

# Caring for people with physical and mental health needs: A case example from a diabetes service

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**The psychological impact of diabetes is well known but not all people with diabetes have access to the support they need. People with severe mental illness and diabetes can find self-care skills, such as those required to administer insulin, particularly challenging. As healthcare professionals, it is important that we work as part of a multidisciplinary team (MDT) to help these people manage their diabetes. This article outlines a case of a woman with schizophrenia and explains how the MDT were able to work with her to overcome her fear of injecting insulin.**

Type 2 diabetes can impact on every aspect of a person's life and requires careful, individualised management (NICE, 2009). The progressive nature of beta-cell failure means that 1 in every 25 people will need to be transferred to insulin each year and that, nine years after a diagnosis of type 2 diabetes, it is possible that most people will require the addition of insulin to obtain a HbA<sub>1c</sub> level near the NICE recommended target of 48 mmol/mol (6.5%; UKPDS [United Kingdom Prospective Diabetes Study] Group, 1998). It is therefore important that people are given effective treatment as quickly as possible. Delay in initiating insulin treatment raises the risk of complications (Goodall et al, 2009), leading to poorer outcomes, reduced quality of life and reduced life expectancy.

The National Service Framework (NSF) has emphasised the need to empower people with diabetes to be better informed about their condition and be involved in treatment decisions (Department of Health, 2001). This document also highlights the need for early initiation of insulin and multi-agency support, including access to psychological services.

Diabetes UK published survey outcomes that showed only 15% of diabetes services had access to psychological support and that only 2.6% of services

complied with the six psychologically relevant NSF standards/NICE guidance recommendations (Diabetes UK, 2008).

Helping people with diabetes develop the required self-care skills to manage insulin therapy is particularly challenging in those with both type 2 diabetes and severe mental illness. People with schizophrenia are more likely to develop acute diabetic complications, develop microvascular and macrovascular complications over time and are six times more likely to have a diabetes-related death (Jones et al, 2004; Brown et al, 2010; Holt, 2011). The factors associated with impaired glucose tolerance and type 2 diabetes, such as being overweight, poorer self-care behaviours, less motivation, poorer access to facilities, lack of financial resources and exposure to psychologically stressful events, are also commonly observed in people with mental health problems (Ciechanowski et al, 2000; Gough, 2005). Comorbidity has been found to worsen the prognosis of both conditions (Holt et al, 2005; Knol et al, 2006; Nouwen et al, 2010)

There are a number of potential factors that contribute to the poorer prognosis within this particular group and it can be difficult to separate out the contribution of pharmacological therapies

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## Article points

1. People with diabetes and severe mental illness are more likely to develop acute diabetes complications.
2. The traditional way of providing physical and mental healthcare has, until more recently, been very separate, which means healthcare professionals working in each area often do not feel confident or competent dealing with additional psychological needs.
3. This article outlines a case of a woman with diabetes and schizophrenia, and describes how collaborative working between a clinical psychologist and a DSN helped the woman to address her issues regarding diabetes self-care.

## Key words

- Diabetes
- Mental illness
- Schizophrenia

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### Page points

1. Many expert providers of diabetes care feel under-resourced to meet the psychological needs of people with diabetes.
2. Psychological insulin resistance (PIR) is a complicating factor observed within the general population in type 2 diabetes that influences the progression to insulin therapy. PIR is a complex and multifaceted concept that covers factors such as needle anxiety, fear of hypoglycaemia, fear of weight gain, fear of social rejection and environmental factors.
3. Studies have shown that an increased understanding of PIR from the individual's perspective should result in improved treatment outcomes through supporting the individual to begin insulin treatment sooner and improve compliance.

and other aspects of the mental health problem. It is possible that type 2 diabetes is under diagnosed, and therefore treatment is delayed, as many people with mental illness report that their physical well-being is overshadowed by their mental illness (Disability Rights Commission, 2006).

The traditional way of providing physical and mental healthcare in the UK has, until more recently, been very separate, which means healthcare professionals working in each area often do not feel confident or competent dealing with additional psychological needs, particularly if they do not have access to psychological services (Diabetes UK, 2008). Mental health teams may have fears about the medical management of diabetes and the diabetes teams have fears about managing the particular needs of people with severe mental health problems (Gough, 2005). The growing demand on services is likely to exacerbate this, as 81% of expert providers of diabetes care reported feeling under-resourced to meet people's psychological needs because of demand (Nicholson et al, 2009).

Psychological insulin resistance (PIR) is an additional complicating factor observed within the general population in type 2 diabetes that influences the progression to insulin therapy. PIR is a complex and multifaceted concept that covers factors such as needle anxiety, fear of hypoglycaemia, fear of weight gain, fear of social rejection and environmental factors (Bogatean and Hancu, 2004). Decisions around insulin treatment have also been influenced by families, the relationship with the healthcare team and contact with others who are already on insulin (Bogatean and Hancu, 2004). A case study presented by Brod et al (2009) explored the fears and barriers of one person with mental health issues to commencing insulin therapy and conclude that an increased understanding of PIR from the individual's perspective should result in improved treatment outcomes through supporting the individual to begin insulin treatment sooner and improve compliance.

