**‘I’m not too bad with needles’: a qualitative service evaluation of chronic pain patients’ experiences of self-acupuncture**

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**Abstract**

Introduction: Self-acupuncture involves teaching patients to insert acupuncture needles into points on their own body to enable them to self-manage their own symptoms. As part of their routine clinical care, chronic pain patients receiving a course of acupuncture at the Royal London Hospital for Integrated Medicine, UK, were provided with training in self-acupuncture. A qualitative service evaluation was conducted to explore patients’ experiences of applying self-acupuncture, including perceived safety, effectiveness and practice.

Methods: The evaluation adopted a qualitative approach. Fifteen semi-structured interviews were conducted with chronic pain patients to explore their experiences of self-acupuncture. Interviews were audio recorded and transcribed verbatim. Transcripts were analysed using thematic analysis.

Results: Analysis of qualitative data revealed all patients had been able to successfully apply self-acupuncture, with no serious incidents of adverse events reported. Patients perceived self-acupuncture as assisting them to manage their symptoms of pain, though effects were perceived as less pronounced than when acupuncture was administered by a trained practitioner. Patients felt more empowered after learning self-acupuncture, and reported improvements to their lifestyle and quality of life. All patients indicated they would recommend self-acupuncture to other chronic pain patients.

Conclusions: The data from the qualitative service evaluation suggests self-acupuncture is perceived by patients as a safe, feasible, and effective intervention to enable them to self-manage their symptoms of pain. Additional research is warranted to investigate this promising self-care technique further.

**Keywords:** acupuncture; self-acupuncture; self-management; chronic pain; qualitative research

**Introduction**

Self-acupuncture involves teaching patients to insert a limited number of acupuncture needles into points on their own body to enable them to self-manage their own symptoms. Although a few case studies have been published of adverse events from self-acupuncture [1], there remains a dearth of published service evaluations or research which has evaluated the safety or effectiveness of the intervention [2-6]. The limited published data being has been almost exclusively collected from studies conducted in the UK.

An audit of self-acupuncture for musculoskeletal patients was published in 2003 [2]. The audit finding that out of 16 patients evaluated, 10 reported their response to self-acupuncture as good or excellent, with no adverse effects reported by any of the patients involved [2]. A second audit of 194 cancer patients with symptoms of hot flushes found self-acupuncture was acceptable to patients, with low incidence of side-effects. Following treatment with self-acupuncture 79% of patients were found to have gained a 50% or greater reduction in hot flushes [3]. Finally a third audit of 38 chronic pain patients, found 87% of patients continued to experience pain reduction from self-acupuncture, with improvement in quality of life reported by 74% of patients. Again no serious adverse effects were reported by patients [4].

Only one published research study of self-acupuncture was identified. The study of self-acupuncture was a nested study within a randomised controlled trial of acupuncture for cancer related fatigue [5]. During the trial those allocated to the acupuncture intervention were re-randomised after receiving 6 weekly acupuncture treatments, with participants reallocated to either a further 4 weeks or acupuncture, 4 weeks of self-acupuncture, or no further treatment. The trial findings again suggest that patients can be taught to administer acupuncture to themselves, and that self-needling is acceptable, feasible and safe, with effects similar between those receiving further treatment from a trained acupuncturist and those administering self-acupuncture [5,6].

Self-acupuncture has been taught to patients at the Royal London Hospital for Integrated Medicine (RLHIM) since the 1970’s [7]. At the time of the present study, and in line with National Institute for Health and Care Excellence (NICE) guidelines [8], RLHIM received referrals for patients with low back pain, tension type headaches, and migraines for treatment with acupuncture. Current NICE guidelines recommending a course of up to 10 sessions of acupuncture over 5-8 weeks. In accordance with UCLH NHS Trust guidelines a number of these patients were provided with instructions on self-acupuncture. We conducted a qualitative service evaluation of the self-acupuncture services at the hospital to explore patients’ experiences of self-acupuncture, including safety, effectiveness and practice.

