Shine 2012 final report

Doing Diabetes Differently: a novel way of contracting integrated psychological therapies to increase treatment adherence

LifePsychol Ltd./Evolving Families in association with Milton Keynes NHS Health Foundation Trust (MKHFT)

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Part 1. Abstract

Project title: Doing Diabetes Differently: a novel way of contracting integrated psychological therapies to increase treatment adherence.

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Partner organisation: Milton Keynes Health Foundation Trust (MKHFT)

Lead Clinician: Dr Miriam Silver

Abstract

Poor mental health is associated with sub-optimal glycaemic control, worse health outcomes and increased risk of premature death, meaning increased costs per patient. NICE guidance recommends all diabetes patients across the lifespan have access to timely and effective psychological support. However, like many NHS trusts Milton Keynes Health Foundation Trust (MKHFT) had no available resource to provide or purchase additional services with the hope of future savings.

Thus, the intended improvement was to provide, in accordance with NICE guidance, high quality, easily accessible and cost-effective psychological therapy for diabetes patients of all ages under the care of MKHFT. It was hoped that providing brief psychological therapies as an integrated part of diabetes healthcare, would mean improved mental health and greater treatment adherence, leading to better physical health outcomes – so reducing costs and improving patient safety and care.

Description of innovation

To evaluate the impact of providing integrated psychological therapies for diabetes patients with poor mental health, whilst building a model of psychological risk factors for poor treatment adherence. An additional innovation was to break the funding deadlock by testing the viability of a new model of outcome-based commissioning, a Health Impact Bond, where payment is contingent upon outcomes achieved.

Methods used for testing / implementation so far including ethics, plans, measures, methods for evaluation & analysis

This was an observational quasi-experimental study to appraise the impact of psychological therapies for diabetics with poor mental wellbeing. Evaluation of clinical outcomes pre and post intervention were collected in order to explore clinical and cost effectiveness in addition to building an evidence base for future contracting of the service.

Adult and paediatric patients were also screened at routine clinic appointments with validated questionnaire measures to identify psychological risk factors of poor adherence. This formed part of the service evaluation and would help target care towards the most vulnerable patients.

Learning so far

Collection of screening data exceeded original targets. Our hypothesis that poorer scores on validated measures of psychological wellbeing and diabetes related distress are indicative of poorer glycaemic control was confirmed by this data.

The therapeutic intervention demonstrated clinical effectiveness at statistically significant levels for psychological outcomes but not for glycaemic control within the timescale of the project (see section 2).

For adults undergoing psychological therapy, six months pre – post comparison showed the use of follow-up appointments, use of A&E and emergency inpatient admissions reduced. A more modest effect was found for the small number of paediatric patients treated. A cost consequence analysis suggests that after correcting for intervention costs, a net saving of £218 per adult and £187 per paediatric patient was accrued.

Together this suggests that the psychological intervention was both clinically and cost effective.

Our ability to overcome and find solutions to the difficulties faced during the project demonstrates the flexibility of a small external organisation supplying services to the NHS. This flexibility enabled us to respond well to the needs of our patients, for example to increase engagement we offered home, school and community appointments as well as individual sessions for parents where necessary. In addition we offered extended working hours, psychometric assessment and a range of therapy.

The challenges and how these been overcome

The contrast in terms of decision making, economies of scale and staff availability in the large NHS Trust compared to the small social enterprise provider delayed various processes, including securing honorary contracts, finance and more recently securing ongoing service provision.

For example there was some delay in receiving project funding as monies were held up in the hospital trust. Staff resignations (therapist and administrative) from the project were overcome by having a process in place to rapidly recruit staff who were passionate about and committed to the project. The ability of a small company to do this more quickly and just as safely was obvious to both organisations.

There has been some difficulty in securing ongoing funding and contracts for the service. Sadly the service had to close to referrals whilst negotiations between MKHFT and commissioners are underway. Thus at present it remains uncertain whether psychological support will be available for diabetes patients under the care of MKHFT.

We have hit multiple barriers in convincing commissioners to adopt the Health Impact Bond model as they seemingly prefer more familiar fixed budget costs. In relation to this Dr Silver, Project Lead commented “Despite the talk of payment by results, at the moment the reality is still payment by throughput. It’s very difficult for us to be innovative in quite a conservative commissioning environment but we’d love to be commissioned on the basis of our outcomes, because that’s the strongest test of value for public money, and something we feel passionate about”.

However we do recognise that it does provide challenges, administration and cost to the Commissioner through monitoring time, and potential increased cost if outcomes excelled against standards when there is only a fixed budget available. It is unlikely that any provider would not work hard to achieve and exceed the base rate. If this is the case then commissioners may question why have all the cost of monitoring this type of contract when the payment would end up the same, especially if carefully agreed national guidelines are being followed. In addition to this the lack of any national data about ongoing costs and outcomes of providing a psychology service for diabetes would mean that trying to establish a Health Impact Bond for this would be difficult to cost and evidence. Therefore without such supporting evidence it could be said that we were overly ambitious in our intentions to be a flag-ship service operating using a Health Impact Bond.

Part 2. Quality impact: outcomes

Nature of setting and innovation i.e. description of where

The hospital team, providing physical care to diabetes patients, decided who to refer for psychotherapeutic intervention.

