Non-attendance at first appointments for substance use treatment

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Research questions

What interventions are effective in reducing non-attendance at initial appointments for the treatment of substance use, and what factors are associated with attendance or non-attendance?

Key points

- Nine studies were identified for inclusion in the review. Four studies were conducted in the UK and four in the US. The remaining study was a systematic review containing a variety of studies.
- Evidence with regard to appointment reminder interventions was mixed: the specific manner in which the interventions are implemented appears to influence attendance.
- Consistent evidence was found to support reduced waiting times in increasing attendance.
- Studies were inconsistent in relation to the factors used to predict attendance.

Background

Service users are most likely to drop out in the early stages of treatment particularly during the assessment phase (Recovery Orientated Drug Treatment Expert Group 2013). Non-attendance results in unnecessary costs to the NHS and compromises patient care. Previous research suggests that attendance rates for initial appointments in substance abuse facilities range from 33% to 52% (Festinger et al. 1996, Festinger et al. 2002, Blow et al. 2010).

In 2013, the National Treatment Agency (NTA) released a briefing outlining how to help service users engage with treatment based on service user feedback and published evidence. They highlighted several areas to focus on: first impressions, encouraging reminders and cues, waiting times and rapid access to treatment, making services accessible, equality and diversity, recovery visibility, formal inductions, accompanying entry and reaching out to service users, and using motivational approaches and incentives (Recovery Orientated Drug Treatment Expert Group 2013). This review sought to identify the published literature evaluating methods of increasing attendance of first appointments, and identifying the factors associated with attendance.

Methods

An electronic database search was carried out using MEDLINE and EMBASE. All databases were searched from 1999 to September 2014. Titles were searched using the concepts of attendance and substance-related disorders/addiction. The search was limited to human studies in the English language.
Results

The search retrieved 217 references; 142 were unique. Titles and abstracts were screened and 130 were excluded due to irrelevance. This left 12 remaining for full-text review. Three additional articles were excluded based on their full-text:

- A qualitative study looking at the referral practices of clinicians employed in adolescent substance abuse treatment programmes (Passetti and Godley 2008).
- A US study investigating the efficacy of interim support groups as a means of encouraging methamphetamine abusers to begin treatment programmes. This was excluded as participants had to attend at least one session of the interim group to be eligible for the study (Ravarino et al. 2008).
- An article about a private, not-for-profit organization in the US which was written by two of the company directors in what appeared to be a non-peer-reviewed magazine (Theriault and Nolan 2008).

This left nine articles remaining for inclusion in the review; these studies are summarised below.

Description of studies

Agyemang et al. 2014

Only the abstract was available for this US study. This study sought to explore the influence of health status (as measured by RAND 36-Item Short Forma Health Survey) on treatment attendance among patients enrolled in 12-session outpatient cognitive behavioural therapy for alcohol dependence. Data were obtained from 132 clients from two separate studies which used the same treatment protocol and therapists.

Blow et al. 2010

This study aimed to identify the predictors of attendance at a post-emergency department (ED) intervention visit among inner-city ED patients with substance-use disorders (SUDs) in the US. Patients who screened positive for an SUD were randomly assigned (n=1441) to a post discharge intervention: a) a two-session brief motivation intervention or a five-session strengths-based case management intervention (n=957), or b) enhanced usual care (an enhanced usual care brochure) (n=484).

Booth and Bennett 2004

This study sought to determine the variables associated with response to referrals for first appointments at an alcohol treatment unit, and to test the effectiveness of telephone prompting in reducing non-attendance at initial appointments in the UK. An invitation is sent to the patient to make an initial appointment once the clinic receives a referral.

The first part of the study looked at variables associated with response to referral. It comprised 100 consecutive patients who failed to reply, 100 who replied but failed to attend or cancel their appointment and 100 who replied and attended.

The second part of the study looked at the effects of telephone prompting on reducing non-attendance and comprised 100 consecutive referrals for new appointments with a current telephone number listed on the return form. Half were assigned to the telephone prompt condition whilst the other half were not. The control
group comprised controls matched for sex, age, assessment clinic, referral agent and distance to appointment. Patients were telephoned by an assistant psychologist 1-3 working days prior to the appointment.

