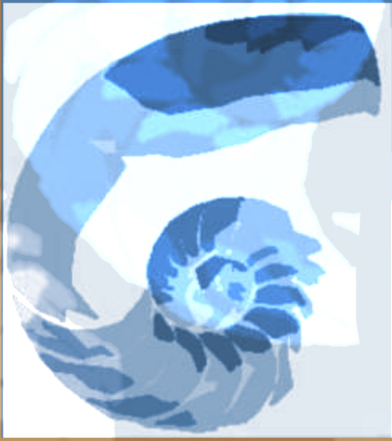


# Journal of Clinical Psychology & Psychiatry

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& Psychiatry Society  
of Gibraltar

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# Mental Health in Gibraltar

# Journal of Clinical Psychology and Psychiatry

The Journal of Clinical Psychology and Psychiatry is a vehicle of expression for professionals who utilise psychological and psychiatric knowledge, theory and methods to assist their clients. It is also a forum for other health professionals and practitioners whose work requires an understanding of psychological and psychiatric processes (e.g. general nurses, physicians, social workers, psychotherapists) and other vocational activities whose professional field or practice (e.g. solicitors, judiciary, police, firemen, care workers, carers) may benefit from the acquisition of knowledge about mental health and evidence based psychology and psychiatry. The editorial welcomes brief articles, case reports, reviews, reflective accounts of professional practice, critical analysis of current social issues linked to psychological processes and/or service/practice development, reflective accounts from service users and patients, reports of events, correspondence, book reviews and announcements.

The Journal of Clinical Psychology and Psychiatry is published quarterly and welcomes local and international authors who may wish to contribute to the promotion of psychological knowledge in Gibraltar and across the world.

## *Editorial Collective*

Gustavo Camino, Javier Ruiz de Arcaute, Ricard Gandia, Gabriel Ardeman & Dolphin Haley

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Papers should be submitted, in accordance with the Instructions to Authors on the inside back cover, to the Editorial address.

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The Clinical Psychology &  
Psychiatry Society of Gibraltar

## Introduction from the Chair

This is the second issue that we are publishing after the successful launch of the Journal. We are very satisfied knowing the interest that this publication has created in our community and elsewhere. As we constantly discuss mental health issues in our social network, the Society members are taking note of what seems to be impacting on people's minds when they are reading our Journal. As we expected, and given the wide range of readers that we are aiming at, we notice that all the articles published in our first issue were well received. Some of them received good feedback because they were educational, personally relevant, historical, others because they had a practical side or because they contained highly professional accounts of current practice. Therefore, given the positive results, we wish to continue with this line in which we are open to all fronts and always welcoming local authors. Service users perspectives, professional perspectives and research seem to be valued by the audience. We hope that our readers enjoy this new issue, in which we are presenting topics related to local mental health services and three research papers that have been submitted by international authors.

During the short journey that the Society has experienced, Dr David Pariente has been our Chair and guide, until very recently. After Dr Pariente's withdrawal from his role, I have accepted to be the next Society's Chair, role which honours me and shows the nature of this organisation in which professionals, service users and stakeholders share responsibilities. I hope to serve the organisation as well as Dr Pariente has done it, as he has clearly given to all of us orientation and stamina to work towards the Society's aim.

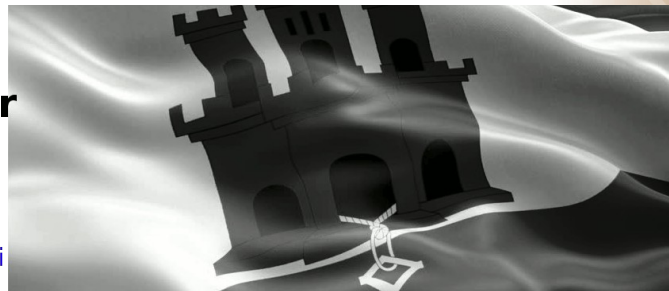
**Javier Ruiz de Arcaute**  
**Chair**



# Access to the Mental Health Service in Gibraltar

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## Introduction

Families and work colleagues are usually the first to identify that you are experiencing mental health difficulties. For most part they are able to support you. When this fails they look for professional help and advice. This can present its own challenge when they do not know where to turn or how to access the mental health service. You may experience the same level of difficulty accessing the mental health service. It is intended that this guide will help you through the maze. Please also inspect the flowchart that can be found at the end of the paper for further clarity and assistance.

