

Searching for safety. Building meaning bridges using digital imagery in school counselling with a female adolescent, 'Sally'

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Abstract

Objectives. According to the assimilation model, psychotherapeutic progress involves building semiotic meaning bridges between disconnected parts of the person. Previous research with a young male client, who was diagnosed with ASP showed that digital imagery can serve to build inter and intrapersonal relating during counselling. This project aimed to further elaborate that theory with a client of a different gender and with different presenting issues. *Design.* This was a qualitative theory-building case study. *Method.* The client was a 16 year-old teenage seen in school counselling for 10 sessions who presented with a range of issues: problems with eating, depression and anxiety. She self-harmed and had suicidal ideation and continued using counselling services after the end of the research project.

Assimilation analysis used screen and accompanying voice recording ten sessions, during the research project where she participated in an evaluation of cybertherapy software designed for therapy and coaching. *Results.* The client created three main digital scenes. The first scene representing difficulties she experienced in her everyday life; the second scene represented a longed for experience of safety, and the third her attempts to connect the two. The imagery and meanings evolved across this segment of treatment, providing a channel of interpersonal and intra-personal communication. *Conclusions.* Observations showed how digital imagery can serve as meaning bridges between client and counsellor and between internal parts of the client.

Keywords: technology in counselling, assimilation theory, qualitative methods,

adolescent counselling

Introduction

According to the assimilation model, clients in successful therapy build internal meaning bridges between conflicting parts of themselves, giving smooth access to their formerly problematic experiences, in effect, turning problems into resources (Stiles, 2011). A meaning bridge is a sign or a system of signs, such as a word, a story, or a theory, that has a similar meaning to both author and addressee, where author and addressee may be different people or different parts of the same person. Images are also signs; that is, like words, they can refer to experiences other than themselves. For example, the image of a wall, like the word "wall," can refer to a psychological barrier.

We investigated the use of digital imagery as meaning bridges in school counselling with a 16 year-old girl we called Sally, who participated in a trial of video game-like software designed as a counselling tool (Cooper, van Rijn, & Chryssafidou, 2018). Our aim was theory-building (Schielke, Fishman, Osatuke, & Stiles, 2009; William B. Stiles, 2009; W.B. Stiles, 2017) to assess and elaborate assimilation theory, with regard to how digital imagery can be used for inter- and intrapersonal meaning bridges.

Use of Digital Media in Psychotherapy

Use of digital media has become embedded into our everyday life, and its widespread use could lead us to consider virtual space 'an extension of the self' (Balick, 2013). In psychotherapy and counselling, new computer-based treatments for different therapeutic contexts are developing. For example, Virtual Reality

Exposure Therapy (VRET) has been used as a component of CBT (Clough & Casey, 2011; Eichenberg & Wolters, 2012); and in treatments such as anxiety and eating disorders. In VRET, patients confront the feared stimuli and, with the help of the therapist, employ relaxation, cognitive restructuring and emotional processing techniques. In addition to that, self-identification with virtual bodies (virtual embodiment) is found to improve self-compassion and overcome excessive self-criticism (C. J. Falconer et al., 2014).

In *cybertherapy*, the client and therapist create avatars (on-screen representations) of themselves and meet in virtual worlds, such as Second Life (Anthony & Nagel, 2014). Avatars have also been used in games that promote therapeutic gains and to support self-expression (Coyle, Doherty, Matthews, & Sharry, 2007; Coyle, Doherty, & Sharry, 2009; Pykhtina et al., 2012). Immersion in a life-like scenario or using a visual metaphor can help to promote reflection from the user perspective or the perspective of others (Fleming et al., 2015) and inter- and intrapersonal relating (Hoch et al., 2012; Yuen et al., 2013), greater self-disclosure (Joinson, 2001), development of insight, reflection and empathy (B. van Rijn, Cooper, Jackson, & Wild, 2015), and the development of self-compassion (Caroline J. Falconer, Davies, Grist, & Stallard, 2019a; C. J. Falconer et al., 2014). Our study involved avatar software developed with such virtues in mind, as described later.

Assimilation theory

According to the assimilation model, a person's experiences leave traces, which may later be reactivated and can be described, metaphorically, as voices. These traces of experience are not exact reproductions and are subject to progressive modification; expressions of those traces are similarly variable and

mutable. Normally, they become interlinked into constellations of related experiences, forming, metaphorically, a community of voices, which comprise the person's usual self (Honos-Webb & Stiles, 1998; William B. Stiles, 2011). Such assimilated voices are accessible and available to an individual as resources. As experiences involve action as well as perception, the traces of experiences are active and agentic. When they are addressed by events that somehow resemble the original experiences, the voices speak and act, bringing relevant personal knowledge and skills to bear on current situations.

Some experiences, however, remain unassimilated because they are incompatible with the usual self or are threatening, frightening, or painful. Powerful dysphoric emotions prevent the sustained attention needed for assimilation (W.B. Stiles, Osatuke, Glick, & Mackay, 2004). In some cases, different sub-communities of voices that are problematic to each other remain split apart, and, in effect, people develop a fragmented self (Osatuke & Stiles, 2006). In successful psychotherapy clients build meaning bridges to such problematic experiences, first externally with the therapist and then internally, reducing distress, improving access, turning problems into resources, and developing a more coherent self.

Theoretically, a sign's meaning is the person's experience of the sign. Thus, a sign or a system of signs is a meaning bridge when author and addressee experience it similarly. For example, to the extent that you understand our words similarly to the way we meant them, the words are a meaning bridge between us. Likewise, words can bridge and thus give mutual access to the voices (traces) of a person's diverse experiences. Simple words or phrases can label similarities; self-narratives or interpretations can articulate relations (Brinegar, Salvi, Stiles, & Greenberg, 2006; William B. Stiles, 2011). The challenge of therapy can be

understood as building meaning interpersonal (client-therapist) and intrapersonal meaning bridges when some of the experiences are warded off or actively avoided because of the distress they engender. Extensive case study research has shown how this can be done with words (e.g., see reviews by Stiles, (W. B. Stiles, 2002). Our goal in this study was to explore whether and how digital imagery can also serve this purpose.

A previous case study with a 14 year-old boy called Richard, who participated in the same cybertherapy trial as Sally, suggested that digital imagery could do these things (Biljana van Rijn, Chryssafidou, Falconer, & Stiles, 2019). Richard's treatment focused on his feeling different from his peers and not fitting in, which he attributed to his previously-diagnosed autistic spectrum disorder. Richard was very much a digital native, and he used the software fluidly, producing scenes that were evocative (interpersonal meaning bridges to the counsellor and, incidentally, to the researchers) and using them to develop his story (intrapersonal meaning bridges among his experiences). For example, he inserted the image of a treasure chest, which he labelled "normal," and placed an avatar representing himself on the opposite side of a wall, labelled "cannot get to it." A few sessions later, he enlarged the treasure chest and added three more chests, expressing an increased importance or urgency of his wish to be normal.

Research Aims

Sally brought different problems and personal characteristics to counselling, so her case was an opportunity to check the fit and generality of the theoretical account used in the case of Richard (van Rijn et al., 2019). This was a qualitative theory-

building case study framed within the assimilation model. Its goal was not to test a particular hypothesis but to compare an array of case observations with the theoretical account to assess the fit and to identify needs and opportunities for modifying or elaborating the theory. That is, rather than testing one aspect of a theory across many cases, qualitative theory-building case studies examine many aspects of the theory in a particular case (William B. Stiles, 2007; W. B. Stiles, 2009; W.B. Stiles, 2017). (Campbell, 1979) suggested that observations of many different aspects of a theory in rich clinical material are analogous to multiple degrees of freedom in statistical hypothesis-testing research; detailed fit offers equivalent justification for a small increment in confidence in the theory as a whole.

