



Research paper

Factors that influence patients' decisions to discontinue with an acupuncture service—A qualitative study

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ABSTRACT

Introduction: The Gateway Clinic in London has been an acupuncture service funded to manage NHS general practice referrals since 1990. Patients are referred by their general practitioners for a course of up to 10 treatments. However, as many as 40% of patients fail to complete the course. This qualitative study aimed to identify patients who had discontinued treatment and explored the factors that influenced their decision to discontinue.

Methods: This was a prospective study of newly referred patients presenting to the clinic over a two month period. Those who discontinued acupuncture treatment and/or did not attend for treatment were subsequently identified using the clinic diary and were approached to take part in semi-structured telephone interviews.

Results: Of 28 patients fitting the inclusion criteria, 14 agreed to take part and were interviewed using an interview schedule. Interviews were analysed using thematic analysis. The majority of patients reported experiencing positive outcomes from treatment. They did not consider themselves as having discontinued, either believing they had finished the course of treatment or that they would expect to receive future treatments. Patients reported experiencing barriers due to clinic availability or their work commitments.

Conclusions: Patients discontinued with an acupuncture service despite reporting positive outcomes. Communication and clinic availability are the key factors that influence a patient's decision to discontinue. Session-by-session monitoring could encourage patient participation, improve outcome and reduce discontinuation. As the NHS in the UK and this acupuncture delivery are unique, reasons for discontinuation of treatment in other countries may be different.

1. Introduction

In the UK, an estimated four million acupuncture sessions are provided annually by acupuncture practitioners [1]. Whilst traditional acupuncture treatment is delivered predominately in private practice, and often in a complementary medicine centre, the NHS [1] provides approximately one-third of treatments.

The Gateway Clinic is a specialist multi-bed traditional acupuncture service provision funded by Guy's and St Thomas' NHS Foundation Trust to manage NHS referrals within the south London boroughs of Lambeth, Southwark and Lewisham. The clinic is able to accept GP (General Practitioner) referrals for the treatment for chronic pain (including musculoskeletal and neurological), headaches and migraines [2] and has been in operation since 1990 [1].

Patients are referred to the Gateway clinic for a course of up to 10

treatments. However, as many as 40% of these patients fail to complete this course and discontinue at various stages along their treatment pathway [3].

The Care Quality Commission (CQC), an independent regulator for health and social care in England, requires that services achieve the best possible outcomes [4]. In order to do so, they need to provide care based around the needs of the individual, by encouraging services to improve by listening and acting on patient experiences [4]. In addition to this, clinical governance is critical as it holds NHS organisations as accountable for continuously improving the quality of their services [5].

Therefore, if the views of patients that have disengaged with a service are not fully understood, the service is failing to take advantage of opportunities to make improvements. In turn, this would increase costs to the service in terms of administration and unnecessary re-

Abbreviations: CAM, Complementary and Alternative Medicine; GP, General Practitioner; LSBU, London South Bank University; NHS, National Health Service; NICE, National Institute for Health and Care Excellence; QCC, The Quality Care Commission

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referrals, and could influence the likelihood of future commissioning of specific services.

The reasons for service discontinuation by patients remain a largely unexplored area. The NHS survey programme, co-ordinated by the Picker Institute Europe on behalf of the CQC, monitors services to make sure they meet fundamental standards of quality, and publish performance ratings to help people choose care [6]. However, it has not carried out any research into patient dropout from an acupuncture service [7].

Given the importance of the principle to provide a national healthcare service that meets the needs of its users, research into this specific area within the NHS has been overlooked. It is a complex area to research as it involves engaging directly with those patients who may feel concerned that their care could be compromised.

In 2009, the National Institute for Health and Care Excellence (NICE) recommended considering acupuncture as a treatment option for chronic lower back pain [8]. However, in 2016 this recommendation was rescinded [9–12]. Acupuncture as a potential intervention for chronic tension-type headaches and migraine is the only NICE guideline remaining which recommends acupuncture as a potential intervention [13].

If the reasons behind discontinuation are explored, and any special characteristics of the discontinuers determined, it could be possible for NHS acupuncture services to reduce dropout rates, increase throughput and improve outcomes for patients. In turn, this would make these type of services more effective and potentially more attractive to GPs and commissioning bodies in the future.

