Citation: Yang, S.Y., Bogosian, A., Moss-Morris, R. & McCracken, L. Mixed experiences and perceptions of psychological treatment for chronic pain in Singapore: Skepticism, ambivalence, satisfaction and potential. Pain Medicine, 16(7), pp. 1290-1300. doi: 10.1111/pme.12745

Mixed experiences and perceptions of psychological treatment for chronic pain in Singapore: Skepticism, ambivalence, satisfaction, and potential

Su-Yin Yang*[1, 2] (MSc Health Psychology), Angeliki Bogosian[3] (PhD Health Psychology), Rona Moss-Morris[1] (PhD Health Psychology), & Lance M. McCracken[1] (PhD Clinical Psychology)

[1] King's College London, Health Psychology Section, Psychology Department

[3] City University, School of Arts and Social Sciences, Department of Psychology

Correspondence to:

Su-Yin Yang, Health Psychology Section, Psychology Department , Institute of Psychiatry, King's College London, 5th Floor Bermondsey Wing, Guy's Campus, London SE1 9RT.

Phone: +44 (0)207 188 5410

Fax: +44 (0)207 188 0184

E-Mail: su-yin.yang@kcl.ac.uk;

[2]Pain Management Clinic, Tan Tock Seng Hospital, 11 Jalan Tan Tock Seng,

Singapore 308 433

E-Mail: su_yin_yang@ttsh.com.sg

Phone: +65 6357 8352

Fax: +65 6357 2155

Disclosure: The authors declare that they have no conflicts of interest related to this study.

Abstract

There is little research in Southeast Asia focusing on patients' experiences of seeking psychological treatment for chronic pain.

Objective: This study aims to understand the experiences of patients seeking psychological treatment for chronic pain in this region.

Setting: Outpatient pain clinic at a tertiary hospital in Singapore.

Subjects: People with experiences of attending psychological treatment for chronic pain, including some who were not receiving this type of treatment.

Study design and methods: Fifteen inductive semi-structured interviews were conducted to explore patients' experiences regarding psychological treatment for their chronic pain. Thematic analysis was then applied.

Results: Three main themes were identified: 'Expectations and Realities of Health Professionals', 'Patients' Attitudes and Beliefs' and 'Practical and Social Factors.' From the patients' perspectives, an empathetic health professional who was willing to listen contributed to a positive treatment seeking experience. Patients felt that health professionals' lack of knowledge about appropriate treatment contributed to their frustration. Patients could not understand how psychological treatment was related to pain treatment and queried why they were "paying just to talk". On the other hand, their experiences were quite positive, and they found psychological treatments helpful when they participated in them.

Conclusion: Education for both patients and health professionals unfamiliar with psychological treatments for pain may improve access to these treatments.

Introduction

Chronic pain is a potentially debilitating condition that is known to impact significantly on a person's physical, emotional and social wellbeing [1]. For people with chronic pain, medical diagnoses are often non-specific and inadequate in accounting for reported pain symptoms or pain impacts [2]. Many people with chronic pain search for a pain cure but few achieve the level of pain reduction that they desire. As a result of the difficulties in achieving relief by conventional means, complex models of treatment that take into account psychological, social and medical factors have been developed [1-4].These approaches, however, are not equally developed in all parts of the world.

Psychological treatments form an important part of a complete approach to chronic pain. These treatments generally focus on lessening the impacts of chronic pain [3]. Among these treatments, Cognitive Behavioral Therapy (CBT) for chronic pain is typically regarded as having a good evidence base [5]. A recent Cochrane review found small to moderate effect sizes for CBT for managing chronic pain in adults [6]. In this review the strongest effect was shown for depression and catastrophic thinking, followed by disability and pain. Once again, psychological treatments are not uniformly available in all parts of the world.

Chronic Pain in a Cross-Cultural Context

Cultural differences in experiences of health problems, experiences of treatment, and in potential barriers in access to health care services have been shown in a number of studies [7-8]. A comparison of blacks and whites seeking treatment for chronic pain in the US showed that after controlling for pain severity, the black group reported more avoidance of activity, more fearful thinking and more physical symptoms [9]. Significant cultural differences were also found in self-care behaviors and preferences for components on a pain management program [9]. This study was also conducted in the US. Clearly, cultural background can influence the ways we conceive illness and the ways we make healthcare decisions [10].

Qualitative studies conducted in western populations find that general adherence to treatment is influenced by patients' appraisals of it [11-12]. Indeed patients in different cultural contexts encounter different healthcare experiences that may form the basis for these appraisals. A comparison of chronic pain patients from Puerto Rico and New England revealed that patients and healthcare providers from New England took a biomedical view of illness while those from Puerto Rico often addressed chronic pain as a biopsychosocial experience [13]. In a qualitative study with older Korean women, chronic pain was embraced as part of the natural process of ageing rather than as a problem to be solved [14].

Cross-cultural uniformity in patients' experiences and expectations with chronic pain cannot be assumed. Meeting a goal of worldwide effective healthcare delivery for chronic pain, within the environments where people with chronic pain live and function would seem to require an approach that takes into account patients' lived experiences across healthcare systems and in differing national contexts [15].

