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Original Article

Barriers to identifying mood disorders in clients by New Zealand osteopaths: Findings of a thematic analysis

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ABSTRACT

Background: A majority of patients with uncomplicated mood disorders are managed in the primary care setting. The link between psychological issues and musculoskeletal pain has been well established. Therefore, osteopaths are potentially well placed to in early identification and management of mood disorders. Hence, understanding barriers to identification of mood disorders by osteopaths may be important to improve clinical outcomes, yet little is known about this phenomenon.
Objective: The purpose of this study was to explore the major barriers experienced by a sample of New Zealand osteopaths in managing patients with mood disorders.
Methods: This study was a descriptive explorative survey, using mixed methodology study design. This paper reports the qualitative findings.
Participants: Using convenience sampling, a total of 216 New Zealand registered osteopaths whose email addresses was publicly available were invited to complete the online survey.
Data analysis: Thematic analysis was the method of choice to analyse the qualitative data.
Findings: Thematic analysis revealed three primary categories namely boundaries of practice, client barriers and competency requirements. Six themes related to the three primary categories were also identified that acted as barriers in managing clients with mood disorders by osteopaths in New Zealand.
Conclusion: Our study found that the three primary categories not only were interrelated but also drove each other. Respondents' professional identity combined with their therapeutic approach and lack of education created important barriers in identifying and managing clients with mood disorders. Future studies involving interviews are required to further articulate and clarify our study findings.

Introduction

Mood disorders (according to Diagnostic and Statistical Manual of Mental Disorders (DSM-V)) refer to a broad diagnostic category characterised by a significant disturbance in person's persistent emotional state or mood (depression or mania) [7,27]. Mood disorders are among illnesses that have significant impact on health and life of people worldwide [4]. In fact a mental health survey conducted across 17 countries found that on average about 1 in 20 people reported having an episode of depression in the previous year [16]. The effect of mood disorders consequently extends beyond the individual to family members, employers, health care system and tax payers [29]. Patients with psychological issues also tend to be high users of medical services incurring a huge economic burden on the society [29]. Effective treatment of underlying psychological issues therefore might reduce unexplained somatic symptoms as well as unnecessary utilisation of medical services [30]. Despite their high prevalence and the related financial burden, mood disorders in patients are often undiagnosed in primary care [27].

Primary health care practitioners play an important role in early identification of patients with mood disorders as majority of patients with uncomplicated mood disorders are managed in the primary care setting [31]. Treating patients with mood disorders in primary care has several advantages such as earlier initiation of treatment, continuity of care, and an established therapeutic alliance [17]. In New Zealand, osteopaths are primary health care practitioners [21] and could play an important role in early identification and management of mood disorders. Even in countries where osteopaths are not primary care practitioners, knowledge

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about psychological issues may be considered important as a core principle of osteopathy is to treat the whole person: body, mind and spirit.

Osteopaths are holistic health professionals who assess their patients in terms of biopsychosocial model of illness where patient's symptoms are a result of dynamic interaction between psychological, social and pathophysiological variables [6,22]. Given this background, the role of psychological issues such as mood disorders in Musculoskeletal (MSK) pain cannot be overstated. The link between depression and MSK conditions such as back and chest pain; abdominal pain; headache; unexplained pain syndrome; fatigue and weakness have been well established [9]. Available evidence clearly indicates that psychological factors are better than physical factors in predicting back and neck pain and disability [18]. Further, psychological factors such as distress, depressive mood and somatization have been implicated in the transition of acute to chronic back pain and disability [25]. In summary, psychological factors play an important role in MSK pain; hence, could be of interest for osteopaths.

