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Rumination in depression: exploring the experience

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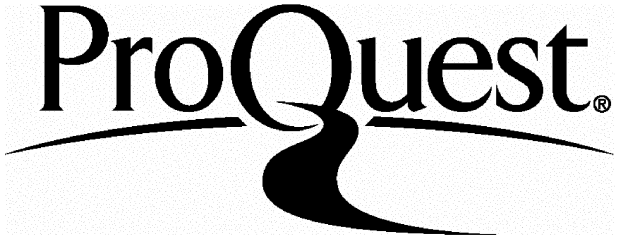

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ABSTRACT

Since Nolen-Hoeksema developed her response styles theory, in which she suggested that a tendency to ruminate in response to depressed mood negatively influences the course of depression, there has been increasing interest in the role of rumination in depression. Although there appears to be a consensus in the literature that rumination involves repetitive or recurring thoughts focusing on a common theme, and that it occurs both in a range of psychological disorders and in non-clinical populations, an agreed definition seems to be lacking.

Although there seems to be general agreement that rumination is an important process in depression, the literature suggests considerable doubt as to what should be included in this construct, what the process of rumination is like, and its role in depression. This study explores the experience of rumination in chronically depressed people and looks at the extent to which this is consistent with ideas about rumination in the literature.

There are a number of different models that attempt to explain the process of rumination. These suggest self-regulatory, goal oriented functions; a role for metacognitive beliefs; and cognitive avoidance functions. However, there seems to be general agreement that rumination is ultimately unhelpful and counter-productive.

The findings indicate particular support for the self-regulatory, goal oriented model, and some support for the other models. New information about rumination, limitations of the study, and implications for therapeutic interventions are discussed, and useful avenues for further research suggested.

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CHAPTER 1: INTRODUCTION

Rumination

Defining rumination

There appears to be a consensus in the literature that rumination involves repetitive or recurring thoughts focussing on a common theme (Martin & Tesser, 1996; Nolen-Hoeksema, 1991; Conway, Csank, Holm & Blake, 2000). It is also generally agreed that rumination occurs in both clinical and non-clinical populations, and that its occurrence in the former is not confined to any one psychopathology (e.g. Ingram, 1990; Paykel & Weissman, 1973). Notable examples are: similarities with worry (Borkovec, Robinson, Pruzinski & DePree, 1983; Segerstrom, Tsao, Alden & Craske, 2000); its prominence in Obsessive-Compulsive Disorder (OCD), e.g. Rachman 1971; and its importance in depression (Nolen-Hoeksema & Morrow, 1991).

A ruminative response style was conceptualised as a stable personality trait and a measure for rumination, the Rumination Response Scale (RRS), was derived, by Nolen-Hoeksema & Morrow (1991), from the Response Styles Questionnaire (RSQ), which they adapted from Nolen-Hoeksema, Morrow & Fredrickson, 1990. The RRS includes items such as: "analyse recent events to try and understand why you are depressed"; "think: 'why do I always react this way?'"; "think about how passive and unmotivated you feel". The RRS and RSQ were developed in the context of depression research and the RRS items reflect a view of rumination as focussing on

symptoms, their possible causes and consequences in a self-critical and self-blaming way (Nolen-Hoeksema, 1990, 1991). The remaining items of the RSQ make up a Distracting Responses Scale (DRS), which measures a tendency to distract oneself. This includes items such as: "go to a favourite place to get your mind off your feelings"; "concentrate on your work". These self-report measures have been used in a number of subsequent studies involving rumination (e.g. Kuehner & Weber, 1999; Bagby & Parker, 2001; Watkins & Baracaia, 2001, 2002).

Though some studies point to potential problem-solving functions (e.g. Martin & Tesser, 1996), it is generally seen as an ultimately unhelpful process. Lyubomirsky, Caldwell & Nolen-Hoeksema (1998) suggest that it increases access to negative autobiographical memories. A number of studies suggest that rumination reduces capacity for interpersonal problem-solving e.g. Lyubomirsky & Nolen-Hoeksema, 1995; Lyubomirsky, Tucker, Caldwell, & Berg, 1999; Watkins & Baracaia, 2002. Lyubomirsky & Nolen-Hoeksema (1995) suggest that rumination increases negative thinking. Beyond these aspects of consensus, however, an agreed definition seems to be lacking.

Accounts of rumination, within self-regulatory models, link rumination to perceived discrepancies between goal states and actual states (e.g. Martin & Tesser, 1996; Carver& Scheier, 1998). These accounts suggest that such discrepancies lead to processing that attempts to move towards the goal state. Such processing is characterised as focussed on the self and on the problems seen as causing the individual to fall short of his/her goal state. Martin & Tesser (1996) view rumination as recurring thoughts around a particular theme which may be about the past, present

or future, which are self-regulatory and continue to focus on the self and particular problems in an attempt to reach goal states. They suggest that ruminative thoughts can recur independently of demands/prompts in the environment.

Rumination is assumed to occur because falling short of a goal or of satisfactory progress towards it keeps information about the goal and (lack of) progress towards it readily accessible. This idea was tested by Martin, Tesser & McIntosh (1993) who found that, in a thought suppression task, those who were told they had not been successful, were quicker at spotting words related to the suppressed thoughts than those who were told they had been successful. Thus, in a goal progress model, rumination is prolonged processing brought about by failure to progress satisfactorily towards a goal. This involves examining options and re-evaluating progress and commitment to the goal in an attempt to resolve discrepancies between the goal state and actual state. It continues until the goal is achieved, satisfactory progress is made, or until the person is able to give up desire for the goal.

Where progress towards, or achievement of a goal is easily measured and clearly identifiable, this model seems straightforward (e.g. to spell check a document). However, where evaluation is based on more subjective values (e.g. to write a good report), a subjective feeling of having made enough progress or attained a goal is needed for rumination to stop.

Hirt, Levine, McDonald, Melton & Martin (1997) suggest that positive mood would lead to greater likelihood of seeing the goal as achieved or the progress as satisfactory than would negative mood. Thus any subjective "stop rule" used by a

person was likely to be subject to that person's mood state. In a positive mood, stopping was likely to occur following less "stop rule" cues (e.g. length of report, coherence of text, ease of reading) or less marked presence of these. Conversely, in a negative mood, a greater number of the "stop rule" cues (if not all of them) would have to be present to a very high degree for stopping to occur (e.g. "perfect" rather than reasonable coherence).

Startup & Davey (2001) looked at catastrophic worrying in this way. They suggested that, when worrying, if people felt that they had thought about their problems enough, they would stop worrying, if not, they would continue, i.e. they used an "enough" stop rule. They showed that participants in a positive mood, who were asked to use an "enough" stop rule, stopped an open-ended problem-solving task before those in a more negative mood. They also got participants to do the task for as long as they felt like it and showed that the effects of mood were reversed in that positive mood lead to longer continuation than negative mood. This supported the idea that mood could affect perception of performance and desirability, which in turn could affect how long people would continue thinking about a problem, but that positive mood need not necessarily lead to earlier disengagement.

Davey & Levy (1998) showed that, of low and high worriers who were not given "stop rules", the low worriers stopped a similar open-ended task sooner than the high worriers. They suggest that both groups were using the "enough" stop rule. These studies suggest that worriers use an "enough rule" and that negative mood may prolong worrying under this stop rule. Given the overlap between worry and

rumination suggested in the literature (Borkovec et al., 1998) it is possible that this will be the case in depressive rumination.

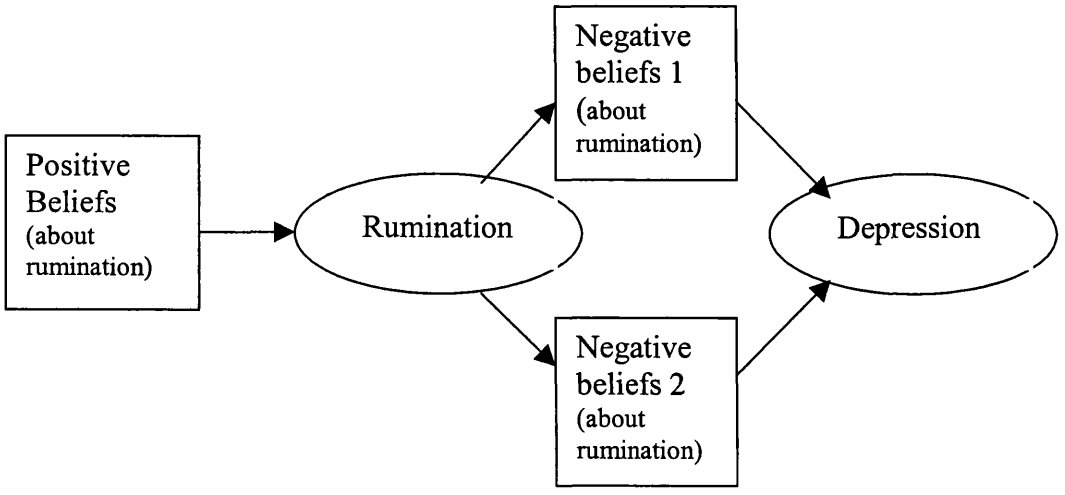
According to the behavioural activation approach of Martell, Addis & Jacobson, 2001, rumination is seen in terms of its function and consequences in the context in which it occurs. A key function of rumination suggested by this account is avoidance of aversive experiences e.g. failure, feared impulses, facing problems, painful feelings or memories. In this context, analysing what has happened and why things have gone wrong facilitates cognitive avoidance of distress of detailed memories of painful past events. However, in common with goal discrepancy accounts, problem solving is also seen as a likely intended function of rumination. Overall, rumination is considered as part of a set of unhelpful escape and avoidance behaviours, reinforced by reduction in distress.

Metacognitive accounts of rumination (Papageorgiou & Wells, 2000; Watkins & Baracaia, 2001) suggest that positive beliefs about rumination (these mostly focus on it providing a better understanding of difficulties or situations) promote engagement in this as a response to difficulties. Once begun, however, it is also suggested that negative beliefs, e.g. that it is uncontrollable and that continued rumination might be harmful (shown as "negative beliefs 1" in fig.1 below) lead to negative rumination about the rumination itself, e.g. negative social and relationship consequences (shown as "negative beliefs 2" in fig.1). Such negative beliefs and ruminations then make the person feel worse rather than better. Appendix VII gives a list of positive and negative beliefs found by Papageorgiou & Wells (2001b) in a sample of people

with MDD. Wells (1995) suggests a similar mechanism for worry in Generalised Anxiety Disorder (GAD).

Papageorgiou & Wells (2001a, 2001b) have developed measures using positive and negative beliefs about rumination reported by depressed individuals in their study (see Appendix VII). Both the Positive Beliefs about Rumination Scale (PBRS) and the Negative Beliefs about Rumination (NBRS) were found to be significantly positively correlated with both rumination and depression (Papageorgiou & Wells, 2003)

Figure 1



A clinical metacognitive model of rumination and depression (Papageorgiou & Wells, 2003).

Studies of rumination, those cited above being examples, seem to assume that the content of rumination is in the form of verbal thoughts, and make reference to

thinking about reasons and explanations, looking for understanding, trying to find solutions etc. Rumination has been characterised as starting in an involuntary way, with no particular goal in mind (Uleman, 1989) and as a purposeful response to perceived goal discrepancies (Martin & Tesser, 1989 & 1996) that becomes increasingly uncontrolled. Studies of imagery in psychopathology draw parallels that prompt consideration of the possibility that rumination may include images as well as verbal thoughts. De Silva (1986) suggested that the imagery reported by OCD sufferers had similar content to the verbal thoughts they had about their obsessions. Kuyken & Brewin (1994) found that people suffering with depression reported involuntary memories of childhood, which came in the form of intrusive imagery. Brewin (1989) suggests that memories of distressing events in the past that are accessed tend to be linked to current difficulties. Given these close links with verbal thoughts, the intrusive involuntary nature of such imagery, and the link with current difficulties, imagery could well be a component of rumination. Hackmann (1998) has defined imagery as representations of experiences in all perceptual modalities (sight, sound, smell, taste, touch).

Depression

Defining depression

Gotlib & Hammen (2002), whilst acknowledging the advantages of having agreed criteria for the clinical diagnosis of depression, point to the high degree of heterogeneity of depression and the importance of subtypes within this broad category. They also highlight the arbitrary nature of the cut-off point between "having" and "not having" depression in the context of a continuum of depressive experience. Gotlib & Hammen further note that there are significant differences among clinically diagnosed cases. They cite chronicity as an important source of difference among those diagnosed with major depression in that significant differences have been found between those suffering their first episode and those suffering a recurrence (e.g. increase in rate of recurrence and shorter times between episodes, Boland & Keller, 2002). Depression is commonly recurrent, with more than 75% of patients with depression experiencing more than one episode (Gotlib & Hammen, 2002)

Clearly then, it is important to bear in mind the variety of experiences and characteristics that are grouped under the banner of depression, and, by the same token, important to be clear about the defined subgroup(s) at which any research or treatment initiative is aimed (Ingram & Siegle, 2002).

To this end, agreed classification systems, despite drawbacks of arbitrariness or loss of detail, are essential. The Diagnostic and Statistical Manual of Mental Disorders

(DSM-IV-TR; American Psychiatric Association, 2000) is widely recognised and used in both clinical and research settings (Ingram & Siegle, 2002). It recognises and defines a number of different types of depressive experience sufficiently severe to be considered disorders. The major categories are shown below, to illustrate the diversity of problems grouped under the banner of depression:

- Major Depressive Disorder (MDD)
- Dysthymic Disorder
- Bipolar I Disorder
- Bipolar II Disorder
- Cyclothymic Disorder

As the focus of this study is rumination in people with MDD, the DSM-IV-TR criteria are given here (the original text has been abbreviated slightly):

- Presence of 2 or more Major Depressive Episodes (MDE) defined as follows: For at least 2 weeks, depressed mood most of the day, nearly every day and/or loss of interest or pleasure plus 3 (if both are present) or 4 (if only one is) of:
    - Significant weight loss/gain not due to dieting.
    - Insomnia or hypersomnia nearly every day.
    - Psychomotor agitation/retardation nearly every day.
    - Fatigue/loss of energy nearly every day.
    - Feelings of worthlessness/excessive guilt nearly every day.
    - Diminished ability to think or concentrate, or indecisiveness nearly every day.
    - Recurrent thoughts of death or suicide.

- There must be at least two consecutive months between MDEs, during which criteria for a MDE are not met, for these to be considered separate episodes.

For all the above categories of depression, symptoms must cause clinically significant distress and/or significantly impair social, occupational, or other important areas of functioning. The symptoms must also not be better explained by direct effects of a general medical condition, medication, substance abuse, psychotic disorder or bereavement within 2 months prior to onset. DSM-IV-TR recognises and categorises a number of sub-types of Bipolar I disorder, which are dependent on the nature of the most recent episode (e.g. whether manic, hypomanic, depressed). In addition, the presence of additional features is used to further subcategorise or differentiate, e.g. with or without melancholic features.

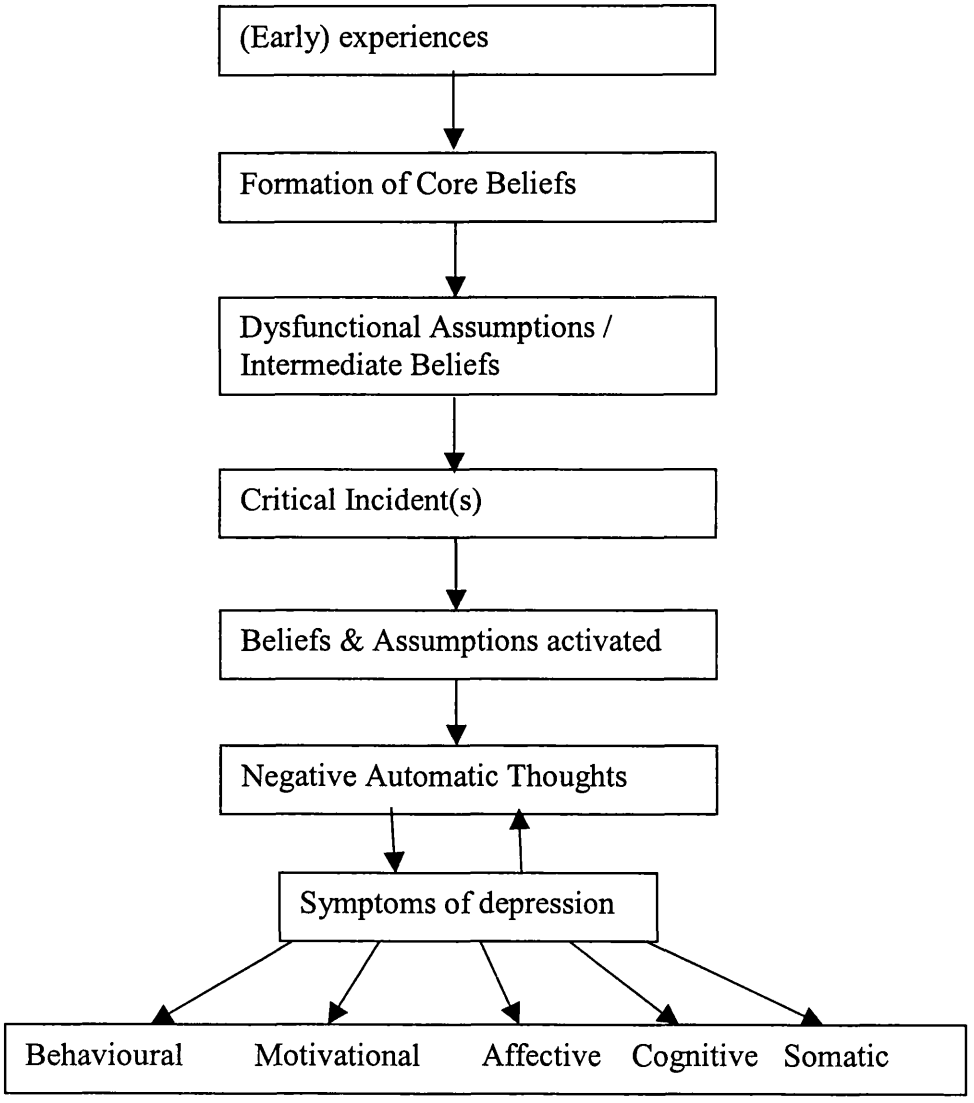
Given the number of subgroups under the banner of depression, it is perhaps not surprising that estimates of the prevalence of depression vary. Widely acknowledged as the most commonly found psychiatric disorder, estimates of prevalence have been as high as 20% of adults and 50% of children (Kessler, 2002). However, Kessler points out that these are based on symptom screening scales where depressive symptoms are reported through thinking back over periods ranging from 1 week to 6 months. Estimates for major depression in surveys using structured diagnostic interviews with DSM criteria are much lower. Typically, these are 2-4% in adults, less than 1% in children, and up to 6% in adolescents (Kessler, 2002). Kessler also notes that depression has been ranked by the World Health Organisation as "the most burdensome disease in the world in terms of total disability-adjusted life years among people in the middle years of life".