Demographics of patients referred:

	Gender	Age (years)	Type	Mean HbA_{1C} at referral
Children	Male: 54% Female: 46%	*M*=14 (range= 11-16)	1= 92% 2= 8%	*M*=9.1% (range= 5.6 to >14.0%)
Adults	Male: 31% Female: 69%	*M*=37 (range= 17-67)	1= 78% 2= 22%	*M*=10.2% (range= 5.6 to >14.0%)

It is clear that the majority of patients referred had Type 1 diabetes, and that their HbA_{1c} was much higher than the recommended level in both children and adults[1]. Also more adult females were referred for psychological support than adult males.

Therapy sessions were due to be held within the hospital diabetic clinics to try to integrate physical and mental healthcare, however delays in securing honorary contracts and availability of rooms, meant the therapy service operated off-site, along with all administration. However this turned out to be an unforeseen positive change which patients appreciated, with many commenting that they liked having therapy away from the space of the hospital and it felt more relaxed and personal.

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[1] The recommended HbA_{1c} for children and young people is generally ≤7.5%. For adults a HbA_{1c} of 5.5-7.0% is considered optimal, 7.1-7.5% a little high, 7.6-8.0% high and over 8.1% very high. However these are generic guidelines and targets vary for each individual.

Course of intervention, tests of change, adjustments

Patients attending an outpatient diabetic review with a Consultant Endocrinologist completed a screening questionnaire about their general wellbeing and diabetes related distress. These scores were matched with their HbA_{1c} value to aid understanding about the psychological risk factors for poor adherence to treatment and medical advice.

The medical team referred, for brief therapeutic intervention, those patients with poor mental health and diabetes control whom they were most concerned about. Therapy was time-limited to 6-12 sessions to avoid dependency and to focus on outcomes; patients with complex needs were referred to mental health services available locally. Therapy considered each patient's needs holistically by exploring issues related to school, work, family relationships and past experiences that impact on an individual's ability to take care of their diabetes. Patients completed screening questionnaires before and after therapy along with a satisfaction and impact questionnaire. HbA_{1c} levels before and after the intervention were recorded as were the patients' use of healthcare resources for six months before and after therapy. Pre and post therapy HbA_{1c} values and scores on the questionnaires were used as an indicator of change as well as patients and families self-reported change. Some patients also partook in a research interview about their experiences of the service.

The primary and secondary data used to demonstrate impact on quality:

a) The source of the data and how easy it was to access

Screening questionnaires were easy to administer and score with the majority of patients being happy to complete them (n=742). HbA_{1c} scores were collected from hospital databases, with a time lag of 3-4 weeks before scores were accessible. Most patients completed post-therapy questionnaires (n=22) and a good proportion were willing to engage in a research interview (n=6). Data related to patients' healthcare use (attendances, admissions etc.) before and after therapy was somewhat difficult to access in a timely manner from the NHS system (see section 3).

b) The validity and reliability of the data

Both questionnaires (PHQ-SADS & PAID) used are validated measures, commonly utilised across a number of services including IAPT (Improving Access to Psychological Therapy) to assess patient's clinical presentation and measure outcomes. As with all questionnaires self-report measures rely upon patients answering questions honestly, however patients were informed that their answers were being used for research purposes and would not be shared with their doctor. As we collected large sample (n=742) the countering bias was minimised.

Patient's glycaemic control and adherence to treatment was determined using HbA_{1c}, the recommended measurement of diabetes management.

Data gained from service users' interviews is being interpreted using Interpretative Phenomenological Analysis (IPA) - a qualitative research approach that aims to offer insights about how individuals made sense of a particular experience or phenomenon, in this case their diabetes and the psychotherapeutic intervention they received.

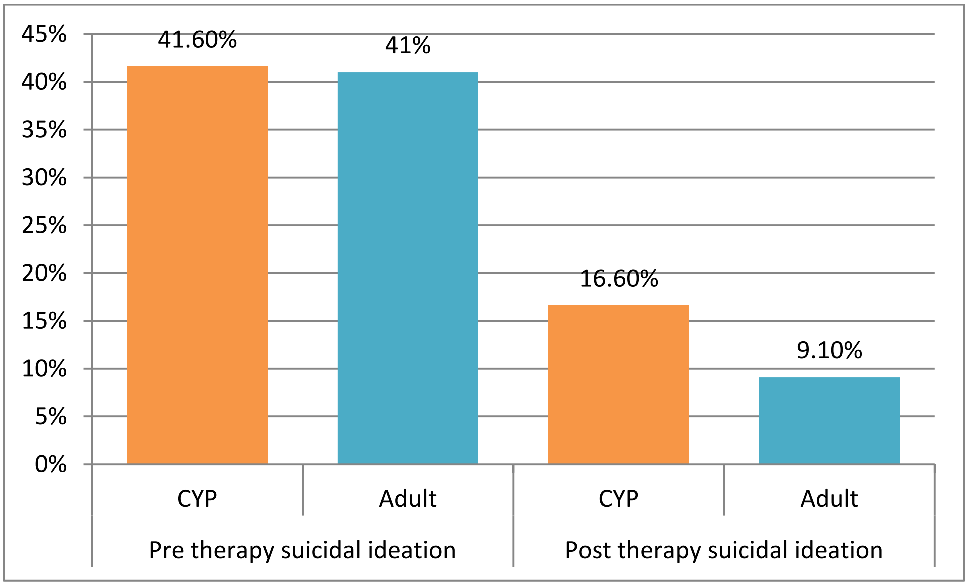
Changes made demonstrated by data

Intervention results.