## Initial Contact with Mental Health Services

When you are experiencing any health care problem the General Practitioner (GP) is normally their first port of call. Your GP will assess your circumstances and offer appropriate advice or treatment. If it is a complex issue they can refer you to a specialist service. This includes the mental health service. They may refer you to the Psychological Services for talking therapy where you will have access to a Counsellor or a Psychologist dependent on their therapeutic need. They may also refer you for further assessment, treatment and follow-up by the psychiatrist at the Community Mental Health Team (CMHT).

Sometimes the problem you face is so severe that you cannot wait for an appointment with the GP. This can be particularly so at evenings; nights; during the weekend or on Bank Holidays. In this case you can attend Accident and Emergency Unit (A&E) at St Bernard's Hospital. The A & E Team will listen to the issue and decide on the urgency of the

situation. They may decide that you can return home with continued support of your family. If the doctor feels that the situation is serious, they would refer to the On-Call Psychiatric Team (Psychiatrist and Mental Welfare Officer). The On-Call Team will make a full assessment of the situation. They will then decide on what course of action may be taken. This could be to provide you with advice on how to manage the issue at home with family support and may include out-patient follow-up. The On-Call Team may decide that hospital admission is needed and arrange for this to take place. If you are presenting as a danger to yourself or to others in a public place or at home, the police may be called. The police may detain you under the current Mental Welfare Act and request an assessment by the Mental Health Team.

On other occasions when you are experiencing a mental health difficulty, you are unable to recognise this yourself. You may disagree with advice that is offered by anyone, or even resent the suggestion that they may be mentally ill. You may reject any attempt by anyone to intervene on their behalf. This can happen if it is a new problem or even if you already have been diagnosed with an existing mental illness. When this happens it is common for families or even members of the public to approach the Mental Health Service for advice on your behalf. When this happens it can get very frustrating for families to be told that you must request the help for yourself; or that the mental health service can only intervene if or when it is deemed that you are a danger to yourself or to others. In this situation it is possible for your next of kin to make an application for a mental health assessment to the Mental Welfare Officer. This can cause even more frustration for relatives and friends especially when they are informed that you have

rights under the Human Rights Act or about your right to privacy under the Privacy Laws; and that the Mental Health Team cannot turn up at a your home to assess or admit you to hospital. The Mental Health Team has no authority to enter your home without been invited.

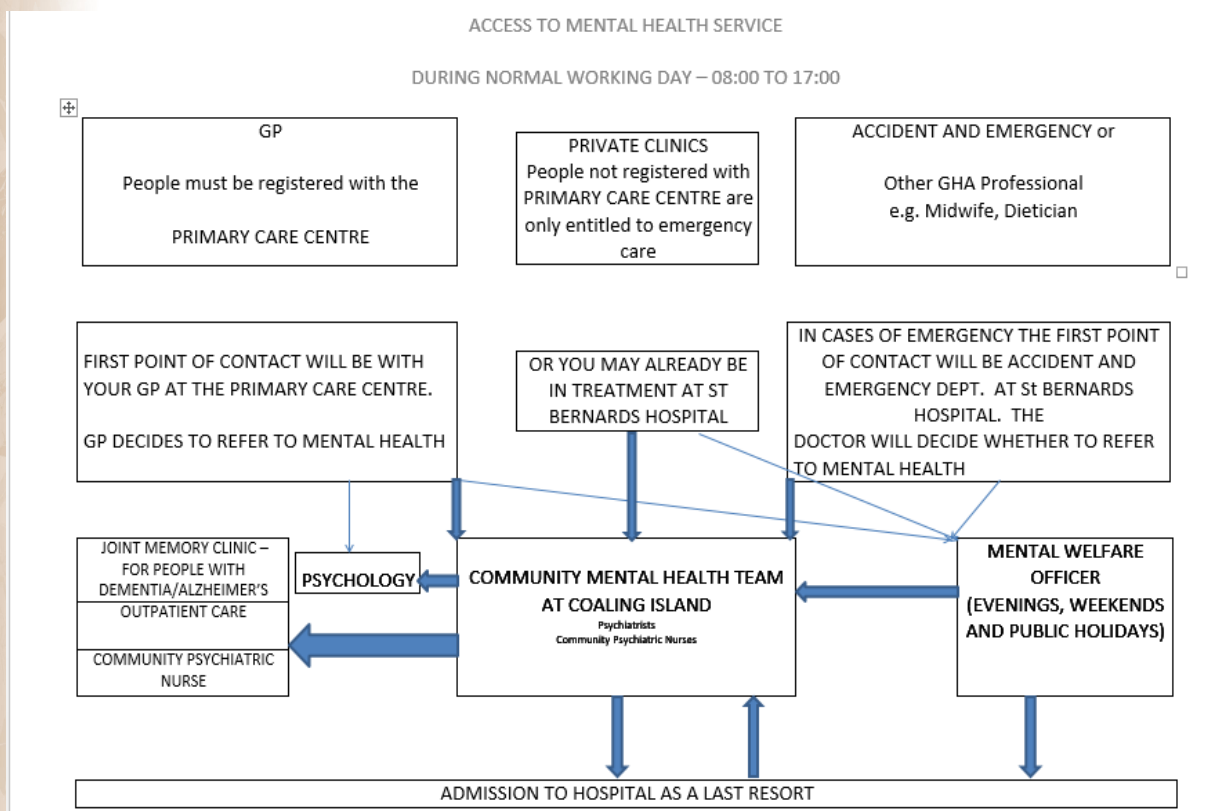
If you are already under the care of a doctor or other professional e.g. (Midwife; Dietician; Physiotherapist) at St Bernard's Hospital and they are concerned that you may be experiencing mental health issues, they may refer you to the Mental Health Service for advice and or treatment.