Beck's model of depression

This model (Beck, 1967; Beck, Rush, Shaw & Emery, 1979) is one of the most influential and widely accepted accounts of depression in the literature. According to this model, people form beliefs about themselves, others and the world around them based on their experiences. This process begins with early experiences in childhood and the most central beliefs are generally regarded as absolute truths. Where the experiences are negative or adverse, negative or maladaptive beliefs can be formed. These "core beliefs" are activated by relevant events or circumstances, influencing perceptions of the self, of experiences of the world and of the future (the "cognitive triad", Beck, 1976). They tend to take the form "I am..." "It is..." etc. These core beliefs give rise to dysfunctional assumptions or "intermediate beliefs" through which perceptions of the environment are filtered. These tend to be conditional ("if... then....") assumptions, which in turn give rise to "negative automatic thoughts" such as "I'm going to fail", which tend to reflect the beliefs and assumptions rather than the actual events or circumstances. Such thoughts arise repeatedly and spontaneously, leading to further such thoughts, thus reinforcing the beliefs and assumptions. This process can negatively affect mood, behaviour, motivation, bodily sensations and cognitive processes producing the symptoms of depression. Such effects reduce coping resources and further engage resources in a cycle of increasing negative thinking, leading to more symptoms of depression as above which in turn reinforce negative thinking. A key point made in this model is

that events themselves do not directly lead to depression, but rather the meanings ascribed to them. The process is illustrated in figure 2 below.

Figure 2



Beck's cognitive model of depression

Although rumination is not mentioned specifically as a component of Beck's model, the idea of repetitive thinking, focussed on problems, which tends to increase access to negative memories, increasing negative thinking and reducing capacity to problem-solve, is consistent with the model.

Rumination in depression and rationale for the study

Since Nolen-Hoeksema (1990, 1991) developed her theory of response styles to dysphoric mood, in which she suggested that how people tended to respond to depressed mood influences the course of their depression, there has been increasing interest in the role of rumination in depression. She defines depressive rumination as thoughts and behaviours that focus the depressed person's attention on the symptoms they experience and on the possible causes and consequences of these. It is characterised by a focus on personal problems, a negative tone, self-criticism, self-blame and loss of confidence, optimism and perceived control (Nolen Hoeksema & Morrow, 1991). Such a view of rumination is consistent with the role of interpretation and meaning making in Beck's model of depression (see above). Abramson et al. (2002) suggest that the cognitive vulnerability to depression described by Beck should lead to rumination.

Nolen-Hoeksema suggests that people who ruminate have longer periods of depression than people who distract themselves. She suggests that this may be due to enhancement of the effects of negative mood on cognition (e.g. attention, concentration, recall of negative memories) and interference with goal-directed behaviour. Nolen-Hoeksema, Larson & Grayson (1999) suggest that women are more likely to respond to depressed or anxious mood by ruminating than men. They also suggest that, when gender differences in rumination are controlled for, gender differences in depression are not significant.

Nolen-Hoeksema & Jackson (2001) found characteristics that they suggest may be related to female roles in society and may underlie an increased tendency to ruminate. They found that women were more likely than men to believe that negative feelings (e.g. sadness, fear and anger) were hard to control. Difficulty in controlling negative feelings was linked to a tendency to ruminate more. Women tended to report more feelings of responsibility for maintaining positive relationships with others. Such feelings of responsibility, and the vigilance that is likely to result regarding the feelings of others and their own feelings about their relationships, are likely to increase the tendency to ruminate. In addition, women were found to have a greater tendency to report not feeling in control regarding important events in their lives. This too was linked to reports of a greater tendency to ruminate.

The importance of rumination as a key process in depression is well supported in the literature (Kuehner & Weber, 1999; Kasch, Klein & Lara, 2001; Watkins & Baracaia, 2001). However, the literature suggests a number of problems with the conceptualisation and measurement of rumination elaborated by Nolen-Hoeksema and her colleagues. Kasch et al. (2001) found that rumination, as measured by the RRS, was not stable over a 6-month period and that it was closely linked to severity of depressive episode and to related concepts such as affective temperament and self criticism. Baseline measures of these latter were found to predict the course and outcome of participants' depression, whereas baseline rumination did not. This does not support the notion of rumination, measured using the RRS, as a stable personality trait and suggests that there are problems with its predictive value in terms of depression outcomes. Spasojevic & Alloy (2001) suggest that rumination, as a

special type of self-focus, may be a mechanism for the effects of other vulnerability factors, such as self-criticism or negative cognitive styles.

Segerstrom et al. (2000) suggest that the repetitiveness of rumination is a key defining aspect of rumination and point out that this is also a key aspect of worry. They also suggest that Rumination is used for problem solving, in contrast to worry, which they suggest is aimed at avoiding threats. Bagby & Parker (2001) applied factor analysis to their RSQ results with depressed participants, which produced three factors: distraction, symptom-focussed rumination, and self-focussed rumination. This suggests that the RSQ rumination measure may be combining two very different phenomena in that symptom-focussed rumination could not occur in the absence of depressive symptoms and would thus be linked with presence and severity of symptoms, whereas self-focussed rumination could occur regardless of the presence and level of symptoms and might thus be more trait-like. Examples of symptom-focussed items are: "think about how hard it is to concentrate"; "think about how sad you feel" and of self-focused items: "think about how alone you feel"; think about all your shortcomings, faults, mistakes". They also looked at two established personality traits, neuroticism and extraversion. Only extraversion was associated with treatment outcome when the other factors were controlled for. The Segerstrom et al. (2000) study differentiated between rumination, which they found correlated with depression, and repetitive thought, which correlated with both anxiety and depression.

Although the studies by Nolen-Hoeksema and her colleagues seem to bear out the prediction of her response styles theory (RST) that depressed mood plus rumination

produces amplification and prolongation of depressed mood, these were conducted with untreated, non-clinical samples of people where any depressed mood was mild to moderate. Though the use of such non-clinical samples to make inferences about clinical depression is not uncommon, many researchers question the usefulness of this approach (Tennen, Ebehardt & Affleck, 1999). The studies already mentioned which do not support this link were conducted with clinically depressed participants, though the study by Kuehner & Weber (1999) with depressed participants does support a link. A study by Bagby et al. (1999), with outpatients diagnosed as having major depression, found that the only predictive value came from the distraction subscale of the RSQ, which predicted change in severity and overall treatment outcome. Neither distraction nor rumination components of the RSQ were linked to duration of current episode or number of previous episodes.

In a recent study, Treynor, Gonzalez & Nolen-Hoeksema (2003) addressed the issue of symptom-related items in the RRS being likely only to be present once a person is depressed. This meant that a component of rumination, as measured by the RRS, was likely to be confounded with characteristics of depression itself. Once such items had been removed, two components were found to be related to concurrent and long-term severity of depression. In this study, a "reflective" component was associated with higher current but lower long-term severity, whilst a "brooding" component was linked to higher current and long-term severity. This may be a factor in difficulties with the predictive value of the RRS already mentioned.

There seems to be general agreement that repetitive preoccupations are an important feature of depression. However, as has already been mentioned, there is considerable

doubt regarding what should be included in the construct of rumination, its role in depression, and the generalisability of findings from non-clinical to clinical populations. An exploration of the experience of rumination in a clinically depressed sample of participants seems to be lacking in the literature.

Research questions and hypotheses

The object of this descriptive and exploratory study is to identify and record theoretically relevant characteristics and cognitive experiences that are encompassed by rumination in people with MDD. Rumination is characterised in the literature as negative thinking about self, emotions and problems that is recurrent, perseverative and compulsive in nature. This working definition is used as a starting point in this study and an expectation of such characteristics in reported experiences of rumination is reflected in the questions and coding frames of the schedule (see chapter 2 and Appendices III & IV).

The research questions and hypotheses that this study set out to address are as follows:

1. **What general themes are present in participants' ruminations?** It is predicted that central issues noted in the literature would be reported, i.e. loss or absence of important things, why things have happened and events in the past. Although present and future events are less strongly associated with depressive preoccupations, Martin & Tesser (1996) suggest, in line with the goal discrepancy view, that these are a feature of rumination. Also, preoccupation

with the future is associated with worry, which has been linked to, and seen as overlapping with, depression in the literature (Segerstrom et al., 2000). However, as preoccupation with past events is more strongly linked with depression, and understanding why things happened is suggested as a key reason for ruminating, it is predicted that preoccupation with the past will be more frequently found.

Although a symptom focus in rumination is suggested by the literature (Nolen-Hoeksema, 1990,1991; Bagby & Parker, 2001), focus on the self and on one's problems seem to be seen as more important (Martin & Tesser, 1996, Papageorgiou & Wells, 2001). It is therefore predicted that symptoms will not emerge as a dominant theme.

2. What is the participants' subjective experience of rumination like? Rumination is generally described in terms of verbal thoughts, but intrusive imagery has been identified as a feature of depression (Kuyken & Brewin, 1994). There are also indications in the literature that aspects of imagery (e.g. intrusiveness and links with verbal thoughts) are congruent with rumination. It is therefore predicted that imagery would be reported as an aspect of participants' ruminations, which were also predicted to have verbal thought content.

Reports of the emotions widely associated with depression in the literature are predicted, i.e. anxiety, hopelessness, anger (towards self, others, or situations), humiliation, low mood. Positive emotions are a possibility in the light of the positive beliefs noted above. Hopefulness and relief are used as coding items /

prompts, given the positive beliefs from the Papageorgiou & Wells studies (see Appendix VII), so that any positive emotions will not be missed. However, given the suggestion in the metacognitive model that negative beliefs are activated during rumination, it is predicted that positive emotions will not be reported.

The literature suggests a lack of conscious control in that it is said to start in an involuntary way (Uleman, 1989), recurs independently of demands/prompts in the environment (Martin & Tesser, 1996), and that negative beliefs about it include loss of control and inability to stop doing it (Papageorgiou & Wells, 2003). High ratings of uncontrollability and compulsion were therefore predicted.

3. What is the frequency and duration of a typical episode of rumination? Ruminative thoughts are predicted to occur with high frequency and this is defined as more than once per day for the purposes of this study. Given the repetitiveness and "stuckness" of rumination widely highlighted in the literature, episodes of rumination are not predicted to be momentary or fleeting. However, there is not the information in the literature to form any particular hypothesis beyond this.

4. What is associated with the start and end of episodes of rumination? The literature suggests that, though rumination may be (or become) involuntary, there are functions, objectives and beliefs that underlie it. Goal discrepancy accounts (Martin & Tesser, 1996) suggest that goal or outcome discrepancies prompt self-

or problem-focussed processing to address the discrepancies. Reports of attempts at problem solving, avoidance of failure, and gaining control as prompts to ruminate would lend support to such accounts. The first two of these are also the two key themes in the PBRS and Papageorgiou & Wells (2003) suggest that positive beliefs of this type promote engagement in rumination. Martell, Addis & Jacobson (2001), in their behavioural activation account of rumination note that escape and avoidance are motivating goals in depression. Reports of attempts at objectivity or gaining distance from emotions, and avoidance of aversive events would support this and suggest that rumination has a role in this.

Studies by Startup & Davey (2001) and Davey & Levy (1998), suggest that, in worry, people will stop if they feel they have done it enough (i.e. made progress in addressing problems). They also suggest that negative mood (in the absence of objective indicators) will make an "enough" decision less likely (and a positive mood will make it more likely). However, Startup & Davey also suggest the possibility that negative mood might bring rumination to an end, whereas positive feelings might prolong it. Hence, improved or worsened mood might bring rumination to an end and this may or may not involve a conscious decision to stop. Papageorgiou & Wells (2003) suggest that, as rumination progresses, initially positive beliefs give way to negative beliefs about the consequences of rumination. Thus, it is possible that feeling worse, combined with worries about negative consequences of rumination, might bring it to an end. Distraction seems an important positive response to depression (Lyubomirsky & Nolen-Hoeksema, 1995; Bagby et al., 1999). However, as the literature suggests that self-distraction is an alternative way to rumination of addressing problems, it is

thought more likely that externally generated distraction might be reported as ending an episode of rumination.

Given the different possibilities suggested by the literature, no particular hypothesis is made regarding the starting or stopping process in rumination beyond predicting that problem solving will be a factor associated with starting to ruminate.

5. To what extent are the characteristics of participants' ruminations consistent across all the ruminations they report? Again, this is a gap in the literature, so no particular hypotheses are made. High consistency across ruminations would support a view of rumination as a particular process, which remains stable across different manifestations. Low consistency would raise questions as to whether there were different types of rumination and / or whether the content of ruminations is a significant factor in determining the process and effects of rumination. High consistency of a characteristic would suggest that it might be a stable component of depressive rumination (i.e. inherent in rumination or in depression).

6. Are there relationships between the standardised measures and typical length of episodes of rumination? Despite the relative lack of resolving power for multiple statistical tests, it was considered worth testing for relationships between the standardised measures used (BDI, RRS, PBRS, NBRS), as significant relationships have previously been found (e.g. Papageorgiou & Wells

2003). Also, given the link suggested by Nolen-Hoeksema & colleagues between ruminative tendencies, as measured by the RRS, and severity of rumination, a measure of this is included in the correlation analysis. Length of rumination was chosen, as it is a continuous variable which may have links with the PBRS and NBRS according to the Metacognitive and goal discrepancy accounts of rumination. Positive correlations are predicted.

CHAPTER 2: METHOD

Participants

Sampling method

The sample used in this study consisted of people awaiting treatment or currently being treated in an Adult Mental Health psychology service, who were accessible, screenable (from files), met criteria, and were willing to participate in the study. People who, in the opinion of the treating clinician or referrer (if on waiting list), had current or past symptoms of depression were asked if they wished to participate in the project. All those approached were either awaiting or receiving treatment from the Haringey Psychological Therapies Service in North London. This was done with the prior agreement of both the head of service and the clinicians involved, who were aware of the parameters of the study. Given the exploratory nature of the study and the time and resource constraints, a minimum sample of 20 people was considered reasonable.

Those on the waiting lists were invited to participate by letter (see Appendix I). This asked the person to insert a contact telephone number, sign to indicate that he or she could be contacted, return the letter in the s.a.e. provided, and retain the copy letter. This method was designed to maximise clarity and convenience for those approached. Asking for a contact number allowed appointments to be set up in collaboration with the potential participant, thus reducing wasted time due to

unsuitable appointment times resulting in non-attendance or further arrangements needing to be made. It also provided an opportunity for potential participants to ask for any clarification required and for the interviewer to build a little pre-appointment rapport with them. A further benefit of this was an opportunity to check that an interpreter was not necessary (one participant was thanked for her interest and excluded due to insufficient command of English at the appointment setting stage). In these ways, any wasting of interviewer's or participants' time was minimised. Those already in treatment were given an information sheet (see Appendix I) and asked whether they would like to participate by the psychologist he or she was seeing. Consenting clients were then interviewed by the same psychologist, who would arrange this with the client and follow the same interview schedule.

Inclusion and exclusion criteria

Given the focus of this study, inclusion of participants depended on their meeting criteria for diagnosis of a current or past Major Depressive Episode (MDE) according to the Diagnostic and Statistical Manual of Mental Disorders - (DSM-IV-TR, American Psychiatric Association, 2000). This was assessed at the start of each interview using the depression section of the Structured Clinical Interview for DSM-IV-TR Axis I Disorders (SCID), Research Version, Patient Edition (First, M.B., Spitzer, R.L., Gibbon M., and Williams, J.B.W., 2002). The use of parts of this is considered valid by the authors, who advocate the use of specific sections of the full SCID, dependent on which disorder is the focus of interest.

Anyone whose current presentation or history was indicative of bipolar disorder or psychosis was excluded from the study. These exclusion criteria were based on the

clinical judgement of the referrer or treating clinician. Comorbidity with other disorders was not a criterion for exclusion, as comorbidity with other disorders is very high. Kessler (2002) points to studies indicating co-morbidity with other DSM disorders in three quarters of cases. Hence, exclusion on this basis would make finding an adequate sample extremely difficult (given the time and resource constraints) and, by the same token, compromise the external validity of the findings. Four of the twenty-two participants also suffered with PTSD, seven with anxiety disorders and one with alcohol abuse problems. Kessler (2002) notes that large-scale co-morbidity surveys indicate 74-75% of respondents with MDD also met criteria for at least one other DSM disorder. Hence, the comorbidity of other disorders present in those who participated in this study is rather lower than that expected in the general clinical population.

Those who required an interpreter were excluded at the screening or contact call stages, as the cost of an interpreter did not fall within budgetary constraints. This did not appear to unduly restrict the sampling, as no ethnic group was excluded from the sample on this basis.

Again, due to practical constraints, no exclusions were made on the basis of ethnicity. This means that the ethnic mix of the participants reflected that of an inner London clinical population rather that that of the UK as a whole. All participants were between the ages of 18 and 65 and thus represent an adult clinical population. However, only one potential participant (who was over 65) was excluded on this basis, as participants were recruited through an Adult Mental Health service.

Mean scores for the sample on established measures relating to rumination and depression are shown in table 1 below and are similar to those obtained in previous studies of depressed participants.

