University of Kent

Kent Academic Repository

Beecham, Jennifer, Pearce, Peter, Sewell, Ros and Osman, Sarah (2018) ***Support and costs for students with emotional problems referred to school-based counselling: findings from the ALIGN study.*** **British Journal of Guidance & Counselling, 47 (4). pp. 460-471. ISSN 0306-9885.**

Downloaded from

https://kar.kent.ac.uk/72092/ The University of Kent's Academic Repository KAR

The version of record is available from

https://doi.org/10.1080/03069885.2018.1552777

This document version

Publisher pdf

DOI for this version

Licence for this version

CC BY-NC-ND (Attribution-NonCommercial-NoDerivatives)

Additional information

Versions of research works

Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in *Title of Journal* , Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

Enquiries

If you have questions about this document contact ResearchSupport@kent.ac.uk. Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our Take Down policy (available from https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies).

British Journal of Guidance & Counselling

ISSN: 0306-9885 (Print) 1469-3534 (Online) Journal homepage: https://www.tandfonline.com/loi/cbjg20

Support and costs for students with emotional problems referred to school-based counselling: findings from the ALIGN study

Jennifer Beecham, Peter Pearce, Ros Sewell & Sarah Osman

To cite this article: Jennifer Beecham, Peter Pearce, Ros Sewell & Sarah Osman (2018): Support and costs for students with emotional problems referred to school-based counselling: findings from the ALIGN study, British Journal of Guidance & Counselling, DOI: 10.1080/03069885.2018.1552777

To link to this article: https://doi.org/10.1080/03069885.2018.1552777

© 2018 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

Published online: 06 Dec 2018.

Submit your article to this journal

Article views: 96

View Crossmark data

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=cbjg20

BRITISH JOURNAL OF GUIDANCE & COUNSELLING
https://doi.org/10.1080/03069885.2018.1552777

Routledge
Taylor & Francis Group

OPEN ACCESS Check for updates

Support and costs for students with emotional problems referred to school-based counselling: findings from the ALIGN study

Jennifer Beecham[a], Peter Pearce[b], Ros Sewell[b] and Sarah Osman[b]

[a]PSSRU, University of Kent, Canterbury, UK; [b]Metanoia Institute, London, UK

ABSTRACT

Effectiveness evidence supporting school-based counselling is increasing, yet little is known about its cost-effectiveness. Within an effectiveness trial we tested whether a cost-effectiveness evaluation was feasible and aimed to provide early indications of support and associated costs for students with emotional problems. A service use questionnaire was piloted. School-based services were a key source of support and used by more than half the students at each time point. Support costs were estimated for 63/64 participants using well-established methods and ranged between £0 (no services used) and £3562 per participant over the last school term. We found data collection was feasible and the principles of economic evaluation were appropriate but the small sample means results must be interpreted cautiously.

ARTICLE HISTORY
Received 26 July 2016
Revised 24 August 2018
Accepted 20 November 2018

KEYWORDS
Cost; economic evaluation; counselling in schools; service use; quantitative methods; cost-effectiveness

Introduction

There is a growing evidence base to support school-based counselling as an important component of comprehensive mental health services in the UK (Cooper, 2009; Hill et al., 2011). Many adult mental health problems start in childhood and adolescence; some are transient, others continue to challenge them and their families for many years (Maughan & Kim-Cohen, 2005). School-based counselling can fill a gap for young people who may not have reached the severity threshold for child and adolescent mental health services (CAMHS), or who may not want to access those services. While a counsellor or psychologist is available in nearly 75% of all US schools (Brener, Weist, Adelman, Taylor, & Vernon-Smiley, 2007), counselling is available in an estimated 61–85% of UK secondary schools (Cooper, 2013) but often provided by a teacher (Fox & Butler, 2009; Vostanis, Humphrey, Fitzgerald, Deighton, & Wolpert, 2013).

In decisions about providing school-based counselling, a key piece of evidence that commissioners – or schools – should consider is the cost and whether it is good value for money. Increasingly, research evidence supports its effectiveness. Results from a meta-analysis of three UK-based trials reported significantly lower levels of distress for those using counselling, compared to controls, substantiating positive findings from earlier audits of cohort studies (Cooper, 2009, 2013). However information on costs, or studies than combine cost and outcome data are rare (Beecham & Pearce, 2014). A cost component was included in the evaluation of the Welsh Government's school-based counselling strategy, alongside an exploration of its implementation and delivery, and assessment of satisfaction and impact (Hill et al., 2011). The cost per student and

CONTACT Jennifer Beecham j.k.beecham@kent.ac.uk PSSRU, University of Kent, Cornwallis Building, Canterbury CT2 7NF, UK

© 2018 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (http://creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

per session were estimated using a "top-down" approach: the total grant to each local authority over three school terms was divided by the number of students accessing counselling and the number of sessions provided in the same period. The average cost per session varied from £28 to £438 (median £151), and average cost per student episode was between £128 and £2019 (2010–2011 prices). As the authors note, this approach cannot take into account how the intervention was delivered in each location. For example, one-to-one sessions, group work, online, or whole school programmes will all have different costs attached. Also using a top-down estimation approach, the cost per year for one-to-one counselling provided by Place2Be was estimated at £954 per annum (2007–2008 prices) with each child receiving an average of 51 h counselling per year (Xu & Jackson, 2010). We found no studies reporting the use of services outside school, although Hill and colleagues (2011) report that just under 10% of students had been referred to other services.

