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# Money for medication: financial incentives to improve medication adherence in assertive outreach

### AIMS AND METHOD

Although financial incentives to improve treatment adherence have been found effective in various medical specialties, there are few systematic data on their use, ethical background and effectiveness in psychiatry. We explored the practice of and possible ethical problems associated with direct financial incentives to improve adherence in assertive outreach teams in England. We also report clinical observations of a money for medication scheme

with five assertive outreach patients in East London.

### RESULTS

None of the assertive outreach teams that responded to the survey (response rate 47%) uses financial incentives. Attitudes of team managers towards the practice were mostly negative, often regarding it as unethical. Specific concerns were related to possible coercion and a negative impact on the therapeutic relationship. Out of five patients

studied, four accepted the offer of money and had improved adherence; three remained without hospital admission since entering the scheme.

### CLINICAL IMPLICATIONS

Money for medication might be a non-coercive and effective option to achieve medication adherence in otherwise non-adherent assertive outreach patients. However, ethical issues need further exploration and controlled trials are required to establish the effectiveness.

Lack of adherence to antipsychotic medication has been identified as a major obstacle to effective treatment in schizophrenia (Leucht *et al*, 2003). Non-adherence rates are estimated to be 20–50% in patients in general adult psychiatric services (Nose *et al*, 2003). This figure is likely to be substantially higher in assertive outreach patients, as non-adherence is one of the possible criteria for referral (Priebe *et al*, 2003; Weaver *et al*, 2003).

Various clinical interventions have been tried to achieve adherence in non-adherent patients. These include 'compliance' therapy (O'Donnell *et al*, 2003), psychotherapy, family education, telephone prompting and psychoeducation. A review by McDonald *et al* (2002), focusing on studies of chronic health problems, found only modest effects of all described interventions (mainly information, reminders, reinforcement and family therapy). A recent meta-analysis (Nose *et al*, 2003) of studies to enhance adherence in psychiatric patients concluded that some interventions are effective (with an odds ratio >2 compared with usual care).

Giuffrida & Torgerson (1997) found favourable results in 10 out of 11 randomised controlled studies of financial incentives to enhance adherence to anti-tuberculous drugs, dental care, weight reduction and cocaine abstinence programmes, and antihypertensive treatment with odds ratios of up to 7 for antituberculosis treatment (Bock *et al*, 2001; Tulsy *et al*, 2004). One

non-randomised study (Carey & Carey, 1990) of patients with dual diagnosis found that modest rewards enhanced attendance. All studies were from the USA and the incentives ranged from \$5 to \$1000 for a completed programme or single intervention.

In psychiatric care, there are few data on how financial incentives are used to improve adherence and practically no research evidence on their effectiveness. In the USA, social services frequently control the payment of social security benefits and link this to care adherence (Elbogen *et al*, 2005), often within a framework of 'mandated' community treatment (Monahan *et al*, 2001, 2005). The practice has been criticised (Cogswell, 2004), but has not been systematically researched. In the UK, money incentives have been used to assure that patients undergoing clozapine treatment attend the clinic for blood count controls (Pereira *et al*, 1999). In research settings, patients have acknowledged that the offer of money would increase their willingness to participate in medication trials (Roberts *et al*, 2003).

This study investigates the use of direct financial incentives to increase medication adherence in assertive outreach teams in England, the team managers' attitudes to direct financial incentives, and how can they be addressed, and the effective use of financial incentives to increase adherence in assertive outreach patients.



## Method

We sent questionnaires to team managers of 150 assertive outreach teams in England asking whether financial incentives were used to increase medication adherence, what the attitudes to such a practice are, and whether the issue had been discussed within the team. After 3 weeks, teams were reminded via the telephone. Results were analysed descriptively.

We also offered financial incentives (£5–15 payment for single depot injections) to five formerly non-adherent assertive outreach patients in East London. The team has an operational policy for the use of money for medication. Inclusion criteria were hospitalisations with a total duration of at least 50 days in the preceding 2 years, which according to clinical judgement were the result of a lack of medication adherence, and a failure of all other available therapeutic strategies to achieve adherence. The amount of money offered depended on the frequency of depot injections. Experiences were recorded. Patients' characteristics, including hospital admissions prior to and following the introduction of financial incentives, were obtained from the medical files.