The main scope of osteopathic practice in New Zealand lies in the management of MSK pain; however, the apparent link between pain and psychological factors makes knowledge about mood disorders salient. A survey done in a sample (n = 62) of New Zealand osteopaths showed that most respondents (60%, n = 37) 'often encountered' clients with mood disorders. Interestingly, half of the respondents (50%, n = 31) had no previous education about mood disorders [15]. These findings assume significance given that only a few patients with mood disorders receive adequate treatment in primary care settings. Further, except in situations where patients are best referred to experts, osteopaths (being primary health care practitioners) are well placed to help pain patients with psychological issues [24]. Therefore, understanding barriers to identification of mood disorders by osteopaths may improve clinical outcomes for people experiencing mood disorders, yet little is known about this phenomenon. In this paper, the major barriers experienced by a sample of New Zealand osteopaths in managing patients with mood disorders were explored.

Methods

Study design

This study was a descriptive explorative survey, combining quantitative and qualitative methods for data collection and analyses to add breadth and depth of understanding and corroboration [13]. The qualitative findings are reported in this paper. Ethical approval was received from the Institutional Ethics Committee. The consolidated criteria for reporting qualitative research [37] was used to structure and present this methods section.

Data collection

The survey tool used for data collection in the study was a questionnaire with a web-based mode of delivery. The online questionnaire was based on that developed in a Master's research project, and was modified for the study [20]. It consisted of 44 questions, divided into three sections (demographic information, practice in relation to mood disorders and education regarding disorders); comprising of open-ended questions enabling free-text responses, yes/no items, multiple choice items, and rating scales. The open ended questions (nine in total) explored the following: (a) Reasons for not investigating suspected mood disorders further, (b) Influence of documented history of mood disorders on assessment, (c) Assisting clients to manage their mood disorders, (d) Adaptation of treatment approaches, (e) Reasons for not referring clients to other practitioners/programmes, (f) Difficulties experienced by practitioners in managing clients with mood disorders and (g) Practitioner education regarding mood disorders. Survey Monkey™ (available online at http://www.surveymonkey.com/) was used to host the questionnaire for this research. The basic features of this website enabled designing the survey, collecting data, and analysing some of the quantitative responses.

Participants

A convenience sample was drawn from the target population of all registered osteopaths in New Zealand whose email addresses were listed in the public domain. A total of 216 email addresses of osteopaths were identified and a database was created. To ensure that potential participants were registered osteopaths and currently practising, their names were cross-checked to the publically available register of the Osteopathic Council of New Zealand. The 216 osteopaths who met the inclusion criteria were invited to participate in this study. The invitation along with information about the study was sent by email, which also contained a link to the survey on Survey Monkey™. A hard copy version of the survey was available on request. Consent was implied by completion of the survey.

Participant demographics

Completed questionnaires were received from 62 of the 216 osteopaths invited to participate, a response rate of 29%.

Data analysis

Participant free-text responses to nine open-ended questions constituted the qualitative data set (Table 1). Interpretive description, a non-categorical qualitative research approach developed by [34], informed the qualitative processes of this study. Interpretive description is aligned with constructionist and naturalistic inquiry [12] and is an established approach to qualitative knowledge development within the applied clinical fields [2,36]. Consistent with interpretive description, an inductive thematic approach, which avoided coding or pre-determined analytical frameworks, was used to analyse the data.

Given the data were generated by free-text responses to questions in the survey; the data set was small and specifically focused. The first author analysed the data. At the time he was a final year osteopathy student and physiotherapist with experience in working with people who have mood disorders and considered osteopaths to have a role in identification and management of mood disorders.

Data were initially grouped based on the free-text response questions (Table 1). This was followed by repeated immersion and engagement in dialectic between the data and the developing themes. The guiding question was, 'What is happening here?' [33–35]. The dialectic continued as relationships within the data were challenged and clarified, moving the iterative process of analysis from early explorations to a coherent thematic description and articulation of the primary categories (for example, see Table 2).

Trustworthiness

Ongoing discussion and review of processes and the developing thematic description occurred between the primary author and two experienced qualitative researchers; which affirmed the robustness of the approach. Questions and discussions from presentation of early findings at research fora provided further critique

Table 1
Open-ended 'free-text response' questions from questionnaire.

