A Case Study of Cognitive Behavioural Therapy for Social Anxiety & Depression

George Baldwin*

Department of Psychology, Norwich Medical School, University of East Anglia, UK

Abstract

A case report is presented of Penny, aged 28, who was referred to the psychology pathway in the chronic pain service after reporting feeling anxious and low during a physiotherapy appointment for neck pain. An initial assessment highlighted Penny experienced anxiety in social situations and had a pervasive low mood stemming from her childhood and being maintained by her difficulties now. Twelve sessions of Cognitive Behavioural Therapy (CBT) were offered. The CBT longitudinal formulation facilitated joint conceptualization of Penny’s early experiences, the negative core beliefs derived and how they contributed to her social anxiety and low mood. This set the foundations for the intervention to reframe and restructure early experiences, in conjunction with the use of a thought diary relating to situations arising in her work, home and social life. This approach enabled us to empower Penny to process her past, develop new positive core beliefs and break the identified cognitive and behavioural maintenance. A reduction in measured social anxiety and low mood was observed and measured using the GAD7 and PHQ9. Reflections on the case and what was learnt are provided.

Keywords: Social anxiety; Low mood; Cognitive behavioural therapy; Self-compassion

Introduction

Reason for referral

Penny was referred to psychology in the chronic pain service after she became tearful during a physiotherapy session. Penny had disclosed that she felt anxious, low and was struggling to relax. The physiotherapist administered the screening measures for anxiety and low mood which are routinely used when considering a referral to psychology. Penny scored 13 (moderately severe) on the General Anxiety Disorder scale (GAD-7) [1,2] and 14 (moderately severe) on the Patient Health Questionnaire (PHQ-9) [3].

Service context

Depending on a service user’s presentation, psychological assessment in the pain service can result in external signposting if psychological difficulties and/or a service user’s goals do not primarily relate to pain management. The pain service is a small multidisciplinary team based in East Anglia that includes psychology, physiotherapy, nurses and medical doctors. The service sees people who have a primary experience of pain that has not resolved with acute physiotherapy treatment and people can be referred within the service for psychology input if pain symptoms appear to interact with the individual’s mental health.

Assessment

A range of sources were used for the assessment. This included health records, conversations with other health care professionals and meeting Penny herself. The work was undertaken by a trainee clinical psychologist under the supervision of a qualified clinical psychologist.

Penny was a twenty-eight year old female living with her mother, Mary. A genogram (Figure 1) highlighted a hostile relationship with her mother, who has experienced psychotic symptoms for as long as Penny could recall. Penny had always wondered if her birth had triggered the psychosis, as during a fit of rage in Penny’s childhood her mother had blamed her. Penny described a number of distressing memories of her childhood and late teenage years which were elicited in a difficult memories worksheet (Appendix A). This included memories such as not being allowed to fall asleep in the evening as a child or opening windows due to her mother’s superstitious beliefs. Penny also recalled her mother shouting at her school friends and getting ‘vibes’ off clothes whilst shopping which caused Penny embarrassment. Penny also had her fringe cut forcibly cut, her Harry Potter books ripped up as a punishment and on one occasion her mother hit her in public. Penny also recalled her mother making a suicide attempt resulting in her being sectioned, causing Penny to temporarily live with her maternal grandparents. Penny’s father Dave was not present during her childhood and was estranged from birth. They met once when Penny was 21 but she decided not to pursue further contact.

During her teenage years, Penny described having no boundaries enforced at home, which meant she was able to “act out” and have parties where she would make “shameful decisions” with boys. Penny attributed a lot of these experiences to her low self-esteem and anger she held towards her mother. Aged 13, Penny attempted to end her life through a paracetamol overdose. This was precipitated by being bullied and experiencing her first breaks up. This resulted in Penny being prescribed anti-depressant medication which she still takes, but she received no therapy. Penny’s maternal grandparents played a significant role in providing emotional support which she felt her mother could not offer. Her grandad passed away when she was 15 and her nan passed away when she was 19. Penny had a turbulent relationship with her ex-boyfriend Mike during the time that she...
lost her nan. She described him as regularly violent, critical of her appearance and cheated on her. He split up with Penny shortly after her nan’s funeral which precipitated another paracetamol overdose. Penny said she was not then offered additional support for her mental health.