Table 1

Mean scores obtained from the sample on established measures relating to rumination and depression

Measure	Mean	Standard Dev.
BDI	28.59	13.240
RRS	63.82	11.189
PBRS	23.73	8.790
NBRS	32.14	7.113

Numbers at each stage of the process

Two hundred and twenty-one waiting list files were screened and of these 129 people were considered likely to be suitable candidates for the study. Twenty-four of these agreed to be contacted. Of these, one changed his mind when contacted, two said new job commitments made them unavailable for interview and one did not attend the interview. Two people already seeing a psychologist were approached and interviewed. Thus, 22 people were successfully interviewed for the study, 6 men and

16 women. The proportion of men in the sample is a little lower than the proportion generally estimated in the depression literature of 2 women to every man (Nolen-Hoeksema, Larson & Grayson (1999). Participants were all chronically depressed, with a minimum of 3 episodes of depression and of 2 years since first episode. Half the participants reported that their past episodes of depression were too frequent or indistinct to count. Six participants did not meet DSM IV criteria for a current MDE and were thus interviewed about a past episode that met DSM IV criteria. However, at the time they were interviewed, all but 3 of these had BDI scores indicative of moderate to severe depression.

Ethics

The necessary approval was obtained from the Barnet, Enfield and Haringey Mental Health NHS Trust Local Research Ethics Committee (see Appendix IX) and an honorary contract was made with the trust. The project was also registered with the Camden and Islington Community Health Services NHS Trust, as employer. The necessary Health & Safety and Data Protection forms were also submitted.

Measures

The SCID (see above), a comprehensive structured interview designed and validated for the diagnosis of DSM IV-TR Axis I (psychiatric) Disorders was used to confirm that each person met DSM IV criteria for diagnosis of a current or past Major

Depressive Episode (MDE). The SCID has been shown to have reasonably good reliability in the diagnosis of MDD (Ciesla & Roberts, 2002). The DSM IV-TR classification system is the most recent version of an internationally recognised set of definitions and criteria for the diagnosis of disorders (American Psychiatric Association, 2000). Only the depression section of the SCID was used to screen for presence of a MDE and past MDEs. This was to keep interview time down to a maximum of 1½ hours, as the full SCID would take too long and be inappropriate to this study. The customising of the SCID in this way is permitted and considered valid by the authors (First et al., 2002). Using the SCID in this way also gave an opportunity for the interviewer to show interest in the broader clinical history and experiences of the participant and for the latter to settle into the interview before experiences directly relevant to the study were explored and before questions became less straightforward.

The Beck Depression Inventory (BDI) developed by Beck, A.T., Ward, C.H., Mendelson, M., Mock, J.E. and Erlbaugh, J.K. (1961), was used to provide further assessment of any current symptoms of depression at time of interview. The validity and reliability of this self-report measure had been established (Beck, Steer & Garbin, 1988), and it is very widely used to assess severity of depression.

The Rumination Response Scale (RRS) was used to see whether the participants' scores were indicative of depressed people with a high tendency to ruminate, as conceptualised by Nolen-Hoeksema and colleagues (see above & Appendix VI). The RSQ is a thirty-nine-item self-report questionnaire where respondents indicate how often they respond in particular ways to low mood. The RRS consists of the

first twenty-two items of the RSQ and measures the extent to which people tend to respond ruminatively to low mood states. The RSQ and RRS have already been used in rumination research and thus represent a measure of ruminative tendencies that has been accepted as useful in the literature (Spasojevic & Alloy, 2002; Watkins & Baracaia, 2001). The RRS has been shown to have high internal consistency (Nolen-Hoeksema, Larson & Grayson, 1999; Nolen-Hoeksema & Morrow, 1991) and fairly good test-retest reliability (Nolen-Hoeksema et al., 1999). In terms of validity, the literature has focussed on the ability of the RRS to predict depression (predictive validity), on the basis that a tendency to ruminate in response to low mood is an important factor in depression. As has already been noted in the introduction, for clinically depressed participants, some studies suggest good predictive validity and some do not.

The Positive Beliefs about Rumination Scale (PBRS) developed by Papageorgiou & Wells (2001 a, b) is a self-report, 9-item scale to measure the extent and strength of people's positive beliefs about Rumination (see Appendix VII). This scale has been shown to have good internal consistency, test-retest reliability, convergent and discriminate validity with non-clinical samples and discriminant validity with clinical samples (Papageorgiou & Wells, 2001b).

The Negative beliefs about Rumination Scale (NBRS) developed by Papageorgiou, Wells & Meina (2001, in preparation) is a self-report, 13-item scale to measure the extent and strength of people's negative beliefs about Rumination (see Appendix VII). This scale has also been validated with a clinically depressed sample. This scale has been shown to have good internal consistency, acceptable test-retest

reliability, good convergent and preliminary indications of discriminant clinical validity (Papageorgiou & Wells, 2004).

These two belief scales were included to see whether participants scored highly, given the role in rumination of both negative and positive beliefs suggested by Papageorgiou & Wells (2003).

A semi-structured interview schedule, designed specifically for this study, was also used (see Appendix III). This was designed to explore each participant's experiences of repetitive preoccupations and what sense they made of these. The themes, experiences and meanings described were recorded using a coding framework covering aspects of process, content and the form in which it occurs (e.g. a thought, an image). This framework reflects ideas about rumination gathered from the literature, hypotheses prompted by these, and the experience of some initial pilot interviews. The framework was designed to facilitate analysis of the responses in a similar way to content analysis, as described by Hayes (2000), and was also used to prompt participants, thereby ensuring that coding categories were not missed.

Pilot interviewees strongly felt that participants would need prompting, and that this would be more important the more severely depressed they were. This was also the view of researchers with experience in the field. Despite the obvious risk of demand characteristics in the responses, it should be noted that, in both pilot and data-gathering interviews, participants were able to reject suggestions from the prompting which did not fit with their experiences. In addition, some flexibility to add any

information that did not fit into the coding framework was built into the schedule. Questions 1-4 and question 7 were asked about each of the ruminations identified in question 1 (see Appendix III) and each question had its own specific coding framework items.

This overall approach is based on that used by Reynolds and Brewin (1997, 1998) in studies of intrusive cognitions, emotional and coping strategies in depression and PTSD. Rationales for items in the interview schedule reflect the research questions and are given briefly below:

The age and highest level of educational attainment were recorded as indicators of the representativeness of the sample in terms of clinical populations. Gender, years since first episode of depression, and number of episodes to date were also recorded for this purpose.

Question 1 first asks participants to identify up to 3 ruminations they typically experience. These are recorded by noting the topic involved in each case, which is used to identify each rumination, in subsequent questions (see Appendix XI for a list of these topics). It then looks for broad themes present in each rumination using the coding framework both to prompt and record responses.

Question 2 looks at what the experience is like in broad terms using the coding framework both to prompt and record responses.

Question 3's coding frame reflects expected reports of the emotions widely associated with depression in the literature and the possibility of positive emotions. The coding framework is used both to prompt and record responses.

Question 4 explores what prompts rumination, looking for indications of reasons for or functions of ruminating, which might be consistent with theoretical accounts of it in the literature. The coding framework is used both to prompt and record responses.

Question 5 addresses the implication of frequent occurrence in descriptions of rumination. Frequency of at least once daily was expected and this was the cut-off used, as pilot interviewees felt that a simple less than / greater than approach was best.

Question 6 looks at the implication, inherent in the repetitiveness and "stuckness" cited as characteristics of rumination, that episodes are not momentary or fleeting. Typical lengths of ruminative episodes reported by participants are recorded.

Question 7's coding frame reflects the idea of "stop rules", possible effects of changes in emotional state, negative beliefs about rumination, and distraction. The coding framework is used both to prompt and record responses.

In questions 1-4 and question 7, responses that were not anticipated in the coding framework were written down as given by the participant (under the "other" option in the framework) for later analysis.

Participants were also asked to rate their experience of rumination in general on the following dimensions considered significant in the literature:

- Uncontrollability.
- Compulsiveness.
- Extent to which the focus is on the past present or future.
- Extent to which the focus is on symptoms.
- Extent to which there is anger at self, others or situations.

This was done using Visual Analogue Scales (VAS), which have been found useful in studies of a range of subjective experiences, (Wood, Magnello and Jewell, 1990). This consists of a horizontal line representing a continuum with the extremes at either end, and a marked midpoint (see Appendix IV). Respondents are asked to mark the line at a point that represents their experience on the continuum (e.g. somewhere between totally uncontrollable and totally controllable). Scoring was done with a template measuring distance from the negative or lowest end of each scale line to the point marked by the subject in millimetres. Such a scale is very simple to use, minimises any suggestion and there is evidence that participants prefer them to scales with a range of options (Wood, Magnello and Jewell, 1990).

The use of contrasting ways of gathering data and the piloting of questions prior to their use with participants is widely advocated in the literature (Barker, Pistrang, & Elliott, 1994; Breakwell, 2000; Hayes, 2000).

Procedure

The procedure set out in the interview schedule (see Appendix III) was followed for all participants and is outlined below (*comments on the process are added in italics*):

The Participant is given the information sheet (see Appendix I) giving more information about the study and invited to ask any questions s/he had.

The Participant is then given a consent form to complete and sign (see Appendix II), again being invited to ask questions. The Interviewer highlights confidentiality and the right to stop the interview and/or taping or otherwise withdraw from the study at any time. The Participant is also told that the record of the interview will not contain identifying details.

The Interviewer checks and signs the declaration regarding informed consent. If the participant has not consented to taping of the interview, this is accepted without demur. If consent is given, taping is started at this point. *No one refused to participate or withdrew from the study at or after the start of the interview, and only two people did not wish to be taped.*

Demographic information and whether the participant is on antidepressant medication are recorded

The SCID is administered. *All those interviewed met criteria for either a current or past MDE.*

Rumination is described and the participant is asked if s/he has experienced this. *All Participants interviewed said that they had experienced rumination.*

The seven exploratory questions on the interview schedule are asked (see Appendix III)**.**

The VAS rating sheet is given (see Appendix IV)**.**

The BDI, RSQ, PBRS and NBRS are administered in this order. *Where necessary explanations are given and/or questions are read to the participant and completed at his/her direction.*

The Participant is debriefed and thanked for their participation. *Only one person gave cause for concern at the debrief. This was due to his overall life circumstances and the apparent severity of his depression rather than to any part of the interview process. This was communicated, with the agreement of the participant in question, to clinical staff, who took appropriate action.*

Method of Analysis

This was a combination of analysis of the content of the semi-structured part of the interviews, and descriptive analysis of quantitative data gained from this, together with that gained from the self-report measures. The prevalence of different themes and characteristics or patterns in the reported experiences of the participants was ascertained, through exploratory data analysis using descriptive statistics.

A Pearson product-moment correlation was used to test for relationships between the standardised measures used (BDI, RRS, PBRS, NBRS) and typical length of ruminative episodes.

A post-hoc t test was also done, to see whether the mean scores on the standardised measures differed significantly for those who did not report three separate topics of rumination compared to those who did.

CHAPTER 3: RESULTS

Number, frequency and length of ruminations

Although participants were invited to identify up to three different ruminations or rumination topics, not everyone identified three. Two participants identified only one; six identified two, and 14 participants three ruminations. The two with one rumination only were omitted from analysis focussing on extent of consistency across ruminations (see below) for obvious reasons.

Twenty-one participants reported that they ruminated at least once every day and only one reported ruminating less than once daily. Reported average duration of ruminative episodes varied considerably. The mean of the typical durations reported, taking "all day" as being ten hours, is 2.8 hours and reflects the two-hour typical duration reported by over a quarter of the sample. The prevalence of different durations within the sample can be seen in table 2 below.

Table 2

Lengths of episodes of rumination reported as typical by respondents, showing numbers reporting each, and the percentages of the sample they represent

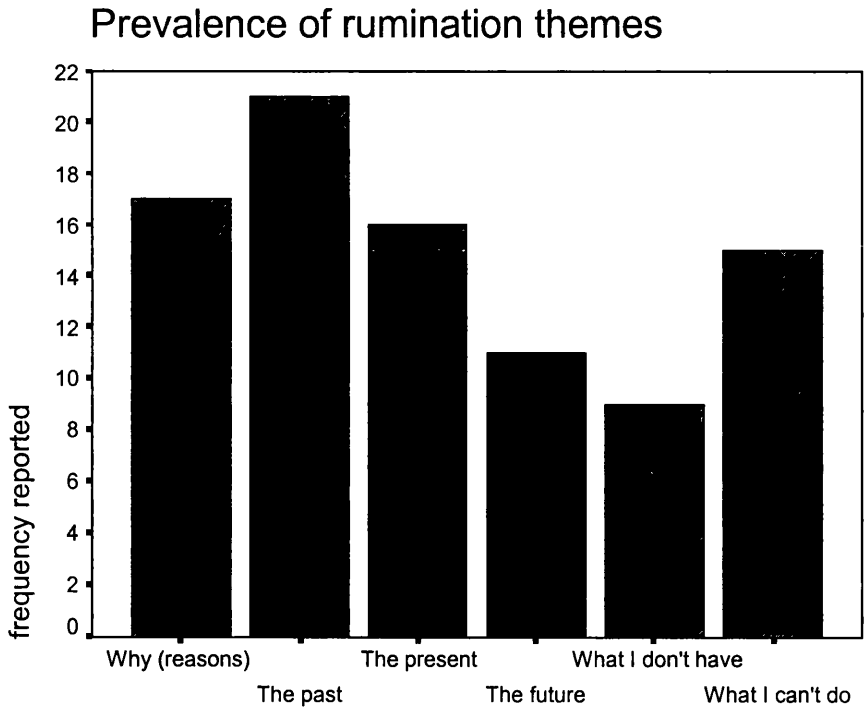
Typical duration reported	Frequency reported	Percentage of sample	Cumulative percentage
3 minutes	1	4.5	4.5
10 minutes	1	4.5	9.1
15 minutes	1	4.5	13.6
½ hour	3	13.6	27.3
1 hour	1	4.5	31.8
1½ hours	1	4.5	36.4
2 hours	6	27.3	63.6
3 hours	2	9.1	72.7
4 hours	1	4.5	77.3
5 hours	2	9.1	86.4
7 hours	1	4.5	90.9
All day	2	9.1	100.0

The table indicates that, for over 60% of respondents, episodes of rumination typically lasted no more than two hours. Less than 10% said that their episodes typically lasted all day, whilst less than 14% said theirs lasted a quarter hour or less.

Thematic content of rumination

No distinction was made between the presence of a particular theme in one, two, or all three of a participant's reported ruminations when examining prevalence. The presence of a theme in any rumination reported by a participant was considered sufficient for this purpose. Also, there was no clear meaning, in terms of prevalence, ascribable to the difference between a theme being reported in one rumination and it being reported in more than one (relative frequency of ruminations reported is unknown). However, this is looked at later in terms of consistency across ruminations. Figure 3 below shows the relative prevalence of coding frame themes in participants' self-reports.

Figure 3



The bar chart in figure 3 reflects the presence of multiple themes in participants' ruminations. All participants reported at least two of the themes in their ruminations. The most frequently reported themes were "the past", "why" and "the present". Table 3 below shows the extent to which participants reported past present and future themes in their ruminative experiences.

Table 3

Number of themes experienced by participants when ruminating

Number of reported themes	Number of participants	Percentage of sample	Cumulative percentage
6	5	22.7	22.7
5	4	18.2	40.9
4	5	22.7	63.6
3	3	13.6	77.3
2	5	22.7	100.0
1	0	0.0	
0	0	0.0	
Totals	22	100.0	

Table 4

The extent to which participants reported past present and future themes in their ruminative experiences.

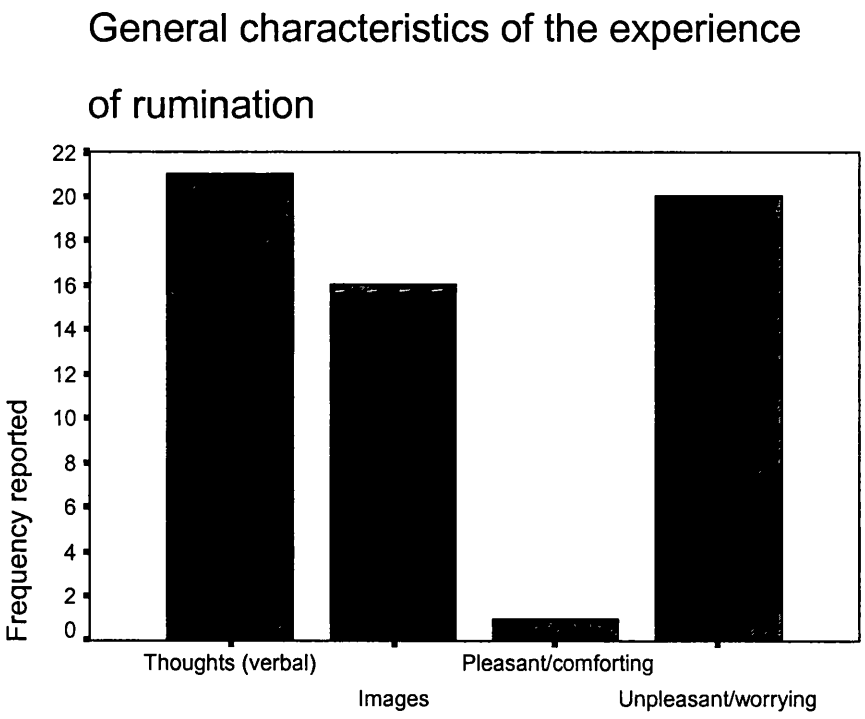
Combinations of past, present, future	Number of participants	Percentage of sample	Cumulative percentage
Past, present & future	8	36.4	36.4
Past & present only	6	27.3	63.6
Past & future only	2	9.1	72.7
Present & future only	0	0.0	72.7
Past only	5	22.7	95.5
Present only	1	4.5	100.0
Future only	0	0.0	
Totals	22	100.0	

From table 4 it can be seen that over a third of participants reported past present and future themes in their ruminative experiences. No one reported that their experiences were "future only" or "present & future only". However, nearly a quarter of participants reported "past only" experiences.

Nature of the experience of rumination

Again, no distinction was made between the presence of a particular type of experience in one, two, or all three of a participant's reported ruminations when examining prevalence. The presence of a theme in any rumination reported by a participant was considered sufficient for this purpose. As before, there was no clear meaning, in terms of prevalence, ascribable to the difference between a type of experience being reported in one rumination and it being reported in more than one. Figure 4 below shows the relative prevalence of coding frame types of experience in participants' self-reports.

Figure 4



Again, figure 4 reflects the presence of multiple characteristics in participants' ruminations. Table 5 below gives more detail regarding the presence of thoughts and images.