Serial number	Open-ended Question(s)[a]	Number of Responses (n)
1	**Case history:**	
	How much consideration do you give to the identification of mood disorders?	
	If 'none', why do you not investigate this issue further?	12
2	**Assessment:**	
	Given that a client has a documented history of mood disorders, does that influence the way you assess him/her?	
	If 'no' why not?	17
3	**Management:**	
	When providing osteopathic treatment to clients with mood disorders, do you attempt to help or manage your clients in this issue?	
	If 'no', why don't you attempt to help or manage your clients regarding this issue?	13
4	Do you adapt your treatment approach for these clients?	
	If yes, please provide details?	24
5	Do you attempt to help or manage your client in any other way/s than the above?	
	If yes, how?	26
6	Do you refer your client to another health practitioner or program? If no, why not?	07
7	From your experience, what are the difficulties in managing these clients?	53
8	**Further Education:**	
	Do you feel further education in relation to 'mood disorders' would be valuable to your practice?	
a	If 'yes', do you have any suggestions?	17
b	If 'no', what are the reasons?	10
9	Any other 'comments'?	20

[a] Free-text responses were elicited depending on response to preceding question. In some instances a negative response invited a free-text explanation; other times it was a positive response. Therefore, not all participants had the opportunity to respond to all open-ended questions.

Table 2
Example of data analysis: Raw data to thematic structure.

Example Quotes[a]	Initial grouping	Theme	Primary Category
(a) "A fairly meaningless look at mood disorders during Pharmacology. This was more on the perspective of pharmaceuticals that we may encounter rather than on identifying, treating and managing mood disorders …" (6:1)	Reasons for not investigating further	*Lack of expertise*	Competency requirements
(b) "I don't consider it my area of expertise to handle such disorders, and most of time touching on them ends up bringing out stuff I'm not qualified to deal with …" (27:1)			
(c) "I don't have expertise to deal with mood disorders and patients are coming to see me for musculoskeletal disorder …" (52:1)			
(d) "There is no network of alternative professionals that I have reason to trust in this town. The network of medical professionals is already identified to the client …" (11:6)	Management – referral to other practitioners	*Lack of professional network*	Competency requirements
(e) "They have consulted me for treatment of their musculoskeletal system not their mood disorder …" (3:6)			
(f) There are suitable practitioners for those issues. I'm busy enough dealing with the msk problems …" (32:2)			
(g) "I have no trusted and tested routes of referral to these particular services …" (45:2)			
(h) "It doesn't change how I assess a person as during my assessment they are a unique individual and I try to minimise any labelling or categorising …" (43:2)	Neutral view Practitioner Outlook	*Practitioner assumptions*	Boundaries of practice
(i) "I take this into consideration for prognosis and treatment styles but it doesn't affect the way I assess as with osteopathic assessment there are many discrepancies within patients …" (51:4)			
(j) "I'm strongly structural in outlook and use this as a first approach in forming a relationship with the patient …" (8:3)			
(k) "Integrating structural/visceral/cranial techniques together with somato-emotional regional tissue release work and dialoguing …" (9:4)	Holistic approach Osteopathic principal	*Intervention vs referral*	Boundaries of practice
(l) "Osteopathy is a holistic treatment approach, structure and function are independent, and the balance must be restored …" (17:3)	Scope of practice		
(m) "As an osteopath specialising in cranial osteopathy, treated many people with normal transient functional mood issues …" (36:5)			
(n) "Osteopaths are not perceived as capable of managing mood disorders …" (56:7)			
(o) "Requirement for experience, knowledge and sensitivity. Understanding of the limitations of osteopathic practise in this domain. Knowing when to advise referral …" (60:6)			
(p) "Hard to get them to see the connection with their structural problems and also how much they want to work with themselves …" (38:7)	Stigma Non-acceptance	*Client characteristics*	Client barriers
(q) "Some of these clients do not accept they have a problem and need additional help …" (44:5)			
(r) "Difficulties only in initial diagnosis and acceptance of the condition and its effect on the body …" (5:7)			
(s) "Denial, they are very clever and manipulative with regard to hiding what is going on …" (20:9)			
t) "Lack of motivation, very narrow focus, negative focus, low self-esteem …" (6:7)	Management difficulties Client motivation	*Compliance issues*	Client barriers
(u) "Their energy levels generally tend to be low, the psychological disintegration …" (29:3)			
(v) "Difficult because the patient's motivation to help themselves is altered …" (39:7)			
(w) "More education as to a multifactorial approach to treatment. Pharmacological, nutritional and different sorts of therapies and support systems available …" (52:8b)			