Notably, and not dissimilar to an investigation into the costs of interventions for speech, language and communication needs (Beecham, Law, Zeng, & Lindsay, 2012), there was very little information in the literature on how many counselling sessions study participants attended and how long each session lasted. This knowledge gap is perhaps surprising given that "dose" may be related to outcome. The rare exceptions report broad information on the number of sessions that students attended. For example, McElearney and colleagues (2007) in their evaluation of the school-based counselling service in N. Ireland of the U.K.-based children's charity National Society for Protection of Cruelty to Children (NSPCC), show the proportion of study members who attended one, 2–4, 5–7, 8–10 and >10 sessions. McKenzie, Murray, Prior, and Stark (2011) found that a counsellor in one Scottish secondary school provided 248 one-hour sessions to 40 students who on average received 6.92 sessions over 10.3 weeks. Other papers describe what the intervention will *provide*, perhaps offering a session during one lesson period each week over a school term (McArthur, Cooper, & Berdondini, 2013; see also, Lee, Tiley, & White, 2009), but not what the students actually *received*.

This paper, therefore, has two aims. First, to support counselling services' continued development, the study aimed to assess the feasibility of collecting the data required to undertake a cost-effectiveness analysis of school-based counselling. The second aim was to present preliminary estimates of the costs of supporting students with emotional distress. Using wider data from this pilot trial, we also explored the associations between costs and student characteristics and baseline clinical measures, and set the context with summary findings from the outcome analyses as reported by Pearce and colleagues (2017).

Study methods

The ALIGN trial

We drew on data collected within the ALIGN pilot individual randomised controlled trial (ISRCTN44253140). The ALIGN trial aimed to test school-based humanistic counselling (SBHC) in an ethnically diverse group using an extended follow-up period, to contribute data to an estimate of the effectiveness of SBHC, and – as reported in this paper – assess the feasibility of implementing a cost-effectiveness evaluation. The ALIGN trial compares students randomised to receive one-to-one SBHC with those in a "waiting-list" control group who could attend SBHC nine months later. Inclusion criteria included: presence of emotional distress (a score of five or more on the emotional symptoms sub-scale of the Strengths and Difficulties Questionnaire [SDQ], Goodman, 2001); a good attendance record (>85%); and that they should be capable of consenting to participate and motivated to take part. Students were excluded from the study if they were at risk of significant harm to themselves or others, involved with CAMHS, or planning to leave the school during the study period.

The study was undertaken in three urban secondary schools (age 11–18) providing state-funded day education, one of which was a single sex (girls') school. No school had a pre-existing counselling service. Each school was ethnically diverse and located in a relatively deprived area where 15%–46% of children aged 0–15 years live in income-deprived families.

Study procedure

Following training in the study, teachers were asked to identify students who might benefit from counselling. Of the 116 students referred, 64 were considered eligible and randomised into the trial during the 2013 spring term. Participants were randomised by an automated text-based service using blocked randomisation ($n = 6$), stratified by school, with an allocation ratio of 1:1 and completed the measures at five points in time. Supported by the schools' pastoral care teams, informed consent was obtained for all participants, including for audio recording of sessions to allow internal and external audits of fidelity.

Fully qualified and experienced person-centred counsellors provided up to 12 weekly counselling sessions based on competences for humanistic psychology therapy, derived from the person-centred and experimental approach to therapy (Hill, Roth, & Cooper, 2013; Roth, Hill, & Pilling, 2009). To assess adherence, two 10-minute segments of sessions were randomly selected for each counsellor and rated by two members of the research team and an independent expert using the Person-Centred and Experimental Psychotherapy Scales (PCEPS, Freire, Elliott, & Westwell, 2014). Practice did not meet required standards in only one instance and discussions were held with the counsellor to facilitate increased adherence.

Sample characteristics

Pre-intervention data from the trial were available for 34 students receiving SBHC and 30 randomised to the waiting list group. By T3, the post-intervention interview, there were 30 and 29 participants in each group respectively.

The ALIGN baseline data show that most students were female ($n = 55$, 86%) and the mean/median age was 14 (range 11–18 years) with nearly two-thirds of the students aged between 13 and 15 (Year 8–10). Their mean score on the Young Person-CORE was 19 (range 5–32). Baseline SDQ data showed that 30 students had borderline difficulties and 20 were scoring at the abnormal level of difficulties. Observed baseline scores on the YP-CORE, SDQ and Rosenberg's Self-Esteem Scale (RSES) were similar between groups. By comparison, across school-based counselling studies and audits, clients have a mean age of 13.86 years, 56% are female, and nearly two-thirds (60%) began counselling with abnormal or borderline levels of psychological distress (Cooper, 2009).

The four largest ethnic groups in the current study were African (12 participants), Caribbean (10), English (10) and mixed race (9). Five students described themselves as disabled, three of whom were in the counselling group. The information on general practitioner (GP) prescriptions suggests that some students had long-term conditions, for example, six received prescriptions for asthma or breathing problems (see Table 1).

Relevant measures

All consenting students completed the following measures.

