathy, and acupuncture. The single Pacific Islander used traditional Fijian medicine. These outliers can be seen in Figure 3 and Table 4.

The four patients who had not used TCAM but had some knowledge, were not distrustful of TCAM, but had never felt the need to use it.

Table 3. TCAM modalities ranked by patient use (N=88)

Modality	Not heard of, nor used	Heard of this TCAM	Used this TCAM
	Responses (% cases)	Responses (% cases)	Responses (% cases)
Massage (Romi Romi)	1 (1%)	25 (28%)	62 (70%)
Vitamins	5 (6%)	28 (32%)	55 (63%)
Chiropractic	7 (8%)	36 (41%)	45 (51%)
Herbal therapies	9 (10%)	38 (43%)	41 (47%)
Aromatherapy	9 (10%)	45 (51%)	34 (39%)
Spiritual healing	9 (10%)	49 (56%)	30 (34%)
Acupuncture	1 (1%)	58 (66%)	29 (33%)
Dietary therapy	11 (13%)	49 (56%)	28 (32%)
Rongoa Māori (Māori medicine)	17 (19%)	43 (49%)	28 (32%)
Osteopathy	19 (22%)	44 (50%)	25 (28%)
Relaxation techniques	6 (7%)	57 (65%)	25 (28%)
Homeopathy	26 (30%)	39 (44%)	23 (26%)
Reflexology	33 (38%)	36 (41%)	19 (22%)
Shark cartilage	44 (50%)	27 (31%)	16 (18%)
Colour therapy	26 (30%)	46 (52%)	16 (18%)
Detoxification programmes	17 (20%)	55 (63%)	15 (17%)
Antioxidants	22 (25%)	51 (58%)	15 (17%)
Naturopathy	39 (45%)	34 (39%)	14 (16%)
Bach flower remedy	65 (74%)	10 (11%)	13 (15%)
Yoga	2 (2%)	73 (83%)	13 (15%)
Iridology	57 (65%)	19 (22%)	12 (14%)
Electro/biomagnetic therapy	46 (52%)	32 (36%)	10 (11%)
Imagery/visualisation	12 (14%)	66 (75%)	10 (11%)
Hypnotherapy	5 (6%)	75 (85%)	8 (9%)
Bowen	52 (59%)	23 (28%)	6 (7%)

Figure 1 shows the variation of TCAM use by gender while Figure 2 shows TCAM use by ethnicity.

Figure 1. Gender and TCAM use (N=88)