Nearly 15 years ago a UK Department of Health project on clinical governance for Complementary and Alternative Medicine (CAM) in Primary Care, emphasised that commissioned services should be accountable and able to demonstrate cost effectiveness [14]. Given the controversy surrounding acupuncture and its provision within the NHS, along with the recent change to guidelines, it is all the more relevant and timely for research to review and refine acupuncture service provision. Furthermore, this research should also be of interest in private practice, where the bulk of acupuncture provision occurs and practitioner's livelihoods are strongly affected by patient dropout.

The overall aim of this study was to explore patients' subjective perspectives of their experience of receiving acupuncture provided by the Gateway Clinic. The specific objectives were to identify why patients discontinued with the acupuncture service provided by the Gateway Clinic, assess the factors that influenced these decisions and make recommendations as to how the service could be changed to improve and reduce dropout rates by ensuring more effective methods of waitlist management.

2. Methods

2.1. Participants

Between 1st July 2015–31st August 2015, patients presenting to the acupuncture service were approached as part of their first consultation and asked for their participation in the study by a Gateway Clinic practitioner.

Participant inclusion criteria were as follows: any newly referred patient for acupuncture treatment presenting during the study period, who received a Patient Information Sheet (PIS) and signed a Consent Form agreeing to participate. Patients were excluded if there was a language barrier preventing them from taking part in a subsequent telephone interview (as determined by the Gateway Clinic practitioner). No incentives to participation were provided.

2.2. Study design and setting

This was a qualitative study of patients referred by their GP to the acupuncture service at the Gateway Clinic. The clinic is located at

Lambeth Community Health Centre, London and provides a multi-bed acupuncture service provision within the NHS. Patients are referred for a course of up to ten treatments. The usual clinic protocol requires the patient to be reassessed by a practitioner after six treatments who then determines whether an additional four treatments are necessary or whether the patient should be discharged at that point. After the initial consultation, patients have the first four appointments scheduled in the clinic diary.

Discontinuation either occurs electively, whereby a patient contacts the clinic to cancel any scheduled appointments, or no notification is given and the patient either DNAs and/or fails to book any future appointments and are not discharged on the system by a Gateway acupuncture practitioner.

2.3. Study process

Prospective recruitment of patients was conducted at the Gateway Clinic during the study period. During the initial consultation, newly referred patients were given a Patient Information Sheet (PIS) and Consent Form by a Gateway practitioner, who explained the details of the study and asked if they would like to participate. With the participant's permission, additional data was obtained from the Gateway Clinic patient diary that indicated the number of treatments completed, the stage of discontinuation and any previous DNAs. A pilot semi-structured telephone interview was carried out prior to commencement of the full study which informed the development of the final interview script (see Appendix A).

A list of newly referred patients was compiled by the Gateway Clinic for the period of recruitment and the clinic patient diary was accessed to record patient attendance and identify patients who met the criteria for interview in that they had discontinued with the acupuncture service.

A data sheet was constructed from the clinical records to aid data triangulation against the number of sessions attended and the number of non-attended appointments to identify patients who had discontinued treatment. Telephone interviews were recorded using a telecommunication application software programme [<https://www.skype.com/en/home/>].

2.4. Data analysis

Following the methods of Braun and Clarke [15], inductive thematic analysis was applied across the dataset of the 14 transcribed interviews in order to organise and describe the data and to identify, analyse and report over-arching themes and subthemes. Due to the small number of interviews, and in order to enhance data familiarisation, qualitative software was not used, and for comparator purposes the pilot interview was coded by an independent researcher.

By reading each transcript multiple times, interesting features were identified within each individual dataset which formed the basis of repeated patterns. The datasets were coded manually by annotating notes within the text, and colour codes were used to highlight any possible patterns. The development of inductive codes from the dataset captured and summarised the patients' experiences which were then recorded and organised on an Excel spreadsheet.

An iterative process was used across the datasets to make comparisons between codes and phrases. These codes were then listed along with brief content description or quotations for each interviewee and brought together under each heading in their respective themes or subthemes.