Table 5

Combinations of thoughts and images reported by participants

Thoughts/images combinations	Number of participants	Percentage of sample
All ruminations as thoughts	7	31.6
All ruminations as images	1	4.5
All ruminations as both thoughts & images	9	40.9
Some ruminations as thoughts only, images only, or as both	5	22.7
Total	22	100.0

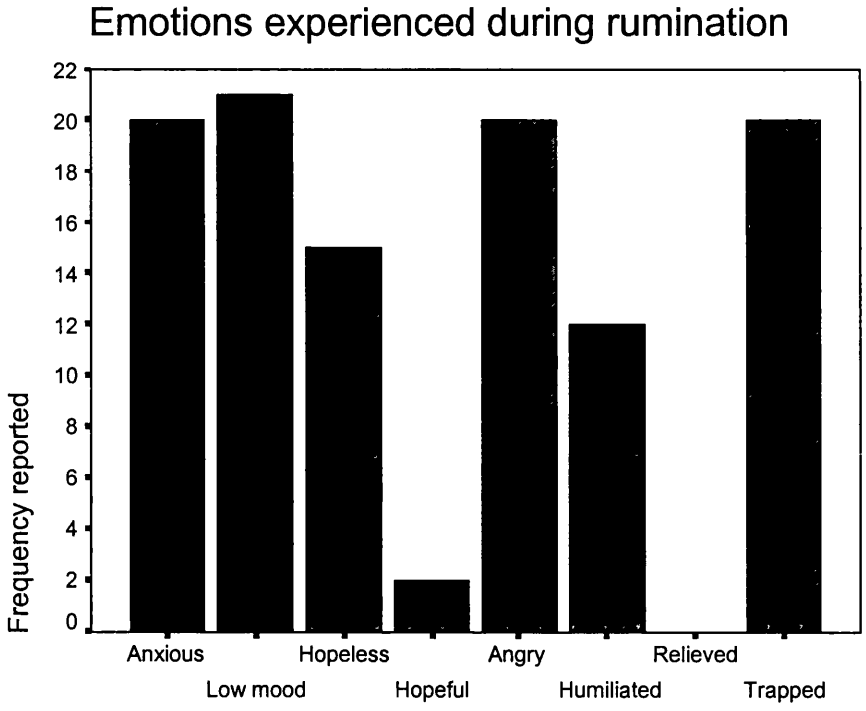
From the table it can be seen that most (over 95%) experienced their ruminations as involving verbal thoughts, but that rumination involved imagery in over 68% of cases. Over 63% had both verbal thoughts and imagery in their ruminations.

Only one person experienced a rumination as pleasant and this person also experienced an unpleasant rumination. Two people felt their ruminations were neither pleasant nor unpleasant. Thus, twenty of the twenty-two participants had unpleasant ruminative experiences and for 19 of these, all their ruminations were unpleasant.

Emotions experienced during rumination

Again, no distinction was made between the presence of a particular emotion in one, two, or all three of a participant's reported ruminations when examining prevalence. The presence of an emotion in any rumination reported by a participant was considered sufficient for this purpose, for reasons already given above. Figure 5 below shows the relative prevalence of coding frame emotions in participants' self-reports.

Figure 5



Again, it can be seen that participants typically experienced several emotions during rumination. Most of the participants (16 people) felt anxious, low in mood, angry and trapped when ruminating. Almost half the sample (10 people) reported

experiencing all six negative emotions when ruminating. Over 95% of participants experienced four or more of the six emotions coded. Table 6 below shows more detail on the number of emotions experienced.

Table 6

Number of emotions experienced by participants when ruminating

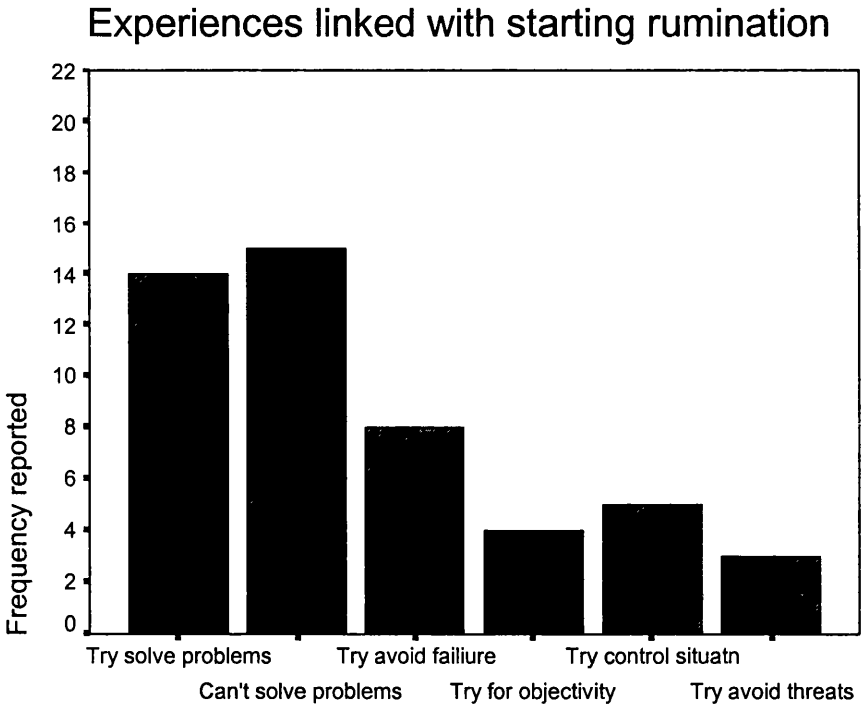
Number of reported emotions	Number of participants	Percentage of sample	Cumulative percentage
6	10	45.5	45.5
5	4	18.2	63.7
4	7	31.8	95.5
3	0	0.0	95.5
2	1	4.5	100.00
1	0	0.0	
0	0	0.0	
Totals	22	100.0	

Although the emotional experience was overwhelmingly negative, two participants reported feelings of hopefulness. However, in both cases, they also reported negative emotions, and had ruminations in which they reported only negative emotions.

Experiences associated with the start of rumination

Again, no distinction was made between the presence of a particular experience or activity in one, two, or all three of a participant's reported ruminations when examining prevalence. The presence of an experience in any rumination reported by a participant was considered sufficient for this purpose, for reasons already given above. Figure 6 below shows the relative prevalence of coded experiences in participants' self-reports.

Figure 6



Here it can be seen that attempts to solve problems and inability to do this are most frequently seen as linked with starting to ruminate. However, it is worth noting that six participants (27.3%) did not indicate either of the two categories specifically related to problem solving as linked to starting rumination. Again, the chart suggests

that multiple experiences are associated by participants with the start of episodes of rumination. Table 7 provides further detail regarding this.

Table 7

Number of experiences linked by participants to the start of rumination

Number of experiences	Number of participants	Percentage of sample	Cumulative percentage
5	1	4.5	4.5
4	4	18.2	22.7
3	5	22.7	45.4
2	6	27.4	72.8
1	1	4.5	77.3
0	5	22.7	100.0
Totals	22	100.0	

Although five participants did not indicate any of the coded experiences as being linked to starting rumination, four of the five reported other, unanticipated, experiences that they linked to the start of rumination. The table indicates that, in contrast to coded emotions, the greatest proportion of participants with coded experiences (68.3%) linked between 2 and 4 of these to the start of their ruminations. Additional experiences contributed by participants are presented in Appendix X and the most salient themes noted at the end of this chapter.

Experiences associated with stopping rumination

Again, no distinction was made between the presence of a particular experience or activity in one, two, or all three of a participant's reported ruminations when examining prevalence. The presence of an experience in any rumination reported by a participant was considered sufficient for this purpose, for reasons already given above.

Figure 7

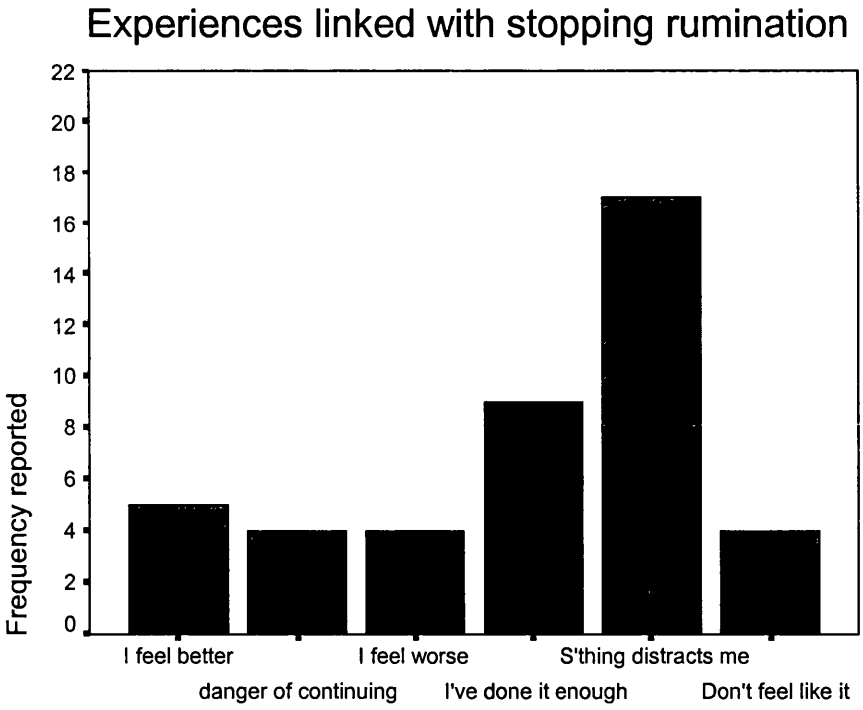


Figure 7 above shows the relative prevalence of coded experiences in participants' self-reports. Distraction is clearly the most prevalent experience linked to stopping rumination and there appears to be less multiplicity of stopping-related experiences.

Again, this aspect is detailed in Table 8 below, which underlines a lower level of multiplicity of experience. The table indicates that 59.1% of the sample linked only 1 or 2 of the coded experiences to the end of their ruminations. Including those who linked 3 experiences to stopping gives 81.8% of the sample. One participant did not report any coded experiences, but reported other experiences linked to the end of rumination. Additional experiences contributed by participants are presented at the end of this chapter.

Table 8

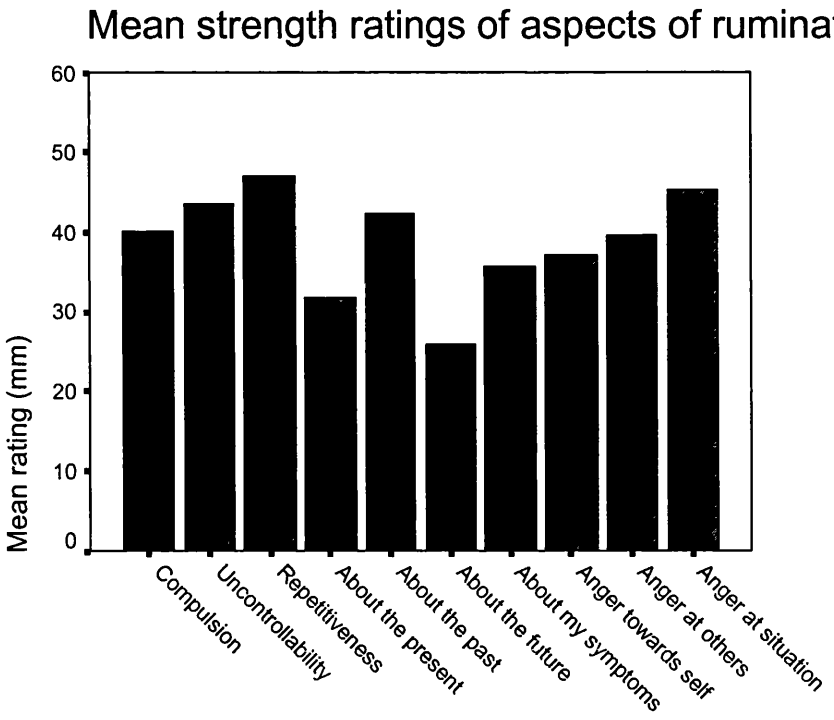
Number of experiences linked by participants to stopping rumination

Number of experiences	Number of participants	Percentage of sample	Cumulative percentage
4	3	13.7	13.7
3	5	22.7	36.4
2	3	13.6	50.0
1	10	45.5	95.5
0	1	4.5	100.00
Totals	22	100.0	

Relative strengths of different aspects of rumination

Participants rated the extent to which a number of potential aspects of rumination were present in their ruminative experiences. The means of these ratings are shown in Figure 8 below.

Figure 8



It can be seen that compulsion (having to do it), uncontrollability, repetitiveness, being focussed on the past, and anger (more at the situation) are rated the strongest aspects of participants' overall experience of rumination. However, it can be seen from the Standard Deviations in Table 9 below, that there is considerable variability in participants' ratings.

Table 9

Means and Standard Deviations of participants' strength ratings (extent of presence) in their general experiences of rumination.

Aspect of ruminative experience	Mean rating (mm)	Standard Deviation
Compulsion	40.05	16.27
Uncontrollability	43.55	14.82
Repetitiveness	46.95	14.72
About the present	31.64	17.81
About the past	42.36	15.81
About the future	25.86	16.67
About my symptoms	35.64	20.80
Anger towards self	37.05	16.81
Anger at others	39.55	16.42
Anger at the situation	45.32	10.73

Within-subjects consistency of aspects of rumination

The extent to which different aspects of ruminative experience were consistently present was explored across the different ruminations each person reported. This was done by first excluding participants reporting only one rumination, as they had no possibility of within-subjects inconsistency in the context of this study.

Participants for whom an aspect was not present in any of their ruminations were excluded from analysis *of that aspect.* This was because the meaning (and usefulness to the study) of consistent absence of something is not the same as for consistent presence of that thing. Specifically, in this analysis, the intention is to get an idea of how many of those who experience something experience it in all their reported ruminations. The extent to which this is the case for a particular aspect of ruminative experience thus gives an indication of a possible relationship between the experience and rumination in depression.

If those who did not have the experience in any rumination were included, then it is possible that a relationship (or lack of one) between the person and the experience would affect the consistency percentages. As the intention is to look for indicators of experiences associated with rumination itself, it makes sense to calculate percentages for consistency in a group who all have experienced a particular aspect. Thus for each aspect being studied, the number of participants whose reported ruminations all included that aspect was expressed as a percentage of all those with more than one reported rumination who experienced it in all and in some of their ruminations. *Therefore, 90% consistency means that 90% of participants, who reported more than one rumination, and have experienced the characteristic in question, have experienced it in <u>all</u> their (up to three) reported ruminations.*

Exclusions of "non-experiencers" are done on an aspect by aspect basis, so that exclusion on one aspect does not mean exclusion on others where the participant meets inclusion criteria.

It should be noted that this analysis contrasts with previous analyses, where inclusion of an aspect on any one of each participant's reported ruminations was used and within-subject differences between ruminations were disregarded.

Figure 9

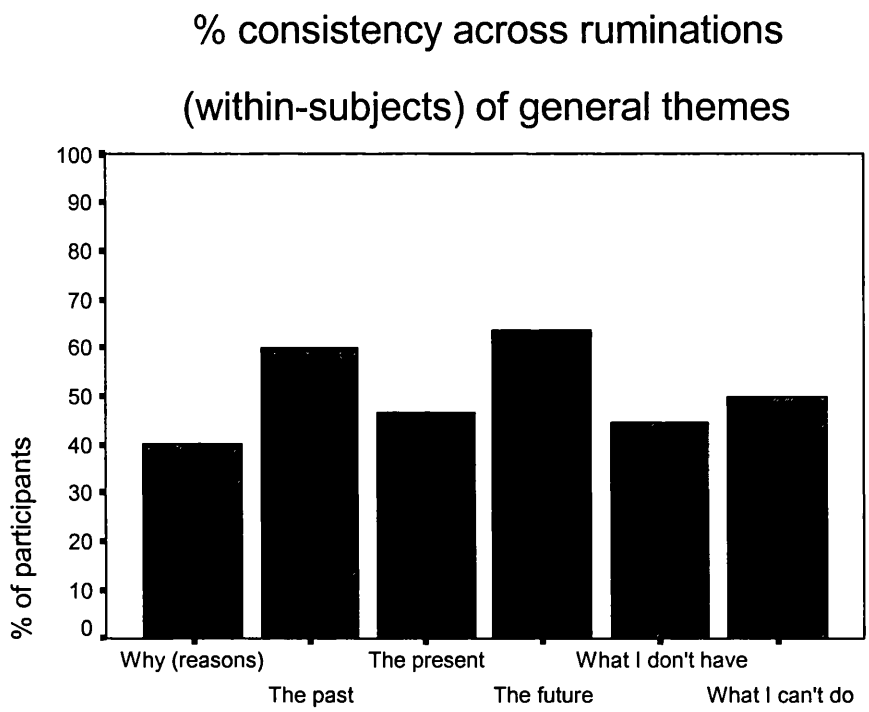


Figure 9 above indicates that consistency across ruminations is not especially high for the general themes. Different ruminations have different combinations of these, though "the past" and "the future" are more consistently present than the other general themes.