We were particularly interested in how digital images can serve as meaning bridges between counsellor and client and between internal parts of the client. In effect, this theory-building case study aimed to replicate and refine the understanding of digital meaning bridges achieved in the Richard case (van Rijn et al., 2019). In doing this, we were mindful of the importance of replication in psychology and related sciences (Ioannidis J. P., 2005; Open Science Collaboration, 2015; Tajika, Ogawa, Takeshima, Hayasaka, & Furukawa, 2015).

Importantly, neither the present case study nor the Richard case study was intended to evaluate the effectiveness of this cybertherapy.

Method

The client

Sally (a pseudonym) was a 16 year old, white British girl who had no previous experience of counselling at the start of the project. She presented with a number of clinical issues, including depression, anxiety, eating difficulties and self-harm. She attended 10 counselling sessions during a trial of cybertherapy software, described later. During the counselling she started taking antidepressants. Corresponding to that, standard measures administered at the beginning and end of the trial in which Sally participated showed an increase in her overall levels of distress. For example, on the YP-CORE (Twigg et al., 2009; Twigg et al., 2016), her baseline score of 12 (mild distress) increased to 20 (moderate distress) after she ended her allotted 10 sessions, moving from a mild to a moderate range of distress. Nevertheless, we felt she made progress in delineating her problems, even if she did not overcome them.

In a follow-up interview two years after the trial, Sally reported that she had been in counselling (with other counsellors) more or less continuously since the project was finished. Thus the 10 sessions we studied were just the beginning of a much longer process.

Counsellor and Treatment

The counsellor held a Humanistic Counselling qualification. This approach focuses on building the therapeutic relationship, empathic enquiry and accepting clients and their experience. The counsellor appeared to use this approach; however, there was no formal adherence check. Sessions took place in a quiet room, the usual setting for counselling in Sally's school.

Avatar Software

Sally's cybertherapy was part of a trial of what we called avatar software designed by ProReal, Ltd. (<http://www.proreal.co.uk/>), a British company, as a video game-like therapeutic tool for counselling and coaching. The action is set in a rural,

somewhat medieval landscape with features such as a castle, hills, fields, a forest, and a river. Users can create androgynous avatars to represent self or others. They can be assigned names, emotions, postures (movements miming attitudes and emotions, for example, happiness, or sadness), colours, sizes, and inner voices or thoughts. A variety of props, including bridges, walls, milestones, gravestones roadblocks, treasure chests, platforms, shields, bombs, mirrors, elephants can be added and labelled. The interactive landscape can be viewed from any avatar's perspective or from a "roaming" perspective in or above the landscape. Previous projects have evaluated the software's effectiveness and acceptability in prisons, school settings, and secondary mental health services (Mick Cooper, van Rijn, & Chryssafidou, 2018; Caroline J. Falconer, Davies, Grist, & Stallard, 2019b; B. van Rijn, Cooper, Jackson, & Wild, 2015)

In preparation for the evaluation study from which Sally's case was drawn, counsellors were given guidelines from a ProReal User Manual (ProReal Ltd, 2015), and trained in using the software by the members of the ProReal Ltd team. When the software was in use in the sessions, the client and counsellor sat side by side, facing a single computer screen, but at an angle so that they could see each other as well as the screen. At the beginning of each session, the counsellor would normally invite the client to represent his or her world within the landscape. However, clients were not required to use the software, and varied in how much they used it.

The avatar software intervention was piloted in eight secondary schools in the UK, between September and July 2016, and evaluated using a mixed method approach (M. Cooper, Chryssafidou, & van Rijn, 2016). A maximum of 10 sessions were allowed within the trial. From this evaluation we recruited clients, including Sally, for case study research, which was based on their counselling attendance,

their use of the software for a minimum of six sessions, and the granting of their and their parents' informed consent.

Research materials

We had video and audio recordings during use of software for nine sessions, sessions two to session ten. The initial session was not recorded. The audio recordings were transcribed and used during the research.

Research team

The research team included two female and one male researcher, the authors of this paper. One of the female researchers (in her fifties) and the male researcher (in his seventies) were also psychotherapists. The second female researcher (in her forties) had an educational background.

Ethics

The consent for the project was sought in stages. The first stage involved seeking consent to be approached for the case study research, during the main evaluation project. The second stage involved consent by the client and an opt out consent for the parent. The final stage was completed after the analysis, where one of the researchers shared the analysis with the client and asked for her input and a final consent. All stages of consent were granted in Sally's case.

Assimilation Analysis

The three investigators applied assimilation analysis (Stiles & Angus, 2001) to the recordings of the onscreen imagery with background audio and transcripts. This four step procedure includes familiarisation, theme identification, extraction of the theme-related material and interpretation and writing), conducted independently,

with periodic video conferences to discuss impressions and progress (Schielke et al., 2009).

Post Analysis Interviews. One of the investigators presented a synopsis of the interpretations, illustrated with screenshots and interviewed Sally for about 40 minutes. This took place approximately two years after the end of the trial. The interview was semi-structured and consisted of open questions, probes for agreements or disagreements, and invitations to rephrase the interpretations. Sally was asked to give her consent to publish the analysis. Her comments were integrated into this report.

Results

Main themes

Sally brought a number of distressing personal issues to counselling. She mostly talked about her difficulties with weight and an eating disorder, which she labelled as 'bulimia' during counselling. She also presented with depression, which was diagnosed and treated with antidepressants, and reported self-harming and feeling suicidal. To us, she seemed to move between two distinct subcommunities of voices, one overwhelmed and one isolated.

The primary theme underlying these issues seemed related to her search for psychological safety and a lack of ability to self-soothe. Apart from the relationship with her mother, she seemed to feel safe only when she was isolated from others. During counselling Sally used features in the digital landscape, the river valley, the castle and the wall, and used them to create three distinctive scenes to which she returned throughout the counselling process. We understood them as representing

her problematic experiences and her attempts to assimilate them, set within the digital landscape.

The three scenes were:

- The river valley. This scene was populated with avatars and props representing current problems and daily experiences, which distressed and overwhelmed her.
- The castle. This scene contained a castle on top of the hill. For Sally, it represented safety as well as isolation.
- The wall separated the castle from the river valley and thus represented a boundary that both protected and isolated.

For each major scene, we offer several screenshots and excerpts from the transcripts.

The river valley

The river valley scene included a broad, grassy landscape, where Sally inserted a series of avatars and props, mainly referring to current problems as she saw them, and some of her ways of dealing with them. For the most part, these were inserted at the prompting of the counsellor.

Weight problems. Sally's struggle with weight and difficulties with eating were prominent in the river valley landscape, and she talked about them explicitly in six sessions (3, 4,6,7 ,8 and 10). She introduced avatars that represented aspects of her difficulties with weight loss, self harming, and food. She coloured them to indicate her current feelings about the topic (yellow for celebrating, blue for feeling

worried), and labelled the avatars with these emotions. Thus, the avatars reinforced verbal meaning bridges with the counsellor, as illustrated in the transcripts below.

In the scene shown in Figure 1 (session 7), she inserted an avatar named Food, with the speech/thought "you should eat more,". The other avatar in the scene, coloured purple, was named Pre Confident Me. She then gave avatar Food a series of emotional labels, first 'angry', then 'being beaten up' and finally 'sad/closed/defensive/lost'. For the last, she changed the size of the avatar to small and positioned facing an inserted section of wall (a prop). These changes suggest psychological work; that is, she seemed to be using the avatar and the scene as an internal meaning bridge for developing an understanding of her own experience, as well as communicating it to the counsellor.