2.5. Ethical considerations

The study was initially approved by the LSBU's Research Ethics Committee as a Masters research project. However, given the aim of this study was to interview NHS patients, it was first necessary to refer

to the National Research Ethics Service guidance [12].

Using the Health and Research Authority (HRA) decision making tool [16] and by further contacting them directly, it was established and confirmed the study would be considered a service evaluation and not research and therefore did not require ethical review by the NHS Research Ethics Committee [17].

The following steps were then taken:

Preliminary to the project commencing, it was necessary to contact the local R&D department (Guys and St Thomas’s NHS Foundation Trust) [18] to notify them of the intended service evaluation. The service evaluation was entered on the Trust database and permission was sought from the Speciality and Directorate leads with final approval being obtained from the Trust Governance department.

Once these proceeding steps had been taken, it was necessary for IZ to obtain an honorary contract with the Gateway Clinic, which involved, and was contingent upon, obtaining an Occupational Health clearance and a Disclosure and Barring Service certificate.

Participants were made aware of the purpose of the research and assured of confidentiality and anonymity in the PIS and a Consent Form was signed.

3. Results

For the recruitment period July-August 2015, a total of 130 patients were newly referred for acupuncture treatment at the Gateway Clinic and 86 (66.15%) of these patients consented to participate in the study during their initial consultation. At the time of collating patient data in preparation for data collection, 102 patients had either been already discharged by a Gateway practitioner or were still continuing with treatment.

A total of 19 patients were identified as having discontinued and who had also consented to participating the study i.e. 68% of discontinuers. Of these 19 patients: 14 were interviewed; one patient decided to opt out when contacted; and four were non-contactable (see Table 1).

Contact was made by telephone and 3 attempts were made on consecutive days. The length of time of the interviews ranged from 5 min 30 s – 13 min 38 s (average interview time = 8 min 56 s).

The majority of patients in this study were being treated for either muscular-skeletal pain or migraine and had experienced acupuncture before. Only five participants in the study were experiencing treatment at the Gateway for the first time. Four patients with previous experience of acupuncture had received this treatment at the Gateway so were returning patients. Of the 14 patients in this study, three discontinued after having three treatments or less and the remaining 11 patients discontinued between 4–8 treatments. Only two patients experienced little or no improvements. Therefore, 12 out of 14 (86%) patients experienced improvements. The demographics of these participants are presented in Table 2.

Despite being categorised as ‘discontinuers’, over half of the patients in the study either believed they had completed their course or were intending to access further treatment in order to complete it. Four patients within this study had also been identified as having used the service before, and a further patient advised that they were already

Table 1
An overview of study participants.

Month	Newly referred patients (#)	Patients consenting to participating in study (#)	Patients still undergoing therapy or discharged by therapist (#)	Patients who have discontinued (#)	Patients who have discontinued and consented (#)
July	66 (M – 14) (F – 42)	47 (71.2%) (M – 9) (F – 38)	49	17	13
August	64 (M – 11) (F – 52)	39 (60.9%) (M – 6) (F – 33)	53	11	6

Table 2
Participants demographics.

Participant	Gender	Age	Referral condition	Duration of symptoms	No. of treatments	No. of DNAs
P1	Female	> 50yrs	Muscular/skeletal	> 2yrs	3	0
P2	Female	> 50yrs	Back	> 2yrs	6	1
P3	Female	< 50yrs	Migraines	> 2yrs	7	0
P4	Male	> 50yrs	Shoulder	> 2yrs	4	0
P5	Male	> 50yrs	Shoulder/neck	> 2yrs	7	2
P6	Male	< 50yrs	Neck	> 2yrs	7	4
P7	Female	< 50yrs	Back	> 2yrs	4	0
P8	Female	> 50yrs	Hip	> 2yrs	1	0
P9	Female	> 50yrs	Migraines	> 2yrs	5	3
P10	Female	< 50yrs	Back	< 2rs	1	0
P11	Female	> 50yrs	Shoulder	> 2yrs	4	0
P12	Male	> 50yrs	Neck	< 2yrs	5	1
P13	Female	> 50yrs	Shoulder	< 2yrs	8	0
P14	Male	> 50yrs	Neck/hip	> 1yrs	8	0

back on referral waiting list. Patient’s intention to complete the course was subject to the availability and limitations of the clinic and their personal schedules. As such, the study has identified communication and availability as the key factors that potentially carried significant implications for the cost-effectiveness of the service.

