BRIEF CLINICAL REPORT

It hurts but I still need it: a qualitative investigation of post-event processing in social anxiety disorder

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Abstract

Background: It has been proposed that both positive and negative metacognitive beliefs sustain engagement in post-event processing (PEP). However, it is unknown: (1) whether individuals with social anxiety disorder (SAD) actually derive the benefits from PEP that they expect; (2) if this is not the case, how their positive beliefs are maintained; and (3) if they are aware of the counterproductive effects of PEP, why they still perform PEP.
Aims: To explore the phenomenology of the processes involved in PEP from the perspective of SADs, in order to address the research questions above.
Method: Twenty-one participants suffering from SAD received individual semi-structured interviews. Transcripts were analysed using thematic analysis.
Results: Analysis revealed three main themes: (1) 'Only, safe and useful way to improve myself': SADs feel the need to improve their social performance, and they believe that PEP is the only, safe, and private way to do so, which is an underlying motive for them to do PEP; (2) 'It hurts more than helps me': however, through PEP, they do not seem to obtain the benefit that they expect, or only find a variety of counterproductive outcomes; (3) 'Better safe than sorry': they sometimes find makeshift solutions to improve their social performance during PEP, which may maintain their PEP as a form of intermittent reinforcement. They weigh up such costs and benefits, and choose to perform PEP while feeling conflicted about PEP.
Conclusions: The results suggest that: (1) SADs rarely obtain the benefits from PEP that they expect; (2) their positive metacognitive beliefs are maintained by solutions they sometimes find during PEP; and (3) SADs choose to perform PEP while feeling conflicted; while PEP ironically maintains and exacerbates negative self-beliefs/images, it is the only safe and useful way to improve their social performance. These findings support and expand on the theories of PEP.

Keywords: post-event processing; rumination; social anxiety disorder; qualitative methods

Introduction

Post-event processing (PEP) is a repetitive negative thinking process following social events, which has been regarded as a key maintaining factor in social anxiety disorder (SAD) (e.g. Clark and Wells, 1995). Empirical studies have demonstrated that PEP maintains negative interpretations that one might have about oneself and leads to the retrieval of other negative

memories among individuals with SAD as well as non-clinical populations (for a review, see Brozovich and Heimberg, 2008).

It has been proposed that positive metacognitive beliefs play an important role in initiating and maintaining PEP (e.g. Wells, 2007). Several studies have used the Positive Beliefs about Post-Event Processing Questionnaire (PB-PEPQ) or similar questionnaires, and have revealed a significant relationship between positive beliefs, social anxiety and PEP (e.g. Wong and Moulds, 2010). However, engaging in PEP leads to the development of negative metacognitive beliefs about its disadvantages proposed in theoretical models and empirical studies. Indeed, it has also been proposed that both positive and negative metacognitive beliefs sustain engagement in PEP (e.g. Matthews and Wells, 2004). However, as for positive metacognitive beliefs, it is still unknown whether individuals with SAD actually derive the benefits from PEP that they expect, and if this is not the case, it is unknown how their positive beliefs are maintained. Also, SAD individuals may be aware of PEP's counterproductive effects, but it is unknown why they still continue PEP despite having such negative beliefs.

Thus, the current study employs a qualitative methodology aiming at exploring the phenomenology of the processes involved in PEP from the perspective of individuals diagnosed with SAD, in order to address the research questions above.

Method

This study was designed to be qualitative, using semi-structured, one-to-one interviews via telephone. Participants suffering from SAD who engage in PEP were recruited via a web-based survey company. Purposeful sampling was performed until data saturation was reached; in total, we conducted 21 interviews. An interview guide was developed to examine what motivates SADs to review past social events, what consequences of PEP they perceive, and how they generally view the process of PEP. The transcribed interviews were analysed using thematic analysis.