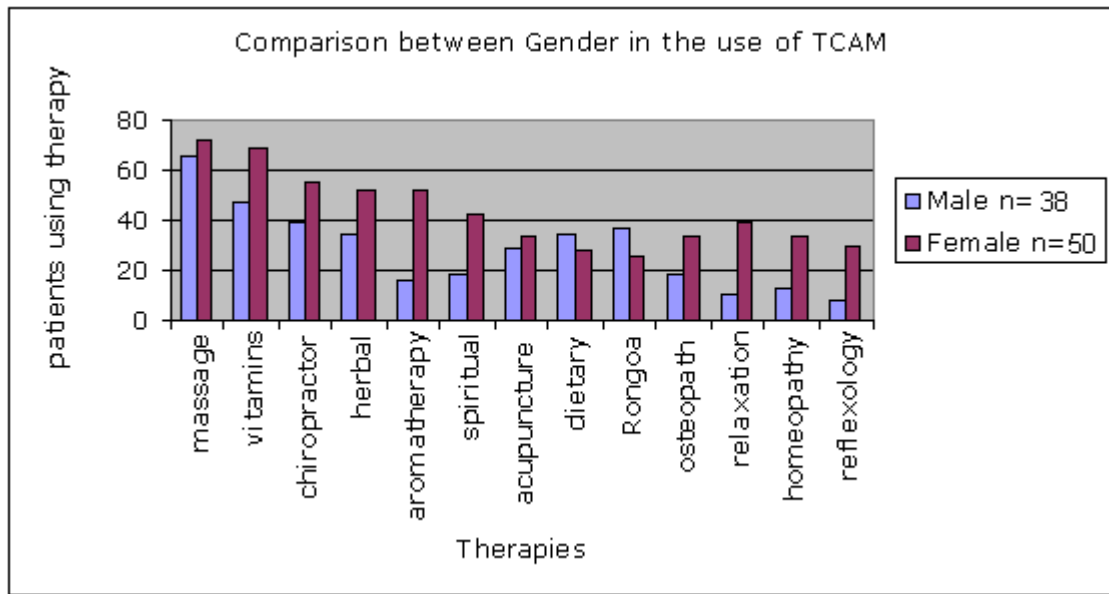


Figure 2. Ethnicity and TCAM use (N=88)

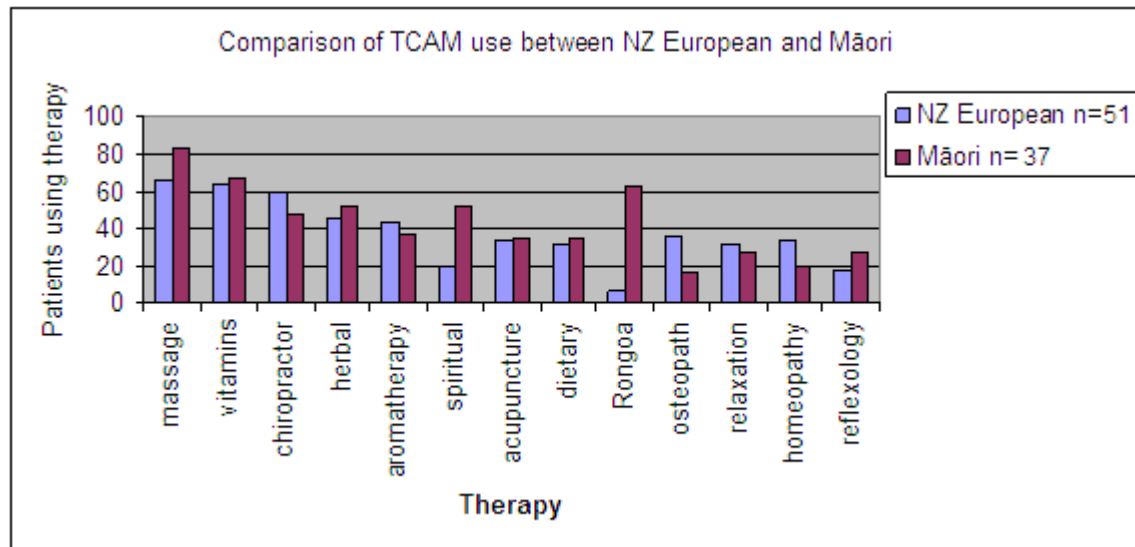


Table 4: Modalities of TCAM reported used by 88 Patients at Gisborne Hospital

Therapy		Percent Patients Using TCAM		
		Non-Māori Respondents (N=51)	Māori Respondents (N=37)	All Respondents (N=88)
Traditional systems	Rongoa Māori	13%	59%	33%
	Acupuncture	40%	27%	35%
Mind-body therapies	Spiritual healing	23%	49%	35%
	Relaxation technique	32%	27%	30%
	Colour therapy	21%	16%	19%
	Imagery/visualisation	6%	16%	11%
	Hypnotherapy	6%	14%	10%
	Reiki*	9%	8%	8%
	Yoga	21%	8%	15%
	Crystal*	6%	0%	4%
Manual-based therapies	Massage (Romi Romi)	70%	76%	73%
	Chiropractic	66%	38%	54%
	Reflexology	19%	27%	23%
	Bowen technique	9%	5%	7%
Biologically-based therapies	Vitamins	70%	59%	65%
	Herbal therapies	51%	46%	49%
	Aromatherapy	43%	38%	40%
	Dietary therapy	32%	35%	33%
	Shark cartilage	19%	19%	19%
	Detoxification programme	19%	16%	18%
	Antioxidants	23%	11%	18%
	Bach flower remedy	21%	8%	15%
Alternative systems	Naturopathy	15%	19%	17%
	Homoeopathy	36%	16%	27%
	Osteopathy	40%	16%	30%
	Electro/biomagnetic	13%	11%	12%
	Iridology	17%	11%	14%

*Crystal and Reiki therapies were added due to the several specific mentions given by respondents.