By comparing responses on the spreadsheet, consistent themes became apparent and the following five categories emerged; communication, availability, expectations, outcomes and recommendations.

3.1. Communication

The first key reason identified was communication: four patients mentioned this. For example:

“I missed an appointment and then I had to phone them back and cancel an appointment. I forgot to get back to them to try and explain to see if I was on the list. But I now I think I’m off the list” (P5)

This action may be explained as during the first consultation patients are informed that they will receive an initial course of six treatments that is extended to 10 treatments if the Gateway practitioner believes that further benefits are possible. If patients believe they have completed the course prematurely, they may be unaware at what stage in the course they are and are discontinuing before realising the potential full benefits of the treatment.

“I didn’t know what I had to do. I didn’t know if I had to go back to the GP or just contact the clinic” (P7)

Alternatively, patients who experience difficulties in receiving concurrent treatments are allowed breaks to occur in their treatment. Not only are these breaks being interpreted as discontinuation by the clinic, these breaks are also influencing discontinuation as some patients then appear to question the merits of completing the course or are no longer prioritising accessing further treatment. For instance:

“If I had been able to get hold of earlier or later sessions (I would have

continued)” (P3)

3.2. Availability

The second key factor identified from this study was availability. Work commitments or getting time off to attend the clinic was a problem reported by 5 patients {P4, P7, P8, P10, P12}. For example:

“It was work restrictions. I couldn’t rearrange another one for a day that I had off” {P7}

Patients directly cited the limitations in accessing clinic services as reasons for discontinuation and reported difficulty in finding convenient appointments either because the clinic is temporarily full or because the clinic did not provide suitable availability that met the needs of their working schedule.

“I have tried calling for appointments but I couldn’t find of [sic] manage to get the appointment that I wanted. Basically, the appointments are not working around my work” (P4)

Some patients cited clinic or personal availability as barriers to obtaining further treatment, yet they had already successfully accessed between 4–8 treatments.

3.3. Expectations

The expectations of acupuncture were largely informed by whether the patient had received any previous acupuncture therapy. Returning patients demonstrated positive expectations, which related to previous experiences and they indicated an awareness of the some of the additional benefits of treatment, for example:

“I usually find it gives me some pain relief but also gives me a sense of well-being as well.” (P8)

Some of patients already familiarised with acupuncture had high expectations yet recognised potential limitations:

“I knew it was good at pain management and I had hoped it might cure, it but I wasn’t too sure about that.” (P13)

Most patients for whom acupuncture therapy was new declared no preconceived expectations going into treatment. However, it appeared that this may not have been representative of their true feelings. For example, many also reported to base their decision to participate on word of mouth recommendations. Therefore, subconsciously, their expectations might have been high. The following comments provide an example of how this might be the case:

“Other people I knew said it help them... so I thought I would give it a go.” (P1)

“Have spoken to many people who have said it’s been very good for them and their problems.” (P10)

Three patients demonstrated what could potentially be considered as unrealistic expectations. One expected acupuncture to cure their symptoms and the other two hoped that it would do so:

“I was hoping that it might cure it.” (P6)

Critically, upon commencing treatment there were only two patients who recognised the possible importance of a long-term commitment required in order to treat their condition:

“It’s not going to make it instantly better after six sessions. Sometimes you need more than 6. Sometimes you need maybe a year of treatment.” (P11)

“Whilst I’m having acupuncture on a regular basis it does help but as soon as I stop my symptoms worsen again so I immediately get in touch with the GP to re-refer me” (P2)

In addition to this, there was only one patient who, whilst recognising a potential drawback, also appreciated that the treatment course must be pursued in order to achieve the full benefits:

“I’d read that sometimes immediately after the sessions I’d feel a bit worse but then I would get the benefits as I carried on doing it” (P3)

Overall, four respondents within this study (P2, P3, P11, P13) reported expectations that acupuncture therapy would possibly involve a long-term commitment to a treatment course. Only one patient (P13) recognised that it might form part of a pain-management framework as opposed to a curative intervention:

“I knew it was good at pain management and I had hoped it might cure it, but I wasn’t too sure about that” (P13)

The findings of this study demonstrate that patient expectations do not necessarily play an important role in clinical outcomes as patients in this study tended to discontinue for reasons other than the treatment not meeting their expectations. Therefore, the causal relationship between high or low expectations and discontinuation of an acupuncture service remains unclear.