Analyses of data reveal reductions in both psychological (PHQ-SADS) and diabetes related distress (PAID) following therapy. Improvement on all of these measures was significant ($p<0.005$). In terms of incidence 64% of adults and 33% of children were considered to be suffering from clinically significant symptoms of depression prior to therapy; after therapy this halved across both adults and children to 30% and 17% respectively.

In addition there were post-therapy reductions in suicidal ideation ($p<0.05$) across all ages (see graph).

Impact of therapy on suicidal and self-harm ideation:



Analyses revealed that the intervention did not produce significant change in patient's glycaemic control. This result appears disappointing because reducing patients HbA_{1c} score is always a key aim within diabetes care. However looking at the data more closely and considering therapist feedback offers greater insight. For example it should be noted that some of the children and young people referred were in the 'honeymoon phase'[2] of their diabetes meaning that HbA_{1c} readings were lower before therapy than after. In addition for some adult patients in denial of their diabetes, or afraid of needles, the therapeutic intervention enabled them to begin (often for the first time) regular blood glucose testing; therefore change in blood glucose levels may not be seen immediately and within the timescale of this project.

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[2] The honeymoon phase refers to the period after diagnosis where the pancreas still has some ability to produce insulin. This means that during this phase blood sugar levels are generally easier to control as the body still has some ability to help itself. Blood glucose levels may even return to normal levels during the honeymoon phase.

Feedback from patients:

impact of therapy…

"It turned my life around, I've got a more positive outlook"
57 year old man

"It's helped me to take it more seriously"
52 year old lady

"It's changed how I look at diabetes care - how I look at everything really"
38 year old female

"I'm now able to inject without a problem and monitor my blood sugars. My wife's pleased and I've been a lot more upbeat"
50 year old man

"I'm a much more confident person than I was and I've got 2 job interviews"
24 year old male

Screening data:

Analyses of paediatric screening questionnaire data reveals a significant positive correlation between patients HbA_{1c} score and their score on the measure which considers their experience of living with diabetes (p=<0.05, n=84). This means those with poorer glycaemic control tend to experience greater levels of diabetes related distress. It is interesting that amongst the children and young people sampled their glycaemic control appears not to be related to any other measure of health and wellbeing.

Analyses of the screening data from the adult clinic however suggests that sub-optimal glycaemic control is linked to a number of factors including age, anxiety, depression, suicidal ideation and diabetes related distress. Age was negatively correlated with glycaemic control (p=<0.005, n=658) and diabetes related distress which supports much research suggesting that younger adults tend to have poorer control of their diabetes and experience greater distress. All other factors were positively correlated with glycaemic control (p=<0.005, n=658) which further reinforces the need for diabetes patients to have access to mental health support. One of the most concerning findings is the link between poor glycaemic control and suicidal ideation (p=<0.05). On its own this highlights the need for psychological screening to become a part of routine diabetes care in order that vulnerable patients can receive the support they need and deserve in a timely manner before they reach crisis point.

Description of confidence

We have collected a large amount of screening data, exceeding original targets set which allowed us to perform various analyses and draw valid conclusions about the sample. The sample size achieved makes it one of the biggest studies within the UK to consider the relationship between glycaemic control and psychological distress.

The outcome and service evaluation data collected formed a smaller sample than originally anticipated, which was as a result of the decision to see fewer patients for a longer duration of therapy due to the entrenched nature of the presenting problems. However the sample was large enough to analyse statistically and determine the impact of therapy.

We have worked with the hospital's finance department to gain information about patient's healthcare use before and after therapy in order to conduct economic cost consequence analysis (see section 3).

Adjustments made to outcome measures from original application

No adjustments were made to original outcome measures described. However to objectively measure physical change extra HbA_{1c} tests were requested from patient's GP's to ensure a recent reading following therapy.

Assessment of the effect of the project on the quality of the service and the experience of patients

The project added a positive dimension to patient's experience of the diabetes service as their health was considered holistically with support available to optimise their emotional and psychological health as recommended by NICE. Patient's feedback highlights the value and benefit derived from the project (see quotes boxes below).

> "It was really good to feel listened to and heard, to be able to think about things in a different way and for me to be able to talk about things outside of the hospital"
>
> Young person aged 14

> "Best service I have used in 38 years of diabetes care"
>
> Adult

> "It has helped put my life in control and made me know how life is worth it. Thank you."
>
> Adult

> "I now realise that I am important and I need to look after 'me'"
>
> Adult

Comments from hospital staff indicated that the service had a positive and noticeable impact upon their patients as they present as being more engaged in their physical care and are ready to take an active role in managing their diabetes (see quote boxes).