The aim of this article is to explore these issues further by describing the multidisciplinary team (MDT) approach to initiating insulin treatment in someone with a mental health condition and type 2 diabetes. The article will discuss the journey of the individual and describe the process of how she overcame her insulin resistance. It will highlight how the MDT adapted to suit the individual's needs

and reflect on what can be learned from this piece of work.

### Intervention overview

This case discusses a person who was referred to an inner-London community diabetes service, which consisted of a consultant diabetologist, DSNs, diabetes specialist dietitians, podiatrists, a healthcare assistant and a clinical psychologist. The clinical psychologist is embedded within the MDT and commissioned to provide one-to-one assessments and interventions, education and training for both the MDT and people with diabetes, and joint working in complex cases. They are also part of the proactive engagement procedure that the team runs for those in vulnerable groups, including the homeless and those with severe mental illness. The local mental health recovery team attend the diabetes service MDT meeting on a monthly basis to discuss issues arising for joint patients and ensure that both their physical and mental health needs are being considered by both services.

Ms M is a 45-year-old woman who lives alone. She has a diagnosis of paranoid schizophrenia and it was reported that she experienced symptoms of anxiety, was socially isolated and expressed delusional beliefs about other people that were paranoid in nature. It was reported that she was being successfully treated by the local adult community recovery team using olanzapine and citalopram, and was regularly reviewed by their team. It was stated that Ms M had a mild learning disability but this did not reach the threshold for support from learning disability services. Other than diabetes and schizophrenia, Ms M had hypertension but this is now under control.

Ms M was initially referred several years ago and attended regular diabetes reviews without psychological involvement. She was treated with gliclazide, metformin and sitagliptin. She was given lifestyle advice, especially around diet, but she found it difficult to adhere to this advice initially. She disengaged with the service and missed several appointments resulting in her discharge from specialist care. She was re-referred to the team in 2013 with deterioration in her diabetes control (prior HbA<sub>1c</sub> of 120 mmol/mol [13.1%]) and her diabetes had progressed such that she required insulin treatment. It was decided that due to her high HbA<sub>1c</sub> she would be started on insulin straight way, rather

than trying another therapy, such as a glucagon-like peptide 1 receptor agonist. The consultant spoke to Ms M about the progression of the diabetes and the possibility of insulin treatment. At this appointment, Ms M expressed some concern about using needles and appeared resistant to the idea of initiating insulin. Ms M consented to the consultant referring her to the clinical psychologist for potential “needle phobia”.

The referral and provision of support was discussed at the service MDT. The clinical psychologist contacted the Community Mental Health Team (CMHT) to discuss their current care plan and agreed the most appropriate way to proceed. It was agreed that the clinical psychologist would offer a discrete piece of therapy around Ms M’s resistance to starting insulin and support the diabetes team to develop a holistic care plan.

Ms M attended a psychological assessment in which her general history, coping and diabetes treatment were discussed. Ms M expressed a number of barriers to starting insulin, which included a fear of contamination, fear of overdose and worries about using the equipment correctly. She expressed concerns about the use of needles, which appeared to be related to observing and participating in her mother’s diabetes management. She spoke about having to administer her mother’s insulin dose and the needle breaking off in her mother’s leg. At this point, it was unclear whether Ms M’s resistance to insulin was being influenced by her lack of knowledge about the condition and insulin treatment (or knowledge that was significantly out of date), or whether her mental health condition was also producing paranoid delusions around the potential for the insulin to be tampered with. During this assessment, Ms M stated several times that she did not want to go on insulin and she seemed unable to adequately explain why the doctors were suggesting she start insulin. She seemed to find it difficult to express and explore her thoughts and feelings, and appeared anxious to leave the session after 30 minutes.

It was decided that, rather than using a direct psychological therapy such as cognitive behavioural therapy to explore and challenge her thoughts around insulin, it would be beneficial to provide education on current insulin treatment. It was hoped that, through updating her knowledge, we might be able to discern whether her resistance was due to poor understanding or whether her fears persisted and were related to

delusional beliefs. Joint sessions with the DSN were arranged to provide Ms M with education with Ms M’s consent with both professionals having input into the design of these sessions.

The four educational sessions focused on helping Ms M to understand the reason why she was being encouraged to start insulin treatment, the recommended HbA<sub>1c</sub> levels and potential risks and complications of poorly controlled diabetes. She was shown the insulin equipment including the insulin pen device and blood glucose monitor. The DSN demonstrated how to use this equipment with Ms M increasing her involvement in the sessions. She firstly agreed to inject a dose into a prop before agreeing to give herself a “dry” injection and then a full insulin injection. This was done several times before Ms M was able to demonstrate the technique herself.