When exploring patient expectations few patients were aware that self-management might form a component of their treatment. Several patients appreciated that acupuncture might form part of a pain-management framework and, in order to receive the full benefits of the therapy, would involve the long-term commitment to a treatment course.

Several patients within this study reported the advice they received relating to pain management was an important component to their treatment and enhanced their treatment experience.

3.4. Outcomes

If patients have discontinued with a therapy service, there is a natural assumption that the therapy had failed or that the service was failing to meet the needs of its users. However, overwhelmingly the patients within this study have reported positive and beneficial outcomes. Some examples of this are as follows:

“There has been a considerable improvement which I haven’t felt for years” (P4)

“It was quite good. I felt relieved for three of four days from stiffness and pain” (P5)

“Now, I’m almost okay. I feel a bit of pain sometimes in the morning but it’s fine. Much better. I am very happy.” (P12)

“It’s not cured but progress is definitely being made.” (P4)

“I feel like it helped me stay more relaxed and reduced the severity and frequency of my migraines and helped me control it” (P3)

3.5. Recommendations

The majority of recommendations pertain to the perceived limitations of the service and patients would like improvements made in the areas availability and access, for instance:

“My only problem is getting an appointment when it’s convenient for me for work. A Saturday clinic would be fantastic” (P4)

“Afternoon slots would be good. I always got mornings.” (P11)

“If I had been able to get hold of earlier or later sessions (I would have continued)” (P3)

Only one patient (P1) said they would not return to the Gateway Clinic, citing the multi-bed nature of the clinic as the reason. However, along with the majority of the participants in this study, they would still recommend the service to others.

4. Discussion

At the time this study was conducted, the accepted evidence which had informed the NICE guideline recommendations suggested that acupuncture treatment for chronic lower back pain, headaches and migraine was cost effective and recommended it as a treatment option [19]. Recommendations suggested a course of up to 10 treatments over a period of 8–12 weeks [19]. Patients in this study may have received suboptimal treatment as a result of discontinuation. However, in 2016, the NICE guidance changed [21] and this may have repercussions for this NHS service [10–12].

Sabate proffers that if patients discontinue prior to completing the course, the full benefits of the treatment are not being experienced and the overall effectiveness of the health system is reduced [20]. Furthermore, failure to adhere to therapy can be associated with poor treatment outcomes [20]. However, this reasoning cannot necessarily be applied to acupuncture as there is generally no authorised guidance as to what constitutes best practice for any given illness, and the recommended length of a course can be considered as somewhat arbitrary. Despite all of the patients within this category of ‘non-discontinuers’ having reported positive treatment outcomes, it could be argued that the full benefits of completing the course are not being realised, but it is difficult for this to be determined and, at best, we could only surmise that more treatments would have been better.

Given that four of the patients within this study had also been identified as having used the service before, and a further patient mentioned that they were already back on referral waiting list, patients who discontinue before completing a course might be more likely to request re-referral to the clinic for treatment of the same condition in the future. This impacts on clinic resources and the cost-effectiveness of the service as well as GP time. If patients can be encouraged to complete the course, or are made aware that they have not yet completed their treatment, clinical outcomes may be improved and the need for re-referral reduced.

Regarding availability as a reason for discontinuing, patients are more likely to discontinue if they cannot find appointments that work for them. It is important to provide the flexibility to allow patients to select the time and date of their appointment which reduces non-attendance [21]. The clinic does not currently provide early morning, late evening or weekend availability and at the time of the study there was a waiting list of 12 weeks. If patients were able to book concurrent appointments in advance, it would mean that breaks in treatment were avoided, and they might be less likely to discontinue.