## Results

The questionnaire was returned by 70 assertive outreach teams (response rate 47%). No team had used financial incentives over the past 2 years. Seven (10%) team managers reported that they had used food and other indirect incentives to help with engagement, but not as a direct reward for adherence to medication. No team has an operational policy governing the possible use of financial incentives.

Only 12 team managers (17%) had no objections to the use of financial incentives, whereas 53 managers (76%) specified objections to such a practice. Five team managers (7%), did not give their opinion. Objections mentioned by managers are listed in Table 1.

Apart from general concerns about financial incentives being unethical (42%), specific issues were raised regarding the possibly coercive nature of this treatment (8%) and a potential negative impact on the therapeutic relationship (9%).

In 43 teams (61%), the issue had not been discussed. In 23 teams (33%) the issue had been discussed, and in 6 of these teams the majority of team members had clearly

**Table 1. Reasons given by assertive outreach teams for objections to the use of financial incentives (n=53)**

Reason	n (%)
Unethical	22 (42)
Confuses or damages relationship	5 (9)
Coercive	4 (8)
Others (exploitative, bribing, manipulation, disempowering, infringement of personal rights, budgeting issues)	6 (11)
Needs more consideration	3 (6)
Objection not specified	13 (24)

voted against it. Four questionnaires (6%) did not indicate whether the issue had been discussed.

From summer 2003 onwards, financial incentives were offered to five assertive outreach patients in East London. One patient declined the offer and still remains difficult to engage. Diagnoses of the other four patients as well as number of hospitalisations since onset of illness, days in hospital in the 2 years prior to the use of financial incentives and days in hospital since entering the scheme are shown in Table 2.

Three patients were not hospitalised after the introduction of financial incentives. The fourth patient had entered the scheme only a few months before this analysis and had already been readmitted, although adherence had improved.

Clinical experiences of the team with the new intervention are rather favourable. All four patients on the scheme were able to retain their independent accommodation and had fewer problems with their neighbours and the police than before. So far, no other patients have complained about unequal treatment and/or have demanded to be paid for taking their medication. One of the patients on the scheme had asked for the incentive to be increased. This was declined and he has remained on the scheme with the original incentive. We have not yet tried to terminate the use of financial incentives in any of the patients, and cannot comment on problems that might arise.

## Discussion

Our survey was restricted to assertive outreach teams and the response rate was less than 50%. Financial

**Table 2. Characteristics of four assertive outreach patients participating in the financial incentive scheme in Newham**

Patient	Date scheme entered	ICD-10 <sup>1</sup> diagnosis	Length of illness, years	Previous hospital admissions, n	Hospital days over the 2 years prior to entering the scheme, n	Hospital days since scheme entered, n
1	July 03	F20.3	8	8	80	0
2	July 04	F20.0	5	5	362	0
3	October 04	F21.0	18	8	97	0
4	March 05	F20.0	7	10	319	37

1. World Health Organization (1992).



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incentives might be used in assertive outreach teams that did not respond or in community mental health or early intervention teams. However, as our survey did not reveal the use of money for medication by a single team, widespread use of this approach is unlikely. Some teams use food and other non-financial incentives to enhance adherence in a more covert way.

The attitudes of assertive outreach team managers towards using direct financial incentives to improve adherence were rather negative, and many regarded the practice as unethical. Ethical concerns have been raised in the literature with respect to the application of depot medication (Roberts & Geppert, 2004) and assertive outreach itself (Watts & Priebe, 2002; Williamson, 2002). The use of financial incentives adds further ethical issues to those general concerns. The fact that financial incentives have been effective in improving treatment adherence in other medical specialties is important, but does not fully address the ethical problems in psychiatry.

Beauchamp (2003) describes four categories for judging the ethical dimension of medical interventions:

- beneficence (the obligation to provide benefits and balance benefits against risks)
- non-maleficence (the obligation to avoid the causation of harm)
- respect for autonomy (the obligation to respect the decision-making capacities of autonomous persons)
- justice (obligation of fairness in the distribution of benefits and risks).