Figure 3. Use of TCAM by ethnicity (N=88)

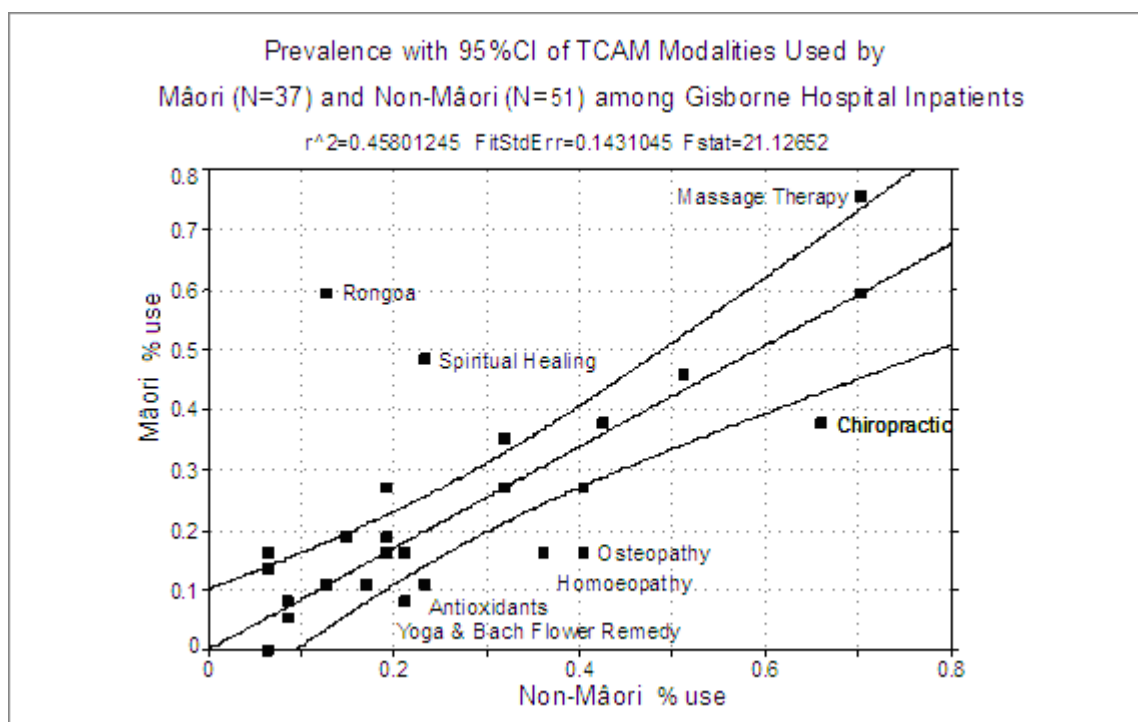


Table 5. How did you learn about TCAM?

Response	% of cases
Friends	83
Family	76
Magazines/news	51
Books	45
Other patients	37
GP	34
Radio/TV	24
Pharmacist	21
Nurse/Midwife	18
Internet	9

TCAM adoption and motivation—Patients who reported knowledge or use of at least one TCAM (N=88) were asked how they learnt about these therapies (Table 5), what their reasons were for using them (Table 6), and what factors influenced their choice of TCAM used (Table 7).