Figure 10

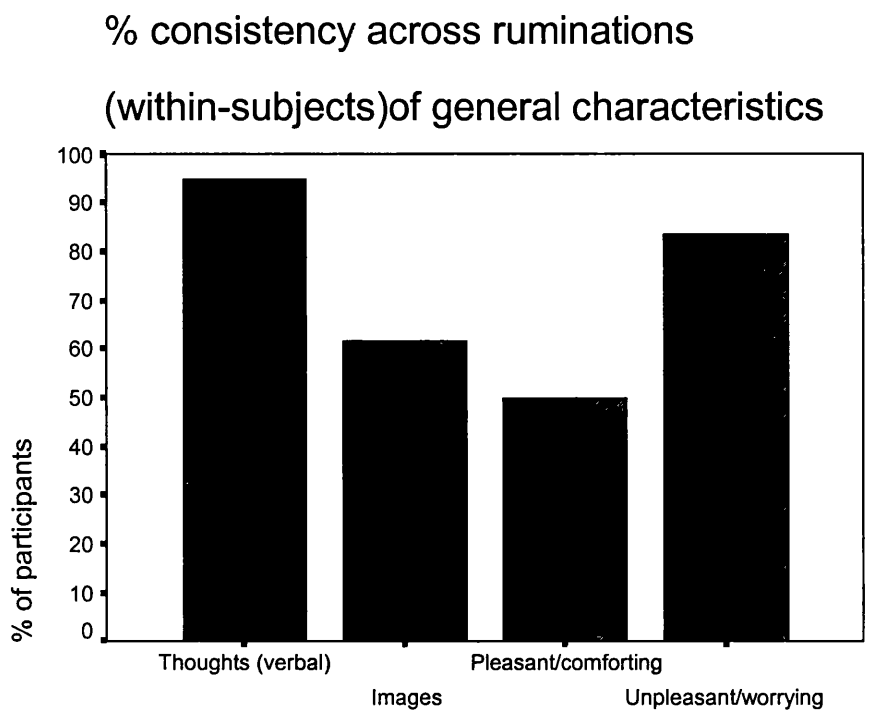


Figure 10 indicates high levels of consistency for verbal thoughts and the "unpleasant/worrying" characteristic. This accords with earlier analysis showing high prevalence of verbal thoughts and negative emotions across ruminations.

Figure 11

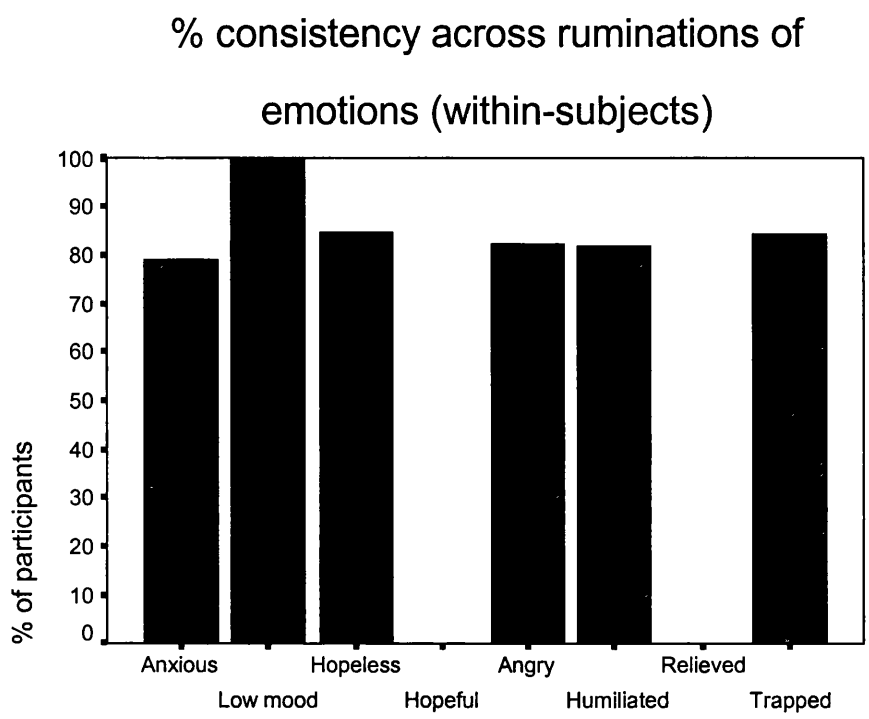


Figure 11 shows high consistency for all the negative emotions, indicating a high tendency to be present in all the ruminations reported by each participant.

Figure 12

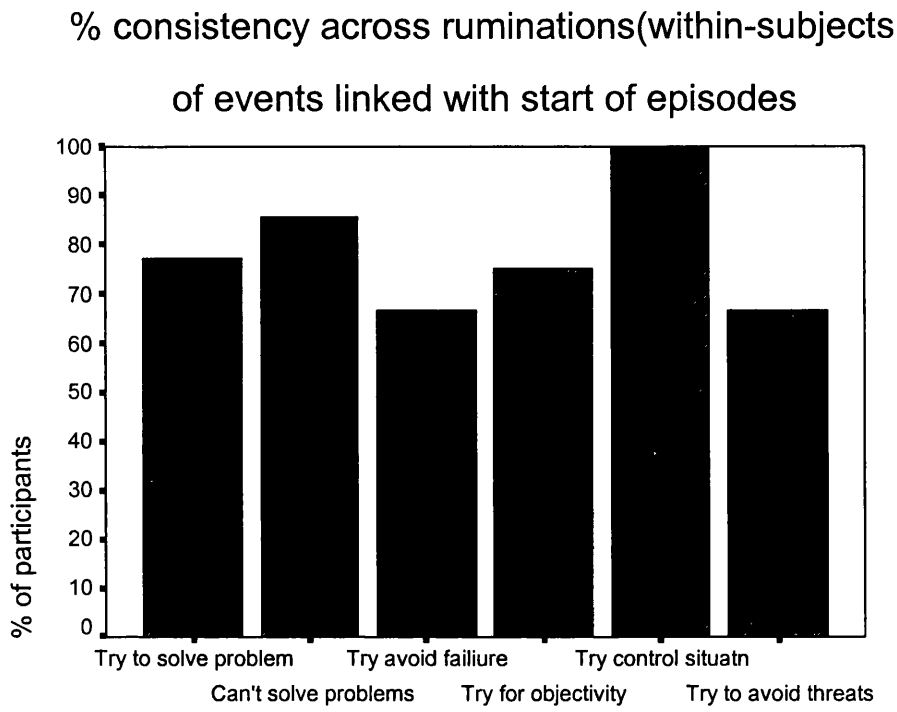
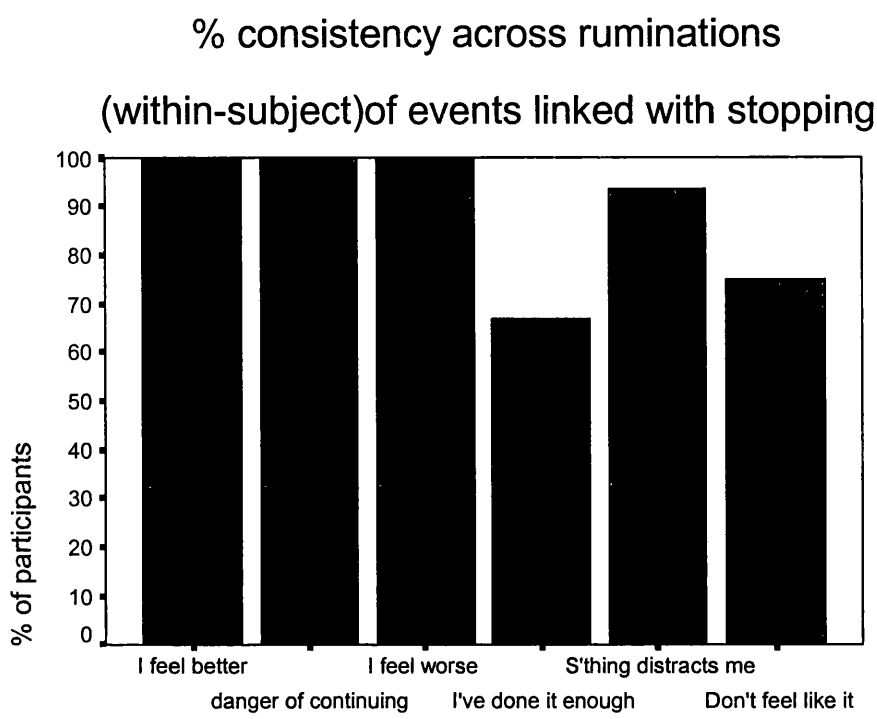


Figure 12 is indicative of fairly high consistency in the events/experiences relating to problem-solving and total consistency in the "try to control the situation" experience. Thus problem-solving issues seem to be part of all ruminations for the vast majority of participants who experience these (earlier analysis shows high overall prevalence of these also). All those for whom trying to control the situation was associated with starting to ruminate, experienced this for all their ruminations.

Figure 13



Although previous analysis indicates low prevalence in the sample, those who had the "feel better", "feel worse", and "dangerous to continue" experiences all had them in every rumination. Consistency is very high also for "something distracts me", but this experience had high prevalence in the sample also.

Aspects of rumination with high prevalence and consistency

It is useful to establish which items are not only reported with high frequency but also with high consistency across ruminations (within-subjects). This is because it is reasonable to assume that such aspects are those more likely to be stable components of depressive rumination. Table 10 below shows the various aspects explored in this

study, grouped as a function of prevalence and consistency in the accounts of participants.

Table 10

Aspects of rumination grouped as a function of prevalence and consistency

	High prevalence	**Medium to low prevalence**
High consistency	**1st** *Themes*: the past. *General characteristics*: thoughts, images, unpleasant / worrying. *Emotions:* anxious, low mood, hopeless, angry, trapped. *Starting:* try to solve problems, not being able to. *Stopping:* something distracts me.	**3rd** *Themes:* the future. *Emotions*: humiliated. *Starting:* try to avoid failure, try for objectivity, to control the situation, avoid threats. *Stopping:* feel better / worse, dangerous to continue, done it enough.
Medium to low consistency	**2nd** *Themes:* why, the present, what I can't do.	**4th** *Themes:* what I don't have.

It should be noted that 60% is the level set for the "high" quadrants of both prevalence and consistency. Each quadrant has a number indicating its relative importance (e.g. the "high - high" quadrant is labelled 1st as it contains those aspects most likely to be of importance in rumination). The ranking of the quadrants indicates the relative importance of prevalence compared with consistency. It is of

little consequence that an aspect appears with 100% consistency, if its prevalence is not high.

Relationships between standardised measures and length of rumination

The results of the Pearson product-moment correlations are shown in Table 11 below. The length of rumination data was skewed, but all the other data were normally distributed. A square root transformation was done on the length of rumination data, which normalised the distribution. Due to the number of correlations, a straightforward Bonferroni adjustment of significance level was done to arrive at a significance level that would control for type I error. However, it should be borne in mind that the resolving power is estimated as, at best, .64 (based on the highest of the previously obtained correlations). The results are shown in table 11 below.

Although the correlations between BDI and RRS, BDI and NBRS, RRS and PBRS, and RRS and NBRS are positive and significant, only the BDI and NBRS correlation meets the Bonferroni-adjusted significance criterion ($p < .008$). This may reflect lack of resolving power, but suggests that the positive correlation between the BDI and the NBRS may be particularly strong. All correlations with length of ruminative episode were nonsignificant, and negative with the BDI and PBRS.

Table 11

Correlations between standardised measures used and length of ruminative episodes (RE) reported

	BDI	RRS	PBRS	NBRS	Length of R.E.
BDI	-				
RRS	.43*	-			
PBRS	.23	.43*	-		
NBRS	.52**	.39*	.10	-	
Length of RE	-.26	.31	-.11	.16	

**p< .03 **p< .008 (1-tailed) NB: Applying Bonferroni adjustment, p< .008 controls for type I error*

Additional aspects of rumination reported by participants

These were contributed by participants in response to being asked if there was anything else relevant that had not yet been covered. They have not been included in the above analysis, as they did not form part of the interview coverage of all participants. Thus low prevalence may be due, at least in part, to lack of prompts during the interviews. Also, with low prevalence, consistency data are less useful. These responses, grouped into categories, are presented in Appendix X. Only two questions produced responses outside the coding framework that could be grouped into thematic categories. These were:

- Question 4 ("What leads you to ruminate?") where the two largest thematic categories were: reminders about participants' rumination topics (9 responses) and being or feeling alone (6 responses).

- Question 7 ("How does the rumination stop?") where the two largest thematic categories were: company of others (6 responses) and self-distraction (6 responses).

Comparison of those reporting three and those reporting less than three ruminations on standardised measures

All comparisons on the standardised measures, between those who reported three, and those who reported less than three ruminations, did not approach significance. The largest difference was $t(20) = 1.14$, $p > .25$, for the NBRS.

CHAPTER 4: DISCUSSION

Summary of key findings

Analysis of the experiences of rumination reported by the participants in this study provides indications about the nature of rumination that add significantly to what is already available in the existing literature.

Variability and variety of experiences in rumination were found across most aspects explored in the study e.g. duration of episodes, themes, emotions, triggering experiences, ending experiences, relative strength of aspects of the experience, consistency across different ruminations. Notably, this study highlights that this is not only in the content of rumination (this is already implied in measures of rumination such as the RRS) but in process aspects also (duration, starting & stopping, compulsion, uncontrollability, repetitiveness, associated emotions)

Compulsion, uncontrollability and repetitiveness were strong aspects of participants' experiences of rumination. This is consistent with what is suggested in the literature. However, as mentioned above, there is considerable variability and clearly not everyone rated these highly.

Multiplicity of experiences was also noted. This adds to the variety and variability noted above in that each participant's ruminations tended to involve several types of theme, experience etc. Notable examples are:

- Themes: the majority of participants reported 4-6 different themes (why, the past, the present, the future, what I don't have, what I can't do) in their ruminations. Also, for over a third, past, present & future were all evident in their ruminations). The past was both the most prevalent and most strongly-rated of the three.
- Nearly everyone reported 4-6 different emotions experienced whilst ruminating (anxious, low in mood, hopeless, angry & trapped were most prevalent).

Average duration of ruminative episodes varied widely, but the majority reported durations of between half an hour and three hours. The most commonly reported was two hours.

Prevalence of imagery: Almost everyone's ruminations involved verbal thoughts. However, the majority also had imagery in their ruminations.

Starting to ruminate: experiences most frequently linked by participants to the start of rumination were: attempts or inability to solve problems.

Stopping: being distracted by something was by far the most prevalent experience associated with the end of a ruminative episode. Over 40 % also linked feeling they had ruminated enough with stopping.

Consistency across ruminations: This was in excess of 60% (of participants who had experienced the aspect in question) for most, but not all aspects explored in the study. It was lowest for the general themes, with only "the past" and "the future" reaching this level of consistency. All the negative emotions were highly consistent. Verbal thoughts were far more consistent than images. Association of Problem-solving experiences with starting to ruminate was also high and all experiences so associated had more than 60% consistency. It should be noted that the level of consistency one might associate with a stable component or aspect of rumination is difficult to determine. In addition, that consistency needs to be combined with prevalence to provide a credible indication of this.

Aspects of participants' ruminative experiences that have both high prevalence in the sample and high within-subjects consistency across the ruminations reported) ruminations of at least 60% are:

- Themes: the past.
- General characteristics: thoughts, images, unpleasant/worrying experience.
- Emotions: Anxious, low in mood, hopeless, angry, trapped.
- Starting rumination: Try to solve/can't solve problems.
- Stopping: something distracts me.

These findings, and how they relate to the literature, are discussed in more detail below.

Relevance to the literature

Although the variability encompassed by depression has been addressed in the literature (Gotlib & Hammen, 2002), the focus of much of the rumination literature seems to have been on looking for a coherent entity with causes and consequences. This study highlights the variability in the experience of rumination in terms of process as well as content. How long episodes of rumination typically last and how often they occur gives us an idea of the intrusiveness of rumination in the lives of those who engage in it. The intrusiveness of up to 15 minutes at least once daily is, for example, very different to that of 7 hours or more each day. Three of the participants (over 13% of the sample) reported durations of 15 minutes or less, whilst another three reported durations of seven hours or more.

Different accounts of rumination from the literature may be applicable to the ruminative thoughts of different people, or to the same people for different issues or circumstances. Also, that more than one account may be applicable to a person's ruminative thoughts. For instance, trying to solve one's problems and not being able to solve them were both associated by over 60% of participants with starting to ruminate. This is consistent with self-regulatory, goal-orientated accounts which suggest that the perception of falling short of a goal state prompts recurring thoughts about self and problems in an attempt to resolve the discrepancy (Martin & Tesser, 1996). It is also consistent with metacognitive accounts of rumination, in that positive beliefs tend to be about seeing rumination as a way of improving understanding of difficulties and situations (Papageorgiou & Wells, 2000, 2003).

These ideas, taken together, support the view that positive metacognitions about rumination are likely to encourage a ruminative response to difficulties.

It is worth noting here the possibility that problem solving triggers rumination in which the objective is to understand one's problems better in order to be able to accept them. In such a case, rumination is not aimed at solving the problems initially thought about. However, such an objective is still problem solving and remains consistent with self-regulatory accounts, as abandonment of unachieved goals is one of the ways such accounts suggest that resolution is reached.

Trying to avoid failure and trying to gain distance or objectivity is consistent with the suggestion of avoidance in the behavioural activation model (Martell et al., 2001). Although the problem-oriented experiences were most prevalent, twelve participants (more than 50 % of the sample) also reported the avoidant experiences. This suggests the possibility that these models or accounts of rumination are not mutually exclusive. The reinforced avoidance in the latter model might be a factor in the ultimate failure of the problem solving intent suggested by the former.

The inclusion of thoughts about past, present and future seen in the sample is consistent with the suggestion of Martin & Tesser (1996) that ruminative thinking may focus on any of these. Martin & Tesser also suggest that it can occur independently of demands or prompts in the environment. The links made by the majority of the participants between attempts at or failures at problem solving and starting to ruminate are consistent with this. However, it is also important to note that eight of the participants (over 36%) cited reminders about the things they

ruminated on as associated with starting to ruminate. Hence, this study also suggests that rumination can be prompted by environmental cues (Martin & Tesser, 1996, similarly do not exclude this in their account of rumination).

Seventeen of the participants (over 77%) linked being distracted by something with ending an episode of rumination. This suggests that stopping may be more highly dependent on environmental cues than starting seems to be. However, nine participants (over 40% of the sample) associated feeling that they had ruminated enough with stopping. This suggests that stopping can be independent of environmental cues and provides some support for the idea of an "enough" stop rule, put forward in the context of worry by Davey & Levy (1998), possibly also being used in depressive rumination. However, comorbidity with anxiety disorders has been noted in four of the nine people. Although this does weaken this finding as support for this stop rule in depressive rumination, it is also possible that depressive rumination brings about an anxiety state in any case. Such a position is supported by the very high prevalence in the sample (twenty people, over 90%) of anxiety during rumination and the reported experience of rumination as unpleasant and / or worrying.