[a] Number within brackets represent participant number and question number. For example, (6:1) represents 6th participant and their response to 1st open ended question. The open ended questions are shown in Table 1.

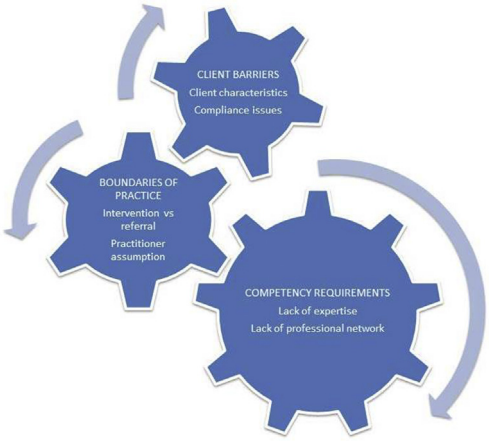

Fig. 1. Conceptual gear model of barriers in managing clients with mood disorders.

of findings and opened the thematic description to further critique; supporting the credibility of the interpretation. The reflexive account of the research processes provide the necessary audit trail for evaluation of the plausibility (trustworthiness) of the findings (Koch & Harrington 1998).

Findings

Thematic analysis and interpretation resulted in construction of three primary categories with six themes related to barriers in managing mood disorders by osteopaths in New Zealand. The final conceptual model (Fig. 1) presents the three categories; namely *competency requirements, boundaries of practice* and *client barriers* along with the associated themes. Based on the participants' responses, the model represents the major barriers experienced by New Zealand osteopaths as inter-locking gears. The primary driver (*competency requirements*) represented by the right cogwheel seems to be driving the other categories. However, due to the overlap, the other two categories, represented by smaller cogwheels, were equally driving the primary driver.

Competency requirements

This category represents barriers in the competency levels of the practitioners in dealing with clients who have mood disorders. It includes two themes: *lack of expertise* and *lack of professional network*. It represents barriers with education and training of practitioners and drives the other categories; *client barriers* and *boundaries of practice*.

Lack of expertise

Most respondents felt that they did not have sufficient education with regards to mood disorders which they felt was a major barrier in treating these clients. The minimal education they had was often a psychology paper or a module in pharmacology. However, it was not specific to osteopathy:

> *"A fairly meaningless look at mood disorders during Pharmacology. This was more on the perspective of pharmaceuticals that we may encounter rather than on identifying, treating and managing mood disorders. It would have been more useful to have had some in-depth advice on working with people with mood disorders."* (P6)

It was clear that education about mood disorders would have been useful for osteopaths in New Zealand. Further, most osteopaths had no previous experience in managing clients with mood disorders, which is consistent with the lack of education about mood disorders:

> *"As an osteopath, I have had no training in counselling and would not therefore attempt to try. I am not qualified enough in cranio-sacral technique to attempt to "alter" someone's mood swings. I do take into consideration that state of mind has an impact on the body's tissues and its speed of healing." (P10)*

The lack of education and experience to manage clients with mood disorders lead the practitioners to believe that managing clients with mood disorders was outside the scope of their clinical practice:

> *"I don't consider it my area of expertise to handle such disorders, and most of the time touching on them ends up bringing out stuff I'm not qualified to deal with. If I consider a mood disorder of vital importance to the presenting complaint, I usually suggest an appropriate professional for the patient to see." (P27)*

The practitioner not only felt that they had insufficient expertise in this area but was also apprehensive about possible psychological issues that they might have to manage if they decided to treat these clients. It is almost as if they feared "opening the box" in case 'something' that they were ill-equipped to manage was released.