Table 6. Reasons for using TCAM

Response	% of cases
Symptom relief	98
Improve quality of life	95
Hope of cure	83
Disease control/management	75
Prevent recurrence of disease	73
Energy boost	64
Primary prevention	60
Like them	55
Physical training	40
Improve side effects of conventional treatments	37
Assist with other treatments	35

Table 7. Factors influencing TCAM choices

Response	% of cases
Recommendation of benefit	87
Control over one's health	75
Safety	69
Previous positive experience	69
Cost	58
Ease of access	58
Personal preference	57
Failure of conventional medicine	38
Difficulty talking with doctor	22

Seventy percent thought that TCAM was not at all helpful for their present condition although 64% reported it was helpful in the past and 86% would use TCAM in the future. Ninety-seven percent would use them in the hospital if available. Forty-eight patients named therapies that they would like to use. The most popular suggestions were massage (48%), followed by Rongoa Māori (23%) and herbal medicines (19%).

Safety and regulation of TCAM—93% of respondents believed TCAM was safe: only one person thought not; the remainder were undecided. Ninety-three percent of respondents denied experiencing side-effects from TCAM therapies; 30% thought that TCAM could interact with pharmaceutical drugs, and 67% believed no interactions would take place. Only two patients said they didn't know and five people didn't express a view. However, when asked, 78% believed that TCAM should be regulated. (To define regulation the interviewer said; “for example like pharmaceuticals drugs, you have to have a consultation with a qualified person first before purchasing any TCAM medicines”.)

The main reasons stated for regulation were: a belief that “it could be dangerous to take something that you knew little about”, because “it may not be safe”, that regulation may give consumers more access to information about the products, and better informed choice.

The most popular reasons for not making it regulated were: loss of freedom of choice, lack of control over one's own health, and that regulation would probably make it too expensive.

Talking about TCAM—10% of TCAM users reported they would be uncomfortable talking to hospital staff about their use of TCAM. Very few respondents reported a difficulty talking with the doctor (3 patients), perceiving a lack of interest (5 patients), or fearing disapproval or ridicule (5 patients).

Only 10 (11%) of all patients reported being questioned by their doctor on TCAM use and only 6 patients felt telling a health professional about TCAM use would affect their treatment. Of those willing to discuss TCAM use, 88% of participants believed they would never be treated differently by their doctors for disclosure.

TCAM use prior to this admission—43% of patients had consulted with a TCAM practitioner prior to medical evaluation in the past, and 14% acknowledged seeing a TCAM practitioner for their current problem.

Discussion

Our study reports the highest prevalence (91%) of TCAM use published to date in New Zealand. It differs from other reported studies in its selection of hospital in-patients and interview technique. Our findings must be qualified by the fact that this was a small sample using a select group of patients, so it is difficult to generalise the results. Overseas studies have described 9% to 70% prevalence of complementary/alternative medicine use with wide differences in study methodologies and many critical factors poorly controlled.³ However, it is clear that data suggests TCAM therapies are used frequently and increasingly even with considerable uncertainties. New Zealand studies are consistent with these international results.^{17,18}

Prayer, exercise, and daily vitamin use are often excluded from prevalence studies.¹⁹ Our study did not distinguish between daily vitamins versus mega vitamin use, nor did it distinguish between prayer and spiritual healing. However, no patient in the Gisborne study group reported vitamin or spiritual healing use exclusively and omitting these modalities would not change our results.

The high prevalence of Māori traditional healing (Rongoa) does not account for the overall high TCAM prevalence. As found here patients appear to adopt pluralistic healthcare decisions.

Our study to explore TCAM use is the first in New Zealand to use face-to-face interviews and to interview hospitalised patients. While face-to-face interviews have their own bias—participants may seek to please interviewers—the method enables richer qualitative data, flexibility, and clarification. We tried to minimise bias from the single interviewer through non-committal replies and encouragement for the participant to talk on their personal opinion and experience during the interview. Face to face technique would be expected to encourage a response: while the potential for over-estimation of factors exists, this needs to be placed against the risk of under-reporting known to arise from written questionnaires, especially when literacy is a factor.