> "I very much hope that you get further funding as I have found the service useful, and compassionate"
>
> Referring Doctor

> "There has been a need for this important aspect of care for a long time, and our patients are deriving immense benefit from this collaborative venture"
>
> Dr Ali, Lead Consultant Endocrinologist

> "We offer a space for clients to talk about their interpretation of diabetes and *what it means to them*"
>
> Therapist

Part 3. Cost impact

It has been difficult for us to calculate both the short-term and longer-term financial savings of the intervention due to the fact that diabetes is a long-term condition and the project was short term (one year intervention), without a follow up period.

However we attempted to determine change in use of healthcare resources for those who received therapy by considering the number of outpatient appointments, presentation at A&E and emergency inpatient hospital admissions (e.g. Diabetic Ketoacidosis, DKA) for the six months before and after therapy. We matched these with local and national tariffs to explore the economic impact of the project. It should be noted that there was insufficient post therapy information for some patients due to their recent discharges and the time-lag in updating the NHS system.

We found that of the 12 paediatric patients seen the total number of outpatient diabetes appointments increased from 18 to 24; meaning increased costs of £768. For these patients in the six months before therapy there were 3 attendances at A&E; after therapy there were none, representing a cost saving of £420. Inpatient admissions were also seen to decrease after therapy from 6 to 1. This represents a cost saving of £6,500. It could be said that the increase in outpatient appointments but reduction in use of crisis services indicates the indirect effects of therapy whereby patients mental wellbeing improves meaning they have greater capacity to be more engaged with their routine diabetes care so seek greater levels of support from the diabetes team, and consequently do not require emergency care as often. Taking into account the costs of therapy it is estimated that for paediatric patients there was a total net saving of £2,240 or a saving of £187 per patient as a result of engaging in psychology support.

In terms of the 36 adults seen for therapy there were a total of 52 outpatient contacts in the six months before therapy. Of these 21 were attendances at diabetic clinic and a further 21 were thought to be clinics related to diabetes (ophthalmology, dietician, podiatry etc.). After therapy there were only 33 contacts, however this reduction is based upon data from 21 patients for whom post therapy healthcare use data was available so should be interpreted with some caution. Before therapy there were 25 A&E attendances and after there were only 8 which represents a saving of £2,380. The number of emergency inpatient admissions also reduced following therapy from 17 to 2 which represents a £19,500 saving. Taking into account the cost of therapy it is estimated that a total net saving of £7,840 was made, which equates to £218 saved per patient. In percentage terms we decreased costs of hospital admissions and treatment costs by 6.7 per cent. We had hoped to see costs decrease by 14 per cent however our calculations are based on partial data. Savings could potentially increase once healthcare use information is gathered for the remaining 15 adults where information was not available within the timescale of the project and its funding.

Overall the amount saved across both children and adults is an estimated £10,080, accounting for therapeutic intervention costs. Within the project we saw 10 per cent of MKHFT's paediatric population and just 1.3 per cent of the adults. With UK studies indicating that 41 per cent of diabetes patients have poor mental wellbeing the potential cost savings to MKHFT if 41 per cent of their population were offered psychological support is substantial and would represent real value for money. However looking specifically at the MKHFT adult population, we know that the prevalence rate of clinically significant symptoms of depression or anxiety is 19 per cent (from the screening data). Of the paediatric population screened 6.5

per cent and 9.6 per cent met threshold for clinically significant symptoms of depression and anxiety respectively (see appendix 5 for scaled cost sensitivity analysis).

At the outset of the project we believed that admissions data would be a good way of measuring healthcare resource use however we learnt that in many cases hospital staff try to minimise admissions by intensively managing patients in the community (especially within the paediatric service). Thus our cost calculations do not account for any cost savings related to fewer ad-hoc consultations with nurses outside of clinic appointments. It was also difficult to determine the extent to which emergency visits and or admissions were diabetes specific due to the limitations of the computer system at MKHFT. Finally we had hoped to see a reduction in physical follow-up appointments however with hindsight this measure could be limited with diabetes due to the required number of outpatient visits required by National guidance and adhered to by MKHFT.

In terms of the longer term savings beyond the healthcare sector, patients' self-report was useful in terms of predicting secondary cost savings, for example a change in patient's productivity following the intervention, meaning they were able to achieve better functioning or contribute to the economy. That is, some patients although not able to work were able to better manage things at home, others attended school/work more consistently and one succeeded in finding employment. Cost savings associated with entering employment and no longer claiming benefits equate to a cost saving of £3692 per person per year.

We hope to be able to explore further the wider health-economic and social impact of the intervention by following our patients over a longer period of time to realise the true treatment costs and prognosis following psychological intervention and also to determine whether change following a brief intervention is sustained.

Cost of pathways and packages of care were estimated using national, standardised averages. The cost of care provided by the social enterprise is roughly equivalent or less than that charged by statutory services however the quality of care provided differs, in the sense that care was evidence based, tailored to the individual and delivered by highly qualified experts.

The cost of the Shine intervention was calculated by accounting for staff time and resources that were needed to deliver the intervention outlined. A project of this type necessarily has additional costs related to set-up and evaluation over and above those of an ongoing clinical; these have to be removed when considering what the service cost would be. Apart from this it seems that the cost of the overall estimate of the Shine intervention was as predicted in the budget.