In this context, prior experience or training in the field of psychology may have significantly altered the practitioner's approach towards management:

> *"I was trained in social work and worked for some years as a medical social worker. In the course of treating patients, one often gets an impression from tissue states or verbal cues or overall energy and body language of the client that there are underlying emotions that are relevant to the physical presentation. I tend to focus more on identifying underlying issues and guiding patients towards recognising them and either working on them with some support from me, or referring to other agencies if appropriate." (P 18)*

Lack of professional network

Many practitioners who participated in the study reported that lack of a referral network as a major barrier in efficient management of mood disorders:

> *"I have no trusted and tested routes of referral to these particular services. I prefer to suggest people access services, and find someone they are comfortable to go to, rather than suggest to them who to go to if I am unsure myself" (P37)*

Here the practitioner not only mentioned that they had no trusted way of referral but also felt unsure of to whom to refer their clients. This insecurity was consistent with insufficiency in education and lack of experience in managing clients with mood disorders. Hence, many practitioners believed that further education about mood disorders, with an emphasis on osteopathic perspectives, would be invaluable to their practice:

"Purely from an osteopathic practice perspective, to be able to recognise, diagnose and see the warning signs earlier. To help with other referrals that is whom and when to refer …" (P41)

This further education may be in the form of a continuous professional development course during a weekend. Such a course might positively change the perceptions of osteopaths about mood disorders and may result in earlier identification and management of these clients. Having sufficient knowledge may also result in better referral of clients with mood disorders to appropriate professionals.

Boundaries of practice

This category represented themes related to the perceived role of osteopaths within the health sector; that is, the larger context in which the practitioners delivered osteopathic care. Two themes were identified in this category; *intervention vs referral* and *practitioner's assumptions*. Some of the issues addressed in these themes were related to the osteopathic practitioners' perceptions and assumptions and how they influence their ability to identify and manage clients with mood disorders. How these themes act as barriers in managing clients with mood disorders is also explored.

Intervention vs referral

Practitioners were divided in their perception of their role in managing clients with mood disorders. This dilemma acted as a barrier in managing clients with mood disorders. Some of the practitioners stated that as osteopathy is a holistic approach to health, they would try to help their clients with mood disorders:

"While as an osteopath, I have developed an acute somatic skill set. Osteopathy is about treating the body, mind and spirit. This is an integral part of treating the whole person and is in deficit in most medical training …" (P55)

As part of treating the whole person, it is the responsibility of an osteopath to "*make sure they are aware and addressing the appropriate issues and the cause of the issues, to help the patient with the mood disorder*". By being totally 'present' and 'focused', osteopaths could help their clients through discussions about stressors and coping mechanisms:

"By talking to them about how they manage their stressors, what coping mechanisms they have, do they need additional mechanisms …" (P47)

Other practitioners, however, reported that their main area of work was within the musculoskeletal arena: "*I'm busy enough dealing with the musculoskeletal problems. These mental states may affect their pain but I'm not qualified to treat this …"* For a few practitioners this understanding about their role was further compounded by their perceived treatment (structural, cranial or visceral) outlook. Some of them are "*strongly structural in outlook"* and are *"not qualified enough in cranio-sacral technique to attempt to "alter" someone's mood swings"*. Given these limitations, most practitioners preferred to refer their clients with mood disorders to a different practitioner if needed:

"Osteopaths are not perceived as capable of managing mood disorders. I only refer, I do not attempt to manage them. But I incorporate possible yellow flags in prognosis and awareness of medications …" (P56)

This perception about their role was underpinned by their understanding of the osteopathic scope of practice: *"clarity of the scope of practice from my training. I do not fix teeth or deliver babies"*. The term '*out of my scope of practice*' was frequently used by practitioners as a reason not to investigate mood disorders in their clients. Further, practitioners believed that the issue of mood disorder required '*professional management*' from someone who is '*trained to deal with it*'.