**Bush et al. 2011**

Only the abstract was available for this US study. This study sought to determine the effectiveness of phone call reminders for increasing attendance at initial appointments in a treatment centre for substance dependence. Forty-eight patients were selected for phone call reminders the day prior to their appointment. Of these, 17 were spoken to directly, 16 received a similar message via voicemail or a household member, and 15 were not contacted due to factors such incorrect phone numbers.

**Dale et al. 2011**

The aim of this secondary analysis was to identify client characteristics that predict attendance at treatment sessions using data from the UK Alcohol Treatment Trial (UKATT). UKATT was a pragmatic multi-centre RCT conducted in seven sites with five centres in the UK. Clients were randomly assigned (n=742) to receive either eight sessions of social behaviour and network therapy (SBNT) or three sessions of motivational enhancement therapy (MET). All sessions lasted 50 minutes and were carried out over 8-12 weeks.

**Festinger et al. 2002**

This study was conducted in an outpatient cocaine clinic in the US and sought to examine the effect of four different appointment delay intervals on attendance. Participants were 116 individuals who called the clinic to schedule an initial appointment. They were randomized to one of four delay intervals: i) same day, ii) one day, iii) three days or iv) seven days.

**Jackson et al. 2009**

The UK study sought to determine the effects of telephone prompting on attendance for starting treating at a specialist alcohol clinic. Participants were consecutive clients attending for assessment over six 4-week periods who chose out-patient care (n=172). Phases were alternated in a pre-arranged sequence alternating between four weeks of control and four weeks of prompting. Telephone prompts occurred one day prior to the appointment.

**Manning et al. 2012**

This UK RCT investigated the effectiveness of active referral to 12-Step self-help groups by doctors or 12-Step peers during inpatient treatment. Participants comprised 151 alcohol or drug dependent patients admitted for 10-14 day NHS inpatient detoxification treatment in a specialist inpatient ward. Peer-referral interventions were delivered by active members of Alcoholics Anonymous, Narcotics Anonymous or Cocaine Anonymous who were at least three years into their own recovery. Both interventions were conducted on a one-to-one basis in a 30-45 min session. Patients in the control group were provided with a list of meetings held on the ward only.

**Lefforge, Donohue and Strada 2007**

This was a review of controlled studies which looked at improving initial session attendance in mental health and substance abuse settings. Eight of the 42 included studies looked at improving outcomes in substance abuse settings and used a random assignment between-groups design.
Methods of reducing non-attendance at first appointments

Effectiveness of telephone reminders

Bush et al. 2011
Reminder phone calls had no effect on rate of attendance based on the contact condition (p=0.43). Attendance rates were 41% for those in the receiving direct contact, 25% for those reminded through messages from family members or voicemail, and 47% for those who were not contacted.

Booth and Bennett 2004
Attendance at the appointment and cancellation were both deemed to be positive responses with respect to resources and their effect on waiting lists. When “attended” and “cancelled” were combined, the association between telephone prompting and a positive response was significant (p<0.001).

Jackson et al. 2009
Those who received a telephone call were significantly more likely to attend at least once, i.e. to start treatment, than those who did not (75% versus 51%, p<0.001).

Timing of appointment from initial contact

Festinger et al. 2002
Overall, 51.7% attended their appointment. Rates of attendance were 72% for those scheduled one day later, 55% for those receiving a same day appointment, 41% for those at 3 days, and 38% for those at seven days. A chi-squared test indicated that there was a significant different between the groups (p<0.05). Post-hoc comparisons identified significant differences in intake attendance between the 1-day and 3-day groups (p<0.05) and 1-day and 7-day groups (p<0.01).

Referral method

Manning et al. 2012
Of patients completing a pre-discharge questionnaire, 83.5% reported attending at least one 12-Step meeting during their inpatient stay. Attendance rates were significantly higher (p<0.05) in the active-referral intervention groups when compared to control (83% versus 73%). Having received a peer-referral intervention was the strongest significant predictor of post-discharge meeting attendance (OR = 3.6, 95% CI 1.30-9.78).