- The Strengths and Difficulties Questionnaire (SDQ) is a brief self-complete screening instrument for young people aged 11–16 years (Goodman, 2001, www.sdqinfo.com). The 25 items are grouped into five subscales (emotional problems, conduct problems, hyperactivity, peer problems and pro-social behaviour) which are rated by the participant with reference to the previous six months. Internal validity has been shown to be acceptable (Goodman, Meltzer, & Bailey, 1998).
- The primary outcome measure is the Young Person-CORE (YP-CORE; www.coreims.co.uk). This is a self-report measure to assess subjective well-being, problems and symptoms, life functioning and risk/harm. It has 10 domains each scored between 0 and 4 (possible total score is 0–40) with higher scores indicating greater levels of psychological distress. It has been shown to have good internal consistency and test-retest stability (Twigg et al., 2009; Twigg et al., 2016)
- The Rosenberg Self-Esteem Scale was originally developed for young people (RSES; www.emcdda.europa.eu/html.cfm/index3676EN.html). It is a well-established 10-statement scale in which each

Table 1. Service use at baseline and T3; number responding to the question, number using the service, mean number of times used.

	Pre-intervention (T1; $n = 63$)			Post-intervention (T3; $n = 59$)		
Service used	f[a]	% using	Mean Frequency of use (range)	f[a]	% using	Mean Frequency of use (range)
Help at school		**64%**			**53%**	
Form teacher	63	24%	1.52 (0–24)	59/58	16%	4.34 (0–150)
Learning support assistant	63	27%	5.77 (0–150)	59/57	25%	8.98 (0–150)
School nurse	63	13%	0.32 (0–7)	59/58	7%	0.14 (0–6)
Pastoral care	60	32%	2.33 (0–26)	59	10%	3.05 (0–150)
Other[b,c]	63	22%	1.26 (0–18)	59/57	20%	1.16 (0–18)
School attendance						
Times sent home	63	30%	0.62 (0–14)	59	24%	0.53 (0–5)
No. days absent	62		0.75 (0–5)	58		2.59 (0–33)
GP surgery						
GP contacts	63	54%	1.50 (0–11)	59/56	37%	0.73 (0–10)
GP nurse contacts	63	25%	0.76 (0–1)	59	14%	0.32 (0–9)
GP prescription[d,e]	63	32%	N/A	59/58	25%	N/A
Hospital care						
Outpatient clinic	63	13%	0.19 (0–1)	59/58	9%	0.14 (0–3)
A&E/MIU	63	24%	0.60 (0–10)	59	10%	0.24 (0–5)
Community services						
Other counsellor	63	5%	0.08 (0–2)	59	7%	0.12 (0–3)
Social worker	63	16%	0.56 (0–9)	59/56	14%	0.16 (0–3)
Youth Offending Team member	63	3%	0.08 (0–3)	59	3%	0.07 (0–3)
Drug & Alcohol Team member	63	6%	0.37 (0–20)	59	5%	0.17 (0–5)
Police Officer	63	10%	0.16 (0–3)	59	10%	0.24 (0–4)
Solicitor/lawyer	63	0%	0.00 (0)	59	2%	0.02 (0–1)
Telephone Helpline	63	3%	0.03 (0–1)	59	2%	0.03 (0–2)
Youth club	63	18%	1.79 (0–30)	59/58	22%	4.17 (0–150)
Other services[f,g]	63/58	10%	0.05 (0–3)	58/56	9%	0.13 (0–6)
SBHC (counselling)	N/A	0%	0	64	47%	3.44 (0–10)

[a]No. of students reporting whether used this service/No. of students reporting frequency of use.
[b]Other school services at T1 include anger management (1 student), English support (1), mentor (8), maths tutor (1), English tutor (1), dance support (1).
[c]Other school services at T3 include: dance support (1); detention centre (1, no cost included); mentor (7); school social worker (1).
[d]Prescriptions given at T1 were for physical ailments, although some may be related to distress: asthma/hay fever/eczema (6); constipation (1); eye drops (2); irritable bowel syndrome (1); infection (1); fainting (1); hyperhidrosis (1); pain (2); hearing infection (1); indigestion (1); measles, mumps and rubella (MMR) vaccination (1); headache (1); epilepsy (1).
[e]Prescriptions given at T3 were mainly for physical ailments, although some may be related to distress: anaemia (2), asthma/hay fever (3), burns (1), cough (1), pain relief (4), stomach problems (2), herbal tablets for anger (1), insulin (1).
[f]Other community services used at T1 include dentist (1), voice charity (1), optician (1), mentor (2), cadets (1).
[g]Other community services used at T3 include: anger management treatment in hospital (1); inpatient hospital admission (1, no cost included); mentor (3).

item is rated on a 4-point scale (strongly disagree to strongly agree). Higher scores indicate higher self-esteem. The RSES has long been considered a reliable and valid measure of self-esteem (Blascovich & Tomaka, 1993).

- An adapted version of the Client Service Receipt Inventory to record use of services and supports (CSRI; Beecham & Knapp, 2001, https://www.pssru.ac.uk/csri/what-is-the-csri/).

Full details on both the methods and all outcome measures can be found in Pearce et al. (2017). This article focuses on data generated by the pre-intervention (T1) CSRI and the post-intervention CSRI completed three months after the baseline interviews (T3).

In line with economic theory, individuals' use of a wide range of services was recorded on the CSRI; additional school-based services and other publicly-funded services such as general practitioners, social workers, youth clubs, etc. (Knapp, 1995). By collecting data across many services, the interplay between services (substitution and complementarity) can be observed.

In adapting the CSRI, we sought a balance between comprehensiveness and length. We selected commonly used services from other CSRI-based studies and took advice from school-based counsellors. The one-page CSRI recorded services used over the last school term, a familiar length of time that fitted with the study timescales. Participant recall may be perceived as less "accurate" than using case notes but it avoids having to obtain the necessary permissions from countless service providers who *might* have had contact with participants and then sift through their records.