Practitioner assumptions

Assumptions made by practitioners about mood disorders in their clients may play a key role in the decision making process and how these clients are managed in clinical practice. Some practitioners reported that given a documented history of mood disorders, they would assume that their clients are in contact with relevant professionals for management of their mood issues, "*A documented history suggests the clients will have contact with relevant professionals*". These assumptions in turn influenced some practitioners to maintain a neutral view of individuals with mood disorders.

"It doesn't change how I assess a person as during my assessment they are a unique individual and I try to minimise any labelling or categorising, it is just another factor that is taken into consideration when I prepare my treatment and management plan for that individual …" (P43)

"Although mood and the psyche has a link to presentation of pain and/or the reporting of pain severity it doesn't affect the treatment of the patient's soma. The way I see mood disorders is as a continuum from "normal" through to dysfunction …"

By maintaining a neutral stance, some practitioners continued to treat the somatic (physical) by modifying their treatment approach. "*I modify my treatment approach to suit the client"*. On the other hand however, assumptions can be a major pitfall in clinical practice as it may deny the practitioners an opportunity to objectively establish a proper diagnosis. Without a proper diagnosis, it may be extremely difficult for practitioners to monitor the client's progress. This left a lot of practitioners feeling '*frustrated*'.

"Having an accurate picture of how the client is progressing on all levels, especially if their mood is changing apparently randomly from one consultation to the next. Client's mood is often a key influence in how they view their symptoms and progress …" (P12)

Practitioner's assumptions were in turn informed by their roles involved in a biomedical 'cure' model compared to a biopsychosocial model which might accommodate the interrelationship between pain and mood.

Client barriers

This category represents barriers to identifying and managing mood disorders that are related to what the respondents perceived as barriers relating to their clients. The respondents' perception was based on which therapeutic approach they based their practice on (practitioner centred vs patient centred collaborative approach). This category includes two themes: *client characteristics* and *compliance issues*. Unlike the other two categories which are related to barriers related to the practitioners, this category represents barriers related to clients and includes issues such as lack of acknowledgement by clients and poor compliance with the

treatment plan/advice.

Client characteristics

The participants reported that clients were sometimes reluctant to accept the diagnosis of a mood disorder which can be a major barrier in providing quality osteopathic care. The lack of acknowledgement may mean these clients do not seek any intervention:

> *"Some of these clients do not accept they have a problem and need additional help. They are often very distressed and are reluctant to acknowledge that they may need help …" (P44)*

Some osteopaths found that when clients with mood disorders do seek intervention, some of them appear to use the underlying disorder as a means to attract more attention. This may make them report negative outcomes or a lack of improvement so they can strive on the attention they get:

> *"Sometimes the disorder is a crutch and the patient thrives on the attention they are getting. They come to you for more attention and sometimes some patients don't want to get better or change their thinking patterns or deal with the issues that are generating the disorder as this would mean they no longer have the attention they think they so need …"* (P29)

From a practitioner perspective, this can be challenging as they had to constantly deal with the ongoing physical complaints as well as trying to motivate their clients to address their mood issues. Some of the practitioners found this as an energy sapping experience and felt drained dealing with these clients:

> *"It's a never-ending cycle of similar presentation during the 'active' stage of stress. The energy sapping experience of attempting to distract the client from the internal turmoil to the external. Constantly walking the tightrope of empathy and hardnosed refusal to join them in depression."* (P8)

On top of the energy draining experience, the practitioner's may also have to be prepared for the inconsistent pattern of client's behaviour. The inconsistent pattern which is largely influenced by their mood swings may further complicate the management process.