Figure 1. Session 7 Sally adds Avatar Food, Colour: Light Purple, Speech/thought: 'you should eat more', Emoticon: worried /unamused face, Posture: (First Chooses 'Angry' then 'Being Beaten Up', then concludes to

'Sad/closed/defensive/lost', Size: small., Rotation: turned to look towards the wall. The avatar coloured dark purple is called 'Pre Confident Me'.

There was evidence of assimilation progress on this issue, as she moved from rationalisations about her behaviour with food in session 1 to being able to name it as Bulimia in session 10, during which she made the issue prominent by representing it with a large shield prop in the scene (not pictured).

She introduced the avatar Weight Loss in **session 3**, seemingly to celebrate losing weight:

SALLY Yes. That one.

CO Oh so you're celebrating.

SALLY A colour.

CO I'm interested to...

SALLY Yellow. Because it's quite bright.

CO Okay. You can go in there and make it brighter if you want. See the plus.
Absolutely, yes. We can see if it's... Oh that's quite bright.

SALLY There.

CO Oh wow it is really bright isn't it? How does that feel for you?

SALLY Happy.

CO Happy, cheery, weight loss. Wow.



Figure 2. Session 3 Avatar Weight Loss. Colour: yellow; Emoticon; cheery; speech/ thought: "Well done"

In **session 6**, being weighed at her slimming organisation was linked to feeling low and self-harming, represented by an avatar, Self-Harming.

CO Yes. And when did you... Did you self-harm then before you had the weigh-in for the weight?

SALLY I actually can't remember. I think it was like on Monday. Even though I'd come back from, like obviously the weight thing, I just felt low again. So yes, I done it then.

CO Is there any prop you might like... You want to represent the self-harm, you know, an avatar or...? It doesn't matter about the spellings. Well, again, so what's the... Do you have any speech or thought behind this? Is there any

feeling? So quite a negative thing; even though you're doing it, you feel that you shouldn't be?



Figure 3 .Session 6. Avatar Self harming. Colour: Blue, Emoticon: worried; Speech/Thought: you shouldn't be doing this, Posture: Beating up/hating

SALLY Yes.

CO Is there any colour?

SALLY Is it that? (blue)

In **session 7**, Sally talked about her difficulties with food in more detail:

CO So you either eat really healthy or...?

SALLY Or I just binge.

CO Or binge. So...

SALLY Yes. There's nothing in-between. Like, I've been feeling like this for a couple of weeks. I don't know why. I want to eat normally but then I just can't. Because I either don't feel like eating it or I just don't like it any more. So I just don't eat at all. Yes.

CO So is this since you've went to Weight Watchers have you noticed the food you're eating you don't like anymore, or is this...

SALLY It's just been for a couple of weeks. Like, when I had my... I don't know what... Like a relapse, like, two weeks ago. Like properly like a week ago, but I've felt like that for two weeks. It's been happening since then. So I don't really know what's happening. Yes.

CO And it feels important...

SALLY Yes, it is.

CO To find out why there's a sudden change to worry about. Would you... Would it help to find some place here on this landscape to maybe represent the food or...?

The operation. At the beginning of counselling Sally was hoping to gain medical approval for breast reduction surgery. This issue was also related to her concerns about her weight. She referred to the procedure as 'the operation'. The surgery was not approved, and she talked about it in sessions 4 and 5. In session 5, continued work with this theme showed how Sally used the avatar software to create meaning bridges with the counsellor, communicating feelings of anxiety, anger and powerlessness:

CO No. Is there anything you could... You'd like to represent now? Is there any prop or anything that might help?

SALLY Wall.

CO A wall.

SALLY There.

She added a wall that blocked the way of Avatar Disappointment at entrance to the bridge to represent 'not having voice'.



Figure 4. Session 5 Sally added a wall blocking the entrance to the bridge for the avatar Disappointment, shown on the right.

CO You really see that great big wall? I see you here.

SALLY That was me there [inaudible].

She then moved avatar Disappointment near the path closer to avatar Angry and she changed the view to avatar Angry.

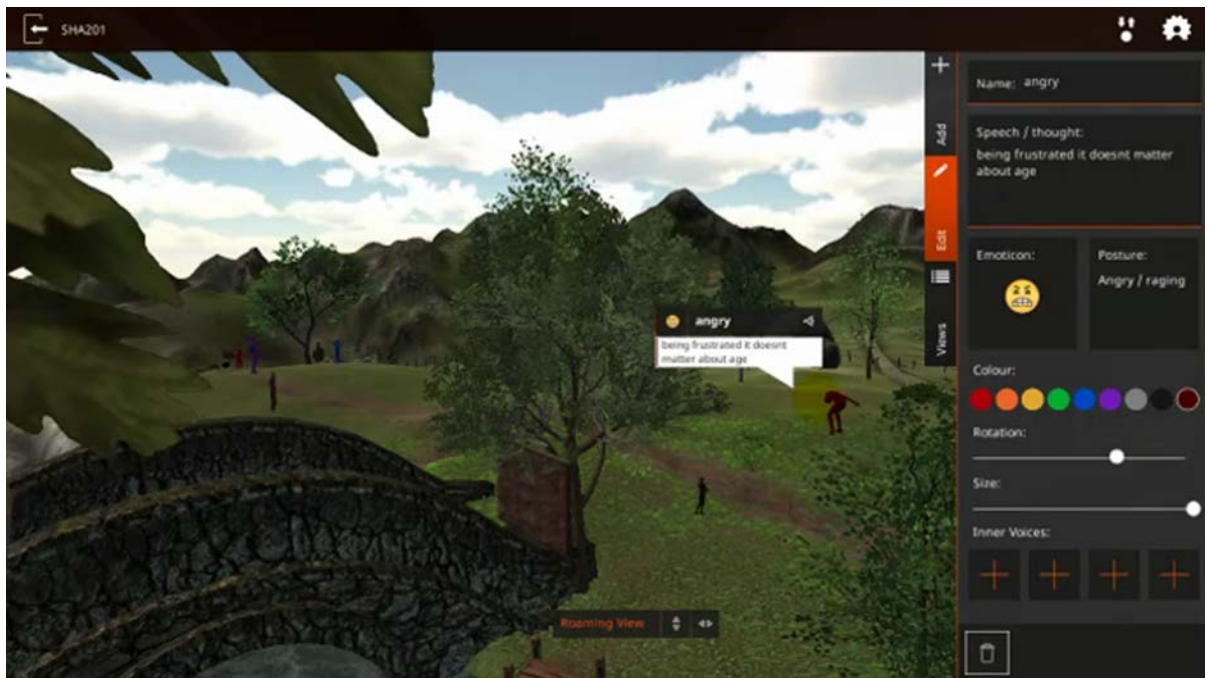


Figure 5 Session 5 She moved Avatar Disappointment near the path closer to Avatar Angry and she changed the view to Avatar Angry.

CO And is this you here (pointing to avatar Disappointment)?

SALLY [Inaudible] yes.

CO I'm just aware of... You seem really small here compared to the wall.

SALLY Yes. There's, like, no way of getting over it.

CO And there's no... Blocking the bridge over.

SALLY Yes. That there's nowhere to go.

Sally used the same representations to represent her feelings in different situations. The counsellor seemed to recognise the the meaning of the representations and use them in the dialogue demonstrating the creation of meaning bridges. Sally used the same digital symbols to represent her internal states in

different situations, suggesting a creation of internal meaning bridges, as in following illustrations:

A ticking clock prop represent her anxiety about exams in session 2 as well as anxiety while waiting on a decision about the surgery in session 5.

This is an example from session 2, when Sally talks about her exam experience.

CO So you froze. Is there anything here you'd like to put on the landscape to represent exams or that frozen?

SALLY Yes, okay.

CO How would you... How would that be for you?

SALLY Just add it. Like a clock. There.