Estimation of unit costs

The CSRI records service use information systematically so that costs can be attached to each participant's service use profile (support package). Unit costs (per appointment, clinic attendance, etc.) were sought for each service and multiplied by frequency of contact for each participant. Following economic theory and standard cost estimation methods, we aimed to reflect the *long-run marginal opportunity cost*, which recognises the total resources required to *expand* the service (Beecham, 1995).

Unit costs for many of the services used by ALIGN participants were taken from existing publicly available compilations (Curtis, 2013; Department of Health, 2014). For the school-based counselling service, we employed a "bottom-up" cost estimation approach which requires us to describe the "ingredients" of the intervention, identify the activities and unit of measurement, estimate the cost implications of the service elements, and combine these data to calculate the unit cost (Beecham, 2000). Thus a detailed description was obtained from the provider and staff covering intervention inputs (staff time, supervision, organisational overheads, etc.) and costs were attached. Linking the total cost to the outputs (number and typical duration of sessions per counsellor), we estimated an average cost of £29.85 per session. This figure is similar to the minimum estimated for the Welsh Strategy evaluation of £29.90 per session at current prices (Hill et al., 2011).

In this study, we know how many sessions each student attended but not how long each session lasted, which would provide a more accurate figure of intervention "dosage" and cost (Beecham et al., 2012). Intervention cost per participant is calculated by multiplying by the number of sessions each student attended by £29.85.

Plan of analysis

The central purpose of a cost-effectiveness analysis is not just to calculate or compare costs, but to identify the cost of generating a positive outcome, such as an improvement in participants' mental health (Drummond, Sculpher, Torrance, O'Brien, & Stoddart, 2005). With around 30 participants in each group, this sample is too small for such cost-outcome analyses. This is because in most cost studies, a few participants use relatively high levels of services (high costs) but many more participants will use very few services so the cost per person will be closer to zero (£0) for them. In a small sample, outliers – very high or very low costs – can have a large impact on the average (mean), so statistical tests of between-group cost differences have limited validity. If the cost and outcome findings were combined the data-skew would be exacerbated and the dispersion wider. In the main, therefore, we present quantitative findings descriptively, but we also explore the associations between costs and baseline characteristics and outcomes. We set the cost findings in the context of the outcome analysis reported in Pearce and colleagues (2017). Data were analysed using SPSS v20™.

Results

Appropriateness of the CSRI

Studies of children and young people attending specialist clinics show good CSRI completion rates (Pretorius et al., 2009; Schmidt et al., 2007). The ALIGN CSRI was used in interview with participants

so help was available to interpret questions, identify professionals, and support lower literacy skills. We looked at three issues around the feasibility of using the CSRI in a school-based trial.

CSRI completion rates

At baseline, one student completed all T1 assessments other than the CSRI; baseline CSRI data are available for 63 ALIGN participants. At T3, three students did not complete any assessments and two students completed other questionnaires but not the CSRI: data from 59 of 61 participants are available (97%).

Within CSRI completion

Participants were asked whether they had used each listed service (yes/no) and if "yes", how often they had used it. For those reporting "yes", frequency of contact was missing in nine instances at baseline and 16 at the T3 interviews. (For these we estimated the cost for one contact.) Thus, missing data points accounted for only 1% of the potential service use items (>59 participants * 19 services * two time-points = 2,242), suggesting a good within-questionnaire completion rate.

Proportion of implausible answers

Across all service frequency data, there were only four outliers: 150 contacts with form teachers, learning support assistants (LSA), or pastoral care services. With approximately 63 school days in a term, this implies an average of just over two contacts per day. While this level of contact is possible, the next highest figures were 60 and 48 contacts (with an LSA).

Services and supports used by students

The ALIGN data can help identify how school-based counselling fits with the range of services used by young people who are emotionally distressed. Table 1 shows that for the whole ALIGN sample, additional help provided in school was used by nearly two-thirds of all participants at baseline (T1): around a third saw the designated pastoral care service and nearly one in eight students had seen the school nurse. By the post-intervention interview (T3), the proportion of students receiving additional school support had reduced by about 10% (excluding SBHC), although use of LSAs remained relatively stable.

Table 1 shows that at baseline, over half the students had seen the GP but this reduced to just over a third at T3. Visits to the Accident and Emergency Department (A&E) or Minor Injuries Unit (MIU) had also reduced by about a half. The figures for community services were more constant over time: social workers (used by 16% of participants), police officers (10%) and youth clubs (16% rising to 22%) were the most commonly used. At T3, one student went to the youth club 150 times, which raised the mean contacts per term from 1.6 to just over four (median = 0).

Eight students received no additional support at baseline, even from within the school, only one of whom was in the counselling group. At T3, five students in the counselling group received no additional services (excluding SBHC), and five in the waiting list group. Two students, both from the waiting list group, used no additional services at either period.

The five ALIGN counsellors reported spending an average of 45 minutes with each student per session (as per protocol) within a range of 35–50 minutes. In addition, they spent between 10 and 30 minutes on counselling-related activities such as session preparation or completing case-notes. One counsellor reported 60 minutes liaising with other staff on behalf of their last student, the other four reported between 10 and 20 minutes.

The costs of support

Table 2 shows the aggregated costs (mean and range) for intervention and control participants using the service categories identified in Table 1, while retaining more detail on school-based services.

Randomisation aims to "equalise" groups but as Table 2 illustrates, it works less well when service use (cost) is considered. Service use is influenced by an individual's perception of needs, choice about which services to access and how much to use them, and of course, availability of services. It is difficult to control for these factors so we should expect to see variation in costs.