**Methods**

The service evaluation adopted a qualitative approach. Semi-structured interviews were conducted with patients to explore their experiences of self-acupuncture, including safety, effectiveness and practice. Interviews lasted between 20 and 40 minutes, and all were conducted by an experienced qualitative researcher [JGH]. Interviews were conducted at RLHIM when patients attended follow up appointments (1 month following completion of their course of acupuncture). The interviewer had no clinical contact with participating patients. Participating patients were provided with written and verbal details of the qualitative evaluation and what participation would entail, and written consent was obtained prior to interviews commencing. Interviews were guided by a topic guide, which was updated throughout the evaluation to incorporate emerging themes. The questions in the topic guide were selected to ensure data was collected on patients’ perceptions of the safety, effectiveness and practice of self-acupuncture. See box 1 for examples of questions within the evaluation. Interviews were audio recorded and transcribed verbatim. Transcripts were checked for accuracy and anonymised. A constructivist epistemological approach was adopted. The evaluation was approached from the position that ‘‘data do not provide a window on reality, rather, the ‘discovered’ reality arises from the interactive process and its temporal, cultural, and structural contexts’’ [9]. Data were analysed inductively [10], using thematic analysis [11]. The first author immersed themselves in the data, repeatedly reading the transcripts to understand patients’ experiences. Key issues, concepts and themes arising from the data were identified, creating a coding framework. The coding framework was then applied systematically to all the data. The indexed data was then thematically analysed to map the range and nature of phenomena, find any associations and provide explanations.

**Box 1: Examples of topic guide questions**

-Can I ask how you came to receive treatment at RLHIM?

-How did you feel about receiving acupuncture?

-Do you feel acupuncture had any effect on your symptoms?

-How did you feel about the idea of self-acupuncture?

-How did you find learning self-acupuncture?

-Could self-acupuncture teaching have been improved in any way?

-How did you find practicing self-acupuncture?

-Can you tell me about your normal routine for self-acupuncture?

-Did you notice any effects from the self-acupuncture?

-How did the effects from self-acupuncture compare to those from the course of administered acupuncture?

-Have you experiencing any adverse or negative effects from self-acupuncture?

-Would you recommend self-acupuncture to other patients?

*Self-acupuncture intervention*

All patients were referred to RLHIM for chronic pain conditions, and received a course of ten acupuncture treatments. As part of their course of acupuncture treatment, all patients additionally received instructions on how to self-needle during their final three acupuncture treatments. During their first self-acupuncture session (acupuncture treatment 8), patients were taught to find the acupuncture points. This consisted of visually showing the patients where the points where on their own body and giving them verbal instructions on how to locate the point. The acupuncturist then watched the patient locate the points on their body. Each patient was then given photos of the points and written descriptions of how to find them. Patients were then asked to practise finding the points at home. During self-acupuncture session 2 (acupuncture treatment 9) patients were asked to demonstrate to the acupuncturist how to locate the points on their own body. If the acupuncturist was confident that the patient could find the points accurately they would proceed to the next step. If not, the patient was reshown how to locate the point and again asked to practise at home. Once the acupuncturist was confident patients could locate the points they were then taught needle technique. First the patients were shown how to puncture a point on a pillow. Then they were asked to practise needling on a pillow. Patients then practised taking the needle out and discarding it in a sharps bin. If the acupuncturist was confident that the patient could do this safely they were given 5 needles and a sharps bin and asked to go home and practise needling an orange. During self-acupuncture session 3 (acupuncture treatment 10) the acupuncturist observed the patient locate the point on their own body and mark the points with a gel pen. The acupuncturist then talked each patient through the process of needling the selected points on their body. If the acupuncturist was happy with the patient’s needling, all selected points were needled and left in place for 20 minutes.   The patients then removed the needles and discarded them in their sharps bin. A plan for treatment was agreed and the patient and acupuncturist signed a consent form. Typically patients were advised to administer self-acupuncture weekly, with additional treatments suggested if symptoms exacerbated. The most common acupoints patients were taught to self-needle were: LI4, LR3, SP6 and ST36 bilaterally. Acupoints were selected based on points used within previous research. Consideration was additionally given to the likely ease of location and needling by patients. Patients were instructed to insert needles for twenty minutes during each self-acupuncture treatment. Patients were also provided with a UCLH self-acupuncture leaflet, which provided written details of how to self-acupuncture and details of what to do in the case of problems, including a contact number in case of difficulties or adverse events. All patients had a one month follow up appointment with the acupuncturist to review the self-acupuncture and discuss any issues which had arisen.