Penny described her early twenties as unstable, as her relationship with Mike continued to be on and off until she turned 23. She described her current boyfriend Brian, as supportive and understanding. Penny has achieved greater relational and occupational stability in recent years, with a senior role in customer relations and a supportive boss, as well as a close circle of friends; Bethany, Alice and Lizzie (who also suffers from depression).

Despite Penny’s relative stability in relationships and work over the last five years, she said she continues to struggle with her mental health. Penny described feeling depressed since her teenage years and socially anxious since her early twenties. At present, she described struggling with unfamiliar people and the fear of making a mistake, which resulted in her feeling anxious and avoiding such situations. Penny said since her teenage years she believed that she is stupid, weak, awkward and a bad person. She said this makes her feel depressed and she cannot stop judging herself, which makes her feel anxious if she thinks other people might also be judging her. Penny displayed limited compassion towards herself when talking about her difficulties and felt a burden on those around her. She described becoming easily frustrated with her mother if she did or said anything that Penny disagreed with. Penny believed this was due to holding so many upsetting childhood memories of her. Penny said the difficulties with her mother made her feel guilty and depressed that she is a bad person. If Penny got upset, she would isolate herself and ruminate about both the incident and her childhood. Penny had six Cognitive Behavioural Therapy (CBT) sessions three years ago for her anxiety. This was the only previous therapy she had received, from her local primary care service. She did not find it helpful as the therapist struggled to remember their previous session which made it disjointed and confusing. Penny could not recall what sessions covered, but felt disappointed that she had not been able to talk about her childhood.

Penny’s physical health included chronic neck pain, headaches and feeling physically tense. These have been a constant issue throughout her twenties and physio treatment has not resolved her symptoms. Penny’s previous CBT did not consider her physical pain in relation to her mental health. Penny described the physical symptomology “flaring” during and after situations that triggered strong emotions, so she wondered if there was a link when the physio had asked if she was stressed. This neck pain was impacting Penny most days. It meant that when she was dealing with a situation that triggered anxiety and/or low mood, she would feel physically tense and then afterwards often suffer with neck pain and headaches, causing further psychological distress, shown to be a common occurrence with chronic pain in the pain cycle [4]. This caused Penny to frequently take sick days from work. She also avoided social situations and shied away from aspects of her senior role at work through fear of failure and being judged, this was something Penny wanted to address. She hoped that therapy would offer the opportunity to talk through the earlier experiences linked to her low self-esteem (and anxiety in social situations), as well as her low mood and the difficult relational dynamic with her mum.

Given Penny’s two previous overdoses there was further exploration of risk. Penny denied having current suicidal thoughts or plans, describing the previous overdoses as impulsive. She stated she did not stockpile paracetamol at home anymore as a precaution. Penny was hopeful that therapy could help improve how she feels about herself. We put together a safety plan which involved being mindful not to self-isolate if she noticed thoughts about harming herself and also reaching out to friends and/or calling the crisis team or emergency services. Penny felt that she would be able to do this. In regards to risk to Penny, she said her mother’s mental health was now more settled, but due to Penny becoming quickly frustrated with her mother she was looking to move in with her boyfriend.

**Formulation**

Based on the information gathered at assessment, Penny’s presentation appeared most consistent with social anxiety and depression. Penny’s low self-esteem was manifesting in the form of social anxiety through avoidance, with her experiencing continual low mood, rumination about her past and guilt about angry outbursts in the present. We hypothesized that Penny’s chronic pain (headaches and neck pain) which had no clear medical cause, may be a physiological symptom of physical tension associated with her negative cognition. In clinical supervision, it was agreed that this gave a rationale for a psychological intervention within the context of the pain service. The National Institute for Health and Care Excellence (NICE) (2009) guidelines recommend treating depression with CBT if it precedes the onset of social anxiety. Consequently, whilst Penny met the criteria for social anxiety, this seemed to be a consequence of her depression which developed in her teenage years, so a decision was made to use the CBT longitudinal model [1] to make sense of Penny’s depression in relation to her earlier experiences, the negative core beliefs and rigid rules for living she had derived, which left her feeling low, lacking in self-esteem and showing limited compassion towards herself. This formulation also captured how Penny’s short temper towards her mother was driven by past guilt.