In this study, observed mean T1 total service costs for the counselling group (£433 per participant, median £252) were twice as high as for the waiting list group (£208 per participant, median £112). Eight of the ten highest cost students were in the counselling group and for most of the service categories shown in Table 2, costs for the counselling group appear higher. Notably, seven of the eight students with £0 (using no services) were in the waiting list group; this pulls down the group average total service cost at T1. For the remaining 55 students, per participant total service costs ranged from £10.80 to £1,757 for the school term. At £152 per term, the median total support cost per participant was just under half the mean (£327).

The costs for post-intervention period (T3, see Table 2) show some similarities to the T1 data. Observed mean costs for hospital or community services continue to be higher for the counselling group, so too are GP-based services. Six of the ten students with the highest T3 total service costs (i.e. excluding the costs of counselling) are in the counselling group. Four students with £0 total service costs (i.e. excluding the costs of counselling) are in the counselling group and five in the waiting list group.

The first service category – help at school – is where the greatest change between T1 and T3 costs has occurred, increasing from £83 at T1 to £281 at T3 for the waiting list group. This appears to be driven by cost increases for contacts with the form teacher and pastoral care service. However, this is largely a result of two students at T3 having high contact levels ($n = 150$) with these two services (Table 1 and final column of Table 2). These outliers have raised the mean cost for all help at school, which in turn has led to higher mean total service cost (observed) for the waiting list group than to be found at T1, or when compared to the counselling group.

Looking at the data on use of SBHC, we found that students in the counselling group attended an average of 6.47 SBHC sessions (range 1–10, total = 220 sessions) and the median was 6.5 sessions, similar to figures from earlier studies (Cooper, 2013; McKenzie et al., 2011). Two students had just one session, five students attended six sessions and a quarter attended 10 sessions. Just under half the students (46%) received less than eight sessions compared to nearly two-thirds in the Belfast study (McElearney et al., 2007).

Table 2. Cost per participant, per term by counselling or waiting list group.

	Time 1: pre-intervention				Time 3: post-intervention[a]			
	Counselling ($n = 33$)[b]		Waiting list ($n = 30$)		Counselling ($n = 29$)[c]		Waiting list ($n = 30$)	
Service used	Mean (£)	Max[d] (£)	Mean (£)	Max[d] (£)	Mean (£)	Max[d] (£)	Mean (£)	Max[d] (£)
Help at school	186	1092	83	753	109	900	281	3652
Form teacher	38	420	14	123	19	210	130	2625
Learning Support	40	690	11	166	61	690	19	276
School nurse	1.30	22	2.20	38	1.30	32	0.40	5.40
Pastoral care	60	619	48	595	20	143	124	3570
Other	47	1092	7.70	70	7.70	122	8.30	82
GP surgery	60	443	60	487	37	436	23	118
Hospital care	145	1140	53	0	71	516	36	570
Community services	41	654	13	133	43	546	24	270
Total service cost	433	1757	210	1382	260	1191	365	3,652
SBH Counselling					193	30–300	0	0
Total cost					455	60–1,200	365	3,652

[a]Includes one student who attended a detention centre (counselling group) and two inpatient admissions but we do not know how long theses contacts lasted so costs have not been attached.
[b]One student with missing data, counselling group.
[c]Five students with missing data, counselling group.
[d]Unless a range is shown, the minimum cost is zero (£0).

The penultimate row of Table 2 shows the SBHC costs. The mean cost for counselling was £193 per participant (median = £194, $n = 29$), a figure close to the minimum estimated for the Welsh Strategy evaluation (Hill et al., 2011), raising the observed total cost for the intervention group (£455) above that of the control group (£365).

Cost analysis

Total cost provides a single figure that summarises the resources used to support each student in the ALIGN study. The sample is too small to confirm statistically significant between-group cost differences, or to compare changes in costs and outcomes: the descriptive findings above illustrate the need for caution. Taking this on board, we found some support for between-group differences in total costs at baseline (*t*-test, $p = 0.029$; bootstrap CI -33 - 409, 1000 repetitions) but not at T3 ($p = 0.579$).

In terms of comparing the *change* in cost over time, Figure 1 illustrates the challenges. Each column represents one case. From left to right, the cases are organised from lowest to highest cost at baseline and the height of the columns shows the change in each participant's total cost measure between baseline and T3. The mean change in costs for the whole sample was £74 but the wide range, from −£972 to £2810 ($SD = 527$), is reflected in the case-by-case variation shown in Figure 1.

We also explored the associations between T1 and T3 total costs, characteristics (age and gender), and the baseline outcome measures. At T1, only the SDQ score and age were significantly associated with costs. A simple linear regression suggests higher SDQ scores were weakly associated with higher