She added a clock to the scene.

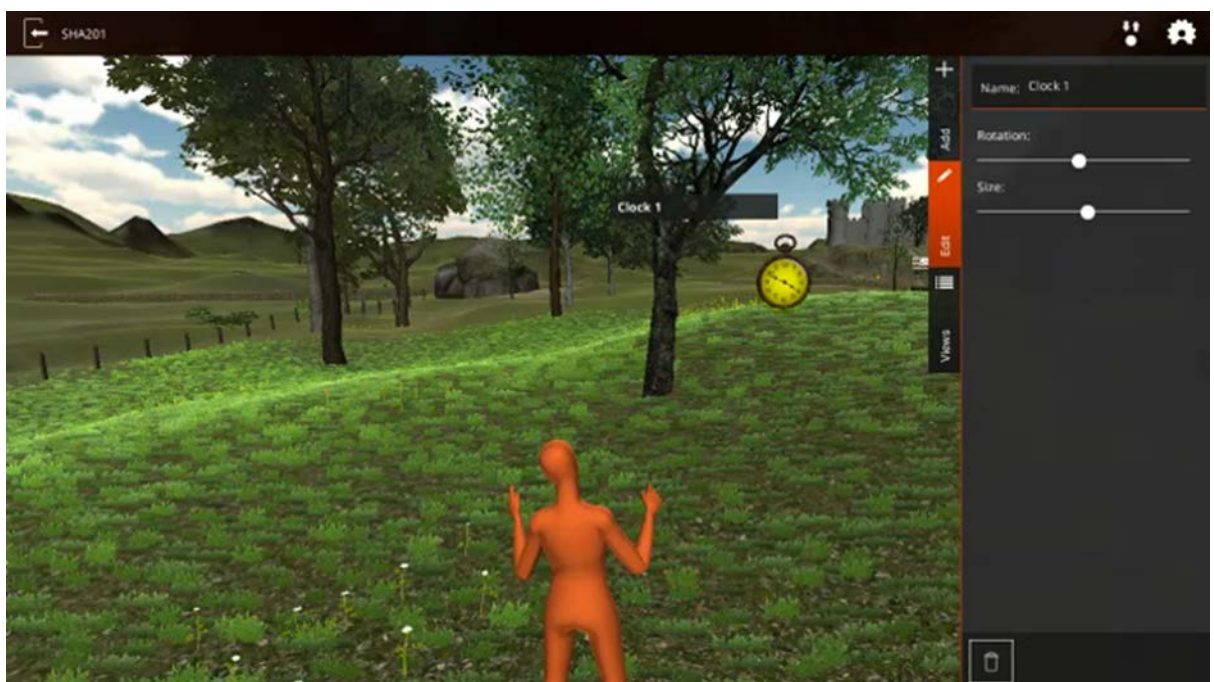


Figure 6. Session 5. Sally added a clock prop to the scene representing her exam anxiety The orange avatar facing the clock (anxiety) is called 'Hope'.

CO So it feels like the clock is ticking away...

In Session 4 , Sally used the same prop to represent her anxiety about the breast reduction surgery:

CO And I guess you're... I really noticed you're expressing around your anxiousness about waiting for the...

SALLY Yes. Just have to wait and see what my mum says and...

CO Hear from mum.

SALLY Yes.

CO So you're really looking at the clock.

SALLY Yes!

CO Would you like to represent that?

SALLY Yes.

She represented this by placing an avatar 'mum' and the avatar representing her by the river, looking at the large clock prop.



Figure 7. Session 4. Avatar Mum; Colour: red; Speech/thought 'It's ok' Sally added a clock prop. The purple avatar on the landscape is named 'Pre Confident Me'.

Self harm. Sally talked about self-harming in session 6 and used the river valley scene to represent it and to express her feelings of self-hate and worry. The counsellor invited her to look at self-harming from different perspectives on the digital landscape, and Sally talked about the cyclical nature of her self-harming.

...

CO Is there any prop you might like... You want to represent the self-harm, you know, an avatar or...? It doesn't matter about the spellings. Well, again, so what's the... Do you have any speech or thought behind this? Is there any feelings?

Sally added Avatar 'Self harming', gave it a blue colour and added the speech/thoughts: you shouldn't be doing this, with an emoticon of a worried face and an eating up/hating posture.

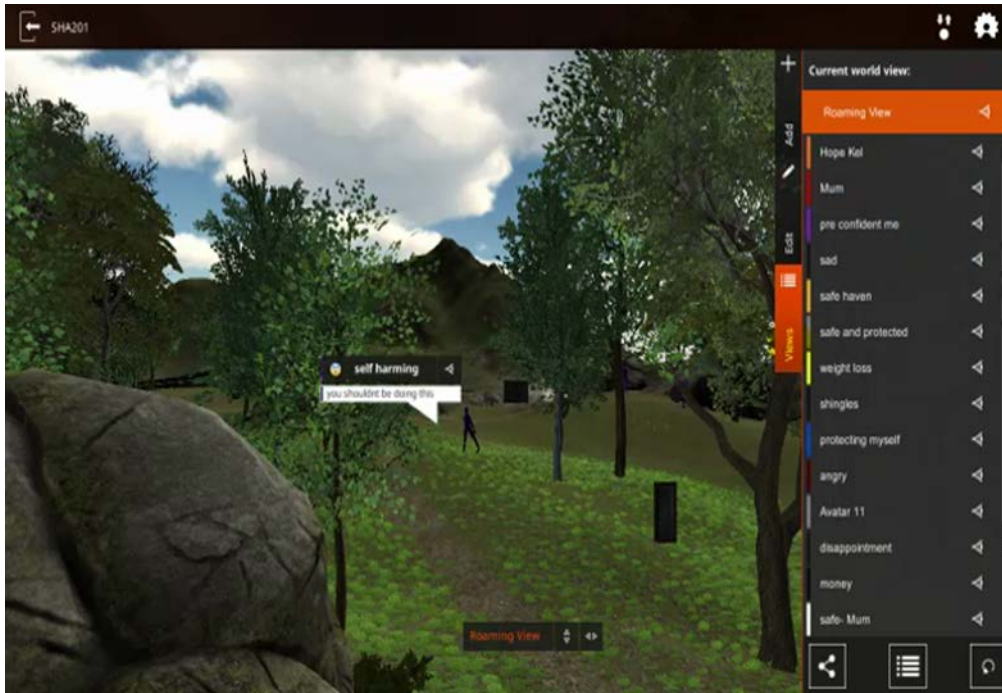


Figure 8. Session 6. Sally added avatar Self harming, Colour: Blue, Speech/Thoughts: you shouldn't be doing this. Emoticon: worried face, Posture: Beating up/hating

The counsellor invited Sally to voice her feelings and their representations on the landscape.

CO Yes, okay, so it's in view of.... And is the feeling... What's the feeling
Sally?