*Patients and recruitment*

As the study was exploring patients’ experiences of using the RLHIM self-acupuncture service no inclusion/exclusion criteria were employed. All patients who were taught how to administer self-acupuncture during the period of the evaluation were asked during their final acupuncture treatment whether they would be willing to take part in an interview when attending their one month follow-up appointment. Interviews were conducted until theoretical saturation occurred. Fifteen interviews were conducted between August 2014 and May 2016. Twelve patients were female, and 3 male. The age range of patients were 31 to 67 (mean 44.9). Six patients were primarily referred for tension type headaches, 5 for migraines and 4 for low back pain.

As the study was deemed by UCLH NHS Trust to be a service evaluation, no NHS Research Ethical Approval was required.

**Results**

Analysis revealed a number of categories relating to patients’ perceptions of self-acupuncture, including acupuncture treatment at RLHIM; expectations of self-acupuncture; practice of self-acupuncture; effects of self-acupuncture; and safety of self-acupuncture.

*Acupuncture treatment at RLHIM*

Patients had typically undergone extensive conventional treatment for their chronic pain before being referred to RLHIM. All patients had failed to obtain sufficient alleviation of their symptoms through conventional treatments. Some patients had previously received a course of acupuncture at RLHIM, which had provided relieve from symptoms at the time of treatment, but for whom symptoms had returned. All patients perceived the course of acupuncture as reducing their pain levels. For some, such as SA05 and SA07, the effects from acupuncture were very pronounced, completely alleviating severe symptoms which had persistently manifested for many years. Although patients were receiving treatment for chronic pain conditions, many indicated they experienced secondary benefits from treatment, most typically an improvement in fatigue and sleep.

*‘My headaches had disappeared [following the course of administered acupuncture] so I was ecstatic because I’d been having headaches since 2003, every day, and all of a sudden the headaches were gone….* *I’ve got less pain in my joints, which I think is the fibromyalgia, because that was really, really painful…. I think it’s the acupuncture that’s actually helping me.’* [SA05]

*‘When I initially came here I was in a wheelchair, I couldn’t even walk, so, couldn’t get out of bed, so yeah, don’t get me wrong I still get pain but not to the extremity to where I couldn’t even think, it felt like my body was turned inside out.’* [SA07]

*Expectations of self-acupuncture*

Patients were accepting of the idea of self-acupuncture, requiring little time before deciding to proceed. Patients indicated they were comfortable with the notion of inserting needles into themselves, with comments like ‘I’m not too bad with needles’ being common. All patients felt they had received sufficient instructions to be able to safely apply self-acupuncture. Patients typically found the process of inserting the needles themselves as ‘easy’, as you ‘just tap them in.’ Patients also appreciated the opportunity to have control over components of the acupuncture treatment, such as the depth of needling. Some patients, such as SA06, expressed their gratitude at receiving a self-care intervention which would normally not be delivered within their routine NHS care.

*‘It was ok. It didn’t take me by surprise or anything. You know, ‘would you like to do it’, yeah sure, you know. And like I say I’m not too bad with needles. And it’s easy because you just tap them in, and it’s just getting them into the right point.’* [SA01]

*‘I think the teaching was done really well. She was very thorough. She went through all the points and she asked me about the points and it’s not like done in one session so, you’re learning as she’s doing your treatment every week. So, when it comes to your turn, she’s already allowed you to practise and everything. It was really good.’* [SA04]

*Practice of self-acupuncture*

Patients were instructed to use applicator tubes when self-inserting acupuncture needles. All patients indicated they had experienced no difficulties when inserting needles. Patients typically initiated a home acupuncture regime, which involved inserting needles for 20-25min, on one or two occasions a week (often the same days each week), with more treatments occasionally administered if symptoms were exacerbated. Patients were found to be applying self-acupuncture in either their bedroom or living room. For some patients this would involve applying acupuncture at a quiet time and relaxing during the treatment, whilst others would engage in activities, such as watching television while the needles were inserted.