A review of the literature available in this area indicated that while patient expectation and patient experience (outcomes) are important antecedents of patient discontinuation with acupuncture services [22,27], more recent findings suggest this is not necessarily predictive of treatment outcomes [25]. Given this study was able to investigate directly the reasons patients discontinued, whilst also gathering qualitative data on expectations and experiences, it now provides an opportunity to explore any causal relationships that might exist between these areas in respect to acupuncture treatment.

A previous study on acupuncture for patients with chronic pain found that patients with no experience of acupuncture had a higher expectation of pain relief [1]. The same correlation was not found in this study.

The patients for whom acupuncture was a new therapy reported no expectations about their outcome, yet they all reported improvements. In accordance with previous studies, psychological factors relating to patients’ beliefs about acupuncture might determine the clinical success for the treatment of pain [22–25]. Given the patients within the confines of this study discontinued for reasons other than the treatment not meeting their expectations, the causal relationship between high or low expectations and discontinuation of an acupuncture service remains unclear.

All of the patients who discontinued from the service at the Gateway

Clinic were referred for conditions that related to muscular-skeletal pain and experienced symptoms lasting over one year. Pain lasting more than 12 weeks is defined by the National Institutes of Health as ‘chronic pain’ [26]. It is recognised that chronic pain cannot usually be cured but can be managed and that self-management is an important part of pain treatment, requiring the individual patient to become an active participant [26].

We know that patient expectations can influence clinical outcome independently of the treatment itself [28] and that patient-centred strategies should be utilised alongside acupuncture for chronic pain patients [20]. Several patients within this study reported that the advice they received relating to pain management was an important component to their treatment and enhanced their treatment experience. Therefore, if patient expectations were managed so that they can relate engagement of pain-management strategies with improved outcomes, this could further influence their decisions to maintain and commit to a course of treatment. Despite generally citing practical limitations as reasons for discontinuing, as opposed to the failure of the intervention, it is interesting to explore any underlying explanations as to why patients discontinue when a treatment appears to be working.

An obvious parallel can be drawn with use of antibiotics. Two thirds of patients who discontinue taking antibiotics do so because they feel better or forget to take their medication [28]. It could be argued that the same treatment phenomenon is being experienced within an acupuncture service. Once a patient begins to feel better, they might perceive their condition as manageable and continuing treatment no longer becomes a priority. Therefore, they discontinue before completing the course.

Although clinic or personal availability were reported as barriers to obtaining further treatment, some patients had already had some treatments. If the symptoms of their condition are sufficiently impacting on daily life and they experienced improvements, then the priority of needing treatment is reduced and this in turn may influence a patient’s discontinuation. Therefore, it could be argued that patients appear not to value the benefits of completing the course of treatment when the symptoms become manageable. Also, providing patients with the costs of missing an appointment may reduce missed appointments and discontinuation [29].

Whilst the drop-out rates at the Gateway Clinic were lower (21.5%) in this study than in the past [3], without any steps having been taken to reduce it in the intervening years, it can still be considered as high compared to rates seen in other NHS services where one in ten outpatient appointments are missed [30]. In this case, the sample size is small so comparisons are difficult to make. However, these other services tend to send patients a text message reminder before their appointment [30] which is a practice not currently adopted by the Gateway Clinic and could account for the higher rate.

Furthermore, The Gateway Clinic is a free NHS service. The attitudes and values of patients towards such a provision could also be influencing a patient’s decision to discontinue. However, this was not within the scope of this study but could be explored in future work.

5. Recommendations

This study has shown the majority of patients discontinue because they are either; unaware how many treatments remain as part of their course of treatment, experience breaks in their treatment - due to barriers of personal or clinic availability, or are potentially no longer prioritising or valuing the benefit of improved outcomes that would be conferred by having further treatment.

At the heart of these problems lies a breakdown in communication and a disengagement with the therapeutic process. While the patients need to be better informed about the stage of treatment and the importance of completing a course, the therapists also need to be better informed about the progress of treatment and any outcomes or limitations that are being experienced by the patient in order for them to be

better managed.