If you are having issues with the use of alcohol or non-prescribed drugs, access to services remains the same as for any other condition. Although alcoholism or drug use are not classified as mental health problems on their own they may happen at the same time you are experiencing other mental health issues. The GP will be able to assist you in identifying these occasions and refer you to the mental health services for additional advice and or treatment. You can also refer yourself to the Drug Services at Bruse's Farm for additional advice.

There is no direct access for admission to Ocean Views Hospital other than through the CMHT. All first assessments are taken place by the team based at Coaling Island. There is no Walk-in service available at Coaling Island for initial assessment. If you are already receiving treatment from the mental health service you will have contact with your Community Psychiatric Nurse or Psychiatrist based at Coaling Island.

Services provided by the Mental Health Service like all other health services in Gibraltar are for people registered under the Group Practice Medical Scheme in Gibraltar. If you are not registered with the scheme or you are a visitor to Gibraltar you will only be entitled to care in an emergency. Where you are registered with a private clinic based in Gibraltar you will only be entitled to emergency care if you are not also registered with the scheme.

There are nurses available at Coaling Island from 08:00 am to 5:00 pm on Mondays to Friday who may be able to advise you an access. This service is soon to be extended to 24 hours daily.





# Evaluation of an Intervention for Anxiety

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## Abstract

This paper presents the case of D, a ninety-one year old Caucasian lady, under the care of a Community Mental Health Team for Older Adults. D was referred for help with anxiety and worries about being sick or needing the toilet when in company or in public. She was also expressing concerns about her daughter's safety, displaying behaviours that were impacting on her life as she limited her activities, and on her daughter's life as she continually required reassurance. The report initially describes the presenting difficulties and background information gathered through the assessment process. From this information a formulation was developed collaboratively with D, and reported here using Laidlaw, Thompson, Dick-Siskin and Thompson's (2003) Cognitive Model for Cognitive Behaviour Therapy with Older Adults. This is followed by a description of the intervention, designed to help D and her daughter make sense of the difficulties, challenge her thoughts and beliefs, and change her behaviour.

The paper then offers a description of the A-B single case (quasi) experimental design. Scores on four measures were collected throughout the assessment and intervention phases and comprised of anxiety ratings and measures of specific activities relating to D's expressed anxieties. The data was analysed using Simulation Modeling Analysis. This analysis suggests that D's symptoms reduced considerably and her activity levels increased from the baseline phase to the end of the intervention phase. The findings are discussed in relation to the formulation and intervention used. The paper closes with some reflections.