*‘I go to my bedroom and I’ll lie down and relax while they’re in for my twenty minutes. And then when that’s over I’ll just take them out and go back to normal.’* [SA05]

Most patients attempted to insert needles to a similar depth as they were inserted when receiving their course of acupuncture. Typically the sensation from the inserted needles was perceived as being the same as when needles were inserted by an acupuncturist at RLHIM. Some patients highlighted that they noticed an exacerbation of their symptoms of pain if they failed to administer their self-acupuncture regime. While other patients even ceased self-acupuncture for a short period to assess whether treatment was having beneficial effects, noting that symptoms returned when they did. All patients planned to continue practicing self-acupuncture to manage their symptoms of pain. During interviews many patients highlighted a desire to increase their knowledge of acupuncture. In particular patients were keen to learn additional points to needle to potentially achieve greater alleviation of pain symptoms and/or to address additional concerns for them. Though all indicated that they would speak to a trained acupuncturist before considering needling additional points. All patients were provided with a small number of acupuncture needles and a sharps disposal box. Most patients had at the time of interviewing purchased acupuncture needles independently, experiencing no problems with obtaining their required needles. None of the patients had yet to dispose of any needles. However, all appeared confident in their ability to safely dispose of their used needles by a pharmacist or general practice in the future.

*‘I try to do it once a week on a Friday but erm, last week I didn’t do it, I wasn’t feeling too well so I just left it and I do notice it if I leave it more than a week.’* [SA06]

*‘I’ve never been afraid of needles so it’s really not a problem for me. If anything, I would be happy to learn more points. So, I’m using three points on each leg, and I’d be open to, to learn some more new points as well and improve efficiency, I guess.’* [SA08]

*Effects of self-acupuncture*

Although some patients had remained symptom free following their course of administered acupuncture, all patients perceived the self-acupuncture as managing and alleviating their chronic pain symptoms. For those with headaches/migraines this was perceived as reducing the frequency and severity of episodes. For the overwhelming majority these effects, although marked, were not as significant as when receiving the course of treatment from a trained acupuncturist at RLHIM. For most patients this was explained as likely being due to the lower number of needles inserted during self-acupuncture, compared to the greater number inserted when receiving treatment from an acupuncturist.

*‘I suppose there’s a slight difference [effects from self-acupuncture versus administered acupuncture]. A little discrepancy. But you expect that because you’re not putting in the amount that [acupuncturist] put in.’* [SA01]

In most cases effects were perceived as limited to painful symptoms, though some patients did report wider effects of treatment such as increased energy and improved sleep. Typically the alleviation of symptoms enabled patients to ‘feel better in themselves’ and improve their quality of life, enabling them to re-engage with interests and pastimes which their symptoms had previously prevented them from doing. For some, the alleviation of symptoms had enabled them to substantially reduce their pain control medications. It was commented on by some that learning self-acupuncture was empowering for them; as it equipped them with a treatment approach which they could apply themselves when symptoms arose, instead of having to go to their GP or seek referral back for acupuncture. All patients indicated that they would recommend self-acupuncture to other patients with chronic pain conditions.

*‘It’s completely changed my life round really, acupuncture. Being a doer and not being able to do anything and then being able to do it again, it’s great….* *Oh, a massive impact…. I’ve got a social life now. You see, I was stuck in my house for a long time.’* [SA07]

*‘So since I’ve been doing it, obviously doing acupuncture, the pain is much more manageable so it’s not that, it’s not that bad at all and I have more energy as well. So, the two main things that, you know, I received it initially for, it works really nicely. I’m not taking any pain medication currently and I do think it is because of the acupuncture.’* [SA08]

*‘I think, the only other thing I would add is that’s quite empowering for the patient, you know, that you have a tool to manage pain and not just take drugs or anything…. and you know that there’s something that helps and you can just turn to that tool any time and you don’t have to, you know, go back to the GP or wait two months or something to get into the NHS and get additional treatment.’* [SA12]

*Safety of self-acupuncture*

No patients reported any serious adverse effects from applying self-acupuncture. Most patients did experience some minor adverse reactions, including mild bleeding at the insertion point, bruising, minor discomfort, and/or soreness at the insertion point. However, all were deemed minor and acceptable to patients, and reasonably comparable to when needles were inserted by the trained acupuncturist at RLHIM. For one patient, SA07, the discomfort was seen as a positive indicator that they had inserted the acupuncture needles into the correct places. A number of patients highlighted the fact that the instruction they’d received, including written material, and the time they had spent with the acupuncturist practising inserting needles, was a factor in their ability to safely apply needles to themselves. Some patients highlighted the fact that they were only inserting a few needles into easy to reach points, noting that adverse effects might be more common if they were needling additional points.