The Clarke and Wells [5] social anxiety formulation would not...
have enabled us to formulate around the early experiences and thus also treat her depression. The longitudinal model offered the chance to challenge Penny’s negative thoughts about herself in social situations at the maintenance level whilst also allowing core beliefs to be restructured at the meta-cognitive level. We hypothesized this to be contributing to her depression and social anxiety. CBT has been shown to be effective for both depression and social anxiety in a meta-analytical update of the evidence by [6] featuring 144 trials.

Our formulation (Figure 2) sought to make sense of the information gathered at assessment around Penny’s anxiety and depression, in addition to factoring in her pain. Penny’s significant early experiences included having an estranged father, a difficult relationship with her mother; dealing with psychosis and an abusive boyfriend between the ages of 18 and 23 (Appendix A). These experiences appeared to be connected to hypothesized core beliefs she shared about being stupid, a bad person, awkward and a burden on those around her (Appendix B). Penny believed she could not turn off her feelings, control her temper or stop judging herself. These beliefs fed into rules for living including ‘if I’m around new people… then I’ll be awkward’, ‘if I make a mistake… then it proves I’m stupid’ and ‘if I lose my temper… then I’m a bad person’. Penny described critical incidents contributing to her ongoing difficulties; including her overdoses aged 18 and 19, as well as her nan dying and generally ‘acting out’ as a teenager. The current maintenance of her social anxiety and depression appeared to centre around situations included being around unfamiliar people, making a mistake or becoming frustrated with her mum and the ruminating about the past. Being around unfamiliar people triggered thoughts of ‘I won’t fit in’, linked to not feeling clever or confident and not wanting to be judged. We hypothesized this could lead to her feeling anxious, depressed, frustrated and sometimes angry, as well as physically sick and tense with headaches. Penny would then avoid speaking or standing up for herself in these situations. When faced with the prospect of making a mistake, Penny would similarly think about not wanting to be judged. This linked to her core belief around being unable to stop judging herself and hence predicting that others must also think similarly. This would again result in feelings of anxiety, depression, physical tension and sickness coupled with headaches and sometimes anger and frustration. The third scenario captured in the formulation linked to becoming frustrated with her mother over anything she disagreed with. This would trigger Penny to think she is an ungrateful and bad person, linked to her wishing that she was more kind and believing that she is in fact bad. Penny would subsequently feel angry, frustrated, guilty and depressed and then isolates herself and ruminate about the situation, as well as her early experiences with her mother.

Based on this formulation and our shared understanding, we developed a treatment rationale to target Penny’s depression, whilst also encompassing her social anxiety and the associated chronic pain. Physical tension (linked to neck pain and headaches) was considered a physiological symptom of her psychological distress within this formulation. Given that Penny was still going to work and maintaining relationships despite developing moderately severe on the PHQ-9, behavioural activation did not seem an appropriate intervention to come from this formulation. So we agreed to focus on reliving and restructuring Penny’s significant childhood memories which she ruminated about when feeling low and which also fed into her core beliefs that underpinned her difficulty in social situations now. We agreed to explore the negative meaning that she derived from them about herself, to then elicit a balanced alternative perspective [7]. Found this process of reliving and restructuring to be effective in reducing the negative impact of traumatic memories. This felt clinically appropriate, as Penny had rigid negative core beliefs stemming from early experiences, which resurfaced when she became frustrated towards her mother.

Penny also wanted to practice being less self-critical at the maintenance level of the formulation, as this was maintaining her social anxiety and low mood. We agreed that she could explore this in between sessions using a thought diary for situations where she might be judged or make a mistake, or get angry towards her mother. She could then consider an alternative perspective and how she may like to deal with the situation next time; thus, over time looking to shift the negative cognition and maladaptive behavioural responses to reduce the associated physiological distress linked to her pain. This rationale enabled us to work on the meta-cognitive underpinning of her low esteem linking to her social anxiety and low mood, whilst also encouraging a shift at the maintenance level.