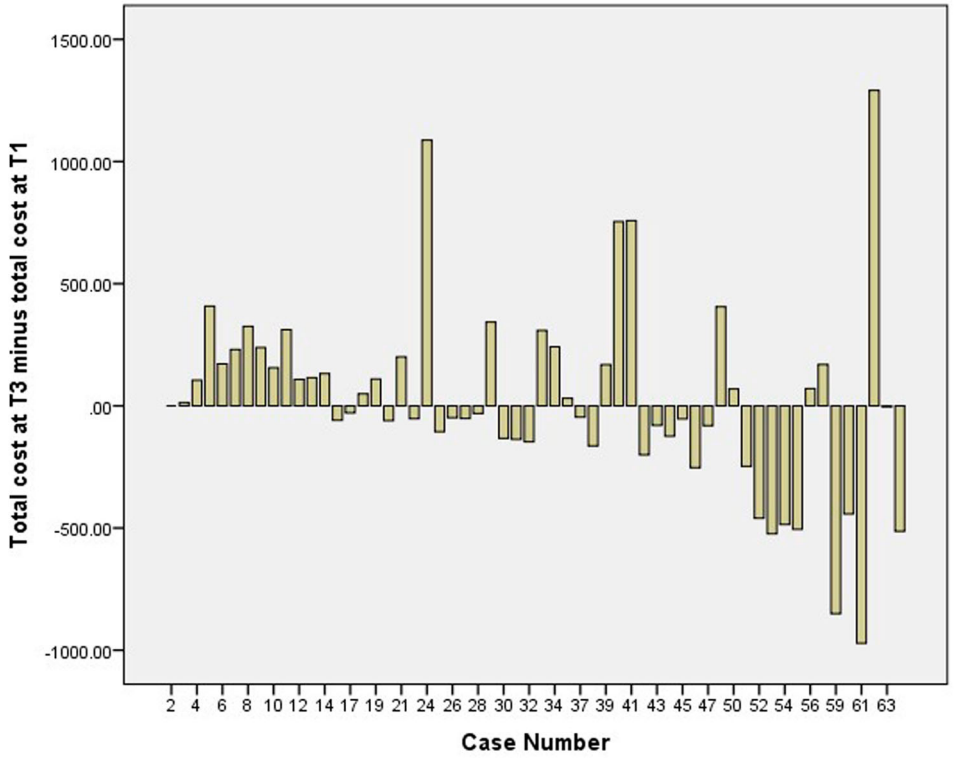

Figure 1. Change in cost per participant between T1 and T3 (full sample). A positive figure suggests total costs at T3 are higher than at T1 and a negative figure suggests lower costs at T3. Cases are ordered from lowest cost at T1 (baseline) to highest. We have excluded the case with the largest cost difference (£2,810) to make the graph easier to read. Data are missing for five students.

costs (adjusted $r^2 = 0.052$; $p = 0.040$), and the results were similar for age (adjusted $r^2 = 0.051$; $p = 0.041$). At T3, there were no significant cost associations with age or gender but there was a weak positive association between the T1 RSES total score and T3 total costs (adjusted $r^2 = 0.045$, $p = 0.059$). Other baseline measures were not significantly associated with the T3 total cost measure.

These types of analysis are only a starting point for assessing the relative costs and cost-effectiveness of school-based counselling. The sample size precludes any joint analysis of costs and outcomes but we can place these cost results alongside findings from the ALIGN outcome analysis (reported in Pearce et al., 2017), which were consistent with other pilot Randomised-Control Trials (RCTs) of school-based humanistic counselling. The observed mean and range of costs at T3 suggest that there may be no overall short-term savings from SHBC but equally, there may not be any additional expenditure. The ALIGN outcome analysis found that at T3, there were greater reductions in the primary outcome measure (YP-CORE) and the SDQ emotional difficulties sub-scale, and larger improvements in self-esteem for those in the counselling group than in the waiting list group. For SDQ emotional difficulty score, the difference also remained statistically significant at the six- and nine-month follow-up time points, although with a reduced sample (Pearce et al., 2017). Thus, this pilot study has generated encouraging cost and outcome findings.

Discussion

Our literature search revealed a poor evidence base for the costs and cost-effectiveness of school-based counselling, reflecting the paucity of economic evidence for child and adolescent mental health services (Beecham, 2014). In respect of our first aim, we have shown that integrating an economic component into a school-based individual RCT is feasible, and that existing theories and approaches in data collection and cost estimation are appropriate for a school-based counselling (SBC) practice and research context.

Completion rates for the economic questionnaire (the CSRI) were good but we identified three areas where the CSRI could be made more relevant. A "mentor" should be included in the named services; this was recorded in "other services" by 10% of the ALIGN sample. The addition of a question asking about all out-of-home residential services would be helpful (see, for example, Sleed, Beecham, Knapp, McAuley, & McCurry, 2006). Use of in-patient care (two students) and detention centres (one student) was recorded but not their duration of stay. Other high cost (if rarely used) services could also be recorded here, such as residential or foster care. The CSRI also needs to capture better information on high-frequency service use, perhaps by asking about typical contact levels per week (see, for example, Berridge, Dance, Beecham, & Field, 2008).

There are three further lessons from this feasibility and pilot study. First is the need for clarity around pastoral care. This is challenging as there is no standard way of providing these supports within school (Public Health England, 2015). The CSRI helps identify the components of "usual care", but greater clarity would improve the quality of the comparison. Second, while unit costs for most services were available from existing sources, those relating to school-based services had to be estimated anew. Estimating unit costs that adhere to economic principles is time-consuming so better availability of good quality unit costs, as we have in the UK for health and social care services (see Curtis, 2013, for example), is likely to increase both the quantity and quality of cost-related studies of school interventions. Finally, the dispersion of support costs found in this pilot study indicates the need for evaluations that have larger samples, and from which both effectiveness and cost-effectiveness results can be drawn to support the development of school-based services as part of a comprehensive mental health service for young people.

Improving the quality of evaluation of school-based interventions is important. In respect of our second aim – identifying the supports and associated costs – this study indicates that additional help at school was an important "support package" component for two-thirds of the participants. Additional help at school absorbed 42% of the total service costs at baseline, and 63% at T3 with concomitant reductions in the proportion absorbed by GP- and hospital-based services. This suggests

there may be an impact on non-school services but also provides support for using a wide cost perspective in such studies.