In some areas of the world there is little pain research and less treatment development. At present, few studies from Southeast Asia examine the treatment experiences of people with chronic pain. Examining the patient perspective, can add richness to our understanding of the treatment experience in non-western cultural contexts and lead to a better understanding of how to meet the needs for chronic pain treatment in these cultures for treatment development in the future.

The Case for Singapore

Singapore has a complex mix of Asian cultures, a mix of people of Chinese, Indian, Malay and Eurasian background, plus links with its British colonial past. Singapore's mix of cultures and unique history result in a multifaceted health care system, including both western medicine and differing Asian traditional approaches [16]. Hence, it is a potentially fruitful context for a study on perceptions, experiences, needs, and potential barriers in chronic pain treatment, including particularly psychological treatments, from the patients' perspective.

There are at present at least five studies focused on chronic pain treatment from Southeast Asia, and including psychological methods [17-21]. However, these studies primarily looked at treatment outcome. In the present study we planned to examine, not treatment outcomes, but patients' experiences from within the healthcare system, their views, judgments, and needs, framed in their own words.

Qualitative methods that focus on people's perceptions, experiences and opinions are an appropriate choice of enquiry to understand and explore the richness of the treatment experience for chronic pain in Singapore, offering a perspective that can complement standard quantitative research approaches.

Study Aims

The broad aim of this qualitative study was to understand experiences of people seeking treatment for chronic pain in Singapore. Our primary aim was not to make cultural comparisons or test hypotheses of cultural differences in this respect. From this direct examination of patient experiences we planned to specifically explore (a) potential barriers to psychological treatment for chronic pain within the broader treatment experiences and expectations for people with chronic pain, and (b) factors that could help improve uptake of psychological treatment in a group of people with chronic pain. To our knowledge, this is the first study of this type in the Southeast Asian region.

Methods

This study was approved by the Domain Specific Review Board (DSRB; 2012/00717), the local ethics committee that governs and approves all research conducted within any healthcare setting in Singapore.

Design

We used an inductive, semi-structured, interview format to obtain in-depth and detailed information about participants' experiences regarding treatment for chronic pain and access to this treatment, in Singapore. These interviews included a specific emphasis on psychological treatments. All interviews were conducted in English as English is the pre-dominant first language spoken and understood in Singapore.

Participants

Participants were recruited through a multidisciplinary pain clinic at a local restructured (part public funded) hospital. Participants were invited to take part in the study after routine consultations with one of the health professionals (pain physician, nurse specialist, physiotherapist, or psychologist) on the pain team. We purposefully sampled participants with a variety of experiences of psychological treatment. As we wanted to gather a variety of responses from people seeking treatment at the multidisciplinary pain clinic, and yet also capture those most likely to be referred for psychological services, we interviewed mainly people who had some experience with psychological treatment as well as others not receiving this type of treatment. It is relevant to sample a range of perspectives, although it was not our intention to equally represent different subpopulations.

Participants were recruited until data saturation was reached. Saturation is the point at which no new themes arise with the inclusion of additional interviews [22-23]. This was achieved through the use of constant comparison and review of the data. Data saturation was reached at 15 participants. Participants were included if they were (a) suffering with chronic pain for more than 3 months, (b) English speaking, (c) between 21-65 years of age, (d) a Singapore citizen, and (e) able to complete the interview without difficulties. Participants were excluded if they were (a) suffering from a cognitive impairment or (b) suffering from a psychiatric condition that, in either case, prevented them from completing the interview.

Our final sample of participants included one who was only seeing the physiotherapist and pain physician and another who was recently referred to see a psychologist but had not started any treatment. Of the remainder, one was seeing a psychologist but not for pain management or psychological treatment per se, eight were on individual follow-up with the psychologist, and four had attended a CBT program. A total of three men and twelve women participated in the study. On average, participants who were on individual treatment were younger with a longer duration of pain suffering compared to participants in the CBT group and those who had no experience of psychological treatment. Overall, eight participants were suffering with low back pain, four with fibromyalgia, two with neck pain and one diagnosed with Complex Regional Pain Syndrome. Eight participants were single, six were married and one was divorced. The mean years of education was 13.8 years (SD = 2.65). Six participants were in full time work, three were in part-time work, three were homemakers, one was unemployed, one had retired and one was a student. Table 1 provides a summary of the participant characteristics.

(Insert Table 1 about here)

Procedure

Recruitment was conducted by the lead author (S.Y.) and other health professionals at the pain management clinic. S.Y. was a practicing pain psychologist at the pain clinic where participants were recruited, although she had not been actively involved in direct treatment delivery for six months prior to or during the study. Participants who were invited to take part in the study were provided with an explanation of the study, given a study information sheet to review, and were able to discuss their questions, prior to providing their consent. Participants who agreed to participate then provided their signed consent.

A quiet, sound proof clinic room at the pain clinic was used to conduct the interviews. The interviews were audio taped and S.Y. kept a reflective diary to record observations of each interview. Interviews lasted between 15 – 40 minutes (average 27.5 mins). The interviews followed a semi-structured interview schedule (see Appendix A for details) which comprised of open ended questions asking participants broadly about their experiences of seeking treatment for their condition in Singapore, their thoughts about psychological intervention for chronic pain, specifically about their thoughts on CBT as well as suggestions as to how to improve the uptake of psychological intervention for chronic pain treatment. All interviews were transcribed verbatim. Nvivo 10 software was used for data management.