Implementation costs were built into the original bid and despite staff changes the flexibility of the social enterprise meant all costs were absorbed within the project funds. We calculated that each consultation or therapy session cost approximately £65 per patient.

Training for staff mainly took place in the set up phase of the project. Training provided to hospital staff was not taken out of the time allowed for the project; staff from the social enterprise contributed their time without cost. We appreciate that this might not be possible in other services so time for delivering training to professionals would need to be built into the budget.

Any change management activity was carried out by the company as part of its normal way of working, as change in a small company is a ‘way of life’ whether it is internal or in managing external relations.

Savings have been hard to quantify as it is likely that they will be realised in the longer term and as stated above this is something we wish to explore further. Primary savings were seen by a reduction in presentations to emergency physical health services (see above). Secondary savings in terms of a reduction in use of support and benefit systems and an increase in workforce productivity have also been observed from patient’s self-report questionnaires but further exploration of this is needed. Clinical staff reported that routine appointments went more smoothly for those who had used the therapy service. In addition anecdotal evidence suggests that having the psychology service available reduced the burden felt by clinical staff simply because they had a specialist service available to refer patients to and knew that they would be seen in a timely fashion.

For the duration of the project MKHFT were eligible for the Paediatric Best Practice Tariff incentive payments due to the availability of psychological support. For 2013-14 this equates to income from an annual payment of £2764 per child.

Cost savings might also be seen for those adults whose glycaemic control has improved when their care transferred back into the community, meaning money is saved by no longer needing to see a specialist consultant. However this could not be monitored or quantified within the life of the project.

Part 4: Learning from your project

The original aims for our project were three fold. Firstly we aimed to provide brief psychological therapy for diabetic patients of all ages as part of an integrated physical/mental healthcare team at MKHFT. In doing this we aimed to demonstrate the efficacy of offering short term interventions. This aim was achieved and exceeded in the sense that psychotherapy was found to have a significant positive impact on patients' health and wellbeing i.e. both physical and mental health with the potential for long term public health benefits.

Secondly we aimed to build a model of psychological risk factors for poor adherence to treatment to explore the relationship between diabetes care and psychological distress and to help enable the medical team to target future care to the most vulnerable patients through being aware of key indicators. This aim was also met and the number of people screened exceeded initial aims, meaning we had a robust sample from which to draw conclusions.

Thirdly we aimed to be a flagship example of how services can operate within a save to spend model where services are commissioned contingent upon outcomes achieved. Thus far commissioners have not been keen to adopt this model for diabetes therapy, preferring a more traditional fixed budget model, e.g. with HRG tariffs, as part of meeting the already agreed national guidelines of best practice.

Finally from the perspective of the Health Foundation the key objective of the Shine programme was to identify innovations that deliver better outcomes for service users through new approaches to care. We believe we have met this objective through demonstrating the efficiency and effectiveness of outsourcing psychological input from a specialist third sector organisation.

Having a dedicated team within the social enterprise who had protected time to devote to the project was very important as it meant no extra demands were placed on MKHFT. This way of working was good because it allowed MKHFT to continue with the physical care as usual with the vertical integration of a psychological therapy service within the social enterprise.

All staff involved were motivated and passionate to see the project through to its conclusion. The recruitment process was important in ensuring staff were committed to supporting the implementation of the innovation. Despite admin and therapist resignation during the project the original project team was maintained and remained enthusiastic throughout. Building relationships between the two organisations was important and monthly steering group meetings were held to monitor progress and overcome challenges. Communication with the rest of the medical team was also important, and was backed up by the social enterprise developing good interpersonal relationships using agreed communications e.g. telephone, letter, email and frequent clinic visits.

The clinical staff at the hospital were very keen to work with us, and enthusiastic about having available a psychology service to which they could refer patients, and know they would be offered thorough assessment and therapeutic input in a timely fashion.

Timely feedback from both sides was very important to this process as was the investment in time by the social enterprise in 'getting to know' the other team.

We have learnt that quantifying outcomes within a short time frame when cash-releasing savings for a long term condition like diabetes are only likely to be realised in the longer term is difficult. In addition the measures used to identify potential change in treatment costs and service use fail to take account of the wider social and economic impact of the intervention.

The nimble nature of the social enterprise and effective project management allowed the project to get underway in a timely fashion in spite of bureaucratic challenges posed by a larger organisation. In terms of outsourcing we have demonstrated the efficiency of a third sector organisation delivering services to an NHS trust. There is no doubt that the very proactive and can do organisational culture of the therapy company (brought about by the type of staff attracted and recruited to it) had a significant impact on the way of working.

We intended to accept at least 70 referrals for psychological intervention. However due to the complexity of cases referred to us fewer patients were seen but for an extended number of sessions (patients could be offered up to 12 sessions of therapy rather than the original six). This is not something that could have been anticipated before beginning the project and in spite of this change over 60 referrals were received throughout the project (appendix 3).

It could be hypothesised the complex nature of referrals was in part due to the previous lack of service provision meaning individual’s difficulties had become entrenched. It is also likely, however, that there is a subgroup of patients who would be more suitable for short term therapy, which, as the project was focused on a hospital service did not come to the attention of this project e.g. in community settings before the increase in difficulties lead to referral to the hospital.