Applying unit costs to the service use data led to a commonly found skew in our total cost measure. This skew, exacerbated by the small sample size, means that any interpretation of statistical findings must be cautious. We found that although support costs were similar for both the counselling and the waiting list group at T3, they appear to be distributed differently. For the waiting list group (not receiving SBHC), help at school absorbed 77% of the T3 total cost; for the counselling group, help at school *including* SBHC absorbed 74% of total cost at T3. It may be that school-based counselling is also substituting for other services provided within school.

The outcome findings from the ALIGN pilot study, although again a small sample, showed significant improvements in the SDQ emotional distress and RSES (self-esteem) scores after receiving SBHC. A recent review also suggests counselling has a positive impact on students' capacity to study and learn (Cooper, 2013; see also http://studentsuccessskills.com/programs), which if sustained could lead to improved adult outcomes. These links from childhood circumstances to adult outcomes – perhaps from improved mental health to education attainment and then to employment status, or to reduced use of services and better peer and family relations – are the basis of many estimations of down-stream cost savings (see for example, Seaton, Evans, & Wellings, 2008; Xu & Jackson, 2010).

Such cost-savings' studies are commonly developed in response to an evidence gap (Mistral, Brandling, & Taylor, 2006) and can identify the broad impact of counselling. While these types of analyses are becoming increasingly important in today's service commissioning environment, they need to be based on robust comparative evaluations that identify whether there are additional short- and longer-term outcomes gained from school-based counselling *over and above not having counselling*, and whether these gains are worth the additional cost. This study suggests it is possible to obtain that evidence, and provides an early indication that school-based counselling has the potential to be more cost-effective than usual care: further large-scale studies are warranted.

Acknowledgements

Our thanks are extended to everyone participating in the ALIGN trial. We also thank members of the ALIGN Steering Group: Professor Mick Cooper, University of Roehampton; Andy Hill and Jo Pybis, British Association for Counselling and Psychotherapy (BACP) Research Department; and Karen Cromarty, BACP Lead Advisor for Children and Young People.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The ALIGN economic study was supported by a grant from BACP.

Notes on contributors

Jennifer Beecham is Professor of Health and Social Care Economics at the Personal Social Services Research Unit (PSSRU), University of Kent. Her research usually takes an economic perspective in evaluations of health and social care services for adults and children with a range of needs. She undertook the economics component of this study. http://www.pssru.ac.uk/people-profile.php?id=1

Peter Pearce is Faculty Head at Metanoia Institute, London. He has worked as a person-centred counsellor for 25 years and researched counselling in schools for more than a decade. He was Joint Principal Researcher for the Align Pilot RCT and is a co-researcher on the Economic and Social Research Council (ESRC)-funded ETHOS Study.

Ros Sewell has provided counselling and psychotherapy within NHS, secondary school settings and in private practice since 1989. She now provides supervision and training services. As the BACP Competence Frameworks Manager she wrote the National Curriculum for Supervisor Training. She was Joint Principal Researcher for the Align Pilot RCT.

Sarah Osman is a Research Officer at Metanoia Institute, London, liaising with secondary schools, conducting assessments, and analysing data. She is an experienced researcher and has conducted mental health research in both community and education settings. She is currently completing her PhD in Forensic Psychology at the University of Kent.

References

Beecham, J. (1995). Collecting and estimating costs. In M. Knapp (Ed.), *The economic evaluation of mental health care* (pp. 157–174). Aldershot: Arena.

Beecham, J. (2000). *Unit costs: Not exactly child's play*. London: Department of Health. Retrieved from http://www.pssru.ac.uk/archive/pdf/B062.pdf

Beecham, J. (2014). Child and adolescent mental health interventions: A review of progress in economic studies across different disorders. *Journal of Child Psychology and Psychiatry*, *55*(6), 714–732.

Beecham, J., & Knapp, M. (2001). Costing psychiatric interventions. In G. Thornicroft (Ed.), *Measuring mental health needs* (2nd ed., pp. 200–224). London: Gaskell.

Beecham, J., Law, J., Zeng, B., & Lindsay, G. (2012). Costing children's speech, language and communication interventions. *International Journal of Language and Communication Disorders*, *47*(5), 477–486.

Beecham, J., & Pearce, P. (2014). *The ALIGN trial: Service use and costs for students using school-based counselling*. PSSRU Discussion Paper 2883. Canterbury: University of Kent.

Berridge, D., Dance, C., Beecham, J., & Field, S. (2008). *Educating difficult adolescents: Effective education for children in public care with emotional and behavioural difficulties*. London: Jessica Kingsley Press.

Blascovich, J., & Tomaka, J. (1993). Measures of self-esteem. In J. Robinson, P. Shaver, & L. Wrightman (Eds.), *Measures of personality and social psychological attitudes* (pp. 115–160). Ann Arbour: Institute for Social Research.

Brener, N., Weist, M., Adelman, H., Taylor, L., & Vernon-Smiley, M. (2007). Mental health and social services: Results from the school health policies and programs study 2006. *Journal of School Health*, *77*(8), 486–499.

Cooper, M. (2009). Counselling in UK secondary schools: A comprehensive review of audit and evaluation data. *Counselling and Psychotherapy Research*, *9*(3), 137–150.

Cooper, M. (2013). *School-based counselling in UK secondary schools: A review and critical evaluation*. Lutterworth: British Association for Counselling and Psychotherapy.