## Background Information

### *Information about the family*

D was an only child. She described her father as a 'rock', being a strong and supportive man who 'took care of things' and looked after D and her mother. He died in his sixties. D described her mother as a worrier and recalled her father making comments about her mother not being happy without something to worry about. Her mother would worry about D's safety and D has memories of her having health concerns and looking up symptoms in a 'health/medical book'. D's father would comment on the amount of time spent looking up various items in this book and D remembers him saying that he would throw it out of the window or burn it. D's mother died aged 89. D describes a positive relationship with her parents and speaks of them fondly, saying she had a happy and protected childhood and teenage years. She recalls that she was never alone or expected to do things by herself (even when she might have preferred to)

### *Significant relationships*

*D had a few boyfriends in her youth before meeting her husband, G.*

D described G as being someone to rely on, refer to for advice, share thoughts and feelings with, who would sort out practical issues and who would care for her. They married and moved in with G's mother, who was living alone at the time after the death of her husband. Shortly after marrying and moving in, D and G had their daughter, J, an only child.

J grew up and left school, shortly afterwards meeting P. J was described as an extremely anxious girl and P has been viewed also as a ‘rock’, who was instrumental in

of the person and the relationship but also because of the loss of the practical support he was able to give, especially in providing transport for D to go out.

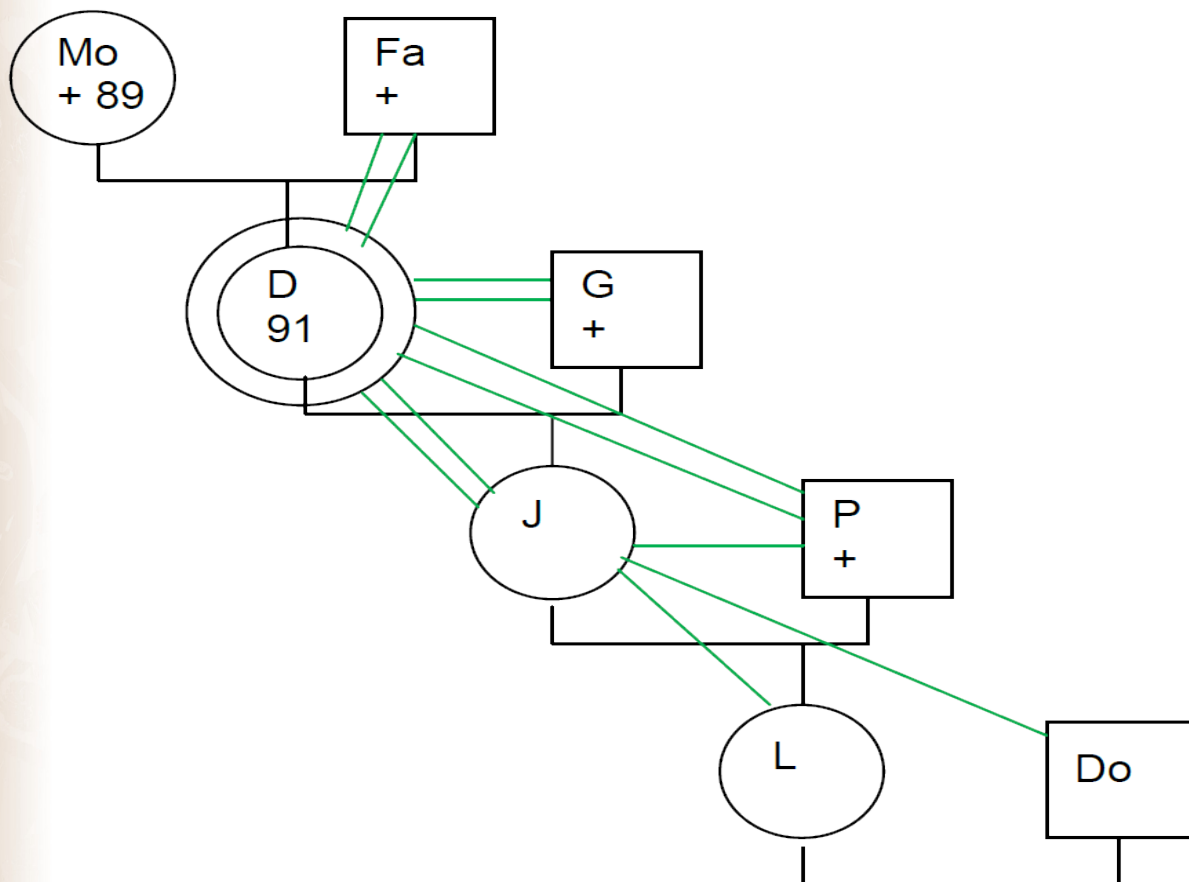


Figure 1: Genogram of D's family

helping J overcome her anxieties. They married and had their daughter, L, also an only child. D grew fond of her son-in-law, P and they had a good relationship.