The nature and scale of NHS meant that sometimes it was hard to navigate. Communication within the trust sometimes caused a problem as messages were not cascaded. For example the message about being closed to referrals was not passed on to the team meaning six patients were referred after the cut-off date. In the beginning it became apparent that the team did not always have a clear understanding of what psychology could offer.

Access to the NHS computer system and the fact it was not always updated was a barrier. In addition within the diabetes care team doctors and nurses had different patient record systems meaning correspondence had to be duplicated.

The lack of rooms for use by therapists with MKHFT meant to some degree there was a lack of integration and presence of psychology as part of the observable and tangible diabetes team, although as time went on this different way of working became less of a barrier both to clinicians and service users.

The limitations of the information available on the NHS computer system used by MKHFT, which were not realised at the start of the project, made collecting data a longer process.

Resignation from hospital administrative staff meant that the social enterprise had to provide staff to cover the gap in administering screening questionnaires. The nimbleness of the social enterprise to rapidly respond and recover the situation meant it had little impact.

Therapist resignation meant that new staff had to be swiftly recruited. Had this been handled by the NHS Trust there may have been significant delay in the person coming into post however the social enterprise had a swift recruitment process in place to ensure gaps in service provision were managed and minimised as far as possible.

The majority of our original ambitions were realistic and matched well with available resources and timescales, which is demonstrated by the success of the project and outcomes achieved. However it was outlined in the original proposal that the project would be re-commissioned and the contract signed off by June 2013. Due to the current conservative commissioning environment this was somewhat unrealistic as was the aim to be contracted based upon outcomes achieved. The ambition to have the project contracted half way through the project was impractical as the data collected at this time point was not robust enough to present a strong enough case to commissioners.

Next time we implement an improvement project we would be keen to encourage more face to face meetings with our collaborating partners as we have found this to be more effective as a communication strategy than email or messages cascaded through teams. In addition we would be keen to factor in time for providing more staff consultation and training as this is key in further developing relations between organisations. In addition it will also help towards improving patient safety and care by way of better staff awareness and understanding of, in this case psychological issues in long term conditions. It should be noted that we had no way of capturing the amount of time nurses spent consulting with and providing support to patients over the telephone, it would have been interesting to have assessed whether this changed after therapy as patients began to feel more empowered to manage their condition themselves.

Part 5. Plans for sustainability and spread

Negotiations for future funding of the service are underway with commissioners. A business case has been put forward by MKHFT and we are awaiting a decision. Previous communication with commissioners would suggest they are reluctant to contract the service based upon the save to spend model. However what is important for the patients, and the clinicians involved is that the service continues whatever the commissioning used.

Following the death of two diabetes patients MKHFT were criticised by the coroner for the absence of emotional and psychological support. Such tragedy offers incentive for the service to be contracted. In addition MKHFT can benefit from the cash incentive attached to the Paediatric Best Practice Tariff with psychological provision in place for children and young people.

In terms of sustaining the beneficial effect of therapy this is something that we would continue to monitor closely though patient's progress and outcomes.

We have applied to present project findings at international conferences and once the conference circuit is complete we will publish outcomes in prestigious academic journals. In addition we intend to produce digital resources to help publicise the project's outcomes more widely in the hope that others adopt the innovation and more people can have access to psychological support as a result. To support these activities we have applied for a Widening Impact Award.

When presented to doctors at the Grand Round the project's use of psychological therapy in diabetes care was met with positive interest from those working with other long-term conditions. Thus our innovation could be spread across other departments within the Shine award site. This is something we will explore should the diabetes project be commissioned.

The model of risk and method of utilising screening tools to identify those that would most benefit from psychological therapies is too a generalizable methodology with a number of applications within and beyond the Shine award site.