Data Analysis

We conducted an inductive thematic analysis [24] with elements of grounded theory [25] and framework analysis [26] followed in the coding process. First, S.Y. listened to the interviews, read and re-read the transcripts before coding the interview line by line. After the first five transcripts were coded, the codes and the transcripts were re-read, with codes that were most common and applicable to the research question applied to the next five transcripts. This same procedure of coding was then applied to the remaining five transcripts. A coding manual was created electronically allowing constant comparison and refinement between codes and transcripts to ensure that the codes were consistent and accurately reflected the data [25]. When new codes were identified, the coding manual was updated and refined. The codes were checked by two co-authors (R.M.M. and A.B.). Codes that identified similar aspects of the data were classified together as main themes or subthemes. All authors discussed the interviews, code and themes, further refining the data analysis process. Emerging and new codes were applied to earlier transcripts to ensure that themes were grounded in the full set of data. Following the identification of the main themes and sub-themes obtained from the data and agreed by all authors, participants were classified according to their gender, age, occupation, diagnosis and the type of treatment they have experienced, including no experience of psychological intervention (NT), experience with individual sessions of psychological treatment (IT) and experience with a CBT based group treatment (GT). The themes are presented in the following results section together with illustrative quotes that best represented the particular theme. All participants were given an ID number for purposes of confidentiality and anonymity and all identifiable data in the transcripts were removed.

Results

The results are presented according to themes and sub-themes [24]. There were a total of 3 main themes: “Expectations and Realities of Health Professionals”, “Personal Attitudes and Beliefs” and “Practical and Social Factors”. The theme and sub-theme labels and their categorisation are shown in Table 2. Participants demonstrated a clear understanding of the interview questions. However, Singaporeans often communicate in a unique style of English, and this sometimes appears in participant responses.

(Insert Table 2 about here)

An examination of the data revealed that general treatment experiences and expectations of both patients who had experience of psychological treatment and those who had not were mostly similar.   There was only a small sample of three participants who had no experience of psychological treatment. Presenting the data from these participants separately appeared unlikely to provide any added information. Hence, the results from both participants who had experience of psychological treatment and those who had not are combined.

Expectations and Realities of Health Professionals

Participants discussed their thoughts about the communication style of and content from health professionals as well as their treatment expectations of health professionals. Participants felt that having a doctor who demonstrated empathy and listened was most helpful in the treatment process.

Communication Style

“Doctor who is empathetic enough to listen”

Participants expressed their relief at finally finding a concerned and caring health professional to help them manage their pain condition. These health professionals were willing to take time to listen to the participants and this was appreciated.

“Finally I managed to have a doctor who is empathetic enough to listen instead of just prescribing and then sending me out of the door…” (Female, 52, GT)

A participant who experienced a lack of empathy in treatment said…

“…health professionals, do you understand? You don’t understand what I mean when I say oh when I sit here I’m even talking to you I’m having this spasm…you don’t get it because you don’t have it!” (Female, 51, IT)

Communication Content

In the course of seeking treatment, health professionals explained treatment options. Participants felt that some health professionals encouraged them to take responsibility for their condition, whilst surgeons provided advice to participants who were keen on surgery. Participants who accepted a referral to the pain psychologist expressed that the health professional who referred them clearly explained to them that psychological intervention would help them manage their pain better. One particular participant mentioned he was told by his surgeon that he *“would not guarantee that pain will be gone”* and that there were “*chances of getting paralysed” (Male, 50, IT)* from the operation. However, another participant reported that he was initially *“pushed to go for surgery” (Male, 52, NT).*

“*Why I accepted is because (name of doctor) did explain to me that coming over to the psychological side will help me to at least…help me to try and manage my pain so that I can have as normal a life as possible.” (Female, 56, IT)*

One participant however reported that *“Orthopaedic doctor told me this pain management is not for you it’s for people with unsound mind.” (Female, 61, GT)*

An empathetic health professional who communicated appropriate content to participants encouraged psychological treatment uptake.

Patients’ Treatment Expectations of Health Professionals

Participants expected health professionals to provide help and to promptly refer them for the right treatment. They described delays in obtaining diagnoses and treatment from some providers, felt frustration from this, and felt limited in their own lack of knowledge about their condition. One participant had to initiate her own referral to the pain management service.

"…it took them a while to get the correct treatment or get the correct diagnosis. … I was referred from one department to another… it's very frustrating because you are the one who is enduring the pain… yet you do not know what you are suffering from…financially, emotionally everything it's very taxing for the patient" (Female, 49, NT)

Some participants felt that doctors should be open to consider other treatment avenues beyond just treating their pain as a physical condition and consider other avenues that could be more effective

"I think doctors would do a far better job if they…realise that…it is not just the physical body that we are dealing with." (Male, 52, NT)

Personal Attitudes and Beliefs

Participants described their beliefs about pain treatment in general and the impact of pain on their lifestyle. In expressing their beliefs about psychological treatment, a majority of participants queried why they were "paying just to talk".