**Action plan**

Penny’s goals collaboratively intended to reduce the physiological symptoms of her depression and anxiety that were associated with her chronic pain. The action plan utilized SMART goals [8] to provide clear governance of the therapeutic process towards achieving this aim. Penny had two goals for treatment, the first was to reduce the negative impact of her early experiences by talking about them during sessions and the second goal was to reduce the current negative
maintenance through a weekly thought diary. Both these goals offered Penny the chance to elicit alternative perspectives that did not reinforce her negative core beliefs. Progress towards these goals was measured at the start, mid and end point of therapy using the GAD7 for anxiety, PHQ9 for depression, as well as self-report for pain. Penny completed a core beliefs worksheet at the start and end of treatment. Additionally, Penny documented all her early experiences, the initial negative meaning she derived and the subsequent alternative perspective elicited, to track any cognitive change.

**Intervention: Implementation of Action Plan**

Penny had twelve sessions of individual CBT. Due to Covid-19 the final two sessions were conducted over the telephone. All sessions followed the standard CBT format (Appendix C), which reassured Penny after her previous negative experience of therapy.

**Sessions 1-2**

Initial outcome measures (PHQ9, GAD7 and self-reported pain) were recorded and Penny was re-socialized to the CBT model, as she did not feel familiar with it from her previous therapy. This involved psycho education around the maintaining nature of her negative thoughts and subsequent feelings and behaviors, with her pain being a physiological symptom as we had formulated. We hypothesized that getting Penny to consider an alternative perspective when she struggled in between sessions, may help break the maintenance and approach situations differently in the future (her second goal). The importance of this CBT homework was emphasized early on, which required her to reflect on any significant events by recording three main points:

1. What happened (situation, thoughts, feelings, behaviors)
2. A compassionate alternative perspective
3. What Penny would like to think and do if a similar situation arises again

These early sessions also involved psycho education around early experiences, Penny's core beliefs and subsequent rules for living. She completed a list of her early experiences and what she felt they said about herself, others and the world (Appendix A), as well as a list of other key core beliefs (Appendix B). It was agreed that subsequent sessions would involve reliving these memories by getting Penny to recall each one and reflect on the meaning she derived from them. We would then consider if there was a kinder alternative perspective she could elicit (her first goal).

**Sessions 3-10**

These sessions followed a similar format: Penny would report her mood over the last week, followed by a bridge from the previous session and a chance to reflect on how she had found reliving and restructuring the previous week's memory. We would then agree an agenda, aimed at reliving and restructuring another memory from her list and then we would review any significant events from the thought diary before covering the agenda. Towards the end of each session, we would provisionally agree which memory Penny would talk about the following week, as she preferred to know this in advance. This was flexible should something change and more pressing arise. During session 6, the mid-point outcome measures (PHQ9 and GAD7, as well as self-reported pain) were collected. They indicated Penny's social anxiety, depression and pain were reducing and Penny shared that she wanted to continue with the same session format. She was also already having reduced sick days at work.

**Reliving and Restructuring**

Penny remarked on how helpful she found reliving and restructuring memories, as it allowed her to be kinder to herself, something she said she would have struggled to do on her own as she felt so bad about herself [9]. Described a process of guided discovery through Socratic questioning, used in this intervention to help enable Penny generate alternative cognition. This involved gathering information about Penny's core beliefs derived from earlier experiences and we then looked at these experiences from alternative perspectives. This guided discovery then invited Penny to reflect on the alternative appraisals, to provide the chance to re-evaluate rigidly held negative core beliefs and generate new alternatives. This guided discovery also tied in with the thought diary practice to get Penny considering alternative perspectives in the present too. This process enabled Penny's core beliefs to be restructured within the CBT approach by guiding her to kinder, less rigid alternatives which she elicited herself.