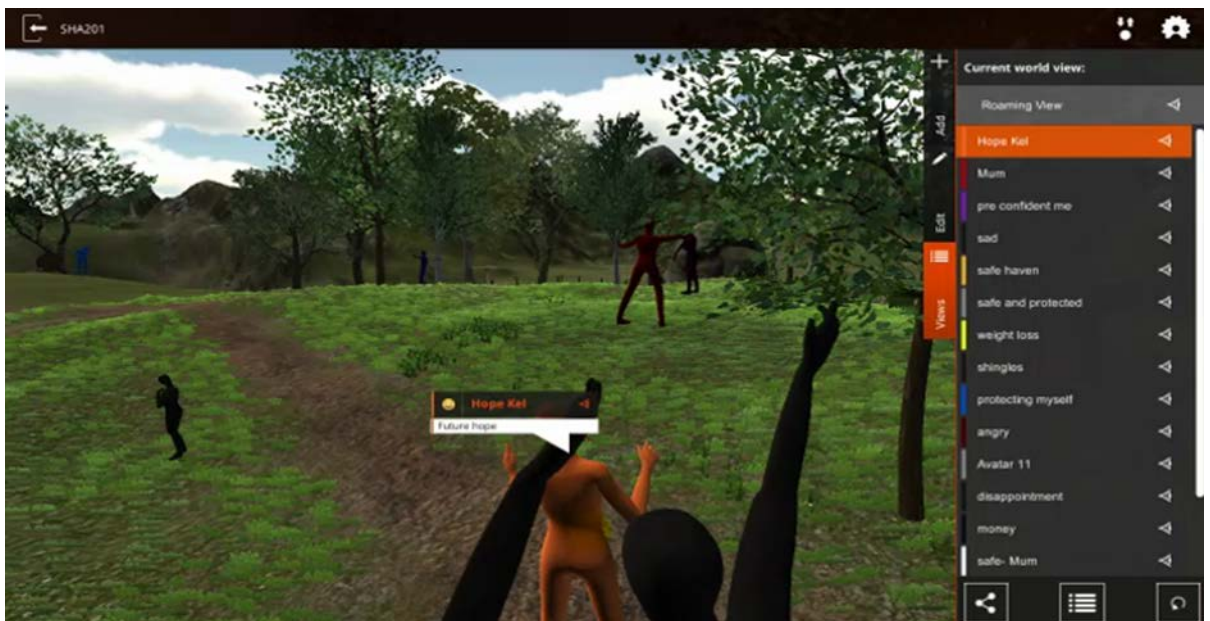


Figure 9. Session 6. Avatar Sad is behind Avatar Hope

The counsellor encouraged Sally to notice that Avatar 'Hope' was on the landscape close to Avatar 'Sad', but this didn't change how she felt about self-harming:

...

SALLY Not very good.

CO Not good?

SALLY Because I shouldn't be doing it, but I did so, there's no really going back on it.

CO Is it a sense of relief, or release?

SALLY Yes, I guess so. But then when it happens it's like you're trying to get rid of something and then when in like... It like the feels over after a while. It just wears off, and then you just feel bad again, so it's not really good in a way. In...

CO Sorry, go ahead.

SALLY It's like... at the start, it is because like you want to get rid of it, but then you feel even worse after, so yes.

...

Theoretically, self-harm can express the hate or disgust of one internal voice for another. Sally's experience of "trying to get rid of something" is consistent with this. Sally did not delete these scenes or the avatar Self-Harm during her

counselling. Although she didn't talk about this directly again, in session 9, she viewed the avatar while talking about her experience of starting to take antidepressants.

The counsellor encouraged Sally to look at the black rock on screen. The avatar was black, and much smaller than the rock.



Figure 10. Session 9. Avatar representing Sally is facing the rock. Colour: black; Emoticon: sad; Speech/thought: disappointed.

CO So it's facing the rock. And what's that rock represent to you?

SALLY Sadness.

CO Sadness. Feels very big and heavy.

SALLY Like a weight on my shoulders.

Relationship with mum. Sally presented a number of relationships on the river valley scene. The most prominent one was the relationship with her mother.

Prompted by the counsellor, she also added avatars representing a friend and her father.

The relationship with the mother was often related to sharing feelings (as in the case of waiting for the surgery, described previously) and safety. In her early attempts to define safety (session 2) ,Sally introduced a prop she named a 'key to safety'. Her mother was an important holder of one of her 'keys to safety'. In session 2, she used the previous scene on the landscape, with an avatar representing her mother (coloured red), with a smiley emoticon and an open posture, speech/though 'It's ok', and places the key prop 'key to safety' close to her.

CO I notice you seem really deflated when you say that. And is there anybody here that encourages you to not give up and to fight on?

SALLY Yes, my mum.

CO How would it be for you to look at it through your mum's eyes?



Figure 11. Session 2. Avatar Mum. Posture: Open/Being up for it; Emoticon Smiley, Speech Smiley: Speech/thought: it's ok. Prop Key (to safety) is in proximity of the avatar Mum.. Sally changes perspective to look from the position of the avatar Mum view. The purple Avatar called 'Pre Confident Me' can be seen in the distance.

CO And mum's here, it's interesting mum's got the key near her.

SALLY But then there might be other keys as well.

CO You said... Yes.

The other keys to safety were not placed with other people, but in hard to reach places, such as the edge of the riverbank.

The Castle Scene

The scene containing the castle and the surrounding hill was a contrast to the river valley in that it represented feeling 'safe and protected'. However, this scene also seemed full of ambivalence, even though Sally yearned for it. Sally felt peaceful and 'chilled' (using the avatar posture and a label to indicate it) but was alone in the castle, felt 'locked away', and unable to see the representations of safety in her

current life (keys to safety in the riverbank scene). She also seemed unable to reach the castle's interior at will, because the road towards it was 'blocked' and there was a 'hard climb' to reach it. The castle scene was used in session 2 and elaborated in session 7. In session 2, she put it this way:

CO So the castle for you represents a really safe place.

SALLY Yes, like this is just like the barrier bit, like the exit but then you don't because it's everything in the way. You can't go out, it's like you're locked away.

CO So how would it be for you to go to the safe castle?

SALLY I would like to go there.

CO Yes, would you like to...

SALLY Yes.

CO Can... If you wanted to you can go up to the castle and...

Sally turned to face the castle on the landscape, using an avatar she labelled 'Safe Haven', coloured yellow.



Figure 12. Session 2. Avatar Safe Haven turns to face the castle. Colour: yellow; Speech/thought: Its safe here.

SALLY Okay.

CO And if you wanted to create a new Avatar...

SALLY Yes.

Within the same scene Sally also referred to the previous representation for safety (a 'key to safety' in the riverbank scene (Fig.11), and talked about her inability to see them from within the castle

SALLY: Yes, like you want to try and see them because they're far away, you can't because you're quite high up in the castle.

In session 7, Sally also saw that a route to the safety inside the castle was blocked (by the wall), and also hard to reach (a steep path leading to the entrance) but the counsellor prompted her to attempt to find way into it. Eventually, the counsellor suggested that she bring in her mother, who was a figure of safety for Sally. She

eventually recognised that in order to feel safe and 'protected', she needed to bring her family and friends into the scene, though she didn't do it.

First she looked towards the castle and moved towards it using the orange coloured avatar named 'Hope'.