Results

Thematic analysis of the data revealed three main themes: 'Only, safe and useful way to improve myself', 'It hurts more than helps me', and 'Better safe than sorry'. Individuals with SAD feel the need to improve social performance, and believe that reviewing past events is the only safe and private way to do so – 'Only, safe and useful way to improve myself', which is an underlying motive for reviewing. However, as a consequence of engaging in prolonged negatively biased review, they do not seem to obtain the benefits that they expect, or only find a variety of counterproductive outcomes – 'It hurts more than helps me'. They sometimes find solutions to improve social performance during PEP, which may maintain their PEP as a form of intermittent reinforcement. They weigh up the costs and benefits, but continue reviewing while feeling conflicted about it – 'Better safe than sorry'. Each theme is described in detail as follows (see Table 1 for examples of illustrative data extracts associated with emerging themes).

Only, safe and useful way to improve myself

SAD individuals feel the need to improve their social performance. At the same time, they believe that reviewing past social events is the only safe way to do this and prevent potential mistakes in the future (without offending others, and/or being judged, negatively evaluated, or rejected by others as a result of asking for feedback/opinions). This positive belief is an underlying motive for reviewing.

It hurts more than helps me

Reviewing past social events is supposed to help SADs improve social performance, but they rarely (or never) reach a clear conclusion or obtain a clear solution through reviewing due to the

Table 1. Examples of illustrative data extracts (direct quotes) associated with emerging themes

Category	Theme	Example extracts
Motivation	Only, safe and useful way to improve myself	• *I repeatedly review past social events because I need to improve my social performance. [...] I think, reviewing is a good opportunity to look back on my choice of words, and whether they were appropriate or not.* [Participant 8] • *I know that it's helpful to consult with others, but it's tough for me to do because I am afraid of showing my true self to others. After all, I can't do anything except look back on the event by myself.* [Participant 20] • *That [reviewing] is the only way ... I have no other way for improving myself.* [Participant 21]
Perceived consequences	It hurts more than helps me	• *Even though I'll try to control my shaky hands next time, it's impossible. So I can't even think about countermeasures for similar situations in the future, I just dwell on my negative feelings and how much I was shaking at that time. It's really painful for me.* [Participant 3] • *It's rare to reach a conclusion or find a solution through reviewing ... maybe ... never ... [...] I only dwelled on my mistake and what I said during that event, so I missed what other people discussed or said.* [Participant 11] • *When I review too much, I feel like I'm making up the worst story and I completely forget what actually happened at that event.* [Participant 14] • *Reviewing triggers more negative memories in the past.* [Participant 3] As a result: • *I feel certain that I really am weird and stupid.* [Participant 3] • *I get more and more anxious every time I review.* [Participant 5] • *I really want to avoid similar situations through reviewing.* [Participant 11]
General views of the process	Better safe than sorry	As for conflicted beliefs about reviewing: • *Reviewing past events is a way to remind me of my bad experience and to criticise myself ... it's really hard and tough for me, so I really want to stop it. From my experience, I realise that reviewing does not produce any positive results and it's kind of a waste of time. But I still believe it's necessary for preventing future mistakes or poor performance, so I eventually do it while feeling conflicted.* [Participant 1] • *I have two views about my review. I still believe it may be helpful not to make the same mistake again. However, as I said, I know there are many demerits for that [reviewing]. I guess I don't have confidence in myself, so I feel I need to do something. Reviewing does not bother anybody. [...] So, I always try to review past events on purpose.* [Participant 6] • *I know that reviewing can eventually be problematic, but I believe reviewing is not a bad thing at all. [...] So, when I have spare time, I start reviewing anything that pops into my head. [...] I've never thought about stopping my reviewing behaviour.* [Participant 15] • *There is nothing I can do aside from reviewing [to improve myself]. So, I review my past social events repeatedly, no matter how painful it is.* [Participant 21] Examples of new measures to cope with future situations, that are found or created through reviewing: • *I usually search the internet along with my review ... When I find better words on a website, I then make a plan to use these words and avoid inappropriate words I used at a past event, and I try to carefully check what I'm going to say in advance of my next conversation. I sometimes plan to make an apology next time. However, every time, they don't mind or even forget about it. Thinking back now, maybe, I don't need to try to think about such solutions.* [Participant 8] • *While reviewing past social situations, I also start thinking of countermeasures for future events. [...] Previously, I asked many questions during the conversation. [...] When I ask too many questions, the other person looks tired and confused, and then seems to get bored. I dwelt on such negative responses and lost confidence more and more, so I needed to find another countermeasure. After that, I tried not to force questions and started to stay calm, but [...].* [Participant 21]