Association of feeling better with stopping would offer support to the idea that an "enough" stop rule is more likely to operate when mood is better, which would in turn be more likely if rumination was felt to have achieved something and would also act to strengthen such a feeling (Davey & Levy, 1998; Startup & Davey, 2001). However, only five people (less than 23% of the sample) reported such an

association. This seems to suggest that, whilst this could be true for some people, an "enough" stop rule may operate in the absence of improved mood.

Almost all the participants felt anxious, low in mood, angry and trapped whilst ruminating and these emotions were highly consistent across ruminations. Whilst this clearly suggests that these negative emotions are all likely to be present during depressive rumination, it also serves to highlight that the emotional experience of depression, although characterised by low mood, is likely to include these other negative emotions also. In addition, the very high consistency across ruminations of trapped feelings supports the ideas of Brown, Harris & Hepworth (1995) regarding the importance of entrapment in depression. This finding, together with the similarly high prevalence and consistency of anger, is consistent with the suggestion by Gilbert, Gilbert & Irons (2004) that interrupted fight (suppressed anger) and flight (entrapment) defences are important in the onset and course of depression. The importance of humiliation, also suggested by Brown et al. (1995), is supported to a lesser extent by almost 55% of the sample reporting humiliation with high consistency across ruminations.

In addition to the support for the Metacognitive model of rumination in depression already mentioned above, the mean scores obtained on both the PBRS and the NBRS (Papageorgiou & Wells, 2001a,b) are almost the same as those obtained in the paper testing out the Metacognitive model (Papageorgiou & Wells, 2003). This study thus provides support for the view that depressive ruminators hold significant levels of both positive and negative beliefs about rumination of the type indicated in this account of rumination.

Although one cannot set great store by the correlation results, given the small number of participants and the, at best, only modest resolving power, the results are of some interest. They are consistent with the relationship between severity of depressive symptoms and negative beliefs about rumination suggested in the literature, though not with that found with positive beliefs (Papageorgiou & Wells, 2001b, 2003). However, this may be due to lack of power, as the latter relationship has been found to be somewhat smaller. Although correlations between the RRS and the BDI, PBRS and NBRS did not reach the Bonferroni-adjusted level of significance, if one takes into consideration the lack of power, it might be argued that the lower significance levels ($p < .03$) are consistent with previous findings of significant relationships for these (Papageorgiou & Wells, 2001b, 2003). Thus these findings offer some tentative support to those of previous studies and to the Metacognitive model. The finding of no significant correlations for length of ruminative episodes with the standardised measures could be due to lack of power, but, as the correlations were far from significant, it is more likely that they were indicative of the absence of any significant relationships. Again, any interpretation of these correlations can only be very tentative. It may be that links with severity need to be based on a number of aspects.

The comparison of mean scores for those who reported three ruminations and those reporting less than three did not support any links with severity of depressive symptoms (BDI), ruminative tendencies (RRS), positive or negative beliefs about rumination (PBRS, NBRS). Again, this could be due to lack of resolving power, but

may equally be indicative of the number of ruminations being linked to something else entirely, and this is the only sensible conclusion to draw from the results.

As has already been mentioned in the summary above, the finding that 14 participants (over 63% of the sample) reported experiencing imagery in their ruminations, supports the idea that rumination can involve imagery as well as verbal thought. The prevalence of such reports in this study, combined with high consistency across ruminations, suggests that this may be a common component of rumination. This is consistent with findings in the literature which also suggest this (Reynolds & Brewin, 1998, 1997).

When looking at the relative strengths of various aspects in participants' experiences of rumination, the highest mean rating (and second lowest variability) was for repetitiveness. This supports the suggestion, made by Segerstrom et al. (2000), that repetitiveness is a key defining aspect of rumination. Also, only two participants associated trying to avoid threats of aversive events with starting to ruminate. This finding, taken together with the association of attempts to problem–solve by over 63% of participants and inability to solve problems by over 68% with starting to ruminate, support another suggestion of the Segerstrom et al. study. This is that, though both depressive rumination and worry are both concerned with problem solving, a distinguishing factor is that worry focuses on goals of security, safety and certainty, whereas depressive rumination does not.

Limitations of the study

The interview schedule (see Appendix III) was structured to explore specific aspects, issues and themes suggested by the literature. The use of a coding frame, which was prepared in advance and used to prompt participants, ensured that this remained the focus of the interview throughout (there was a strong tendency among participants to talk about the history of their difficulties). It also meant that the absence of items meant that participants did not see them as part of their experience of rumination. However, although the last item of each coding frame asked about any other experiences not yet mentioned, such a structure restricted the possibilities of exploring things that were not included in the coding frames.

In addition, in ensuring a broad and consistent range of coverage and interviewing approach with each participant, this method necessarily restricted any in-depth discussion of participants' experiences. Thus, what the study gained in consistency, relative clarity of meaning, breadth and specificity of coverage, it lost in richness, variety and depth of information. Most importantly, the expectations embodied in the interview schedule restricted the possibility of unexpected aspects of rumination emerging. These issues are highlighted in the research methods literature (Hayes, 2000; Barker et al., 1994)

The small sample size meant that, although it would have been interesting to look at relationships between variables (e.g. gender with rumination and Metacognitive belief scales; frequency and / or average length of ruminative episodes with PBRS, NBRS and RRS scores etc.), there was insufficient power to make such statistical

analysis viable. This study was designed to get indications as to potentially important aspects of rumination that were relevant to the literature and could be explored more extensively in subsequent research. However, whilst the study could add support or cast doubt on theoretical accounts and suggestions in the literature, any suggestions about the nature of rumination and what factors seemed important can only be tentative, as, for example, 63.6% of the sample is only fourteen people.

The information on comorbidity noted in the sample came from referral letters. Not all of these were unequivocal diagnoses and participants were typically unclear about this. It is also possible that some participants may have had co morbid disorders that were not picked up. This has potential implications for the representativeness of the sample. A further issue in this respect is that the sample is typical of the clinical population in an inner London borough. This has implications for the generalisability of findings to other clinical populations, such as those in provincial towns. Also, in all cases, the participants' depression is chronic. Thus, any generalisation of this study to the wider clinically depressed population must be very tentative.

The use of prompting raises the question of demand characteristics in participants' responses. This was a difficult issue in that both people who have been doing research involving depressed participants and people involved in piloting a draft of the interview schedule, who had themselves been clinically depressed, felt that it would be necessary to provide prompts. Prompts were presented to participants as possibilities that might or might not be part of their experiences. In addition, participants were asked to give examples of experiences they identified. Although

all participants rejected prompts that did not accord with their experiences, and did not seem to have any difficulty in doing so, it is possible that some experiences may have been endorsed by some participants because of prompting. However, short of not prompting participants at all, which may well have reduced the amount of information gained from the interviews and made it less clear what absence of reports of an experience actually meant, it is felt that reasonable steps were taken to minimise demand characteristics.

The frequency categories used (at least once a day vs. less than once a day), in response to criticism of a more complex frequency question at the pilot stage, might, with hindsight, have been too crude a measure. All but one of the participants fell into the first category and, although this information is useful, sub-division of this category might have provided more detailed information and allowed some further examination of the intrusiveness of rumination.

A number of emotions (feeling anxious, low in mood, hopeless, angry & trapped) were strongly identified in the study as being experienced during episodes of rumination. However, the question of whether they were experienced in the same way when not engaged in rumination was not addressed in the study. Thus, this cluster of emotions may be associated with depression in general rather than specifically with depressive rumination. If this were so, the identification with rumination would be due to its occurrence within depression rather than it being a characteristic specific to depressive rumination itself. This unanswered question does not, however, detract from the usefulness of the indications of multiple

emotions being experienced in depressive rumination (and therefore in depression itself).

Implications of the findings

The idea that more than one model of depressive rumination might fit the available data has already been mentioned above. An integrative approach seems possible in that the models could complement one another in explaining how depressive rumination works. The following seems consistent with the findings of the study and the goal discrepancy, Metacognitive and behavioural activation models:

- Perception of goal discrepancy that seems very difficult to reconcile.
- Discrepancy keeps relevant information readily accessible
- Beliefs that repeated thinking about the discrepancy, its possible causes and consequences will aid understanding.
- Rumination begins, but continuing does not lead to reduction in the goal discrepancy, rather constantly accessing the information leads to increasingly negative perceptions of the goal discrepancy.
- This leads to activation of negative beliefs about the consequences of continued rumination and increased avoidance of engagement with the goal and experience of the discrepancy.
- Relief provided by a more distant, objective engagement with the information reinforces the shift away from problem-solving engagement.
- Lack of resolution leads to greater hopelessness, low mood and may intensify feelings of anger at self, others, and situations.

- Rumination is maintained by heightened accessibility of goal discrepancy information, relief of more distant engagement, and negative beliefs which increase, and are increased by, low mood.

The study has implications for therapeutic interventions also. Given the range of negative emotions reported during depressive rumination, interventions should explore the full range of emotions and avoid focussing on one or two. For example, focussing on low mood and hopelessness when the person also has strong angry feelings. Another useful approach could be to explore any differences in negative emotions experienced during rumination and those experienced when not ruminating. This may provide insight into what emotions might be reduced in intensity, frequency or duration, if the person were able to ruminate less. However, as this aspect was not explored in the study, such an approach is speculative only.

In this study, rumination on a particular topic has typically involved a number of different themes. Given this and the support for self-regulating, goal-discrepancy accounts, intervention should explore the range of themes and goals involved for the person. In addition, the results support the Metacognitive view that depressive ruminators hold both positive and negative beliefs about rumination. Helpful and unhelpful beliefs should be explored and the extent to which these are realistic. It seems likely that assistance with realistic, problem-solving strategies would be beneficial.

The disparity in length of ruminative episodes found in this study indicates that, in therapy, the length and frequency of episodes need to be established, as these would

be key to understanding how intrusive rumination is for the depressed person. It also suggests that there is no particular length of time that an episode of rumination must take. This potentially opens the possibility of helping the person, through increasing awareness of what might prompt and what might help to stop an episode of rumination, to reduce the amount of time spent ruminating. This might be replaced with useful problem-solving strategies and distracting activities.

Given the apparent importance of distraction in the ending of episodes of rumination, it is likely to be useful for an intervention to include making use of this as a strategy to limit rumination. Hence, people might usefully be encouraged to deliberately build in distractions as far as possible into their environment. These could then be readily available when the person wants or needs relief from rumination. Examples of these are: television, radio, family, friends, pets etc.

The findings of high prevalence and consistency of imagery in participants' experiences of rumination suggests that imagery-based therapeutic techniques are likely to be useful in the treatment of major depression. Such an approach, developed and advocated in the literature on anxiety disorders, is imagery rescripting. This has been used with unpleasant or traumatic memories, associated with the onset of the disorder, occurring as intrusive images. In this approach, the person is encouraged and guided in imagining and describing such a memory as if it was happening at that moment. The meanings attached to the memory are explored and the person is then encouraged to introduce a nurturing adult self into the images, which encourages the processing of intrusive imagery and the introduction into the images of a nurturing adult self. This allows positive reprocessing of the intrusive

images, and their meaning for the person, with the aim of changing maladaptive core beliefs (Ohanian, 2001; Smucker & Niederdee, 1995).

Suggested further research

The most obvious avenue for further research is a similar study to this one with a large sample. This would give statistical analyses of gender differences, relationships between different variables (e.g. frequency and / or average length of ruminative episodes with PBRS, NBRS and RRS scores; repetitiveness with rumination topics / themes, average length etc.) a useful level of resolving power. However, as each interview takes approximately one and a half hours and collects a fairly large amount of data, such a large sample study would demand a considerable time and resource investment.

The present study is with a sample representative of an inner London clinical population. Studies with a sample having broader representativeness would increase the generalisability of the findings. Screening participants for comorbidity as well as for MDD would also be helpful in this respect, though this would add to an already quite lengthy process.

In the context of differentiating depressive rumination from other repetitive thinking, such as worry, such a study could also be done with anxious worriers (e.g. worry in Generalised Anxiety Disorder or Panic Disorder). The literature strongly suggests that there would be considerable differences between responses in such a study and

those obtained with depressed participants (e.g. Segerstrom et al., 2000). Major differences would be extremely useful in further establishing differences between depressive rumination and anxious worry. This might be followed up with a similar study, this time based on the expected responses of anxious worriers from the first study, but conducting it with depressive ruminators with MDD. Clearly, this sample would be expected to respond differently to the anxious worriers and such an outcome would strengthen findings of difference by again looking for findings opposite to those expected in the original conception of each study.

A far more unstructured, qualitative exploration of the experience of rumination in depression may bring out aspects of this that have not been considered. Such a study may also indicate what aspects are most important to depressive ruminators and what they focus on. Insight into this is limited in the present study and is likely to be in any subsequent similar studies. Although such questions could be asked directly in this kind of study, a qualitative study of the type suggested would allow richer information about this. For example, what participants talk most about might give implicit information about such a question.

Although the question of what is seen by depressive ruminators as helpful/unhelpful has already been addressed by Papageorgiou & Wells (2001, 2003), further exploring how and when these beliefs influence an episode of rumination would be useful. In this context it would also be interesting to see what reasons participants have for their positive and negative beliefs about rumination and whether the beliefs change over time as a result of their experiences of rumination.

Given that lack of motivation, energy, and ability to concentrate or decide what to do are key symptoms of depression, another interesting question is: what are the alternatives to ruminating? This might be explored by asking participants what they do when they are not ruminating; what other ways, if any they have responded to situations that usually are associated with episodes of rumination; what different consequences have any other responses had etc.

It would also be useful to establish whether the emotions experienced during rumination by participants, and the degree to which they are experienced, are significantly different to their experience when not ruminating. This would give an indication as to whether the emotional experiences are associated with depressive rumination specifically, or whether they are associated with depression in general.

Further exploration of the role of imagery in depressive rumination is another logical step. A detailed look at the type of imagery that occurs and relationships between presence of imagery in rumination and other key variables such as emotions experienced, themes present, extent to which the past, present and future are a focus of the rumination etc.

An evaluation of the usefulness of imagery rescripting, and of looking at ways to reduce the frequency and duration of rumination, in the treatment of major depression, also seems a potentially useful avenue for further research.

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APPENDIX I

Recruitment letter and information sheet

'SYCHOLOGICAL THERAPIES SERVICE
Community Base) Tel: 020 8888 9493 Fax: 020 8888 4836
Jnit 2, Edwards Drive, Gordon Road
Sounds Green, London N11 2HD

Psychological Therapies Service (Main Office)
Halliwick Psychotherapy Department
St Ann's Hospital, St Ann's Road
London N15 3TH

Tel: 020 8442 6528 Fax: 020 8442 6545

:ONFIDENTIAL

Date: 5 March 2004

title» «firstname» «lastname»
Address1»
Address2»
city»
PostalCode»

)ear «title» «lastname»

ıs you are currently on our waiting list, we would like to interview you about the experiences that ave made you seek therapy. We are keen to gain a better understanding of how distress affects eople and would be very interested in hearing about your experiences and what you think about hem. The interview would last up to an hour and a half and your participation in this research vould be confidential and entirely voluntary. It would have no effect on whether or when you are ffered therapy.

f you are interested in participating, please write your telephone number (if you have a telephone) in he box below, and sign at the bottom. Then return this letter in the envelope attached so that we can ontact you to arrange an appointment. We will contact you within four weeks of receiving the eturned letter. A copy of this letter is also attached for you to keep.

'ours Sincerely

ohn Rhodes
:linical Psychologist

Martin Pearson
Trainee Clinical Psychologist

---

am interested in participating in the above research. You can contact me on the following elephone number (write it here if you have a telephone): [ ]

ıigned: _____
«firstname» «lastname»

Information Sheet

Investigating personal problems and motivation in patients with psychological distress

What is this piece of research about?

We think that when a person becomes distressed, this might often be related to unhappy events or particular difficulties that become major preoccupations.

We would like to explore different ways in which depression might affect people.

Will any information I give be confidential?

Yes. All written information will use code numbers, e.g. patient number 2, and your name will not be used. In any write-ups of the research, all details identifying a person will be removed.

If I agree to be taped, what will happen to the tape?

After details have been taken by listening to the tapes, they will be erased. Again, no details allowing a person to be identified will be used.

If I refuse, will it affect my treatment?

No. If therapy is agreed, then it will continue whether you participate in the research or not.

If I participate, will it slow down my therapy or affect it in any way?

No. The questions and questionnaires you will be given are of the same type as the ones we use in our normal therapy.

Note: this information sheet closely follows that approved by the ethics committee for the larger, previously approved project of which this research was an extension. It was not itself approved by the ethics committee specifically for this study. It provides only general information and does not give investigators' contact details, specifics of what is involved, how much time is needed or who to contact, nor is it on trust headed notepaper.

APPENDIX II

Consent form t

PSYCHOLOGY SERVICE
St. Ann's Hospital

Personal Problems and Motivation in Patients with Psychological Distress.

I (Name of Participant).....

Of address.....

I have read and understood the Information sheet.

I confirm that the nature and demands of the research have been explained to me and I understand and accept them. I also understand that I may withdraw from the research project at any time if I find that I do not wish to continue for any reason, without affecting my medical care in any way.

I agree to have the interview tape-recorded:

(Please underline) YES / NO.

Signed..... Date.....

Name in print.....

Investigator's Statement

I have explained the nature, demands and foreseeable risks of the above research to the subject. I believe the patients understands the information sheet and is competent at making their own decisions concerning the acceptance or otherwise of research.

Signature.....Date.....