Beliefs about Treatment

Some participants expressed an expectation of cure for their pain condition and a desire to avoid medicines *“at all costs unless absolutely necessary” (Female, 49, IT).* They explained that it was an *“innate fear …I am taking all these drugs it is bad for me” (Female, 58, GT)* and the side effects that put them off.

Expectations of Cure

Participants who expected a cure reported increasing frustration when they could not get rid of the pain completely even though they had sought help from different doctors.

“Increasing levels of frustration every time something would fail to…work as a complete cure, I think I was looking for a complete cure…which I now realise it’s not easy.” (Female, 51, IT)

Impact of Pain on their Lifestyle and their Relationship to Painful Activities

Participants clearly expressed their views about significant impacts of pain on daily life.

"…my daily lifestyle has to change to accommodate to the pain which is not what I wanted… …I don't want to let pain take over my lifestyle" (Female, 37, IT)

Some participants believed that they should rest and avoid activity when in pain.

"When the pain comes I always cannot focus, usually I feel like I'm a bit paralysed. Cannot do anything then I might as well go and lie down…So whenever I lie down it's because the pain strikes. Then gradually because the pain always comes I always lie down." (Male, 24, IT)

"So Why Are We Paying Just to Talk"

Many participants expressed that they could not see the relevance of psychological treatments for pain at the point of being referred.

"What can you do?...You can't really diagnose their medical condition…by just talking and not really treating their conditions? No medications and what else? You can't do anything…except just talking to them." (Male, 50, IT)

"How come you refer me here? Are you saying that my pain is not real? You mean the pain is only in my head? But I do feel the pain! I would probably feel angry and say… What's wrong with you guys? …there are signs and symptoms…how can you

tell me that there's no pain, no real pain?" (Male, 52, NT)

On the other hand, participants who had a prior understanding of CBT or a basic understanding of psychological treatment for pain were open to this form of treatment.

"…because I understand what cognitive behaviour is about a prior understanding of it …kind of was more acceptable, more receptive to this treatment…and that pre-knowledge is something that gave me that push to come, to accept the treatment." (Female, 52, GT)

Process of Seeking Treatment

Some participants felt that after undergoing treatment at the pain clinic they were *"generally able to manage better…even when the pain is coming I know…how to deal with it…"* and that they now understood that *"pain …is nothing so…life threatening so scary" (Female, 61, GT).*

Participants felt that psychological treatment was helpful in providing a different perspective to pain and they were able to learn how to manage their thoughts, feelings, and behaviour related to pain. However, *"If the person is in denial he or she* *won’t be able to accept so that is actually one big hurdle to any cognitive behavioral therapy.” (Female, 52, GT).*

“…so far the CBT the program that…I gone through…I’m more than satisfied…I feel I am under very good hands and most importantly my pain is alleviated…I don’t feel so much of discomfort… …I can do more things with my life because I am able to participate in more activities.” (Female, 58, GT)

Practical and Social Factors

Social Support

Social support was discussed as both a facilitator and a barrier to treatment uptake. Social support here included perceived support from participants’ social network or family, friends, community, religious and government support. Participants spoke more about how peer support and government support can be helpful. Religion was also briefly mentioned but not considered a main source of support.

Interestingly, participants who experienced individual psychology sessions felt that a pain support group would be helpful especially if it included success stories related from patients who had previously gone through psychological treatment.

" …all the patients who are actually going through the same thing…come together and share with each other… we can learn from each other and then share our own problems and challenges." (Female, 37, IT)

Participants agreed that government support in terms of subsidies, use of "medisave" (non-cash payment) and health promotion for psychological treatment for chronic pain would facilitate take-up rate for such a treatment. Medisave [27] is a national medical savings scheme in Singapore which helps individuals put aside part of their income into a special account that can be used to meet their personal or immediate family's hospitalization, day surgery and certain outpatient expenses. Currently, only a small selected number of outpatient treatments can be covered by medisave; pain management is not one of the few.

Practical Barriers

The three main practical barriers to uptake of psychological treatment for chronic pain were identified as cost, time and access to appointments and resources. Participants mentioned that cost of medical treatment in Singapore in general is high. People would choose to pay for medication and for doctor visits rather than other forms of treatment, psychological treatment included.

"It's cheap yet, will I pay $80 for it? Will I pay $100-$200 per session, no I will not. Unfortunately, the frame of mind is that ok I need to pay for my medicines, I need to pay to see the doctor yes but will I pay market rates for psychotherapy generally for chronic pain I would not." (Female, 51, IT)

Some participants expressed little difficulty with gaining access while some felt that access could be improved. The barrier of time was mainly expressed as an issue of time commitment to attending psychological treatment.

Environmental Facilitators and Promotional Material

Many participants felt that providing education to the public in the form of public talks, seminars, community outreach programs and published information could facilitate uptake of psychological treatments. They felt that specifically raising public awareness of the benefits of psychological treatment for chronic pain through printing and distributing flyers and brochures as well as the use of media and technological platforms, including smart phone technology, could also help.