Almost half of those followed up reported attending at least one meeting post-discharge. Rates of post discharge meeting attendance were 64% for those in the peer-referral intervention group, 48% in the doctor-referral intervention and 33% in the control group. When the active-referral intervention groups were combined for the analysis, attendance was significantly higher when compared to the control group.

Miscellaneous

Lefforge, Donohue and Strada 2007
A summary of studies included in this review and their results are in Table 1.
<table>
<thead>
<tr>
<th>Authors</th>
<th>N</th>
<th>Clinical population</th>
<th>Treatment</th>
<th>Method of measurement</th>
<th>Results*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comfort et al. 2000</td>
<td>102</td>
<td>Substance abuse tx program for pregnant or parenting women</td>
<td>Standard procedure included contact numbers, transport tokens and lunch vouchers as needed, and invitation to orientation group vs standard plus van transport, escort, child care during apt, and reminder calls with information</td>
<td>% attendance at intake session</td>
<td>Standard procedure 65% Standard procedure with additional engagement 73%</td>
</tr>
<tr>
<td>Festinger et al. 1996</td>
<td>78</td>
<td>Adults at a cocaine tx clinic</td>
<td>Upon calling to schedule apt patients placed into accelerated group that received same-day appts vs control group that scheduled appt within 1-7 days</td>
<td>% attendance at scheduled intake session</td>
<td>Accelerated group 59% attended Standard 33% attended</td>
</tr>
<tr>
<td>Gariti et al. 1995</td>
<td>80</td>
<td>Substance-dependant patients at a tx Research Unit</td>
<td>Both groups received initial phone screening stressing importance of appt but the tx group received subsequent phone reminders with staff-initiated offers to reschedule if necessary</td>
<td>% attendance at initial session</td>
<td>Session attendance if appointment was scheduled within 7 days of the phone screening: Phone reminders 84% attended Control 52% attended Session attendance if appointment was scheduled more than 7 days from phone screening: Phone reminders 52% attended Control 53% attended</td>
</tr>
<tr>
<td>Koumans and Muller 1965</td>
<td>100</td>
<td>Chronic alcoholic men at a psychiatric clinic after discharge from public custodial hospital for alcoholics</td>
<td>Letter expressing concern for individual and inviting them to return for care vs no letter control</td>
<td>% returning to hospital’s outpatient facility</td>
<td>50% of letter group returned for tx 31% of control group returned for tx 76% of the returning letter group arrived the same day that they were discharged from the hospital compared to 12% of the returning control group</td>
</tr>
<tr>
<td>Nirenberg et al. 1980 Study I</td>
<td>120</td>
<td>Alcohol tx program</td>
<td>Sent letter immediately after missed appointment asking why tx was discontinued &amp; asking if they wanted to resume tx vs no contact control</td>
<td>% of persons that had dropped out of tx that returned to tx</td>
<td>17% of follow-up letter group returned 18% of no contact group returned</td>
</tr>
<tr>
<td>Nirenberg et al. 1980 Study II</td>
<td>50</td>
<td>Alcohol tx program</td>
<td>Same letter as in previous study vs telephone call with similar content</td>
<td>As above</td>
<td>40% of phone group returned 8% of letter group returned</td>
</tr>
<tr>
<td>Nirenberg et al. 1980 Study III</td>
<td>75</td>
<td>Alcohol tx program</td>
<td>Same letter as in previous studies but with revisions to show more concern for patients’ tx needs &amp; checklist to be returned by mail or to call vs same letter with return envelope vs no contact control</td>
<td>As above</td>
<td>36% of revised letter group returned 32% of revised letter with envelope group returned 4% of no contact group returned</td>
</tr>
<tr>
<td>Stasiewicz and Stalker 1999</td>
<td>128</td>
<td>Substance abuse clinic</td>
<td>Appointment scheduled within 48 hours vs 3 groups scheduled after 48 hours; reminder call 24 hours prior to appt vs clinic brochure and mailed reminder vs no contact control</td>
<td>% attendance at intake session</td>
<td>Scheduled within 48 hours: 71.8 % kept Scheduled after 48 hours and reminder call: 50.0% kept Scheduled after 48 hours and reminder mailed: 50.0% kept Scheduled after 48 hours and no contact control: 53.1% kept</td>
</tr>
</tbody>
</table>