(*Continued*)

Table 1. (*Continued*)

Category	Theme	Example extracts
		Being asked if there were no problems in their past social performance/interactions (or if they perform successfully): • *I frantically prepare my talk in advance, so I think I seldom make mistakes. However, I review such events every time. Reviewing is a way to amend something bad – I believe no review, no progress. Perhaps, I'm satisfied just reviewing, just doing something for improvement. I probably feel a sense of relief by doing it.* [Participant 1] • *Whether or not the results* [of my conversation] *are positive, I always look back at my conversation. Even if my client was completely convinced by my explanation, I still think I could have explained or presented better, so I end up trying and looking back on my conversation to achieve better outcomes.* [Participant 6] • *I don't usually do this* [reviewing] *intentionally. It seems to me that the reviewing never stops.* [Participant 10] • *It's like a habit. I think I used to do it* [reviewing] *intentionally. But recently, in most cases, I do it unconsciously. Memories come to my mind automatically. But sometimes, I guess I do it intentionally.* [Participant 16]

Note: This is not a comprehensive summary of the data contributing to the theme.

subjective nature of the available information they review. Reviewing a particular event also increases negative emotions, disrupts concentration, and triggers memories of similar past events. As a result, they confirm their negative beliefs, get more and more anxious every time they review, and are keen to avoid similar social situations in the future.

Better safe than sorry

SADs feel irrational, ambivalent and conflicted about their reviews. As mentioned above, they are aware of the counterproductive effects of reviewing, and they doubt that reviewing actually contributes to improving subsequent performances (i.e. it may not be useful). They usually want to stop reviewing, but it can start unintentionally and intrusively because anything in their mind can trigger such reviewing (i.e. reviewing can happen whenever and wherever). However, sometimes they successfully find or create new measures to cope with similar situations through reviewing (although it seems unhelpful in the long term). So, even when there are no problems in their performance/interactions (or even when they perform successfully), they carefully analyse social events, looking for something to improve. In this way, they weigh up the costs and benefits of reviewing, and they end up continuing their reviews while feeling conflicted about it.

Discussion

The aims of this study were to explore: (1) whether SAD individuals actually derive the benefits from PEP that they expect; (2) if this is not the case, how their positive beliefs are maintained; and (3) if they are aware of the counterproductive effects of PEP, why they still perform PEP.

Firstly, this qualitative study demonstrated that SADs rarely obtain the benefits from PEP that they expect. Consistent with previous studies and proposed theories of PEP, the presence of positive metacognitive beliefs seems to play a central role in initial motivation to engage in PEP. However, contrary to the initial motivation, SADs recognize that PEP has few (or almost no) benefits and a range of harmful effects.

Secondly, results suggest that SADs may, on occasion, find solutions during PEP, which maintain their PEP as a form of intermittent reinforcement. However, these solutions may turn into safety behaviours, which can perpetuate dysfunctional beliefs. Thus, PEP can be one of the processes

through which SADs can reflect on and develop new safety behaviours. Although preliminary, this finding has not been highlighted in the theoretical framework of PEP: future experimental research will need to examine how PEP contributes to developing new safety behaviours.