"I suppose it is education…if they know that…the psychological and physical is related then I think they are more willing to try…educating them to what are the advantages of going for…this kind of treatment…" (Female, 56, IT)

Discussion

This study reports the experiences of fifteen people with chronic pain seeking treatment for their pain condition in Singapore. Key findings include the following: (a) an empathetic health professional who listened to patients and was knowledgeable in pain management as well as psychological treatments for chronic pain encouraged patients to accept a referral for psychological treatment, (b) a lack of knowledge of psychological treatments, high treatment costs and time required to attend treatment may be potential barriers to psychological treatment uptake, and (c) there may be benefits from educating patients and health professionals alike through talks, seminars, use of the media and technology, on the benefits of psychological treatment in the management of chronic pain. In general this study has identified that, from a patient perspective, the experiences of seeking treatment for chronic pain in Singapore include positive and negative experiences, some delays, confusion, and frustrations, and at the same time, success and hope for a better future.

Considering that healthcare systems and treatment delivery in every country around the world are different, it is interesting that patients' experiences in seeking treatment in Europe and North America are similar to those from Singapore. Put simply, people want solutions, care, understanding, and clarity related to psychological treatments for chronic pain. These results must be understood in relation to the context and purpose of this study rather than just within a broad comparison to the wider available literature in this area.

Singapore is a unique country with strong western influences in education, the media, and in healthcare systems. Significant European and North American influences can be detected. For example, Singapore is the only country in Southeast Asia to adopt the English language as its primary language. Perhaps it is understandable that patients' experiences and expectations of healthcare are similar to those in the West, even if this was not expected.

Participants in our sample share in seemingly universal experiences of expecting cure, in wanting an explanation for their condition and for available treatment options [28-31]. They prefer an empathetic doctor who listens [32-34], clear information, a shared understanding with their health professionals about chronic pain, and prompt referral [35-38]. Many participants in our study were upset and frustrated that the process of referral to see the "right" doctor was lengthy.

Health professionals who demonstrate abilities to listen, empathize, and explain chronic pain appear more likely to encourage patients to accept psychological treatment for this condition. The quality and type of interaction between health professional and patient is therefore important. Laerum and colleagues [39] proposed that good client centred skills should include good listening skills, acknowledging patients' experiences that will empower the patient in treatment. Patient-centred care is recognised as a core value in patient-physician interaction [40]. Health professionals who adopt this approach are able to foster an open communication with patients, and make patients feel that they are being taken seriously [41] possibly leading to higher success for behavior change.

Most qualitative studies in this area tend to examine patients' experiences with chronic pain treatment specific to medical or physiotherapy interventions, few studies have considered patients' experiences with psychological treatment. Participants here suggested that health professionals should look beyond just treating the pain problem as a physical condition.

In examining the views of participants who had no experience and participants who had experience of psychological treatment, we found that both groups of participants held similar treatment expectations in the referral and treatment process, and faced similar potential barriers to treatment uptake.

We identified three main barriers that could contribute to the low uptake of psychological treatment for chronic pain in Singapore. Firstly, health professionals treating chronic pain patients appeared to provide patients with conflicting opinions about the need for psychological treatment for chronic pain. Secondly, participants were skeptical that speaking with a psychologist could help them with their pain. As such, they queried why they were "paying just to talk". The high cost of medical treatment in Singapore was an added barrier.

From participants' perspectives, there appeared to be a discrepancy in the advice that health professionals gave to patients with regard to surgical and medical intervention as well as advice on psychological treatment for pain. Some participants were given a balanced and realistic view of surgery while others were encouraged to go for surgery and were prescribed much medication. Differing expectations of patient and professional is a probable reason for poor treatment outcome and uptake of treatment [31].

Some participants understood pain to be a physical condition and felt that seeing a psychologist was not going to help their pain. Participants sometimes queried a referral to the psychologist thinking that health professionals did not believe their pain to be real and that pain was only in their head. Some participants appeared to adopt a predominantly biomedical model of treatment, expecting surgical, pharmacological or other interventions to be more suitable to treat their pain than just talking.

Studies in western populations find that patients who perceive that their pain is taken seriously and received an explanation that coincided with their own experiences, are more likely to accept an active role in managing their pain [41-44]. Similarly, as shown in our study, acceptance of the referral to see a psychologist was facilitated by a clear explanation of the usefulness of psychological intervention from the health professional treating them.

Participants’ experiences around psychological treatments for pain were by no means all negative. Participants who accepted and experienced psychological treatment reported positive experiences. They found that the treatment provided them a different point of view with regard to their condition and facilitated their understanding of their pain condition. They became less intimidated by their pain and were able to learn how to manage their thoughts, feelings, and behavior related to pain, and cope better with daily demands. One participant suggested that psychological treatment should be made mandatory at the pain clinic.

Practical issues such as high treatment costs, and therefore suggestions for more government support in the form of medisave, both reflect a common problem in fee-for-service systems, and a unique Singaporean solution.

Recommendations to Improve Current Services

One suggestion to improve the current services at the pain clinic was to initiate a pain support group. In particular, patients expressed that knowing they were not the only ones having pain, being able to interact with other patients and having a shared learning platform would help them to cope better with the stressors they faced within healthcare and in their daily lives. They felt that listening to success stories of past patients who have experienced psychological treatment would be helpful to encourage treatment uptake. However, we note that the evidence is mixed on the impact of pain support groups. While some studies show positive effects [45-47], such groups can also have either no effect or a negative impact on patients, through such processes as mutual reinforcement of the sick role, a sense of need and entitlement, or learned helplessness [48-49]. As such, careful design may be needed before initiating such support groups.