During this education, we explored what Ms M what thinking and feeling about the information, and how it affected her thoughts about the diabetes. She reported that she was surprised at how small the needle was and how easy the equipment was to use compared to when her mother needed insulin. Ms M did raise concerns about remembering to take the injections every day and she consented to us inviting a member of her CMHT to a session to discuss how we could best support Ms M to remember to take the insulin.

A member of her CMHT attended the last educational session and Ms M agreed to commence insulin therapy. We discussed the importance of slowly increasing the insulin dose and emphasised to Ms M that it may take time for an improvement to be seen in her HbA<sub>1c</sub> levels.

### Outcomes

Ms M agreed to start insulin and was commenced on isophane human insulin. She was asked to measure her blood glucose levels daily initially and was offered weekly reviews with either the DSN or clinical psychologist. Since commencing insulin, there has been an improvement in blood glucose levels, which led to her long-term HbA<sub>1c</sub> improving by 22 mmol/mol within 6 months.

After 1 year her HbA<sub>1c</sub> is now 72 mmol/mol (8.7%). Her weight initially increased by 7 kg (from 102–109 kg). However, since dietetic input it is now 105.1 kg. Her body mass index remains high at 42.1 kg/m<sup>2</sup>.

***“Ms M expressed a number of barriers to starting insulin, which included a fear of contamination, fear of overdose and worries about using the equipment correctly.”***

***“Empowering Ms M was a key consideration throughout the treatment.”***

Support is ongoing in order to make further improvements to Ms M’s diabetes management. She has agreed to engage in dietetic support from the team to make changes to her food choices and eating behaviours. She has been discharged from individual psychology support, although the team are aware that they can ask for further psychological support at any time.

### **Learning points**

#### **Communication and working together**

Ms M was identified as someone with mental health difficulties at her first appointment and contact was made with her CMHT before any therapeutic work was undertaken. This communication enabled decisions to be made around the provision of care quickly and is likely to have prevented further delay in the start of insulin therapy. These lines of communication between the teams were kept open and nurtured, and members of Ms M’s CMHT attended her diabetes appointments.

Clear communication was also required within the MDT, which helped to clarify the roles of the various healthcare professionals, especially as multiple mental health professionals from different teams were involved. This enabled a coherent care plan to be developed and, crucially, shared with Ms M herself.

#### **Flexible support**

The diabetes team also carefully considered how care was provided to Ms M and appropriate treatment targets. Joint appointments allowed her to get to know the team in a supportive environment, especially with the support of her community support workers. We were also mindful of Ms M’s tolerance for information and discussion, which meant that shorter, but more frequent, sessions were provided. This provided more opportunity to consolidate the learning and assess Ms M’s wellbeing on more occasions.

#### **Thorough assessment**

It can be difficult in a time-pressured clinic to explore a patient’s thoughts and feelings around their health. Ms M had initially been referred to the psychology session for needle phobia, however, a more thorough psychologically informed assessment suggested that Ms M was not anxious about the use of needles directly, in a manner of someone with needle phobia.

The PIR she expressed appeared to be related to a fear of getting it wrong, causing pain and the equipment being contaminated.

#### **Patient empowerment**

Empowering Ms M was a key consideration throughout the treatment. Care was taken to develop a collaborative care plan and Ms M’s opinions were regularly sought. We wanted to ensure that she did not feel pressured or coerced into starting insulin and that she felt confident about every aspect. We were surprised how quickly Ms M agreed to start insulin and how keen she was to have a go at injections in the education sessions. This was possibly the result of the time taken to ensure that the education was at a level and pace suitable to Ms M, and suggested that Ms M did feel empowered to take control of her diabetes treatment.

Ms M is still supported by the MDT and has regular review appointments with the consultant, the DSN and dietitian. She also has access to the clinical psychologist, should she need further support with any aspect of her diabetes self-care.

#### **Specialist skills/training**

It has been suggested that optimal diabetes treatment requires equal emphasis on both mental and physical health needs (Holt, 2011). Having an “in-house” psychologist within a specialist diabetes community team provided Ms M with holistic diabetes support that equally considered her mental and physical health needs. Together, the clinical psychologist and DSN were able to listen, understand and therefore appropriately address Ms M’s PIR.

#### **Conclusion**

Ms M attended an intermediate diabetes service that had already developed links with local CMHTs and a programme of care for people that do not traditionally engage with services. The experience and skill set of the team enabled the service to be in a position to support her to start insulin therapy. Overcoming her physiological insulin resistance required the co-ordination of all the professionals involved in her care. We believe that specialist teams need to take the lead in engaging and empowering people such as Ms M and we have suggested a model of joint working can successfully deliver diabetes care to those with type 2 diabetes and severe mental illness. ■

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