One goal of this research is for more clients to complete their treatment course which, in turn, would free up clinic resources by preventing the possible need for either patient re-referral or costly 'did not attend appointments' that could have been used by other patients.

In order to enhance completion rates, we might benefit from consideration of existing practices elsewhere that are aimed at alleviating similar problems.

We know that mental health services experience high rates of dropout [31,32]. Research in this area has been conducted in order to tackle this problem and the evidence shows that good collaborative practice between service users and clinicians can be significantly supported from frequent outcome monitoring [33].

Drawing on current IAPT (Improved Access to Psychological Therapies) models, it is recommended that session-by-session monitoring can reduce drop-out and improve outcomes [34].

Currently, The Gateway Clinic uses MYMOP (measure yourself medical outcome profile) which monitors outcome at the end of the course of treatment [35]. Whereas, session-by-session monitoring is designed to facilitate a collaborative dialogue which gives the locus of control to the client and it improves participation, engagement and long-term outcomes [34].

If this method were adopted at the Gateway Clinic, a brief verbal check may detect patients who are on the brink of discontinuation. This process will also help manage expectations, provide an opportunity to discuss pain management techniques and lifestyle advice, alongside addressing any barriers to treatment that the patient might be experiencing.

The structure of this monitoring can involve a brief set of assessments at the end of each treatment, such as: monitoring any improvements, the functional impact on life due to their condition/symptoms, the discussion of pain management techniques, explaining where the patient is in the course of their treatment, enquiry on access and availability issues for either the patient or relating to the clinic diary. This assessment could constitute a very brief verbal check that would not add to appointment times, with a more formal assessment less frequently. This practice could be adopted for a trial period of three months and the data then reviewed to see if discontinuation and re-referral rates have declined. Whilst this might be perceived as placing further demands on an already busy service, if it reduces dropout and re-referral rates and improves the cost-effectiveness of the service, the benefits could outweigh the short amount of time it would add to each appointment.

In addition, it is clear from this research that clinic availability is a factor that influences a patients' decision to discontinue. The standard clinic operating hours are presenting difficulties of access for a number of patients. Patients would benefit from the availability of appointments being increased to better accommodate restrictions imposed by working schedules. Offering early morning, evening or weekend appointments would better meet the needs of some of the service users. The introduction of flexible working schedules for staff could make improvements to out-of-hours services possible. Given the majority of patient would like to manage appointments online [36] and more than 90% of healthcare providers now allow you to book your appointment through NHS e-Referral Service online [37], adopting this booking process could provide some patients the freedom to find or change appointments which better suits their working schedules. Furthermore, text message reminders could be a cheap and effective way to prevent unnecessary missed appointment and further reduce drop-out.

6. Conclusion

The key findings of this study showed that the patients who discontinued from the Gateway clinic were being treated for either muscular-skeletal pain or migraine (see Table 2). Due to the duration of symptoms, these patients would be classified as having chronic

conditions [26].

Despite these patients being categorised as having discontinued according to clinic parameters, the majority of these patients do not consider themselves as 'discontinuers'. A breakdown in communication between either the clinic or the practitioner and the patient appears to be the fundamental reason for discontinuation. Some patients believe that they have finished the course of treatment and are not entitled to further treatment. Other patients intend to access further treatment but have experienced barriers in either clinic availability or personal schedules that have allowed breaks in treatment to occur which is being interpreted as discontinuation. Therefore, patients appear to be unaware of what stage they are in their treatment course, do not understand the importance of completing a course, or are not prioritising course completion. These factors are not being addressed by the current clinic service.

Research shows that expectations and outcomes are recognised as significant determinants of discontinuation [22,27]. While some research has found that patients with no experience of acupuncture had a higher expectation of pain relief and reported less benefit than anticipated [1], the data from this study found that positive outcomes have been experienced regardless of expectations. In addition to this, the overwhelming majority of patients within this study reported improvement to their symptoms resulting from acupuncture treatment and have cited practical limitations as reasons for discontinuation, as opposed to the failure of the therapy intervention.

Moreover, the improvements being experienced by patients could be reducing the priority of needing further treatment which further influences discontinuation.