One of the more specific concerns regards a possible coercive nature of financial incentives and with it a negative impact on the autonomy of the service user. Coercion is defined as ‘the use of threats or orders to make someone do something they do not want to do’ (Longman, 2003). Wertheimer (1993) proposed the following practical approach to decide whether a (therapeutic) proposal is coercive or not:

‘The standard view is that threats coerce but offers do not. And the crux of the distinction between threats and offers is that A makes a threat when B will be worse off than in some relevant baseline position if B does not accept A’s proposal, but that A makes an offer when B will be no worse off than in some relevant baseline position if B does not accept A’s proposal.’

According to these definitions, money for medication is not coercive, as it adds only a small amount of money (compared with the average benefits) to what the service user already receives, much in the sense of a reward in the framework of behavioural reinforcement. Financial incentive does not affect any entitlement to benefits or any other component of care. In Wertheimer’s definition, it can be seen as an offer, not a threat.

Considering Beauchamp’s criteria with our small sample in mind, this approach appears to be beneficial in terms of reduced hospital admissions, there is no harm intended or caused, the service user can revoke the agreement at any time without negative effect (other than having £5–£15 less) and the treatment is offered to all service users fulfilling the criteria. This is clearly different from practice in the USA, where not only social

benefits but entitlement to housing provision and also the freedom to stay in the community (as opposed to involuntary hospital treatment) are tied to adherence to treatment programmes and medication via a payee system, tenancy contracts or so-called out-patient commitment ordered by a mental health court (Monahan et al, 2001; Swartz & Monahan, 2001).

A further concern raised by team managers regards the possible negative impact on the therapeutic relationship. In our clinical practice we have not observed this. One of the reported patients on the scheme in East London now sits, as a service user representative, regularly on interview panels for new team staff. In practice, the findings of our clinical observations in East London are rather encouraging. At least three out of five patients who were offered the scheme showed a remarkable improvement. Of course ethical issues are paramount, and if regarded as unethical, money for medication should not be used, as beneficence is only one of the criteria to assess ethics.

In addition to ethical issues there are also practical questions that need to be addressed. For instance, how is mental capacity to agree to the scheme assessed? Where does the money for the patients come from, particularly if the practice is used on a larger scale? Will the money received for medication have an impact on social and disability allowances? What is the appropriate amount of money? Can financial incentives also be used to improve adherence to oral medication or only depot injections? When and how should the scheme be discontinued? Answers to these questions may be contentious and difficult. However, in our view this is no reason to prevent both an open debate on ethical and practical issues related to money for medication and studies to elicit more evidence that can inform the debate. Financial incentives might be a treatment option for a high-risk group of non-adherent patients with whom all other interventions to achieve adherence have failed.

## Declaration of interest

None.

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original papers

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## Audit of early intervention in psychosis service development in England in 2005

### AIMS AND METHOD

This study provides an overview of the development of early intervention services for psychosis across England in February 2005. A bespoke self-report audit tool was completed by key informants across the eight regional development centres of the National Institute for Mental Health in England.

### RESULTS

Out of 117 teams identified, 86 have funding, of which 63 are operational with case-managed patients (as of February 2005). Only 3 teams meet all 10 audited early intervention fidelity requirements and there are variations in service model, delivery setting and resources across teams.

### CLINICAL IMPLICATIONS

Current inequity of access and the early, fragile nature of service development means that early intervention in England has reached a critical phase requiring consolidation.

The NHS Plan (Department of Health, 2000a) promised 50 early intervention services for psychosis in England by December 2004 and their development was supported by a policy implementation guide (Department of Health, 2000b). Fifty new early intervention services would

'reduce the duration of untreated psychosis (DUP) to a service median of less than 3 months... and provide support for the first three years' (Department of Health, 2002).

Expert consensus opinion confirms essential elements of early intervention (Marshall et al, 2004) and international research supports the efficacy of the early intervention model (Edwards et al, 2005). Two recently published randomised controlled trials focused on

providing intensive assertive outreach-based care to young people (16–30 years) during the 'critical period' (Birchwood et al, 1998). The OPUS study in Denmark found advantages in terms of readmission, symptoms and quality of life for integrated, sustained treatment over treatment as usual (Nordentoft et al, 2002). In London, the Lambeth Early Onset (LEO) study found that a team delivering specialised care for patients with early psychosis was superior to standard care for maintaining contact with services and reducing readmissions to hospital (Craig et al, 2004). Our study provides an overview of the development of specialist early intervention provision in England and assesses operational services against fidelity to the policy implementation guide.