One example of the reliving and restructuring process featured Penny's jealousy of her friends having 'normal' families whilst she was at school. This left her feeling alone and weird, yearning for a normal life and a supportive family unit. She recalled finding it upsetting to visit a friend and see their family life appear to be stable and supportive. Penny had recorded on her list of difficult early experiences (Appendix A) 'Am I ungrateful for what my mum and family have done for me?'. We spent one session exploring this through Socratic questioning and she described just wanting to feel supported as a child and not be confused by her mother's behaviour. We reflected on what she might say to a friend if they grew up with an absent father and a mother with psychosis who would act in a confusing, unpredictable manner and struggle to enforce boundaries. This reflection helped guide Penny to less critical perspective about these memories. Penny felt that it would be fair to fantasize for normality and that this wish would not make someone ungrateful. Penny said it was powerful to hear her experience back through the summarizing within the Socratic questioning process as it held up a mirror, whereby she could access more balanced thoughts that she might offer to someone else. This helped her to re-evaluate her core beliefs and the earlier experiential evidence they were based on within the CBT longitudinal formulation. During this session Penny also recognized that her mother had limited support too and she did the best that she could whilst she was unwell. These alternatives represented increased cognitive flexibility in relation to her earlier experiences. Another example from a separate session involved Penny recalling 'acting out' as a teenager; with boys at parties. Penny described having no respect for her mother. Now, she felt this confirmed her negative core beliefs that she was a bad daughter and she would always regret these "shameful" choices. Again, Socratic questioning was used to explore the negative meaning derived from these memories. Through guided discovery around being "bad" in the absence of parental boundaries, Penny concluded that lots of teenagers would probably have behaved similarly if they had no boundaries and she recognized that as a child, she was not wholly responsible in the absence of parental guidance.

**Thought Diary**

The thought diary was reviewed each session before the main agenda. One incident included Penny struggling to voice her opinion to a colleague, which linked to beliefs about not being confident, being weak and unintelligent, as well as not wanting to be judged.
Penny felt these beliefs created a barrier to being kind to herself now, as she had struggled to consider a kinder alternative perspective in the moment once she felt anxious. However after the incident at work, she had been able to consider a kinder alternative. Penny wanted to explore how this linked to a book she had been reading called the ‘Chimp Paradox’ [10], which speaks about reappraising threatening situations (e.g. social situations) that trigger an immediate emotional response as the amygdala is activated. We discussed how it will take time to shift her perception of an anxiety-provoking situation in the moment, as she had only recently begun monitoring her appraisal of situations which previously would have automatically been negative and threatening. Habituation was also discussed as a mechanism by which repeated exposure to anxiety-inducing situations would elicit less fear over time as she learnt to cope without avoidance [11], whilst ultimately providing evidence that she can be confident and strong; reframing her core beliefs.

In the thought diary, Penny had recorded this incident involving her colleague making unfair demands of her team and how she had felt too anxious to speak up in the moment, as she did not feel confident and did not want to be judged. However, after the situation, Penny was able to rationally process the situation and felt that it would be appropriate to voice her opinion and if her colleague reacted judgmentally, that would reflect on the colleague, not Penny. Over the period of a few weeks, Penny was able to trial change through a behavioural experiment [12]. Penny voiced her opinion and got a positive response, meaning she was able to protect her team from the unfair demands and also challenge her own beliefs about lacking in confidence and needing to avoid being judged. Penny shared feeling highly anxious initially, but this quickly peaked and she was left feeling glad that she had faced her fear. Use of the thought diary had enabled Penny to break the cycle of avoidance and be kinder to herself, rather reinforce her negative core beliefs. Throughout the intervention there were similar situations that arose where Penny benefited from documenting the situation, reflecting on a kinder alternative perspective and then how she would approach the situation next time. This became normal for Penny following a difficult situation; helping her work towards her goal of reducing the maintenance of her anxiety and depression now.

**Sessions 11-12**

Due to covid-19, the last two sessions took place over the phone. Penny emailed across a more compassionate version of the core beliefs worksheet (Appendix D) to compare to the one she initially completed at the start of therapy (Appendix B). She also sent across the difficult memories worksheet which included alternative perspectives for memories that we had not gone through in sessions. Finally, we completed a therapy blueprint (Appendix E) to consolidate what we had covered. Final outcome measures (PHQ9 and GAD7, as well as self-reported pain) were also administered over the phone. This indicated that Penny’s social anxiety, depression and pain had all improved since the start of treatment.

**Outcome**

Penny’s outcome scores (Table 1) for her anxiety on the GAD-7 went from 13 upon referral to 11 upon completion of treatment. At the mid-point review, Penny scored 8 on the GAD-7, she attributed the increase to Covid-19. Penny’s scores for her depression on the PHQ-9 went from 14 upon referral to 9 upon completion of treatment. Penny also reported the intervention had enabled her to be kinder to herself (reflected in Appendix D) in situations where she may be judged, make a mistake, or become frustrated towards her mother- the three situations featured in the formulation. Penny was also experiencing less neck pain, headaches and sickness (and less sick days).