Curtis, L. (Ed.). (2013). *Unit costs of health and social care 2013*. Canterbury: PSSRU, University of Kent. Retrieved from www.pssru.ac.uk/project-pages/unit-costs/

Department of Health. (2014). *Reference costs 2013–2014*. London. Retrieved from www.gov.uk/government/publications/nhs-reference-costs-2013-to-2014

Drummond, M., Sculpher, M., Torrance, G., O'Brien, B., & Stoddart, G. (2005). *Methods for the economic evaluation of health care programmes*. Oxford: Oxford University Press.

Fox, C., & Butler, I. (2009). Evaluating the effectiveness of a school-based counselling service in the UK. *British Journal of Guidance & Counselling*, *37*(2), 95–106.

Freire, E., Elliott, R., & Westwell, G. (2014). Person Centred and Experiential Psychotherapy Scale (PCEPS): development and reliability of an adherence/competence measure for person-centres and experiential psychotherapies. *Counselling and Psychotherapy Research*, *14*(3), 220–226.

Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*(11), 1337–1345.

Goodman, R., Meltzer, H., & Bailey, V. (1998). The strengths and difficulties questionnaire: A pilot study on the validity of the self-report version. *European Child and Adolescent Psychiatry*, *7*(3), 125–130.

Hill, A., Cooper, M., Pybis, J., Cromarty, K., Pattison, S., Spong, S., … Maybanks, N. (2011). *Evaluation of the Welsh school-based counselling Strategy: Final report*. Cardiff: Wales.

Hill, A., Roth, A., & Cooper, M. (2013). *The competences required to deliver effective humanistic counselling for young people*. Lutterworth: BACP.

Knapp, M. (Ed.). (1995). *The economic evaluation of mental health care*. Aldershot: Arena.

Lee, R., Tiley, C., & White, J. (2009). The Place2Be: Measuring the effectiveness of a primary school based therapeutic intervention in England and Scotland. *Counselling and Psychotherapy Research*, *9*(3), 151–159.

Maughan, B., & Kim-Cohen, J. (2005). Continuities between childhood and adult life. *British Journal of Psychiatry*, *187*, 301–303.

McArthur, K., Cooper, M., & Berdondini, L. (2013). School-based humanistic counseling for psychological distress in young people: Pilot randomized controlled trial. *Psychotherapy Research*, *23*(3), 355–365.

McElearney, A., Adamson, G., Shevlin, M., Tracey, A., Muldoon, B., & Roosmale-Cocq, S. (2007). Independent schools counselling: Profiling the NSPCC service experience. *Child Care in Practice*, *13*(2), 95–115.

McKenzie, K., Murray, G., Prior, S., & Stark, L. (2011). An evaluation of a school counselling service with direct links to Child and Adolescent Mental Health (CAMH) services. *British Journal of Guidance & Counselling*, *39*(1), 67–82.

Mistral, W., Brandling, J., & Taylor, G. (2006). Calculated savings to the nation from counselling services: Methodological challenges. *Counselling and Psychotherapy Research*, *6*(4), 238–243.

Pearce, P., Sewell, R., Cooper, M., Osman, S., Fugard, A., & Pybis, J. (2017). Effectiveness of school-based humanistic counselling for psychological distress in young people: Randomised controlled trial with follow-up in an ethnically diverse sample. *Psychology and Psychotherapy: Theory, Research and Practice*, *90*, 138–155.

Pretorius, N., Arcelus, J., Beecham, J., Dawson, H., Doherty, F., Eisler, I., … Schmidt U. (2009). Cognitive-behavioural therapy for adolescents with bulimia nervosa: The acceptability and effectiveness of internet-based delivery. *Behaviour Research and Therapy*, *47*, 729–736.

Public Health England. (2015). *Promoting children and young people's emotional health and wellbeing*. London: Public Health England.

Roth, A., Hill, A., & Pilling, S. (2009). *The competences required to deliver effective humanistic psychological therapies*. London: University College London.

Schmidt, U., Lee, S., Beecham, J., Perkins, S., Treasure, J., Yi, I., … Eisler, I. (2007). A randomized controlled trial of family therapy and cognitive-behavioural guided self-care for adolescents with bulimia nervosa or related disorders. *American Journal of Psychiatry*, *164*(1), 73–81.

Seaton, S., Evans, D., & Wellings, J. (2008, May). A great deal. *Therapy Today*, *19*, 19–23.

Sleed, M., Beecham, J., Knapp, M., McAuley, C., & McCurry, N. (2006). Assessing services, supports and costs for young families under stress. *Child: Care, Health and Development*, *32*(1), 101–110.

Twigg, E., Barkham, M., Bewick, B., Mulhern, B., Connell, J., & Cooper, M. (2009). The Young Person's CORE: Development of a brief outcome measure for young people. *Counselling and Psychotherapy Research*, *9*(3), 160–168.

Twigg, E., Cooper, M., Evans, C., Freire, E., Mellor-Clark, J., McInnes, B., & Barkham, M. (2016). Acceptability, reliability referential distribution and sensitivity to change in the Young Person's Clinical Outcomes in Routine Evaluation (YP-CORE) outcome measure: Replication and refinement. *Child and Adolescent Mental Health*, *21*(2), 115–123.

Vostanis, P., Humphrey, N., Fitzgerald, N., Deighton, J., & Wolpert, M. (2013). How do schools promote well-being among their students: Findings from a national scoping survey of mental health provision in English Schools. *Child and Adolescent Mental Health*, *18*(3), 151–157.

Xu, W., & Jackson, C. (2010). *Cost effective positive outcomes for children and families*. London: The Place2Be.