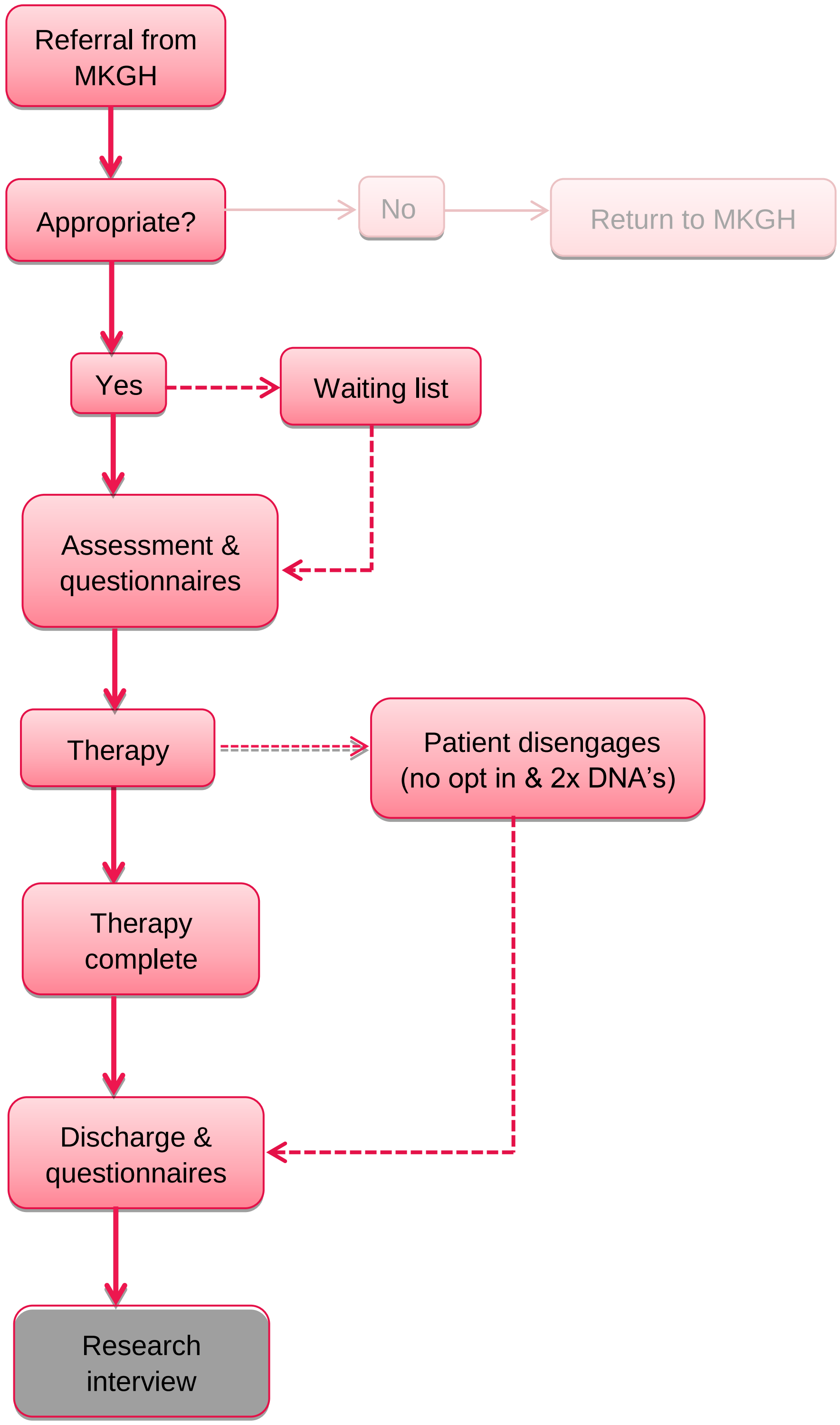
Spreading the use of third sector organisations who are experts in their field of service provision could not only be applied to healthcare services, GP practices and mental health services but also to other areas such as social or forensic services. Collaboration with Social Care or probation services and bidding for funding to trial similarly innovative pilot projects might be a way of further demonstrating the need for psychology provision across different sectors.

Staff working in diabetes primary care have expressed their interest in the project being rolled out to cover GP surgeries within Milton Keynes. This has the potential to increase demand dramatically and to positively affect the lives of many more patients, their families and wider society through increased productivity and reduced costs to healthcare.

The University of Northampton have suggested they would be keen to bid for further funding to transform the project into a European multi-site study and determine to a greater and more generalisable extent the impact of psychological interventions on diabetes control and quality of life.

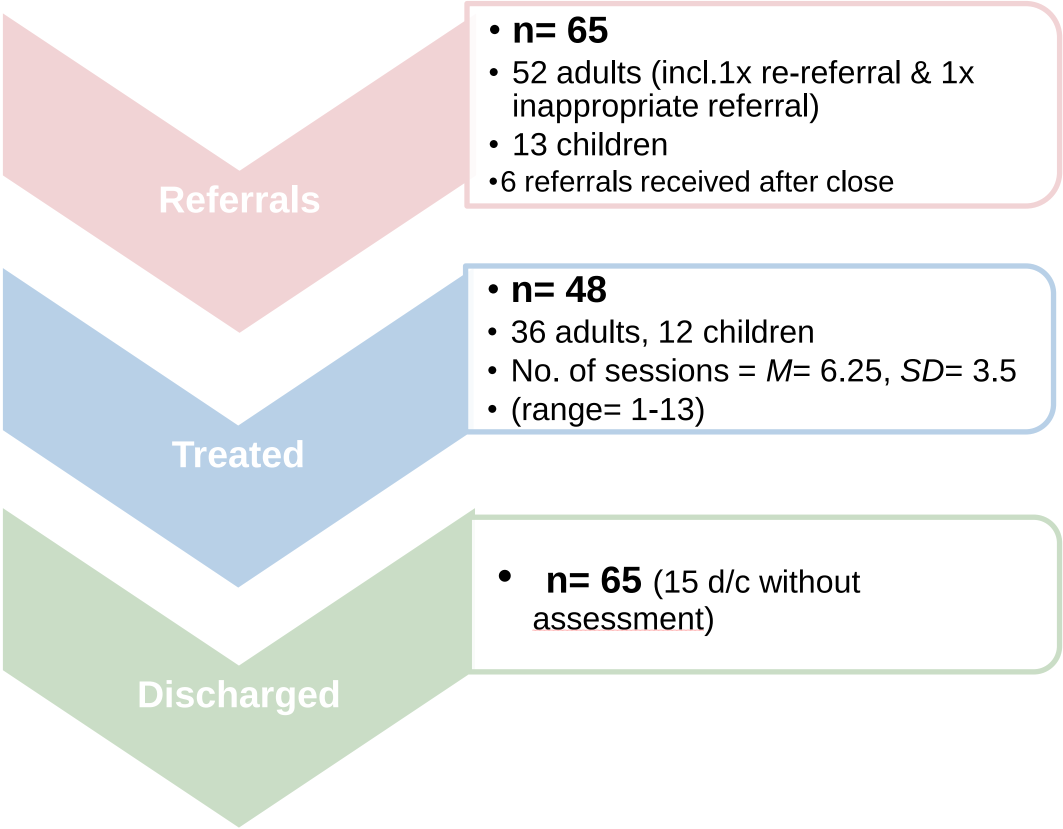
We intend to contact Diabetes UK to establish whether they would like to publicise the results of the project through their networks.