If patients have discontinued with a therapy service, there is a natural assumption that the therapy has failed or that the service is failing to meet the needs of its users. However, this study has shown the factors that influence discontinuation relate to the access and availability of services rather than the failure of the therapy intervention.

In order to improve adherence to a course of treatment, mental health services advocate session-by-session monitoring as a way to improve outcome and reduce dropout [26]. Also, text message appointment reminders or introducing out of hours or weekend appointments could remove barriers to accessing treatment and provide greater freedom of choice for patients to incorporate a therapy regime into their lifestyle. These interventions might further influence a patients' decision to remain in therapy and complete a course of treatment.

To conclude, this study has shown that the discontinuation of patients with an acupuncture service does not necessarily correlate with poor treatment outcomes. The findings presented here are especially important in light of the 2016 change to the NICE guidelines where acupuncture is no longer a recommended treatment option for low back pain [9].

By adopting new approaches to patient management, this NHS acupuncture service provision could be further improved which could influence the establishment of similar service provisions within the NHS. If UK Primary Care Trusts can demonstrate the cost effectiveness of acupuncture there will be greater demand to include it in re-designed services.

7. Limitations

This is a relatively small qualitative UK study, which only represents the provision of a local NHS acupuncture service. The factors identified relating to discontinuation may also be relevant to treatment provided by private acupuncture practitioners (where patients pay directly for treatment) and to acupuncture provided other western countries but this needs to be verified.

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Conflict of interests

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Appendix A. Interview Script

Telephone script and interview questions:

“Hello, can I please speak with.....”

My name is Ian, I am masters student at London South Bank University calling on behalf of the Gateway clinic. You recently finished having acupuncture. At the beginning of your treatment you received a Patient Information Sheet asking if you would like to participate in a service evaluation of the clinic and your experience of having acupuncture. You signed a Consent Form agreeing to be contacted. Is now a convenient time to talk?

The service evaluation consists of a short interview which will take about 15 min. Any comments you provide will be completely anonymous in any reporting and taking part will have no influence on any future healthcare you receive. You are also free to stop the interview at any time. Please can I confirm that you are still happy to be interviewed about your experience and for the call to be recorded?”

Deviation: “Would you prefer me to call back at another time?”

(As qualitative research is iterative, these questions can be modified in accordance with emergent themes. In keeping with semi-structured interviews, the order of the questions may change according to the flow of the conversation).

Demographics

“First, I would like to ask a little about you”

- What is your age?
- What is your gender?
- Why were you referred for acupuncture by your GP?
- How long did you have these symptoms for?

Expectations

“Could you tell me anything about your expectations of acupuncture?”

Prompts:

- When you referred for acupuncture, did you know what to expect during your appointment?
- Before using the service, what were your expectations of how you would feel at the end?

Outcomes

“Can you tell me about any outcomes of the treatment you experienced?”

Prompts:

- Has acupuncture made the symptoms of your condition either better, worse or the same? Can you explain why? (probes: reduction in severity/reduction in number of symptoms)
- Has acupuncture led to a change in your quality of life and, if so, how? (probes: reduction in medication/greater ease in activities of daily living)

Opinions

“What are your opinions of acupuncture?”

Prompts

- What do you think are the main benefits of the acupuncture you have received?
- What do you think are the main disadvantages of the acupuncture you have received?
- Have you had any unexpected advantages of having acupuncture?

Context

“What do you think of the Gateway Clinic?”

Prompts:

- How do you feel the clinic environment affected your experience of having treatment? (probes: multi-bed nature of clinic, music, atmosphere)
- How do you feel the acupuncture practitioners influenced your experience? (probes: support/involvement in decisions)

“What factors influenced your decision to discontinue having acupuncture treatment?”

Considerations

“Finally, do you have any recommendations of how this service can be changed or improved?”

Prompts:

- Would you consider using an acupuncture service again in the future?
- Would you recommend this type of therapy to someone in the same situation? Could you explain why/why not?

That is the end of the interview. Thank you for taking part. The findings will be used to improve services at the Gateway Clinic. Would you like to receive a copy of the final evaluation when the project is over?

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