Lastly, we clarified that SADs weigh up the costs and benefits, but continue PEP while feeling conflicted about it. The presence of such conflict between positive and negative metacognitive beliefs has also never been taken up as a phenomenon of PEP in SAD. Most previous studies in line with metacognitive theories of PEP have focused on positive metacognitive beliefs, so further questionnaire or experimental studies should assess both positive and negative metacognitive beliefs as well as discrepancies between them in an effort to better understand how these beliefs are linked to the maintenance of PEP. SAD individuals may hold on to PEP for two reasons. First, PEP ironically maintains and exacerbates negative self-beliefs and images, which in turn motivate them to improve their social performance. Second, they believe that PEP is the only safe and useful way to improve their social performance. They may have tried other strategies and sometimes may have actually improved their performance, but they cannot process positive feedback from other people due to their self-focused attention and biased ways of interpreting such feedback. They may want to know what other people really think about their performance, but it can be too frightening to ask due to the fear of negative evaluation. They may also fear that asking for feedback might offend or irritate others. This is in contrast to individuals suffering from obsessive-compulsive disorder, who often seek reassurance from others in order to reduce anxiety or to feel safe (e.g. Halldorsson and Salkovskis, 2017) even though they know that seeking reassurance bothers and annoys other people. On the other hand, PEP is a private activity, which SADs can do on their own, whenever and wherever. Thus, SADs may have positive beliefs about PEP, while feeling irrational, ambivalent and conflicted about it.

The current study also has potential implications for the treatment of SAD. As mentioned, SAD individuals both believe that reviewing past events is useful for improving social performance and feel conflicted about it; thus, practitioners need to carefully examine both the 'usefulness' and the counterproductive effects of PEP, so that SADs can understand how 'a solution becomes a problem'. Clark and Wells (1995) proposed a treatment technique that explicitly targets PEP and anticipation. More specifically, SADs are initially encouraged to identify the particular ways they think and behave before and after social events. The advantages and disadvantages of their PEP and anticipation are discussed in detail, with the aim of showing that the disadvantages predominate. They are then encouraged to experiment with banning such maladaptive processes before and after social events. The results obtained from this study could help therapists to clarify more detailed disadvantages by introducing real refined examples of the counterproductive effects of PEP, which would discourage SADs from having positive beliefs about PEP. Furthermore, as most SADs rarely seek third-person perspectives, seeking other people's opinions and perspectives may be useful in order to gather all the overlooked information and to look at various interpretations of ambiguous social cues within situations that may help to prevent PEP. At the same time, therapists need to be careful about patients becoming excessively reassurance-seeking. Further experimental studies are needed to determine whether encouraging SADs to seek other people's opinions/perspectives is helpful in preventing or terminating PEP.

Several limitations in this study require attention when interpreting the findings. A major limitation is that we focus on individuals with SAD deemed information-rich for PEP, so sample restrictions are considered a threat to external validity. Future studies should employ a larger sample including unselected SADs and a suitable control group. Second, the researchers were specialists in behavioural and cognitive theory, possibly influencing the language available in the analysis. Third, as most participants had at least one additional diagnosis, it is difficult to conclude on the specificity of findings for SAD. Fourth, the wording of the question 'Why do you still review past events?' may imply a discrepancy and be suggestive.

Fifth, we did not assess baseline levels of PEP using established measurements and specify the type of social situation where the reviewing occurs, making it difficult to evaluate the internal validity of the results. Sixth, there was no specified timeframe within which participants were asked to recall their reviewing behaviours, which may have introduced recall bias. Seventh, the initial codes were generated only by the first author, so it is possible that other coders might view certain codes differently. Lastly, although this study targeted PEP, it is difficult to distinguish clearly between PEP and anticipatory processing because both are self-focused thought processes that occur at various times before and after social events.

To summarize, the findings of this study suggest that: (1) SAD individuals rarely derive the benefits from PEP that they expect; (2) they may, on occasion, find solutions during PEP, which maintain their PEP as a form of intermittent reinforcement; however, these solutions may turn into safety behaviours, perpetuating dysfunctional beliefs; and (3) they choose to perform PEP while feeling conflicted because PEP ironically maintains and exacerbates negative self-beliefs and images; and for SADs, PEP is the only safe and useful way to improve their social performance. These findings support and elaborate upon the phenomenology of PEP in SAD proposed in the Clark and Wells (1995) model, and have possible treatment implications.

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