APPENDIX III

Interview schedule

INTERVIEW SCHEDULE

- **Introductions, thanks for coming, brief informal dialogue to establish rapport.**
- **Give information sheet and ask participant to read and ask any questions they wish.**
- **Give consent form** and ask participant to read and sign. Ensure understanding of **confidentiality** and **right to stop** the interview or otherwise withdraw from the study at any time and to **consent for taping** of interview. *If consent given (form signed)* ***but not for taping tick box here*** ☐ *and proceed to next step. If consent for taping also, start tape recorder before proceeding.* ***If no consent, terminate interview & tick box here*** ☐ .
- **Check the following (circle those that apply or enter data in box as necessary:**
  - Gender: M / F
  - Whether currently on antidepressant medication: Y / N
  - Inpatient / outpatient / treatment waitlist / assessment waitlist / discharged
  - Ethnicity: ☐
  - Secondary, GCSE/O, ONC, A-Level, HND/higher dip, 1st Degree, Postgrad degree *or overseas equivalents e.g. pre-university exams = A-levels.* Circle highest attained.
- **SCID** (depression sections only)**:** *If criteria for current or past MDE met, ensure "number of MDEs" section completed and add year / age when had 1st MDE, then continue.* ***If criteria not met****, thank participant, debrief,* ***terminate interview & tick box here*** ☐.
- **Describe Rumination:** Say: **"**Many people, when they are depressed, find themselves dwelling on the same negative things over and over again about themselves and their situation. Has this ever happened to you?" ***If no****, thank participant, debrief,* ***terminate interview & tick box here*** ☐. *If yes, say "Psychologists call this "rumination" then continue.*
- **1.** When you ruminate(d), what sort of things is/was it about? *Ask for* ***examples****. If more than three rumination "scenarios" described, ask "which are* ***the 3 most important ones****?" and note them below. If less than three, ask: "Are there other important ruminations you have?" Prompt using coding frame on next page if "don't know"/ "can't remember. Note below the rumination "scenarios"given.*

[1]

[2]

[3]

For each scenario ask if each item of the coding frame applies and tick corresponding box by each applicable item (e.g. if scenario 1 involves rumination about the past, tick box 1 to the left of that coding item):

[1][2][3] Why (reasons) [1][2][3] The past [1][2][3] The present
[1][2][3] The future [1][2][3] What don't have (circumstances)
[1][2][3] What can't do (self) [1][2][3] Other (specify here):

- **2.** What is /was it like for you when you ruminate? *Ask this for each scenario (1,2 & 3) given, checking for each one which of the coding item below applies and ticking appropriate boxes. Ask for* ***examples*** *and/or* ***descriptions.*** *Prompt using coding frame if "don't know"/ "can't remember.:*

[1][2][3] Thoughts (verbal) [1][2][3] Images (any sensory experience)
[1][2][3] Pleasant / comforting [1][2][3] Unpleasant / worrying
[1][2][3] Other (specify here):

- **3.** What emotions do you feel when you ruminate? *Ask this for each scenario (1,2 & 3) given, checking for each one which of the coding item below applies and ticking appropriate boxes. Ask for* ***examples.*** *Prompt using coding frame if "don't know"/ "can't remember.:*

[1][2][3] Anxious [1][2][3] Low in mood [1][2][3] Hopeless
[1][2][3] hope***ful*** [1][2][3] Angry [1][2][3] Humiliated
[1][2][3] Relieved [1][2][3] Trapped [1][2][3] Other (specify here):

- **4.** What is it that leads you to ruminate? *Ask this for each scenario (1,2 & 3) given, checking for each one which of the coding item below applies and ticking appropriate boxes. Ask for* ***examples.*** *Prompt using coding frame if "don't know"/ "can't remember.:*
- [1][2][3] Try to solve problems [1][2][3] Because can't solve problems
[1][2][3] Try to avoid failure [1][2][3] Try for objectivity/distance from emotions
[1][2][3] Try to control situation [1][2][3] Try to avoid threats of aversive events
[1][2][3] Other (specify here):

- **5.** How often do you ruminate?:

  ☐ At least once every day ☐ Less than once a day

- **6.** How long does each period of rumination last, on average?: *response* ☐

- **7.** How does the ruminating stop? *Ask this for each scenario (1,2 & 3) given, checking for each one which of the coding item below applies and ticking appropriate boxes. Ask for* ***examples.*** *Prompt using coding frame if "don't know"/ "can't remember.:*

- [1][2][3] You feel better [1][2][3] You worry it may be dangerous to continue

  [1][2][3] You feel worse [1][2][3] Decide you've thought about things enough

  [1][2][3] Something distracts you [1][2][3] Decide you don't feel like continuing

  [1][2][3] Other (specify here):

- **Qs 8-17.** *Hand the participant the VAS sheet and a pen.* Say: *"Each line between two words on this sheet represents the distance between two opposite experiences. There is a middle point mark on each. I'd like you to put a mark at the place on each line that best represents your experience.* ***For example****, in this first one (indicate example) if you felt full of energy you would put a mark here...if you felt neither particularly tired nor particularly energetic you might put a mark here (midpoint)...if you felt fairly tired you might put a mark here, and so on. Now I'd like you to rate the following items in the same way, so that your ratings reflect your experiences of rumination, is that ok?"* ***Give any clarification requested*** *and let the participant rate the items.*

- **BDI**
- **RSQ**
- **POSITIVE BELIEFS ABOUT RUMINATION SCALE (PBRS)**
- **NEGATIVE BELIEFS ABOUT RUMINATION SCALE (NBRS)**
- **Debrief**
- **Thanks etc. & end interview**

APPENDIX IV

Visual Analogue Scales

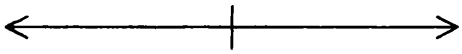
VAS Rating Sheet

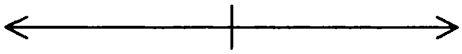
mple:

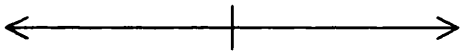
l full of energy  *I feel exhausted*

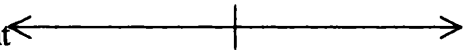
---

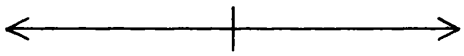
ut your experiences of rumination in general:

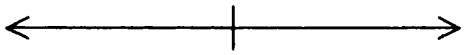
have to do it  I can choose not to do it

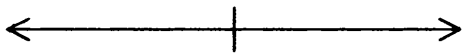
ompletely controllable  Completely uncontrollable

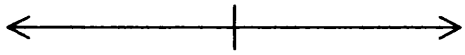
Repeating same things  Things not repeating at all

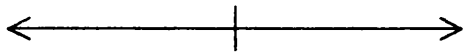
Always about the present  Never about the present

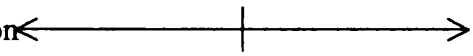
Always about the past  Never about the past

Always about the future  Never about the future

All about my symptoms  Never about my symptoms

Always angry at myself  Never angry at myself

Always angry at others  Never angry at others

Always angry at situation  Never angry at situation

APPENDIX V

Beck Depression Inventory

BDI®-II

Date:

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism

0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

3. Past Failure

0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure

0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings

0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. Self-Dislike

0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness

0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying

0 I don't cry anymore than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

_____ Subtotal Page 1

Continued on Back

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11. Agitation

0 I am no more restless or wound up than usual.

1 I feel more restless or wound up than usual.

2 I am so restless or agitated that it's hard to stay still.

3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

0 I have not lost interest in other people or activities.

1 I am less interested in other people or things than before.

2 I have lost most of my interest in other people or things.

3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.

1 I find it more difficult to make decisions than usual.

2 I have much greater difficulty in making decisions than I used to.

3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.

1 I don't consider myself as worthwhile and useful as I used to.

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.

1 I have less energy than I used to have.

2 I don't have enough energy to do very much.

3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1–2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

2 It's hard to keep my mind on anything for very long.

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.

1 I get more tired or fatigued more easily than usual.

2 I am too tired or fatigued to do a lot of the things I used to do.

3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

9 10 11 12 A B C D E

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

APPENDIX VI

Response Styles Questionnaire

RSQ ITEMS 1-22 = RRS
23-39 = DRS

Responses to Depression

People think and do many things when they feel depressed. Please read each of the items below and indicate whether you never, sometimes, often or always think each one when you feel sad, down or depressed. Please indicate what you generally think or do, not what you think you should think or do.

	Almost Never	Sometimes	Often	Almost Always
1. Think about how alone you feel	0	1	2	3
2. Think about your feelings of fatigue and achiness	0	1	2	3
3. Think about how hard it is to concentrate	0	1	2	3
4. Think about how passive and unmotivated you feel	0	1	2	3
5. Analyse recent events to try and understand why you are depressed	0	1	2	3
6. Think about how you don't seem to feel anything anymore	0	1	2	3
7. Think "Why can't I get going?"	0	1	2	3
8. Think "Why do I always react this way?"	0	1	2	3
9. Go away by yourself and think about why you feel this way	0	1	2	3
10. Think about a recent situation wishing it had gone better	0	1	2	3
11. Think "Why do I have problems other people don't have?"	0	1	2	3
12. Think about how sad you feel	0	1	2	3
13. Think about all your shortcomings, failings, faults, mistakes	0	1	2	3
14. Think about how you don't feel up to doing anything	0	1	2	3
15. Try to understand yourself by focusing on your depressed feelings	0	1	2	3

	Almost Never	Sometimes	Often	Almost Always
16. Analyse your personality to try and understand why you are depressed	0	1	2	3
17. Go someplace alone to think about your feelings	0	1	2	3
18. Think about how angry you are with yourself	0	1	2	3
19. Listen to sad music	0	1	2	3
20. Isolate yourself and think about the reasons why you feel sad	0	1	2	3
21. Think "I won't be able to do my job / work because I feel so badly"	0	1	2	3
22. Write down what you are thinking about and analyse it.	0	1	2	3
23. Try and find something positive in the situation or something you learned	0	1	2	3
24. Think "I'm going to do something to make myself feel better"	0	1	2	3
25. Help someone else with something in order to distract yourself	0	1	2	3
26. Remind yourself that the feelings won't last.	0	1	2	3
27. Go to a favourite place to get your mind off your feelings	0	1	2	3
28. Think "I'll concentrate on something other than how I feel"	0	1	2	3
29. Do something that has made you feel better in the past	0	1	2	3
30. Think "I'm going to go out and have some fun."	0	1	2	3
31. Concentrate on your work	0	1	2	3

	Almost Never	Sometimes	Often	Almost Always
32. Do something you enjoy	0	1	2	3
33. Do something fun with a friend	0	1	2	3
34. Watch TV to distract yourself	0	1	2	3
35. Direct yourself to something other than how you feel	0	1	2	3
36. Daydream, fantasize or think about good things	0	1	2	3
37. Read something entertaining (magazine/ book) to divert your attention from your mood	0	1	2	3
38. Do something active to get your mind off your feelings (e.g. jog/aerobics/exercise)	0	1	2	3
39. Go to sleep to escape how you feel	0	1	2	3

APPENDIX VII

Positive and Negative Beliefs about Rumination Scales

POSITIVE BELIEFS ABOUT RUMINATION SCALE (PBRS)®

Developed by Costas Papageorgiou and Adrian Wells

Instructions: Most people experience depressive thoughts at times. When depressive thinking is prolonged and repetitive it is called *rumination*. This questionnaire is concerned about the beliefs that people have about rumination. Listed below are a number of these beliefs. Please read each belief carefully and indicate how much you *generally* agree with each one. Please circle the number that best describes your answer. Please respond to all of the items.

	Do not agree	Agree Slightly	Agree Moderately	Agree very much
1. *In order to understand my feelings of depression I need to ruminate about my problems*	*1*	*2*	*3*	*4*
2. *I need to ruminate about the bad things that have happened in the past to make sense of them*	*1*	*2*	*3*	*4*
3. *I need to ruminate about my problems to find the causes of my depression*	*1*	*2*	*3*	*4*
4. *Ruminating about my problems helps me to focus on the most important things*	*1*	*2*	*3*	*4*
5. *Ruminating about the past helps me to prevent future mistakes and failures*	*1*	*2*	*3*	*4*
6. *I need to ruminate about my problems to find answers to my depression*	*1*	*2*	*3*	*4*
7. *Ruminating about my feelings helps me to recognise the triggers for my depression*	*1*	*2*	*3*	*4*
8. *Ruminating about my depression helps me to understand past mistakes and failures*	*1*	*2*	*3*	*4*
9. *Ruminating about the past helps me to work out how things could have been done better*	*1*	*2*	*3*	*4*

NEGATIVE BELIEFS ABOUT RUMINATION SCALE (NBRS)®

Developed by Costas Papageorgiou and Adrian Wells

Instructions: Most people experience depressive thoughts at times. When depressive thinking is prolonged and repetitive it is called *rumination*. This questionnaire is concerned about the beliefs that people have about rumination. Listed below are a number of these beliefs. Please read each belief carefully and indicate how much you *generally* agree with each one. Please circle the number that best describes your answer. Please respond to all of the items.

	Do not agree	Agree Slightly	Agree Moderately	Agree very much
10. Ruminating makes me physically ill	*1*	*2*	*3*	*4*
11. When I ruminate I can't do anything else	*1*	*2*	*3*	*4*
12. Ruminating means I'm out of control	*1*	*2*	*3*	*4*
13. Everyone would desert me if they knew how much I ruminate about myself	*1*	*2*	*3*	*4*
14. People will reject me if I ruminate	*1*	*2*	*3*	*4*
15. Ruminating about my problems is uncontrollable	*1*	*2*	*3*	*4*
16. Ruminating about my depression could make me kill myself	*1*	*2*	*3*	*4*
17. Ruminating will turn me into a failure	*1*	*2*	*3*	*4*
18. I cannot stop myself from ruminating	*1*	*2*	*3*	*4*
19. Ruminating means I'm a bad person	*1*	*2*	*3*	*4*
20. It is impossible not to ruminate about the bad things that have happened in the past	*1*	*2*	*3*	*4*
21. Only weak people ruminate	*1*	*2*	*3*	*4*
22. Ruminating can make me harm myself	*1*	*2*	*3*	*4*

APPENDIX VIII

Structured Clinical Interview for Major Depressive Disorder

MARTIN PEARSON

)OD EPISODES

HIS SECTION, MAJOR DEPRESSIVE, MANIC, HYPOMANIC EPISODES, DYSTHYMIC DISORDER, (DISORDER DUE TO A GENERAL MEDICAL CONDITION, SUBSTANCE-INDUCED MOOD DISORDER, IEPISODE SPECIFIERS ARE EVALUATED. MAJOR DEPRESSIVE DISORDER AND BIPOLAR RDERS ARE DIAGNOSED IN MODULE D.

ENT MAJOR DEPRESSIVE ODE

I am going to ask you some questions about your mood.

MDE CRITERIA

A. Five (or more) of the following symptoms have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood, or (2) loss of interest or pleasure.

he last month...

...has there been eriod of time when you were ling depressed or down most the day nearly every day? at was that like?)

IF YES: How long did it last? (As long as two weeks?)

(1) depressed mood most of the day, nearly every day, as indicated either by subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). Note: in children and adolescents can be irritable mood.

? 1 2 3 A1

...what about losing terest or pleasure in things you ally enjoyed?

IF YES: Was it nearly every day? How long did it last? (As long as two weeks?)

(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation made by others).

? 1 2 3 A2

IF NEITHER ITEM (1) NOR ITEM (2) IS CODED "3," GO TO *PAST MAJOR DEPRESSIVE EPISODE,* A. 12

NOTE: WHEN RATING THE FOLLOWING ITEMS, CODE "1" IF CLEARLY DUE TO A GENERAL MEDICAL CONDITION, OR TO MOOD-INCONGRUENT DELUSIONS OR HALLUCINATIONS

R THE FOLLOWING QUESTIONS, FOCUS
THE WORST TWO WEEKS IN THE PAST
NTH (OR ELSE THE PAST TWO WEEKS IF
UALLY DEPRESSED FOR ENTIRE MONTH)

ring this (TWO-WEEK PERIOD)...

.how was your appetite? (What out compared to your usual petite?) (Did you have to force urself to eat?) (Eat [less/more] an usual?) (Was that nearly every y?) (Did you lose or gain any ight?) (How much?) (Were you ying to [lose/gain] weight?)	(3) significant weight loss when not dieting, or weight gain (e.g., a change of more than 5% of body weight in a month) or decrease or increase in appetite nearly every day. Note: in children, consider failure to make expected weight gains. Check if: ____ weight loss or decreased appetite ____ weight gain or increased appetite	?	1	2	3	A3 A4 A5
.how were you sleeping? Trouble falling asleep, waking requently, trouble staying sleep, waking too early, OR leeping too much? How many ours a night compared to usual? as that nearly every night?)	(4) insomnia or hypersomnia nearly every day Check if: ____ insomnia ____ hypersomnia	?	1	2	3	A6 A7 A8
..were you so fidgety or rest-ess that you were unable to it still? (Was it so bad that ther people noticed it? What did hey notice? Was that nearly very day?) IF NO: What about the op-posite -- talking or mov-ing more slowly than is normal for you? (Was it so bad that other people noticed it? What did they notice? Was that nearly every day?)	(5) psychomotor agita-tion or retardation nearly every day (observ-able by others, not merely subjective feelings of restlessness or being slowed down) NOTE: ALSO CONSIDER BEHAVIOR DURING THE INTERVIEW Check if: ____ psychomotor retardation ____ psychomotor agitation	?	1	2	3	A9 A10 A11
..what was your energy like? Tired all the time? Nearly very day?)	(6) fatigue or loss of energy nearly every day	?	1	2	3	A12

=inadequate information 1=absent or false 2=subthreshold 3=threshold or true

ng this time...

ow did you feel about self? (Worthless?) rly every day?)

hat about feeling guilty t things you had done or done? (Nearly every day?)

(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick) ? 1 2 3 A13

NOTE: CODE "1" OR "2" IF ONLY LOW SELF-ESTEEM

Check if:
____ worthlessness A14
____ inappropriate guilt A15

lid you have trouble king or concentrating? t kinds of things did it rfere with?) (Nearly y day?)

IF NO: Was it hard to make decisions about everyday things? (Nearly every day?)

(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others) ? 1 2 3 A16

Check if:
____ diminished ability to think A17
____ indecisiveness A18

were things so bad that you e thinking a lot about death that you would be better off d? What about thinking of ting yourself?

IF YES: Did you do anything to hurt yourself?

(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide ? 1 2 3 A19

NOTE: CODE "1" FOR SELF-MUTILATION W/O SUICIDAL INTENT

Check if:
___ thoughts of own death A20
___ suicidal ideation A21
___ specific plan A22
___ suicide attempt A23

AT LEAST FIVE OF THE ABOVE SXS [A (1-9)] ARE CODED "3" AND AT LEAST ONE OF THESE IS ITEM (1) OR (2) 1 3 A24

GO TO *PAST MAJOR DEPRESSIVE EPISODE,* A. 12

inadequate information 1=absent or false 2=subthreshold 3=threshold or true

)NCLEAR: Has (DEPRESSIVE
)ODE/OWN WORDS) made it
l for you to do your work,
e care of things at home,
get along with other people?

t before this began, were
physically ill?