Another suggestion was for remote follow-up sessions in the form of an e-mail or phone call to improve communication and treatment results. Studies [50-52] have shown that follow-up sessions can provide motivation and reassurance; with follow-up sessions delivered either by return visits, telephone calls or e-mails.

It was interesting that patients desired more peer support and government support as facilitators to treatment, rather than support from family or friends, as important in their recovery process. This finding contrasts other studies [53-55] that have found the inclusion of family support in patients' rehabilitation process to be important and beneficial. This finding is unexpected, considering that Singapore society as a whole is still regarded very much as a collectivist society, where family involvement is entrenched in an individual's life [16].

Study Limitations

A major limitation in this study is that the interviewer was also a practicing pain psychologist at the pain clinic where participants were recruited. Although she was not providing treatment at the time of the research, out of the 15 participants recruited, she had prior involvement at least once with ten participants, either as a primary treatment provider or to supervise a junior colleague who was providing treatment. As such, it was possible that the findings could have been partially influenced by interviewer or participant biases. Recordings in the reflective diary describing the interviews, however, showed that these participants appeared comfortable in the interviews and took an open and candid stance. Participants also appeared to share a balanced view of their experience, noting both positive and negative aspects. Follow-up analyses of the individual transcripts did not reveal any clear difference in results between those with prior involvement with the interviewer and those without.

Our original intent was to include a wider mix of patients from different ethnic backgrounds to reflect the mix of cultures in Singapore. However, we struggled in this aspect. Our study included a majority of participants of Chinese descent. A check on the clinic data showed that the distribution of gender, race and age of the recruitment sample did reflect the general pool of patients seen at the pain clinic.

Adopting purposive sampling methodology and data triangulation, we intended to recruit participants who had no experience with psychological treatment, although admittedly, in practice, this resulted in a smaller number of participants with no previous experience of psychological services. We did not have a predetermined sample size as following the methodology of data saturation, recruitment stopped only when data saturation was reached, where recruiting another participant would not add new data to the existing data collected. Nonetheless, a limitation of our methods is that we likely did not include enough participants of one particular type, those appropriate for referral for psychological services but who refuse or otherwise do not follow-through.

We are also aware of general limitations of qualitative methodology. In particular, as the data were only collected from a few participants, it is not possible to generalize our findings to a larger population. Qualitative methods allow the researcher to step back and observe participants’ experience with a minimum set of pre-ordained assumptions so that observations or potential patterns that could be missed are caught. At the same time these methods do not provide a basis describing the frequency of events on a population basis, for estimating the magnitude of relations between events, or making statements of prediction or cause. These preliminary results may provide a guide for further research in this area.

Conclusion

Patients seeking treatment for chronic pain in Singapore reported both negative and positive experiences. To further improve their experience and promote better access, education for both patients and health professionals unfamiliar with psychological treatment for chronic pain may be necessary. Some lack of knowledge held by health professionals in diagnosing and understanding chronic pain conditions appear to leave them ineffective in informing and guiding patients through processes of referral to other services, including psychological treatments. Through psychological treatment, patients appear to view chronic pain from a different perspective, and were better able to manage their life challenges, their thoughts, feelings and behavior in relation to pain. Such patients were “more than satisfied” with their treatment experience.

Acknowledgements

The authors wish to thank Dr Vincent Yeo (Director of the Pain Management Clinic at Tan Tock Seng Hospital), Sister Tina (Clinic Manager) and all the staff at the Pain Management Clinic for their support of this study.

References

1. Gatchel RJ, Peng YB, Peters ML, Fuchs DN, Turk DC. The biopsychosocial approach to chronic pain: scientific advances and future directions. *Psychol Bull* 2007; 133: 581-624.

2. Wall PE. On the relation of injury to pain. *Pain* 1979; 6: 253-264.

3. Morley S. Efficacy and effectiveness of cognitive behaviour therapy for chronic pain: Progress and some challenges. *Pain*. 2011; 152 (3 Suppl):S99-106.

4. Mullersdorf M, Zander V, Eriksson H. The magnitude of reciprocity in chronic pain management: Experiences of dispersed ethnic populations of Muslim women. *Scand J Caring Sci* 2011; 25(4), 637-645.

5. Hoffman BM, Papas RK, Chatkoff DK, Kerns RD. Meta-analysis of psychological interventions for chronic low back pain. *Health Psychol* 2007; 26: 1-9.

6. Williams ACDC, Eccleston C, Morley S. Psychological therapies for the management of chronic pain (excluding headache) in adults (Review). *Cochrane Database Sys Rev* 2012; issue 11.

7. Lavernia CJ, Alcerro JC, Contreras SD, Rossi MD. Ethnic and racial factors influencing well-being, perceived pain, and physical function after primary total joint arthroplasty. *Clin Ortho Rel Res* 2011; 469(7):1838-1845.

8. Merry B, Edwards RR, Buenaver LF, McGuire L, Haythornthwaite JA, Doleys DM, Campbell CM. Ethnic group differences in the outcomes of pain treatment. *J Musculoskelet Pain* 2011; 19(1): 24-30.