Although subgroup numbers are small in this study and subjects were not randomly selected, some TCAM modalities may have significant differences in use when considered by ethnic group. Most of the TCAM modalities were fairly evenly utilised by Māori and Non-Māori with the few exceptions seen in Figure 3: most notably, Māori use traditional Māori medicine (Rongoa Māori) over four times more frequently than Non-Māori. This rate is far higher than published in New Zealand to date.¹⁷

In our study, over 90% of Maori women reported using traditional Māori medicine. Traditionally, Māori women have been difficult to access in conventional healthcare. The potential exists to reach underserved or groups with health inequalities through culturally integrated care.²⁰

This research carried out in Gisborne Hospital is typical of the current health seeking environment, where the majority of the population seek out TCAM. This popularity of TCAM is reflected in the variety of modalities used by our inpatient population. There is a further need however to distinguish between obtaining “over the counter” modalities and consulting a TCAM practitioner to further delineate patient's behaviour.

Many studies have looked at predictors of TCAM use and have found that younger age, female sex, higher education, and income were associated with greater TCAM use.^{3,18,21} While this study did not pursue socioeconomic detail, we did find that age and gender trends were comparable to other research.

As described previously, ethnicity did not emerge as a determining factor for TCAM use in general but ethnicity was linked to select types of TCAM—people identifying as Māori were more likely to use Rongoa Māori, spiritual healing, hypnotherapy, and imagery/visualisation. We consider this direction a major priority in future TCAM research.

Most of the people interviewed seemed happy with the orthodox system and sought TCAM for general wellbeing and to make them feel good, rather than as a secondary use being disappointment in the current medical system. However, this may have been influenced by their current use of the orthodox system at the time of questioning or the failure of TCAM to prevent their hospital admission.

Lack of disclosure by patients of TCAM follows experience elsewhere. In the absence of doctors or other professionals asking, the potential for problems exists. Guidance in 2005 from the MCNZ makes this clear, and our research confirms a gap between policy and practice.²² This was also found in the 2003 Wanganui study where 82.6% said they would talk to their doctor but 62.5% said their doctor did not ask them.²³

Because the patients do not get this “prompting” from their health practitioner, they do not say anything, probably (as our study suggests) because most believe that TCAM therapies are perfectly safe. Only a small number of patients in this study (7%) felt uncomfortable discussing TCAM use—broadly similar to the findings from the Wanganui study. The majority of patients using TCAM are clearly willing to discuss TCAM use and doctors should be asking.

Knowledge of the inherent potential for interactions between orthodox and herbal remedies is not new. However, this fact is not reflected in behaviour of either the

public or the professionals. The public appears unaware and professionals un-inquisitive. Besides drug interactions (for example, St John's Wort and many 'mainstream' medicines) and bodily manipulation, risks arising from TCAM are not only those directly due to the therapies themselves, but indirect risks due to limitations in the TCAM therapists' diagnostic and clinical knowledge creating inappropriate treatment delays or mismanagement.

These are presumably less likely to occur with medically qualified practitioners, who therefore have an essential role in the development and delivery of integrated TCAM services. Those medically qualified practitioners who do practice some form of TCAM ought to have appropriate training, skill, and oversight in the TCAM modalities they do use.

However, as it appears that most patients consult complementary practitioners concurrently with conventional medical doctors, it may underscore the need for greater cooperation between orthodox and complementary, alternative, and traditional health professionals. This improved communication will hopefully result in better risk/benefit analysis and informed choice for patients.

The results of this study also suggest that effective regulation with emphasis given to public safety, new funding for TCAM research, increased undergraduate and postgraduate medical education about TCAM, and better information available for the public are needed in New Zealand.^{24,25}

We recommend, as do other studies, that physicians and other health practitioners become more aware of TCAM, make better use of communication styles that can foster patient self-disclosure, and enable better multidisciplinary communication.^{1,4,14,17,20,21,26}

Competing interests: None known.

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