* Percentage attendance and number of sessions attended with different superscripts indicate between group differences at p < .05; tx: treatment.
Factors associated with attendance or non-attendance

Agyemang et al. 2014
Type of study and older age approached significance for starting treatment ($p<0.08$ and $p=0.07$, respectively), whilst health status was not a significant predictor of starting treatment. Participants enrolled in the study which had greater treatment and research assessment demands were less likely to start treatment.

Blow et al. 2010
Individuals who attended an intervention were older, not married, with health insurance, unemployed, less likely to report heavy drinking, and more likely to be in the action stage of change, than those who did not.

Booth and Bennett 2004
Older age, shorter travelling distance to the clinic, shorter waiting time and administrative delay, faster response from the patient to the appointment invitation, and morning appointments were associated with positive responses.

Dale et al. 2011
Dale – 20.5% did not attend any treatment session with a significant difference between the groups (24.4% SBNT, 17.5% MET, $p<0.05$). Within the MET group, the number of social network members (excluding those who were heavy drinkers) and the confident subscale of the Alcohol Abstinence Self-efficacy Scale, were significant in predicting attendance at treatment (OR = 1.15, 95% CI 1.01-1.31 and OR 1.03, 95% CI 1.01-1.06, respectively). Those with a larger network and those who were more confident in not drinking excessively in tempting situations were more likely to attend treatment sessions. Within the SBNT group, clients with a lower score on the Negative Alcohol Expectancies Questionnaire proximal scale (i.e. had a worse outlook) were more likely to attend than those with a lower score (OR 0.87, 95% CI 0.77-0.98). Motivation to change was of borderline significance in predicting attendance; those with a greater motivation to change were more likely to attend (OR = 1.04, 95% CI 1.00 – 1.09).

(Manning et al. 2012)
Whilst having received a peer-referral intervention was the strongest significant predictor of post-discharge meeting attendance (OR = 3.6, 95% CI 1.30-9.78), baseline Alcoholics Anonymous Affiliation scale (adapted to include NA/CA) was also a significant predictor of post-discharge meeting attendance (OR = 2.3, 95% CI 1.53-3.50).

Methodological considerations

Studies were conducted in both the UK and the US. Sample sizes of included studies varied considerably, ranging from 48 (Bush et al. 2011) to 1441 (Blow et al. 2010). Only the abstract was available for two studies which meant more detailed descriptions of the methods, sample and results could not be obtained (Agyemang et al. 2014, Bush et al. 2011).

Conclusion

The evidence regarding the use of reminders was mixed. Some interventions were effective in some settings but not in others, e.g. reminder letters were more effective than no contact in one study (Koumans and Muller 1965) but not in another (Nirenberg, Sobell and Sobell 1980). Furthermore, the specific manner in which the interventions are implemented appears to influence attendance. The intervention which showed more
consistent evidence of effectiveness in increasing attendance was reduced waiting times, suggesting that services should aim for minimal waiting times for clients attending for the first time, with a next day appointment being the most likely attended. Active-referral was also found to increase rates of attendance, with peer-referral being slightly more effective than referral by a doctor (Manning et al. 2012). A variety of factors were associated with attendance at first appointment. The studies were inconsistent with regard to the factors measured and therefore only older age was found as a predictor of attendance in more than one study. Recommendations published by the NTA encouraging reminders and cues, improved waiting times and rapid access to treatment and making services accessible (Recovery Orientated Drug Treatment Expert Group 2013) are largely supported by this review.

References


Koumans, A.J. and Muller, J.J. (1965) “Use of letters to increase motivation for treatment in alcoholics", Psychological Reports, 16(3c), pp. 1152-1152.