**Critical Review and Self-Reflection**

This case immersed us in the longitudinal model, as Penny’s sense of self from her past created a barrier to being kind to herself. Due to the distress many of her memories elicited, I felt it was important that she felt empowered to choose whether to relive and restructure these memories or whether therapy should focus on the present maintenance of her difficulties. As the therapist, I found this process distressing too, as Penny, who was a similar age to myself, shared a number of traumatic early experiences where she had internalized a really rigid, negative belief about herself. It was important for me to remain aware of my own emotional reactions, so that I did not let this inhibit the process of Socratic questioning which helped Penny to come up with her own alternative perspective, rather than me taking a linear approach to tell her why she was being unfair on herself. Penny described the process of hearing her own experience reflected back and then an alternative perspective coming from her own mouth as being really powerful in shifting her core beliefs. I think the nature of our work, being non-judgemental in nature and delving deep into Penny’s past, meant that there was a strong therapeutic bond, whereby Penny let me in to relive these experiences with her and really understand their meaning. This collaborative approach created the necessary safe space to talk about her past and how it was interacting with her difficulties today.

This case has also shown the influence of unforeseeable life events and so, outcome measures must be placed in the context of that person’s life. Penny significantly improved in relation to her goals around reducing the negative impact of her early experiences and reducing the current maintenance. However, due to the Covid-19 pandemic, she did report a spike in anxiety as she was struggling to relax and felt that something awful may happen. This highlighted the importance of considering disorder specific sub-scales or alternative measures to accurately ascertain treatment outcomes, as the GAD-7 only has a specific of 72% for social anxiety disorder and specificity of 80% using a threshold score of 10 [13]. It may have been more appropriate to use the Severity Measure for Social Anxiety Disorder (Social Phobia) - Adult (APA, 2013). Also, given the psychology pathway had a primary focus on pain related mental health difficulties; I relied on self-reported pain to confirm our hypothesis that psychological distress was linked to the physiology of Penny’s pain. If a standardized pain measure had been administered, this would have provided a quantifiable outcome.

It was also striking to me, that despite still scoring moderate on the PHQ-9 for low mood and moderately severe on the GAD-7 for anxiety, Penny felt that she was now able to cope without further therapy and that our sessions had enabled her to have a more balanced perspective on her past and also to notice maintaining thoughts and behaviors. This prompted me to reflect on the role of therapy and the concept of recovery; whereby in my opinion, the most important thing is to achieve a shared understanding that equips that person with the ability and confidence to continue to affect positive change [14,15].

I also noted that when reframing core beliefs, it proved effective to reflect on Penny’s current interpretation of past behaviour, as this negative judgement modelled her current values and gave immediate concrete evidence to consider an alternative positive appraisal of her
Table 1: Outcome measures for anxiety and low mood.

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Referral (12/06/19)</th>
<th>Session 6 (10/02/20)</th>
<th>Session 12 (23/03/20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHQ-9</td>
<td>14 (Moderately Severe)</td>
<td>10 (Moderate)</td>
<td>9 (Moderate)</td>
</tr>
<tr>
<td>GAD-7</td>
<td>13 (Moderately Severe)</td>
<td>8 (Moderate)</td>
<td>11 (Moderately Severe)</td>
</tr>
</tbody>
</table>

current character. This is a significant reflection for me, as it utilizes evidence the client is already invested in, to facilitate an alternative perspective that may induce greater flexibility, purely through reframing the belief held.

My final reflection came about when reviewing Penny’s more compassionate core beliefs ( Appendix D ), as they still featured many vulnerabilities and rigid beliefs that could have been the locus of further reframing. However, these vulnerabilities are arguably present in everyone and so, given Penny was presenting with improved symptomology, increased functioning, having achieved her goals and reported being ready to complete treatment, there comes an uncomfortable point for myself as a clinician to accept that I cannot treat every aspect of a client’s mental health, as this could be an indefinite process. The most important thing in this instance is to provide accessible conceptualization to equip the client with the utility to recognise what may maintain their difficulties and how they can address these through alternative cognition and behaviour.

References