> *"The* [clients with] *serious mood disorders (bipolar etc.) have trouble with rational decision making … Just being in that depressive state means it's difficult for them to make decisions regarding their well-being and health … Their sudden withdrawal from treatment, one week life is hell with full trigger points and torticollis, sciatica or whatever, to feeling fine and cancelling* [the appointment]." (P14)

Compliance issues

Non-compliance is another form of client resistance that appear to act as a barrier in the effective management of mood disorders. The client's non-compliance could be with the treatment or management plan, follow-up advice and exercises. Some practitioners observed that:

> *"Non-compliance issues with the client in terms of them taking medications, following advice and suggestions … compliance with treatment - missed appointments/treatment or exercise regimes …"*(P57)

By being non-compliant with exercises and follow-up appointments, these clients may not focus on the physical improvement they have made. This in turn makes these clients less motivated to pursue further treatment or intervention:

> *"As a generalisation - usually negativity to their progress (they dwell on the discomfort, not on the amount they are feeling better) or adherence to e.g. exercises/stretching …"* (P21)

> *"Negative attitude from person to treatment results - i.e. not noticing the positive physical effects treatment has had …" (P19)*

The client practitioner relationship may also be affected by the lack of client progress. While the client may dwell on the discomfort, the practitioners may not be able to build a 'trusting relationship' with their clients. As a result, it may be difficult to motivate them:

> *"Getting a trusting relationship … Hard to get them to see the connection with their structural problems and how much they want to work with themselves …" (P10)*

Combined with lack of education/expertise to deal these clients, noncompliance can be really 'frustrating' for practitioners as they cannot have *'an accurate picture of client's progression on all levels'*.

Discussion

Findings from our study identified three key categories that act as barriers in managing mood disorders by New Zealand osteopaths namely: *competency requirements, boundaries of practice, and client barriers.*

Our findings suggest that there is a clinical dilemma among respondents in managing clients with mood disorders. This dilemma could be explained by respondents' perception about their professional identity. Some respondents believed that traditional osteopathic principles encouraged 'treating the person as a whole' which is consistent with the biopsychosocial model of illness [6]. Therefore, respondents situated in the biopsychosocial model saw the inter-relationship between pain and mood and maintained a 'neutral' view on patient's complaints. However, other respondents favoured a 'reductionist' approach where the mind and the body are considered and treated separately [3] which made them to believe that managing mood disorders is 'out of scope of their practice'. Our finding is consistent with a recent study in which osteopaths were polarised with their opinion with regards to osteopathic principles and their significance to osteopathic profession [14].

Respondents' therapeutic approach created another layer of barrier in identifying and managing clients with mood disorders. Therapeutic approach in osteopathy is often defined by the application of techniques such as treatment applied to the neuro-musculoskeletal system (structural osteopathy); internal organs (visceral osteopathy) and to the skull (cranial osteopathy) [10]. Some of the respondents were *"strongly structural in outlook"* and were *"not qualified enough in cranio-sacral technique to attempt to "alter" someone's mood swings"*. As noted previously, a practitioner's therapeutic approach influences what they 'see', how they see 'it' and the resulting decision making [32]. Therefore, our findings add to the ongoing debate of whether traditional osteopathic principles need to be updated or redefined.

Respondents in our study felt that client characteristics were an important barrier in managing mood disorders. A few respondents even felt that some of these clients may use the underlying disorder

as a crutch to attract more attention. Therefore, they may not want to get better or report not getting better for more attention. The perceptions of osteopaths about their clients could be influenced by the therapeutic approach used. Depending on patient involvement and approach to clinical decision making; osteopaths can be classified as treaters (practitioner centred); communicators (collaborative approach) and educators (patient empowerment) [32]. It was possible that some respondents in our study adopted the practitioner centred approach consistent with paternalistic model of decision making [5]; thereby, encouraging the patients to adopt a 'sick role'. Hence, it could be argued that the 'treaters' found it 'frustrating' with lack of treatment success. McPherson and Armstrong [19] argued that when faced with the failure to deliver effective cure, GPs redirected blame and responsibility toward the patient, who was then constructed as the problem which could also hold true for osteopaths.