IF YES: What did the doctor
say?

t before this began, were
using any medications?

IF YES: Any change in the
amount you were using?

t before this began, were
drinking or using any
eet drugs?

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

NOTE: DSM-IV criterion B (i.e., does not meet criteria for a Mixed Episode) has been omitted from the SCID.

? 1 2 3 A25

GO TO *PAST MAJOR DEPRESSIVE EPISODE,* A. 12

D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, medication) or to a general medical condition

? 1 3 A26

DUE TO SUBSTANCE USE OR GMC. GO TO *PAST MAJOR DEPRESSIVE EPISODE* A. 12

IF THERE IS ANY INDICATION THAT THE DEPRESSION MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF A GMC OR SUBSTANCE, GO TO *GMC/SUBSTANCE,* A.43, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

PRIMARY MOOD EPISODE

Etiological general medical conditions include: degenerative neurological illnesses (e.g., Parkinson's disease), cerebrovascular disease (e.g., stroke), metabolic conditions (e.g., Vitamin B-12 deficiency), endocrine conditions (e.g., hyper- and hypothyroidism, hyper- and hypoadrenocorticism); viral or other infections (e.g., hepatitis, mononucleosis, HIV), and certain cancers (e.g., carcinoma of the pancreas).

Etiological substances include: alcohol, amphetamines, cocaine, hallucinogens, inhalants, opioids, phencyclidine, sedatives, hypnotics, anxiolytics. Medications include antihypertensives, oral contraceptives, corticosteroids, anabolic steroids, anticancer agents, analgesics, anticholinergics, cardiac medications.

CONTINUE BELOW

this begin soon after
one close to you died?)

E. The symptoms are not better accounted for by Bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation.

1	3	
SIMPLE BEREAVEMENT GO TO *PAST MAJOR DEPRESSIVE EPISODE* A. 12	NOT SIMPLE BEREAVEMENT CONTINUE BELOW	A27

MAJOR DEPRESSIVE EPISODE CRITERIA A, C, D, AND E ARE CODED "3"

1	3	
GO TO *PAST MAJOR DEPRESSIVE EPISODE,* A. 12	CURRENT MAJOR DEPRESSIVE EPISODE	A28

many separate times in your
e have you been (depressed/
WORDS) nearly every
for at least two weeks
had several of the
ptoms that you described,
e (SXS OF WORST EPISODE)?

Total number of Major Depressive Episodes, including current (CODE 99 IF TOO NUMEROUS OR INDISTINCT TO COUNT) ___ ___ A29

NOTE: TO RECORD DETAILS OF PAST EPISODES, GO TO J. 9 (OPTIONAL).

NB YEAR OR AGE WHEN FIRST DEPRESSED _____

MAJOR DEPRESSIVE DE*	MDE CRITERIA				
F NOT CURRENTLY DEPRESSED: ave you ever had a period hen you were feeling de- ressed or down most of the ay nearly every day? (What as that like?)	A. Five or more of the following symptoms have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms was either (1) depressed mood or (2) loss of interest or pleasure.				
F CURRENTLY DEPRESSED BUT FULL CRITERIA ARE NOT MET, SCREEN FOR PAST MDE: Has there ever been another time when you were depressed or down most of the day nearly every day? (What was that like?)	(1) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). Note: in children and adolescents, can be irritable mood.	?	1	2	3	A52
F YES: When was that? How ong did it last? (As long s two weeks?)						
IF PAST DEPRESSED MOOD: During that time, did you lose interest or pleasure in things you usually enjoyed? (What was that like?)	(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated either by subjective account or observation made by others)	?	1	2	3	A53
IF NO PAST DEPRESSED MOOD: What about a time when you lost interest or pleasure in things you usually enjoyed? (What was that like?)		IF NEITHER ITEM (1) NOR (2) IS CODED "3," GO TO *CURRENT MANIC EPISODE,* A. 18				
IF YES: When was that? Was it nearly every day? How long did it last? (As long as two weeks?)						
ve you had more than one time ke that? (Which time was the rst?)	NOTE: IF MORE THAN ONE PAST EPISODE IS LIKELY, SELECT THE "WORST" ONE FOR YOUR INQUIRY ABOUT A PAST MAJOR DEPRESSIVE EPISODE. HOWEVER, IF THERE WAS AN EPISODE IN THE PAST YEAR, ASK ABOUT THAT EPISODE EVEN IF IT WAS NOT THE WORST.					
UNCLEAR: Have you had any mes like that in the past year?						

THE FOLLOWING QUESTIONS, S ON THE WORST TWO WEEKS HE PAST MAJOR DEPRESSIVE ODE THAT YOU ARE INQUIRING T ng that (TWO WEEK PERIOD)...	NOTE: WHEN RATING THE FOLLOWING ITEMS, CODE "1" IF CLEARLY DIRECTLY DUE TO A GENERAL MEDICAL CONDITION, OR TO MOOD-INCONGRUENT DELUSIONS OR HALLUCINATIONS					
ow was your appetite? (What t compared to your usual tite?) (Did you have to force self to eat?) (Eat [less/more] usual?) (Was that nearly every) (Did you lose or gain any ht?) (How much?) (Were you ng to [lose/gain] weight?)	(3) significant weight loss when not dieting, or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. Note: in children, consider failure to make expected weight gains. Check if: ____ weight loss or decreased appetite ____ weight gain or increased appetite	?	1	2	3	A54 A55 A56
how were you sleeping? ouble falling asleep, waking quently, trouble staying eep, waking too early, OR eping too much? How many rs a night compared to usual? that nearly every night?)	(4) insomnia or hypersomnia nearly every day Check if: ____ insomnia ____ hypersomnia	?	1	2	3	A57 A58 A59
were you so fidgety or rest-s that you were unable to still? (Was it so bad that her people noticed it? What did y notice? Was that nearly ry day?) IF NO: What about the op-posite -- talking or mov-ing more slowly than is normal for you? (Was it so bad that other people noticed it? What did they notice? Was it nearly every day?)	(5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down) Check if: ____ psychomotor agitation ____ psychomotor retardation	?	1	2	3	A60 A61 A62
what was your energy like? ired all the time? Nearly ery day?)	(6) fatigue or loss of energy nearly every day	?	1	2	3	A63

ng that time...

ow did you feel about self? (Worthless?) rly every day?)

hat about feeling guilty t things you had done or done? (Nearly every day?)

(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick)

NOTE: CODE "1" OR "2" FOR LOW SELF-ESTEEM BUT NOT WORTHLESSNESS

? 1 2 3 A64

Check if:
____ worthlessness A65
____ inappropriate guilt A66

did you have trouble thinking concentrating? (What kinds of gs did it interfere with?) rly every day?)

IF NO: Was it hard to make decisions about everyday things? (Nearly every day?)

(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others)

? 1 2 3 A67

Check if:
____ diminished ability to think A68
____ indecisiveness A69

were things so bad that you re thinking a lot about death that you would be better off d? What about thinking of ting yourself?

IF YES: Did you do anything to hurt yourself?

(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide

NOTE: CODE "1" FOR SELF-MUTILATION W/O SUICIDAL INTENT

? 1 2 3 A70

Check if:
___ thoughts of own death A71
___ suicidal ideation A72
___ specific plan A73
___ suicide attempt A74

AT LEAST FIVE OF THE ABOVE SXS [A(1-9)] ARE CODED "3" AND AT LEAST ONE OF THESE IS ITEM (1) OR (2) | 1 | 3 | A75

CONTINUE BELOW

)T ALREADY ASKED: Has
e been any other time when
were (depressed/OWN
S) and had even more of the
toms than I just asked you
t?

IF YES: RETURN TO ***PAST MAJOR DEPRESSIVE EPISODE,*** A. 12, AND CHECK WHETHER THERE HAVE BEEN ANY OTHER MAJOR DEPRESSIVE EPISODES THAT WERE MORE SEVERE AND/OR CAUSED MORE SYMPTOMS. IF SO, ASK ABOUT THAT EPISODE.

IF NO: GO TO ***CURRENT MANIC EPISODE,*** A. 18.

NOTE: DSM-IV criterion B (i.e., does not meet criteria for a Mixed Episode) has been omitted from the SCID.

NCLEAR: Did (depres-
episode/OWN WORDS)
it hard for you to do
work, take care of things
ome, or get along with
r people?

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. ? 1 2 3 A76

CONTINUE ON NEXT PAGE

NOT ALREADY ASKED: Has
re been any other time when
were (depressed/OWN
DS) and it caused even more
blems than the time I just
ed you about?

IF YES: RETURN TO ***PAST MAJOR DEPRESSIVE EPISODE,*** A. 12, AND CHECK WHETHER THERE HAVE BEEN ANY OTHER MAJOR DEPRESSIVE EPISODES THAT WERE MORE SEVERE AND/OR CAUSED MORE SYMPTOMS. IF SO, ASK ABOUT THAT EPISODE.

IF NO: GO TO ***CURRENT MANIC EPISODE,*** A. 18.

before this began, were physically ill?

F YES: What did the doctor ay?

before this began, were using any medications?

F YES: Any change in the mount you were using?

before this began, were drinking or using any et drugs?

D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, medication) or to a general medical condition (e.g., hypothyroidism)

? 1 3

DUE TO SUBSTANCE USE OR GMC

IF THERE IS ANY INDICATION THAT THE DEPRESSION MAY BE SECONDARY (I.E., A DIRECT PHYSIOLOGICAL CONSEQUENCE OF A GMC OR SUBSTANCE, GO TO ***GMC/SUBSTANCE,*** A.43, AND RETURN HERE TO MAKE A RATING OF "1" OR "3."

REFER TO LIST OF GENERAL MEDICAL CONDITIONS AND SUBSTANCES, A. 4.

A77

JNKNOWN: Has there been any other e when you were (depressed/OWN WORDS) e this but were not (using SUBSTANCE/ with GMC)?

IF YES: GO TO ***PAST MAJOR DEPRESSIVE EPISODE,*** A. 12 AND CHECK WHETHER THERE HAS BEEN ANY OTHER MAJOR DEPRESSIVE EPISODE NOT DUE TO A SUBSTANCE OR GENERAL MEDICAL CONDITION. IF SO, ASK ABOUT THAT EPISODE.

IF NO: GO TO ***CURRENT MANIC EPISODE,*** A. 18

PRIMARY MOOD EPISODE

CONTINUE

this begin soon after one close to you died?)

E. The symptoms are not better accounted for by [Simple] Bereavement, i.e., after the loss of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms or psychomotor retardation.

? 1 3 A78

1: SIMPLE BEREAVEMENT

3: AT LEAST ONE EPISODE NOT SIMPLE BEREAVEMENT

UNKNOWN: Has there been any other e when you were (depressed/OWN WORDS) e this that did not occur after someone se to you died?

IF YES: GO TO *PAST MAJOR DEPRESSIVE EPISODE,* A. 12 AND CHECK WHETHER THERE HAS BEEN ANY OTHER MAJOR DEPRESSIVE EPISODE THAT WAS NOT BETTER ACCOUNTED FOR BY BEREAVEMENT. IF SO, ASK ABOUT THAT EPISODE.

IF NO: GO TO *CURRENT MANIC EPISODE,* A. 18.

3: CONTINUE

MAJOR DEPRESSIVE EPISODE CRITERIA A, C, D, AND E ARE CODED "3"

1 3 A79

1: GO TO *CURRENT MANIC EPISODE,* A. 18

3: PAST MAJOR DEPRESSIVE EPISODE

ow old were you when (PAST AJOR DEPRESSIVE EPISODE) tarted?

Age at onset of Past Major Depressive Episode coded above

— — A80

ow many separate times in your ife have you been (depressed/ WN WORDS) nearly every day for at least two weeks nd had several of the symptoms that you described, ike (SXS OF WORST EPISODE)?

Total number of Major Depressive Episodes (CODE 99 IF TOO NUMEROUS OR INDISTINCT TO COUNT)

— — A81

NOTE: TO RECORD DETAILS OF OTHER PAST EPISODES, GO TO J. 9 (OPTIONAL).

NB: YEAR OR AGE WHEN FIRST DEPRESSED ____

APPENDIX IX

Ethical approval letters

Barnet, Enfield & Haringey Local Research Ethics Committee
Holbrook House,
Cockfosters Road,
Barnet EN4 0DR.
Herts.

Tel: 020 8272 5699
Fax: 020 8272 5691
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23rd October 2003

Mr. John Rhodes,
Clinical Psychologist,
Adult Mental Health Psychology Service (Long Term Needs),
Barnet Enfield and Haringey Mental Health NHS Trust,
St. Ann's Hospital,
St. Ann's Road,
London N15 3TH

Dear Mr. Rhodes,

46/02 Investigating personal problems and motivations with psychological distress

Acting under delegated authority, I acknowledge receipt of your letter and attached CVs for Martin Pearson and yourself, dated 24th September and received by me on 7th October.

We note that Martin Pearson will carry out a specific interview schedule for one area of the research, i.e. 'runimation' or repetitive thoughts concerning issues that distress a person. This does not seem to introduce any additional ethical issues and we are happy to give approval to this extension.

Yours sincerely,

Alison O'Kane
LREC Co-ordinator
Barnet, Enfield & Haringey

Enfield & Haringey
Health Authority

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Chairman Peter Dixon
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20 March 2002

Mr J Rhodes
Chartered Clinical Psychologist
Haringey Healthcare NHS Trust
St Ann's Hospital, St Ann's Road
London N15 3TH

Dear Mr Rhodes,

46/02 – Investigating personal problems and motivations in patients with psychological distress

Acting under delegated authority I acknowledge receipt of your letter dated 11 March 2002. The LREC is content with the arrangements outlined in your letter, subject to receipt and approval of CVs of any additional researchers.

The consent form was approved in March 2001 and this approval is still valid.

The committee looks forward to receiving a copy of your interim report in one year's time or at the end of the study if this is sooner.

Please quote LREC number (46/02) on any future correspondence (the new number has been given to identify the new start date).

With best wishes

Yours sincerely

C Hamilton

Christine Hamilton
LREC Co-ordinator

APPENDIX X

Participants' additional responses not part of coding framework

Participants' additional responses, not provided for in the coding framework

Participant Question: **What leads you to ruminate?**

No.		
	Just happens	
1	11	Compulsion (no particular goal/end)
12	11	Just start doing it - don't know why
21	11	Just kept happening
	Being or feeling alone	
2	11	Being alone
3	11	Being alone
6	11	Being alone
9	11	Being alone (no-one to talk to)
14	11	Loneliness
8	11	Feeling isolated
	Thoughts about rumination themes	
10	11	Thoughts of losses (when family were together)
10	11	Worries about health
7	11	Negative memories (e.g. a smell)
13	11	Thoughts of losses (of family & how miss them
21	11	Thoughts of loss (to come to terms with father's death)
	Reminders about rumination themes	
15	11	Unfavourable comparison with others (by self or others)
10	11	Seeing ex-partner
16	11	Inability to do things
13	11	Reminders of problems (TV news from Kosovo)
17	11	Reminders of problems (son asking -can't afford)
18	11	Reminders of problems (TV news about world problems)
19	11	Reminders of problems (someone asks for ex-partner)
20	11	Reminders of problems (accounts/witnessing of violence)
20	11	Reminder of loss (sorting dead husband's things)

Participants' additional responses not provided for in the coding framework

Participant Question: **How does the rumination stop?**

	Acceptance (of problems & situation)	
4	11	Acceptance (of problems ruminated on)
5	11	Acceptance (of problems ruminated on & situation?)
	Company	
6	11	Being with someone (a friend)
7	11	Being with someone (her children)
9	11	Being with someone (have company)
11	11	Being with someone (talking to boyfriend)
3	11	Someone visits/phones
16	11	Company (wife & pets)
	Distract self	
6	11	Distract self (play music/read book)
11	11	Distract self (get absorbed in something e.g. get interested in TV programme)
12	11	Distract self (go and do something)
14	11	Thinking of something positive (e.g. I'll be a great woman someday)
19	11	Distract self (focus on children)
20	11	Distract self (play music, because father did not like it)
	External (competing) demands	
15	11	Need to get on with job/home/family tasks
17	11	Son tells her to stop & that she's had enough
18	11	Children's needs demand her attention
19	11	Looking after children
20	11	Granddaughter needs help with something
	Alcohol	
19	11	Use alcohol
21	11	Use of alcohol

APPENDIX XI

A list of the topics used by participants (and by the interviewer) to identify the different ruminations they engaged in.

A list of the topics used by participants (and by the interviewer) to identify the different ruminations they engaged in.

Helplessness, powerlessness, being boxed in.
Feeling dependent [on others].
How can I escape from my problems?

Husband's death and the circumstances of this.
The problems I've had.
Worrying about what will happen to the children when I'm gone.

Why did my relationship break up?

Why am I so weak and such a loser?
Wish I was more assertive.
Wish I could plan my life.

Why did I leave my husband? I should have stayed.
It's difficult managing on my own.

I was attacked and no-one helped me.
People think I'm [in the] wrong.
No-one wants to know me.

Past negative experiences.
Doubts about my competence.

Wasted life.
Inability to relate to others and lack of a social life.
Worries about financial security.

Why have people done this to me?
Going over past events.
Why did I do this and not something different?

Concerns about my son's happiness.
My health and how I'm feeling.
Wondering if I'm going crazy.

What if something happened to my family?
People close to me who have broken my trust.

Thinking about the past in general (positives and negatives).
Thinking about the future.
What I don't have and wish that I did.

Something is in my head that's causing me distress.
What is happening in my country.
Family problems.

A list of the topics used by participants (and by the interviewer) to identify the different ruminations they engaged in.
(continued from previous page)

When will I get well?
Past negative events.
Why did these horrible experiences happen to me?

Personal inadequacies.
Feeling a fraud in my life (only pretending to be capable).
When will I get better?

The assault.
Why [did it happen to] me?

The problems my sister causes me.
Lack of money and how I'm going to cope.

The suffering going on in the world.

Current financial problems.
Negative past events and the unfairness of these.
Humiliation [of her].

Things I've done wrong or shouldn't have done.
Domestic violence [against her and her mother]

Relationships with women.
Relationship with self and self-image.
Dad's death.

Ruminate about [my] ruminations.
Will I get the idea of harming someone?
Badness.