**Correspondence**

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| Table 3 | Staff costs – based on PSSRU (2011) figures |
|---|---|
| Community nurse/OH nurse at band 6 (per consultation): £50 per hour | |
| OH physician (calculated as associate specialists): £113 per hour | |
| Counsellor: £60 per consultation | |
| Consultant psychiatrist: £316 per patient hour | |
| GP consultation: seven-minute consultation: £31; 17-minute consultation: £46 | |

Assuming each client would have received a full course, the costs avoided by the counselling service equals (51 x 360) £18,360. The total value of these monetised benefits equals £149,677.

## Wider health system

According to NICE (2004), on average a client with mild depression will visit their GP three times in a year (NICE 2004). Assuming clients treated successfully through this service avoided a minimum of three GP visits in the year in which they received CBT, and they remained well for at least 12 months after CBT, a minimum of a further three GP mental health sickness/absence-related appointments were avoided.

The average cost of a seven-minute GP consultation is £19.48 (Table 3). Clients with mental health problems regularly have longer appointments with their GP (Fitzpatrick and Sin 2013). The cost of an average longer consultation of 17 minutes is £46.

Forty-six clients significantly improved according to their PHQ9 and HADS scores. Arguably therefore (3 + 3) x 46 = 276 GP appointments were avoided, leading to a cost avoidance of (276 x 46) £12,696.

Links between physical and mental health are well documented, and it has been estimated that as many as half of all referrals to the acute sector that are not 'medically explicable' may be anxiety related and unnecessary (Nimnuan et al 2001). Drawing on data from the USA (Greenberg et al 2003), Layard et al (2007) estimated that a client treated with CBT could save the acute sector approximately £100 within the first two years. On this basis, cost avoidance within the acute sector for the 46 clients who demonstrated significant improvements was estimated to be (46 x 100) £4,600.

Twelve clients stopped taking antidepressant medication during their course of CBT. These were cases in which the therapist (a mental health nurse by training) was able, with GP consent, to actively assist a process of antidepressant medication withdrawal. This was achieved only when significant progress had been made. NICE calculated that the average unit cost of antidepressants was £13.62 per prescription (NICE 2005). Allowing for inflation, in 2011 (the midpoint of the case study audit) this cost was readjusted and calculated at £16. Assuming CBT avoided six months of prescriptions per client, cost avoidance was calculated as (6 x 12 x 16) £1,152.

A number of clients were already receiving secondary mental health care services from community mental health teams while accessing the CBT service. Specifically, four clients were supported by a community mental health nurse and four saw a psychiatrist for regular 30-minute appointments. The clients accessing community mental health nursing services were seen on average fortnightly (26 appointments per annum). Audit of client records indicated that the service led to a minimum 50% reduction in the numbers of community mental health nurse contacts over a 12-month period. Using PSSRU (2011) figures, 26 appointments cost (26 x 50) £1,300. Cost avoidance was calculated at (1,300 ÷ 2) x 4 = £2,600.

Assuming the CBT service also reduced monthly consultant appointments by 50%, cost savings using PSSRU (2011) figures were calculated at ((316 ÷ 2) x 6 x 4) £3,792. In addition, the service avoided one client referral to a clinical psychologist and two clients from being referred to a trauma-focused service. As it cannot necessarily be assumed these clients would have received these services, these potential savings were not monetised.

The total value of these monetised benefits (12,696 + 4,600 + 1,152 + 2,600 + 3,792) was £24,840.

## Conclusion

A return on investment (ROI) for the City of Cardiff Council was calculated by dividing the overall value of the benefits monetised (99,000 + 149,677 + 24,840) = £273,517 – by the total investment (set-up and running costs) of £110,911. For every pound spent by the City of Cardiff Council, the total benefit was £2.47.

However, a degree of caution is required as Layard et al (2007) reported that a proportion of individuals will recover naturally from a mental