Appendix 2: Patient pathway through service



Appendix 3: Summary graphs and tables

Flow of referrals:



Referrals

- **n= 65**
- 52 adults (incl.1x re-referral & 1x inappropriate referral)
- 13 children
- 6 referrals received after close

Treated

- **n= 48**
- 36 adults, 12 children
- No. of sessions = *M*= 6.25, *SD*= 3.5
- (range= 1-13)

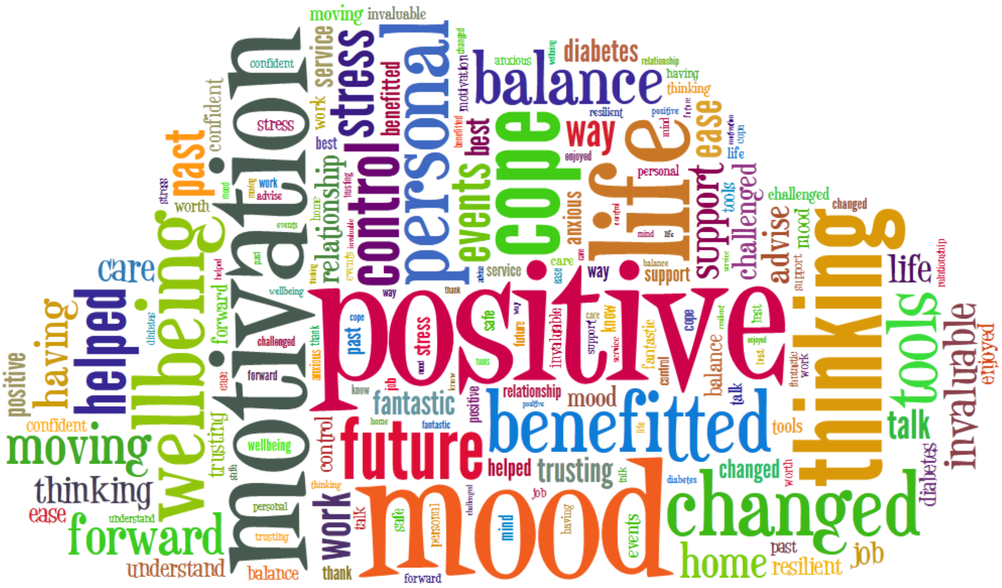
Discharged

- **n= 65** (15 d/c without assessment)

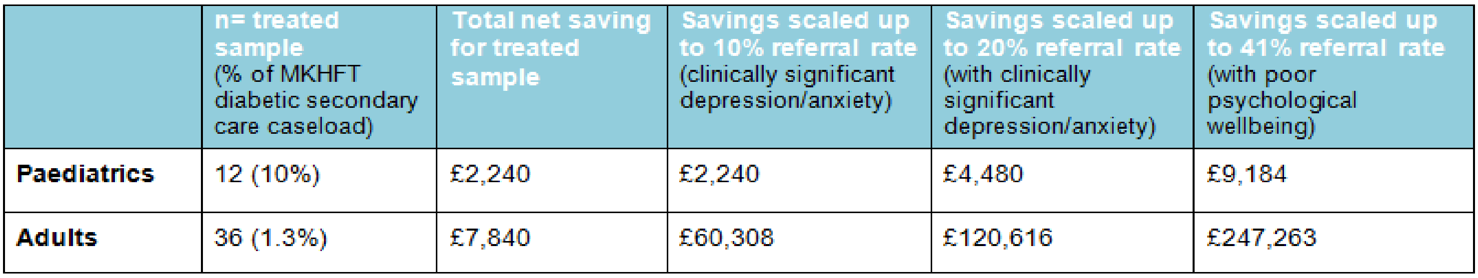
Appendix 4: service user therapy feedback

Children and young people's thoughts on their therapy:

Adult's thoughts on their therapy:



Appendix 5: Scaled Cost Sensitivity Analysis



	n= treated sample (% of MKHFT diabetic secondary care caseload)	**Total net saving for treated sample**	**Savings scaled up to 10% referral rate** (clinically significant depression/anxiety)	**Savings scaled up to 20% referral rate** (with clinically significant depression/anxiety)	**Savings scaled up to 41% referral rate** (with poor psychological wellbeing)
Paediatrics	12 (10%)	£2,240	£2,240	£4,480	£9,184
Adults	36 (1.3%)	£7,840	£60,308	£120,616	£247,263