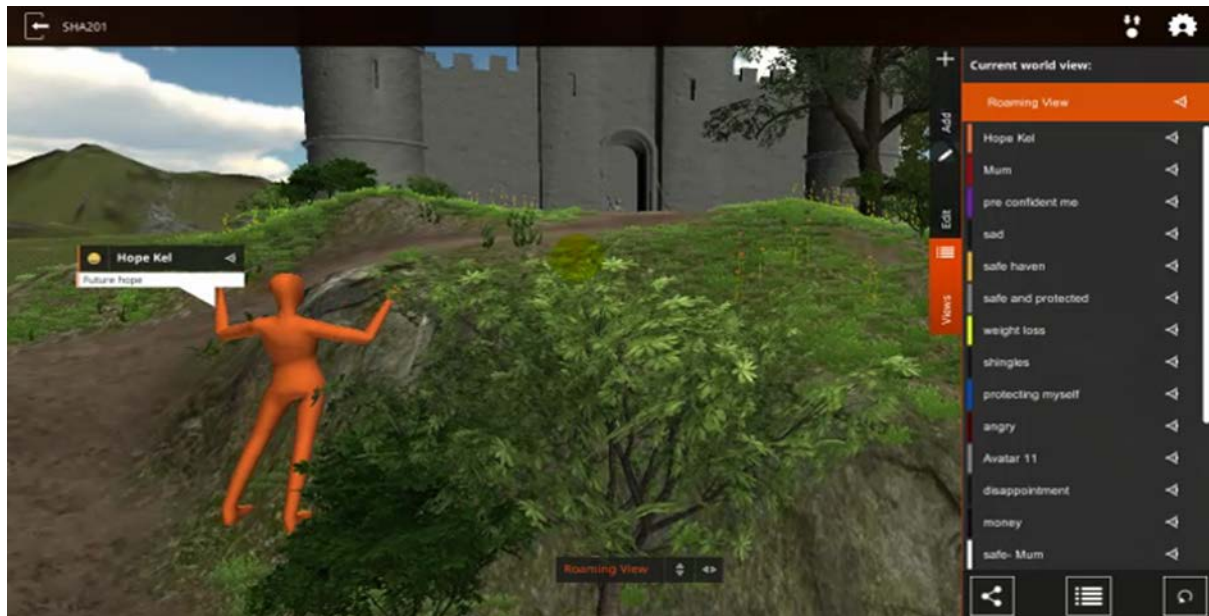


Figure13.Session7. Avatar Hope moves towards the castle hill. Colour: orange; Speech/thought: future hope.

...

CO Looks as if almost you're climbing up there. Because it has been a long, hard climb for you.

SALLY Definitely.

CO And is there anyone else with you here?

SALLY Maybe my mum.

CO Would you like to put your mum there with you?

SALLY Yes.

CO How's that to look at? Would you like to view that? So mum's there.

Sally placed the red 'mum' avatar on the slope leading up to the castle, just ahead of the avatar representing her.

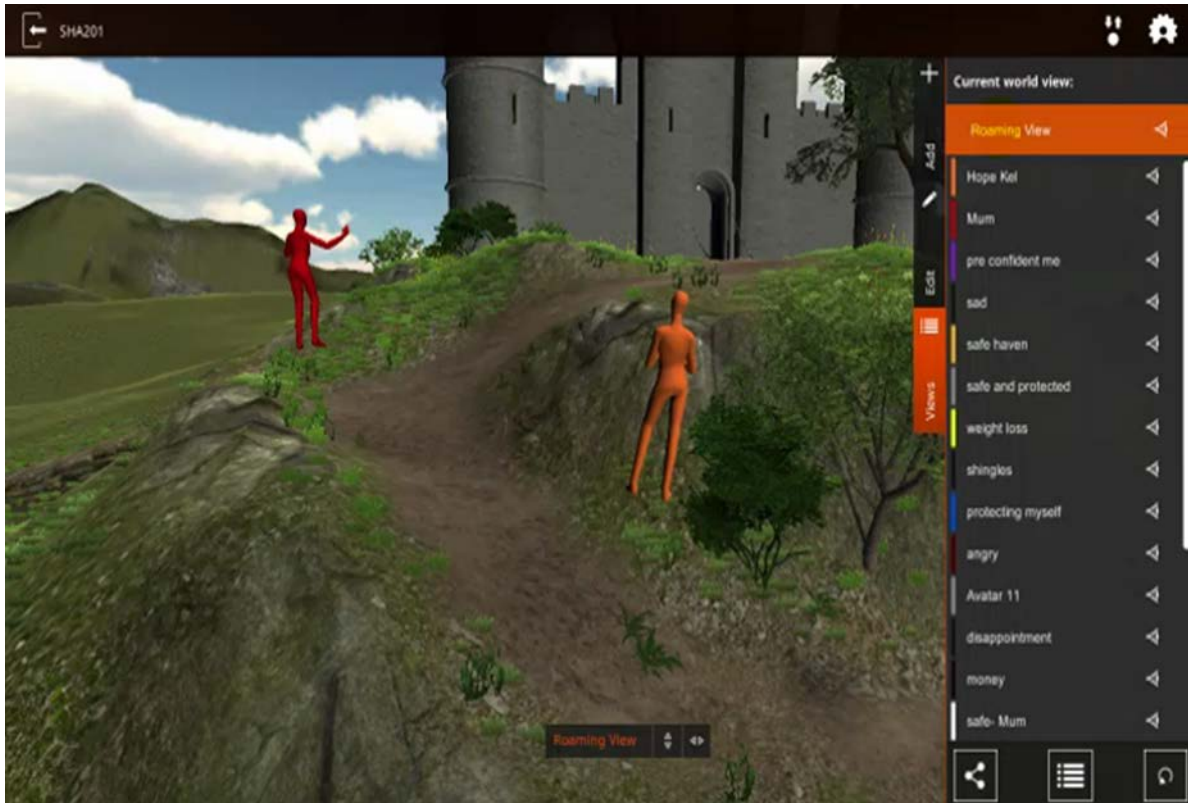


Figure 14. Session 7. Sally places red coloured avatar Mum on the hill leading to the castle. Avatar Mum is ahead of avatar Hope, representing Sally.

SALLY Yes. Like, she's helping me climb up.

Unlike the River valley scene, the castle scene did not directly represent current events, but an imagined sense of safety, isolated from the rest of her experience. She used the software to express this yearning for safety and protection. However, she also linked this sense of safety with isolation, an ambivalence about safety in relationships, and her inability to reach safety. Although she could view the River Valley scene from the Castle, their elements remained separate, suggesting a

lack of assimilation.

The wall and the gate

The scene which both linked and separated the River Valley and the Castle scenes consisted of a wall and a blocked and protected gate. This was the site of the most activity within the sessions. The River valley scene was on one side of the wall, the Castle scene on the other. We understood these to refer to two subcommunities of voices, internally separate and difficult to integrate.

Sally returned to the wall and gate scene in seven sessions (sessions 2-8). During this work she used the software to elaborate the meaning of protection and her ambivalence about closeness with anyone other than her mother. The wall and gate seemed to refer to an insecure psychological boundary between the multiple, overwhelming problems along the riverbank and the potential safety of the castle, with its accompanying isolation. She elaborated the scenes on and near the dividing wall, with special attention to barriers to intrusion (which also increased her isolation).

In session 2 she introduced the wall, along with an elephant and a roadblock. These, she explained, represented protection, but also barriers to entering the castle scene from the river valley, or reaching the river bank from the castle. In the dialogue surrounding this scene, she communicated her urge to feel safe as well as her isolation and stuckness, as the entry to her safe space was blocked.

This scene from session 2 (Fig. 15) shows the dividing wall, with the large black rock in the distance (the River valley scene), and a treasure chest on the other (the

Castle scene). Avatar 'Safe Haven' is facing the treasure chest. The counsellor is inviting her to talk about the wall:

CO And there's also I'm noticing here the big rock. And what for you does the wall represent?



Figure 15. Session 2. Yellow coloured avatar Hope is facing the treasure chest prop and the wall, looking towards the river valley scene with a view of the back rock.

SALLY Like protection.

CO Protection. Protection from your safety away from these other...

SALLY Like a barrier.

Sally placed the elephant prop on the wall.



Figure 16. Session 2 Sally rotated the elephant prop away from her. Name of the prop: PROTECTION for when you are being attacked

CO So is the elephant representing...

SALLY The elephant is representing like the protection of it. Like if you get near it then it attacks you.

CO And is that what you're feeling to do with the doctors any time you get near...

SALLY Yes and then it just like attacks and then you can't get there anymore.

CO Okay, so would you like to name that?

SALLY Yes.

She named the elephant prop 'Protection'

CO It's against you being attacked. Protected by that big elephant?

SALLY Sometimes but then not all the time because when you want the good thing to come it can't because it's in the way.

CO So almost sometimes... is this correct? You almost sabotage. Okay so by... You say by different things and putting different things in the way...