*‘I noticed, I don’t get any bruising there, but when you first take them out you normally get a little bit of blood, but you just mop it up with a tissue and its gone within a couple of seconds anyway. It doesn’t carry on bleeding.’* [SA01]

*‘I had no problems because I practised before. [acupuncturist] let me practise putting them in a few times before I had to go home and do them myself. So, I was confident to just put them in, so that’s fine….* *No accidents, no stabbing the wrong place. I haven’t had any problems at all with the needles.’* [SA04]

**Discussion**

There is a paucity of published service evaluations or research studies evaluating self-acupuncture. The present qualitative service evaluation was, to the authors’ knowledge, the first to explore chronic pain patients’ experiences of practicing self-acupuncture. Congruent with previously published audits and research studies [2-6], the findings from the present study suggest that self-acupuncture appears to be a safe, feasible, and effective intervention to enable patients to self-manage their symptoms of pain.

Self-care, encompassing the preventive and care behaviours utilised by patients, is an essential element of any health system. In the UK, health policy has begun to promote a shift to greater self-care and patient empowerment [12,13] which is underpinned by an aspiration to develop more equal partnerships between health professionals and patients [13-17]. Despite the fact that self-acupuncture appears to be in accordance with current UK NHS health policy, with findings from the present study and previous studies suggesting the intervention leads to greater patient empowerment and greater control of symptoms, the subject of teaching patients to administer acupuncture needles to themselves is not without controversy. The two largest professional associations for western acupuncture in the UK adopting divergent views on the teaching of self-acupuncture [7]. The British Medical Acupuncture Association (BMAS) being largely supportive of self-acupuncture, with the association running supplementary training in teaching patients self-acupuncture, with their website additionally providing videos to assist patients to apply needles to themselves [18]. In contract the Acupuncture Association of Chartered Physiotherapists (AACP) has tended to adopt a more cautionary approach to self-acupuncture, typically perceiving the additional risks to patients as too great in relationship to the benefits [7].

Recommendations for future research

Given the minimal published studies and evaluations of self-acupuncture, there is a large amount of research to be conducted before a more accurate picture of the practice, effectiveness and safety of this promising self-care technique can be obtained. In the first instance it would seem advisable to survey practitioners to understand acupuncturists’ perceptions of self-acupuncture and to explore differences in self-acupuncture teaching. Although the present study, as well as previously published studies [2-6], suggest that self-acupuncture is safe for patients to practice with adverse effects rare, it would be advisable to evaluate this more formally within a large patient population. It would also seem advisable to move towards conducting a feasibility study of self-acupuncture for patients with chronic pain, with a view to moving towards a definitive randomised controlled trial to establish the effectiveness of the intervention. Given the lack of published research from outside the UK, it would also be advisable to conduct research to explore differences in attitudes and experiences of self-acupuncture within other countries, particularly those within Asia.

Limitations

As with any qualitative approach, the findings are limited to the experiences of participating patients and cannot be generalised to patients practicing self-acupuncture more widely. Although qualitative data was collected as part of a service evaluation, the methodological processes observed during the process were trustworthy and are identical to those followed in a qualitative study, with interviews and analysis being performed by an experienced qualitative researcher. As with any qualitative service evaluation participation was open to any patient who learned self-acupuncture during the period of the evaluation, necessitating a convenience sampling approach. Although only 15 patients were interviewed, with only 3 being male, data appeared to reach saturation and no differences observed between the experiences of male and female patients.

Conclusions

The data from the qualitative service evaluation indicates participating patients found self-acupuncture safe, practical to administer, and effective for managing their symptoms of pain. Although published studies are limited, the findings are congruent with audits [2-4], and research studies [5,6], which have also found self-acupuncture to be safe and effective for pain [2,4], fatigue [5,6], and hot flushes [3]. Additional research is warranted to investigate this promising self-care technique further.

**Authors**

Both authors had full access to the data in the service evaluation and take responsibility for the integrity of the data and the accuracy of the data analysis. Conceptualization, JH and CD; Methodology, JH and CD; Investigation, JH and CD; Formal Analysis, JH; Resources, JH and CD; Writing - Original Draft, JH; Writing - Review & Editing, JH and CD.

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The authors declare that they have no conflicts of interest.

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