Some respondents reported difficulty in forming a trusting relationship with their clients, which was a barrier in making progress. A trusting physician-patient relationship may be the key to help reveal underlying psychological symptoms. This may mean that osteopaths may have to adopt a 'communicator' approach informed by shared models of decision making [1]. In this approach, patients are treated as 'equals' and clinical decisions are negotiated together [1]. Hence, our finding that some osteopaths found it difficult to forming a trusting relationship with their clients was surprising for two reasons; (1) previous finding suggests that osteopaths in New Zealand possess excellent communication abilities [15]; and (2) osteopaths are well placed to develop a trusting relationship as the consultation times are usually longer. It could therefore be argued that a lack of education and or expertise was the main reason why some osteopaths found it difficult to form a trusting relationship with their clients.

A study by Henke et al. [11] investigated the attitude of physicians towards depression care interventions. They argued that educating physicians about the clinical benefits and effectiveness of structured screening and assessment as compared with clinical judgement is needed. This may be highly relevant for osteopaths for three reasons; (1) most of the respondents (60%, n = 37) in our survey often encountered clients with mood disorders, (2) half of the respondents (50%, n = 31) had no previous education about mood disorders and (3) insecurity to on-refer their clients to a mental health practitioner [15]. Hence further education about mood disorders in the form of a continuous professional development is recommended. Having sufficient knowledge may also result in better referral of clients with mood disorders to appropriate professionals. This is consistent with previous recommendations [24].

Non-compliance to medication and prescribed exercises was also reported to be a significant barrier in this study. This is in agreement with previous findings [11,28]. A variety of factors including intrinsic (e.g., personal experience and individual attributes) and extrinsic (e.g., physical and social environment) can influence adherence to exercise [23]. Therefore, there is a greater emphasis on the active rather than passive participation of the patient. This can be achieved by removal of fear in clients and by helping the clients understand their symptoms [38]. Other strategies to improve exercise adherence include individualising and supervising the program, education for patients about the disease process and the benefits of exercise, regular monitoring and use of behavioural principles (e.g., goal setting, feedback and rewards) [23]. This necessitates that osteopaths play the role as 'educators' adopting a patient-led approach to clinical decision making, thereby enabling high-levels of patient involvement [8]. In summary, respondents' professional identity combined with their therapeutic approach and lack of education about mood disorders as conceptualised by the 'gear model' created important barriers in identifying and managing clients with mood disorders.

Limitations

A main limitation of this study was that the findings were based on thematic analysis of free-text responses from a questionnaire, which prevented the opportunity that would have been provided in face to face interviews to further probe, clarify and extend the discussion. Secondly, the free text responses were invited particularly when negative response to the preceding question which could have reduced the sample size. However, the effect of this could only be minimal as rich qualitative data was available for analysis. Questions could be raised regarding the reliability and validity of the questionnaire used. Therefore, piloting was undertaken by administering the questionnaire to a selected sample of osteopaths. This was an important step to increase the construct validity of the survey questionnaire used [26].

Conclusion

The study identified three major categories namely *boundaries of practice, competency requirements* and *client barriers* that act as barriers in identification and management of mood disorders by New Zealand osteopaths. A conceptual gear model was proposed in which the three categories were not only interrelated but were also found to be driving each other. A major barrier was linked to respondents' perception about their professional identity. While respondents situated in the 'biopsychosocial' model believed that they could help clients with mood disorders, respondents who took a 'reductionist' approach believed that managing mood disorders was 'out of scope' of their practice. Whilst osteopaths are good communicators and are in a better position to develop a trusting relationship with their clients; lack of education/expertise in mental health added to the existing clinical dilemma in managing clients with mood disorders. With an apparent lack of education in mood disorders, some respondents shifted the blame on their clients, who were then constructed as the problem. Therefore, further education about mood disorders in the form of CPD courses is recommended for osteopaths. Our study is the first of its kind investigating an under researched area in osteopathy. Therefore, future qualitative studies involving interviews are required to further articulate and clarify the themes identified in our study.

Conflicts of interest

The authors declare that they have no affiliations with or financial involvement in any organization or entity with a direct financial interest in the subject matter or materials discussed in the article. The authors further declare that they do not have any conflict of interest.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.ijosm.2017.11.005.

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