SALLY It depends what it is.

CO And when you say putting things in the way, is that like the medics put things in the way for you to have your operation or you put things in the way or both?

SALLY Both I guess, yes. [pause 50 sec]

CO I notice your sadness.

SALLY And also like the protection that is guarding like that as well. Because like it's in the way, you can't see it.

CO So it's protecting your treasures as well.

SALLY Yes, protecting everything behind the wall because it doesn't want anything to go in our out.

CO And do you sometimes feel that stuck-ness, you know, things, you don't want to let things in or out?

Sally looked at the scene seeing the whole landscape, with a dividing wall and two avatars representing 'Hope' and 'Safe Haven' one each side of the dividing wall, and far from each other.



Figure 17. Session2. Avatar Hope and avatar Safe Haven look at each other from the opposite sides of the dividing wall.

SALLY ... Like, you've got the valley and everything and then you got the elephant, like it seems impossible to get in so you just don't try, maybe. But if you go near then you might get injured.

...

CO So it feels almost for you, your safe self to come out, it really struggles.

SALLY Yes.

CO Is that right or is that near what you feel?

SALLY Yes.

CO Because again, lots of obstacles put in your way [long silence]. Please feel free if you'd like to roam the landscape or...

SALLY Okay. Like you want to try and get out.

CO And is there any way out?

SALLY No.

On the landscape, avatar 'Safe Haven' was blocked from exiting the castle scene. Sally blocked the gate on the wall with a roadblock platform and platforms.



Figure 18. Session 2 Props Road Block and a blue platform block the gate in the wall, so that avatar Safe Haven is blocked to her side of the wall (the castle scene)

In session 3, Sally used the same scene in relation to weight loss. The proximity to the gate seemed to indicate how hopeful and optimistic she felt, and how close she was to feeling safe.

At the start of session 4 Sally returned to the scene overlooking the dividing wall and both sides to it and placed the avatar 'weight loss' (yellow) near the gate to the castle, but the avatar 'Hope' (orange) was further away (Fig. 17).



Figure 19. Session 4. Avatars Weight Loss (yellow) and Hope are on the River valley side of the landscape, facing the guarded wall and the Castle scene in the distance.

She then represented her 'Hope' avatar' walking towards the gate, and a group of people crowding in front of it, unable to get in. In the elaboration of this scene, we again saw Sally's ambivalence about what represented safety and her relationships. She voiced the ambivalence in being protected as well as blocked.

CO What's the view like when you view from near the gate?

SALLY Like you've got all of them... like, wanting your attention to come like open the gate for you.

CO You can see they're really calling.

SALLY Yes.

CO Would you like to walk down there or are you happy here, or...?

SALLY Yes. I'll go down there. [starts walking towards the gate]

...

CO It's as if there are people waiting



Figure 20 Session 4. Avatars in different colours gather in front of the gate in encouraging postures, but the gate is blocked and protected by the elephant.

CO I really like the elephant.

SALLY Yes. It's like a protector.

CO It looks as if you are really protected. It's all shut out near the castle.

SALLY So they can't get in it.

CO And they all want to get in?

SALLY But they can't. And there's people waiting on the other side..[24:50]

CO So it's like there are people on the other side urging you to come in.

SALLY Yes. But then you can't because you've got elephant in the way.

In session 5 Sally was looking at the gate again but from the perspective of being in the castle. The avatar representing her mother was with her in her safe place and encouraging.

She again talked about the dual theme of safety and blocking, represented by the elephant.

CO Yes. It's interesting... It's all completely blocked.

SALLY Yes. It's, like, protecting it.

CO So, is the elephant on the safe side as well?

SALLY No.

CO No.

SALLY It's, like, a protector of it. Like, if they come close, then, yes, that warns them away, that you should leave because you can't come in.

CO So it seems to be really difficult to get into this safe haven.

SALLY Yes.

CO And it's a happy place?

SALLY Yes. It's like a bubble. Like, when you're in there, like, all the bad things can't come in.

In this session (session 5) Sally explored the scenes on the different sides of the wall. She spent some time exploring the landscape on the safe side of the wall, which she found 'calming'. When she was on the River Valley side of the wall, she could not see the safe place because it seemed 'far away'.

Sally opened session 6 with a view on both sides of the wall. She told the counsellor about going out with friends and, at her prompt, added additional avatars to the 'safe' side of the wall. One represented a friend and she then added her father.

SALLY But they're trying to get in still.

CO But it's still blocked, is that right?

SALLY Yes.

SALLY They want to come in, but then they can't.

CO It feels frustrating, rather than it looks. How does it feel?

SALLY Annoying.

CO Annoyed.

SALLY Yes, because you want them to come in.

CO And is there... Because there's no way in?

SALLY There is a room. But then you've got like, the wall of it blocking it. It's like still protecting it. So it's quite hard to get in to.

CO So it feels really hard.

Session 7 also opened with a view on both sides of the wall. She again talked about the feelings of safety, as well as feeling ‘locked away’. This led to some exploration of the ways of reaching safety by herself (using a platform prop) or with help of her friends.



Figure 21. Session 7. Sally views avatars on both side of the wall.

She then explored the road to safety again on the landscape and came to the Roadblock prop. She again voiced her ambivalence about the experience of ‘safety’:



Figure 22. Session 7. Road block is between the avatar Safe Haven and the castle.

CO So the castle for you represents a really safe place.

SALLY Yes, like this is just like the barrier bit, like the exit but then you don't because it's everything in the way. You can't go out, it's like you're locked away.

This was followed by attempts to reach safety intentionally. As she talked about her efforts to lose weight Sally was still on the unsafe side of the wall, but she found a prop that might support her in coming over the wall, another platform, and named it 'Support'.



Figure 23. Session 7. Sally adds a platform close to the wall leading towards the castle. Name of the platform: Support

CO That's interesting. That's quite interesting you've picked a platform. Is there anybody on the platform?

SALLY Me.

CO Do you want to put you on there?

SALLY Yes.

She chose avatar 'Hope' and placed it on the platform.



Figure 24. Session 7. Sally places Avatar Hope on the platform.

In **session 8**, Sally talked about her friends but placed them away from the safe side of the wall:

CO And this represents you going out and you having another social [?]. I guess, I'm curious, is that... Is your friend here beside you, or...?

SALLY Yes.

CO Where would he be?

SALLY Like, connects to me, or, like, waiting on the other side.

CO Yes. Would you like to put him on the other side?

SALLY Yes. Do a prop.

Final Interview

One of the researchers conducted an interview with Sally in April 2019, over two years after she took part in the research project, and shared the analysis and the

interpretation with her. She had moved on to college studying to gain qualifications for an occupation that had been an ambition for some years. We had no YP-CORE scores for her at this time.

During the interview, she recalled the school counselling we studied as "only for a brief amount of time...mainly for crisis" because at the time "I was self-harming and I wanted to, like, kill myself and stuff ". Sally said she had had additional counselling for most of the intervening two years at an external statutory psychotherapy setting, as well as some family therapy, and she was currently continuing in private therapy.

Sally remembered using the avatar software, including the castle, the props, and various features of the landscape. She said she thought this initial experience of counselling had been helpful "because it made me more aware that there was help and it gave me the opportunity to like, talk to someone that I couldn't speak to before,". When prompted by the researcher and screenshots such as those in this article, she remembered further details, such as the elephant representing protecting herself from other people. She elaborated, "even now, I'm pretty, like, protective, like, who I speak to. ... I kind of put a wall up very easily, so that does make sense now looking back on it."