9. McCracken LM, Matthews A, Tang T, Cuba S. Comparison of Blacks and Whites Seeking Treatment for Chronic Pain*. Clin J Pain* 2001; 17(3):249-255.

10. Markus HR, Kitayama S. Culture and the self: Implications for cognition, emotion and motivation. *Psychol Rev* 1991; 98: 224-253.

11. Bishop FL, Yardley L, Lewith GT. Treatment appraisals and beliefs predict adherence to complementary therapies: A prospective study using a dynamic extended self-regulation model. *Brit J of Health Psychol* 2008; 13: 701-718.

12. Bucks RS, Hawkins K, Skinner TC, Horn S, Seddon P, Horne R. Adherence to treatment in adolescents with cystic fibrosis: The role of illness perceptions and treatment beliefs. *J Pediatr Psychol* 2009; 34(8): 893-902.

13. Bates MS, Rankin-Hill L, Sanchez-Ayendez M. The effects of the cultural context of health care on treatment of and response to chronic pain and illness. *Soc Sci Med* 1997; 45(9): 1433-1447.

14. Dickson GL, Kim JI. Reconstructing a meaning of pain: Older Korean American women's experiences with the pain of osteoarthritis. *Qual Heal Res* 2003; 13(5):675-688.

15. Pillay T, Adriaan van Zyl H, Blackbeard D. Chronic pain perception and cultural experience. *Procedia-Soc Behav Sci* (2013); 113: 151-160.

16. Bishop GD. East meets West: Illness cognition and behaviour in Singapore. *Applied Psychology* 1998; 47: 519-534.

17. Abdul Jalil N, Sulaiman Z, Awang MS, Omar M. Retrospective review of outcomes of a multimodal chronic pain service in a major teaching hospital: A preliminary experience in Universiti Sains Malaysia. *Malays J Med Sci* 2009; 16(4): 55-65.

18. Cardosa M, Jamil Osman Z, Nicholas M, Tonkin L, Williams A, Abd Aziz K, Mohd Ali R, Mohd Dahari N. Self-management of chronic pain in Malaysian patients: effectiveness trial with 1-year follow-up*.* *TBM* 2012; 2: 30-37.

19. Elsegood KJ, Wongpakaran N. The effects of guided imagery on affect, cognition and pain in older adults in residential care. *Res Gerontol Nurs* 2012; 5(2): 114-122.

20. Lubis DU, Jaya ES, Arjadi R, Hanum L, Astri K, Putri MDD. Preliminary study on the effectiveness of short group Cognitive Behavioural Therapy (GCBT) on Indonesian older adults. *PLoS One* 2013; 8(2): 1-10.

21. Tan EPG, Tan ESL, Ng BY. Efficacy of Cognitive Behavioural Therapy for patients with chronic pain in Singapore. *Ann Acad Med Singapore* 2009; 38: 952-959.

22. Strauss A, Corbin J. *Basics of qualitative research: techniques and procedures for developing grounded theory,* 2nd edn. Sage Publications, 1998.

23. Walker J, Sofaer B, Holloway I. The experience of chronic back pain: Accounts of loss in those seeking help from pain clinics*. Eur J Pain* 2006; 10: 199-207.

24. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006; 3: 77-101.

25. Glaser BG, Straus A. The discovery of grounded theory. In Glaser BG, Straus A, eds. The discovery of grounded theory. London: Weidenfeld and Nicolson, 1967: 1-18.

26. Ritchie J, Spencer L. Qualitative data analysis for applied policy research. In: Bryman A, Burges RD, eds. Analysing Qualitative Data. London: Routledge, 1994: 173-194.

27. Ministry of Health, Singapore. Available at: https://www.moh.gov.sg/content/moh_web/home/costs_and_financing/schemes_subsidies/medisave.html. Accessed March 2014.

28. Dima A, Lewith GT, Little P, Moss-Morris R, Foster NE, Bishop FL. Identifying patients' beliefs about treatments for chronic low back pain: A focus group study. *Br J Gen Pract* 2013; 63(612): 490-498.

29. Paulson M, Danielson E, Larsson K, Norberg RN. Men's descriptions of their experience of non-malignant pain of fibromyalgia type. *Scand J Caring Sci* 2001; 15(1): 54-59.

30. Soderberg S, Lundman B, Norberg A. The meaning of fatigue and tiredness as narrated by women with fibromyalgia and healthy women. *J Clin Nurs* 2002; 11(2): 247-255.

31. Verbeek J, Sengers M-J, Riemens L, Haafkens J. Patient expectations of treatment for back pain: A systematic review of qualitative and quantitative studies. *Spine* 2004; 29(20): 2309-2318.

32. Bradbury KJ, Bishop FL, Yardley Y, Lewith G. Patients' appraisals of public and private healthcare: A qualitative study of physiotherapy and osteopathy. *J Health Psychol 2013*; 18(10): 1307-1318.

33. Jackson JE. After a while no one believes you: real and unreal pain. In: Good M-JD, Brodwin PE, Good BJ, Kleinman A, eds. Pain as human experience. Berkeley, CA: University of California Press, 1992: 138-168.

34. Howarth M, Warne T, Haigh C. Pain from the inside: understanding the theoretical underpinning of person-centered care delivered by pain teams. *Pain Manag Nurs* 2014; 15(1): 340-348.