Sally also recalled working with the images, for example, "if I wanted to change where they was and like, add different things, like the keys or the fire, I could do that as well. That was good. So it could change how I was feeling at the time." And later, "But like this you could see your progress but with just talking you couldn't. Instead of, like, if you write it down then obviously you can see it, but what you did [on the screen] you can see it, you can view it and change it. So that was good."

Sally said she had changed a lot since beginning counselling, though she still struggled with depression, eating problems, and occasional (though less frequent) episodes of self-harm. Following her discussion with the researcher, she agreed with the interpretation offered and consented to publication.

Discussion

Like Richard (van Rijn et al., 2019), Sally used digital imagery effectively for communicating with the therapist and, we suggest, within herself. That is, we considered this as a conceptual replication in the sense that the observations were consistent with the same tenets of the assimilation model. We emphasize that, although these communication processes appeared effective, this study did not address the issue of the overall effectiveness of this form of cybertherapy

Sally's digital landscape seemed to us an evocative representation of her mental landscape. Theoretically, we can understand the imagery as a meaning bridge with the counsellor and among Sally's internal voices. It was also a meaning bridge between Sally and us, the researchers. She presented a river valley full of problematic feelings and life experiences--her concerns about weight loss, her frustrated wish for a breast reduction operation, her self-harming, her relationship with her mother--and a castle, safe and secure but unattainable on a distant hill, with a heavily defended border wall between them.

Most of the overt process of assimilation between the different sub-communities of voices during Sally's counselling, took place at the boundary, the wall and gate scene. Lying between the two separate parts of the digital landscape, the wall, with its gate and protecting elephant vividly presented her internal process. Examples include the apparent progress in assimilation in session 7, where Sally attempted to find a way of crossing the wall by herself, using a digital platform for

support, and in session 8, where she talked about bringing some of her friends across to the safe side. Although her progress in this was limited, the actions in the virtual landscape showed her use of digital imagery in the developmental task of creating generalised representations of interactions (Stern, 1985; Wallin, 2007). The assimilation process in this context, supports the notion of the integration and synthesis of contradictory experiences and it is particularly clear in the interconnected virtual scene (The Wall and the gate), where she explored protection and safety within herself and in her relationships. In that sense, Sally used digital imagery both externally with her counsellor and in developing her internal meaning bridges and seemed to use the software to represent emotions and emotional impact of her experiences. She used the avatars, postures, labelling and props to communicate her experiences and their intensity to the counsellor (e.g., the black rock, the protecting elephant, the key to safety). She returned to the same imagery repeatedly, using the same props and colours to refer to her internal world. She represented her current difficulties, her insights and relationships, as well as her internal landscape, unseen by others (castle).

Like all signs, digital images draw from deep cultural roots (Stiles, 2018). As a result, people often say more than they know, perhaps even more so with images than with words. In effect, Sally's problematic voices may have built meaning bridges with her counsellor, the researchers, and readers, allowing them to understand some things better than did Sally's usual self at the time. This phenomenon, which has been called disinhibition (Joinson, 2001) is illustrated in Sally's case by her exploration of the Castle scene and the significance and the intensity of feeling in the Black Rock.

. In a way that we did not see in the previous case of Richard (Biljana van Rijn et al., 2019), Sally used the software to visually represent the assimilation process itself, creating an interconnecting digital landscape (how to reach inner safety; how much and whom to rely on to help her to reach safety, how to control access).

The counsellor used the software to invite representations and this seemed to lead to empathic and mirroring interventions, further supporting the creation of interpersonal meaning bridges. She also encouraged Sally to reflect on her experience and suggested solutions (viewing situations from different perspectives, bringing people into the safe, enclosed space and getting their help), as well as recognised Sally's representations of problematic experiences and invited her to explore them.

In this brief initial episode of counselling, Sally did not reach her longed for feeling of safety. We could only observe a beginning of that process, which presumably continued in the Sally subsequent therapy. Her psychological accomplishment in this episode seemed mainly an opening up, an exposition of her problems and psychological makeup. She did not solve her problems, either in assimilation terms or in terms of symptom relief, although she seemed to consider bringing her friends closer to her, and had a sense that they could be encouraging and helpful. Two years later, at the follow-up interview, she seemed to have made progress but was still working on problems with depression, anxiety, self-harm, and eating difficulties.

This case study adds to the growing literature on digital interventions as a tool for developing self-expression and insight in counselling and other mental health interventions (Coyle et al., 2007; Eichenberg & Wolters, 2012), and in school counselling (Biljana van Rijn et al., 2019; Biljana van Rijn, Cooper, & Chryssafidou,

2018). Development of the intra and inter personal relating (Hoch et al., 2012) is also evident in the development of the internal and external meaning bridges.

'Searching for safety' as a therapeutic theme within the broader therapeutic theories takes us to consideration of the developmental process of attachment and creation of an internalised secure base (Bowlby, 1982), and mechanisms of dissociation and integration in therapeutic work as elaborated within the assimilation theory. The concept of dissociation in the therapeutic literature is usually linked to experiences of trauma and in working with clients with a Borderline Personality Disorder (American Psychiatric Association, 2013). However, Bromberg (Bromberg, 2006) introduces the concept of dissociation as a normal function of the mind, serving the purpose of defending against the discrepant views of reality in a similar way to assimilation theory. We had no information about any trauma that Sally might have experienced or clinical diagnosis, other than depression, but we observed that she presented two distinctive problematic communities of voices (the problems elaborated in the river bank scene; and the isolation of the castle scene), unintegrated and split off from one another. Her secure base was external and emerged in the counselling solely within the relationship with her mother, suggesting that this important developmental stage had not been accomplished or internalised. Instead, her internal sense of safety became another isolating, ambivalent sub-community of voices (the Castle scene). A range of difficulties in her current life (the River valley scene and the associated sub-scenes) were linked to life issues, common in adolescence, such as self-image, peer contact and academic work. However, her inability to deal with emotions arising from them led to a more complex range of symptoms such as over eating, self-harming, anxiety and depression, as her internal sense of safety was impossible to reach. Although safety was something

she yearned for, she experienced it as an isolating experience she was unable to access at will or control and it added to her difficulties.

Limitations

Framing the digital imagery as expressions of and by traces of Sally's experiences (i.e., Sally's voices) raises the question of the replicability of experiences. And this, in turn directs attention to the series of transformations intervening between the original problematic events in Sally's life and the therapist's (and our) understanding. These include transformations between the original events and Sally's experience of them; between Sally's original experience and her re-experiencing of it in the therapy room; between this re-experiencing and her expression of it using the digital imagery; and between her digital imagery and the therapist's (or our) understanding of it. Each transformation involved different influences. For example, (S. Farouk, 2017) ideas around narrative solutions therapy suggest that when people revisit the past, they inevitably re-write the story in response to social and contextual demands and their current emotions. The assimilation model itself is concerned with how clients' experience of problematic events is systematically transformed through the therapeutic process. Expressions in any language are restricted by the language's vocabulary and syntax, and expressions using the digital imagery offered by a proprietary software package are more restricted, or at least differently restricted, than those in natural verbal language. That said, with the exception of the mode of expression (digital versus verbal), a similar series of transformations underlies any research on therapeutic processes. Caution is warranted in this study, as it is in all studies

Our interpretations are tentative and subject to modification. Any confidence in them rests on their theoretical coherence and the details of the theoretical fit (Stiles, 2009). We note that they were not based exclusively on the imagery but were also shaped by other information, particularly things Sally said. And of course, this picture of Sally's mental landscape was incomplete, limited by time and circumstance; there were undoubtedly things we don't know or didn't understand that could have enriched or modified our account. As researchers, we had limited therapeutic materials, and apart from the recordings, no case or assessment notes, nor the record of her ending with the school counsellor. All of this limited our level of understanding Sally's therapeutic journey and the conclusions we could make concerning the impact on her mental health.

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