35. Briggs AM, Jordan JE, Buchbinder R, Burnett AF, O'Sullivan PB, Chua JY, Osborne RH, Straker LM. Health literacy and beliefs among a community cohort with and without chronic low back pain*. Pain* 2010; 150(2): 275-283.

36. Kawi J. Chronic low back pain patients' perceptions on self-management, self-management support, and functional ability. *Pain Manag Nurs* 2014; 15(1): 258-264.

37. Parsons S, Harding G, Breen A, Foster N, Pincus T, Vogel S, Underwood M. The influence of patients and primary care practitioners' beliefs and expectations about chronic musculoskletal pain on the process of care. *Clin J Pain 2007*; 23: 91-98.

38. Petrie KJ, Frampton T, Large RG, Moss-Morris R, Johnson M, Meechan G. What do patients expect from their visit to a pain clinic? *Clin J Pain* 2005; 4: 297-301.

39. Laerum E, Indahl A, Sture Skouen J. What is "the good back-consultation"? A combined qualitative and quantitative study of the chronic low back patients' interaction with and perceptions of consultations with specialists. *J Rehabil Med* 2006; 38: 255-262.

40. WHO. World Health Organization. The innovative care for chronic condition (ICCC); 2010*. Available at:* http://www.who.int/diabetesactiononline/about/ICC/en/index.html. Accessed September 2013.

41. Oosterhof B, Dekker JHM, Sloots M, Bartels EA, Dekker J. Success or failure of chronic pain rehabilitation: the importance of good interaction-a qualitative study under patients and professionals. *Disabil Rehabil 2014*; doi: 10.3109/09638288.2014.881566.

42. Liddle SD, Baxter GD, Gracey JH. Chronic low back pain: patients experiences, opinions and expectations for clinical management. *Disabil Rehabil 2007*; 29: 1899-1909.

43. Matthias MS, Miech EJ, Myers LJ, Sargent C, Bair MJ. "There's more to this pain than just pain": How patients' understanding of pain evolved during a randomized controlled trial for chronic pain*. J of Pain* 2012; 13(6): 571-578.

44. Peolsson M, Hyden LC, Sätterlund-Larsson U. Living with chronic pain: a dynamic learning process. *Scand J Occup Ther* 2007; 7: 114-125.

45. Howell SL. A theoretical model for caring with women with chronic non-malignant pain. *Qual Health Res* 1994; 4: 94-122.

46. Montgomerie E. Support groups for chronic pain in Auckland. *J New Zealand Pain Soc* 1994; 15-17.

47. Subramaniam V, Stewart MW, Smith JF. The development and impact of a chronic pain support group: A qualitative and quantitative study. *J Pain Symptom Manage* 1999; 17: 376-383.

48. Linton SJ, Hellsing A-L, Larsson I. Bridging the gap: Support groups do not enhance long-term outcome in chronic back pain. *Clin J Pain* 1997; 13(3): 221-228.

49. Thieme K, Flor H, Turk DC. Psychological pain treatment in fibromyalgia syndrome: efficacy of operant behavioural and cognitive behavioural treatments. *Arthritis Res Ther* 2006; 8: R121.

50. Cooper K, Smith BH, Hancock E. Patients' perceptions of self-management of chronic low back pain: evidence of enhancing patient education and support. *Physiother* 2009; 95: 43-50.

51. Lorig KR, Laurent DD, Deyo RA, Marnell ME, Minor MA, Ritter PL. Can a back pain e-mail discussion group improve health status and lower health care costs? A randomized study. *Arch Intern Med* 2002; 162: 792-796.

52. Taylor S, Ellis I, Gallagher M. Patient satisfaction with a new physiotherapy telephone service for back pain patients. *Physiother 2002; 88:* 645-657.

53. Bremander A, Bergman S, Arvidsson B. Perception of multimodal cognitive treatment for people with chronic widespread pain-Changing one's life plan. *Disabil Rehabil 2009*; 31(24): 1996-2004.

54. Sheffer CE, Deisinger JA, Cassisi JE, Lofland K. A revised taxonomy of patients with chronic pain*.* *Pain Med* 2007; 8: 312-325.

55. Turk DC, Rudy TE. Toward an empirically derived taxonomy of chronic pain patients: integration of psychological assessment data*. J Consult Clin Psychol* 1988; 56: 233-238.

Table 1: Participant characteristics

	Individual	CBT group	No Psychological Treatment
Total number in each group	8	4	3
Age (mean) (SD)	44.5 (10.99)	55 (5.48)	51 (1.73)
Gender (%female)	75	100	67
Years of pain suffering (mean) (SD)	8.69 (4.95)	4.38 (3.90)	3 (1.73)

Table 2: Summary of Main Themes and Sub-Themes

Main Themes	**Sub-Themes**
Expectations and Realities of Health Professionals	Communication Style
	Communication Content
	Patients’ Treatment expectations of Health Professionals
Personal Attitudes and Beliefs	Beliefs about Treatment
	Expectations of cure
	The impact of pain on their lifestyle and their relationship to painful activities
	“So why are we paying just to talk”
	Process of seeking treatment
Practical and Social Factors	Social Support
	Practical Barriers
	Environmental Facilitators and Promotional Material