D's husband, G died approximately 18 years ago; one month before their 50<sup>th</sup> wedding anniversary. They were both in their 70s. D reports feeling incomplete and devastated, but did not cry. Following the death of her husband, D began to rely on her daughter and son-inlaw for practical support and company. P is spoken of very highly for being practically and emotionally supportive and particularly kind to D. P himself became terminally ill approximately 2 years ago. J looked after him and he died one week after their daughter's wedding. It was also one month before their 40<sup>th</sup> wedding anniversary. This loss had a considerable effect on D because of the loss

D's current significant relationships consist of a dependent relationship with her daughter, J, and relationship with her granddaughter, L (and new husband Do). J carries out the household chores.

#### *History of the difficulties with anxiety*

D reported that she had not always been an anxious person and recalled that when she was in her youth she did not seem to worry at all and thought it 'silly' that her mother would worry about minor things. As she grew older, she found herself becoming more anxious. The current episode of high levels of anxiety is reported to have started after the death of her son-in-law, P, although she had been experiencing symptoms of anxiety prior to that, approximately since the death of her husband.



## **Presenting Difficulties**

### *Referral information*

D was referred for help with her anxiety that appeared to be worsening and increasingly impacting on her and her daughter's life, to the extent that J felt the resulting behaviours were taking over her life. D is described as 'frail' due to limited mobility and appearance of being a small, slim lady with limited, slow and painful mobility, who is registered as partially sighted (glaucoma) and has difficulty hearing. D has a hearing aid.

### *Presenting difficulties*

D described general anxiety along with some situation-specific peaks. She reported experiencing anxiety, worrying thoughts, ruminations, physical symptoms such as dry mouth, 'funny tummy', feeling like crying, sweating, difficulty catching her breath and restlessness. As a result of her 'funny tummy', D would worry that she may vomit.

This increased her anxiety levels and she worried about this particularly when receiving visitors to her home. As a result, she described having unpleasant predictions about the embarrassment that she would suffer if it were to occur and the uneasiness and hassle that it would cause to others. Additionally, D would worry that she may vomit while outside her house, either on a shopping trip, on her way to an appointment, or while at her appointments.

As she has aged D had noticed a change in her bodily functions and commented that she needs to go to the toilet more. As a result of this, and in addition to her anxious 'funny tummy', D worried that she would have the urge to go to the toilet in the presence of visitors or while out of the house and again worried about the resulting embarrassment that she would suffer in having to disclose that fact as well as the hassle it would cause to others, due to her mobility difficulties in getting herself to a toilet. D spoke about toilet issues not being as acceptable or open previously as they are now and explained that one's toileting habits and other messy bodily functions were a very private matter. She

recalled that her mother would avoid going to the toilet (which was outside in those days) whenever any neighbours were in their gardens. Although D was able to see that it was a maintaining factor in her anxiety cycle, she clarified that she could not change her view about this.

D's worries had become anticipatory. She would begin to worry on the day prior to her expected visitor's arrival and for weeks prior to an appointment. To pre-empt her predictions, D would avoid eating when expecting visitors and would go to the toilet before the agreed time of arrival. She was avoiding leaving the house completely and would even cancel hospital appointments. On days when there was more than one visitor, she would avoid eating until the final one left the house. Her lack of eating had become a concern to J and the professionals working with her.

D worried considerably about her cat, F. F usually followed a routine of going out in the mornings and returning in the afternoons. On occasions when F had not returned home by 2:30pm, D would worry about F's whereabouts and welfare. On these occasions, D described unpleasant predictions that something terrible had happened and her anxiety would increase. D wanted to go into her garden to search for F and call out so that F would return. However, this was hard because of her mobility difficulties. She would telephone J, who lives nearby, begging her in a state of panic to search for F.

Another of D's worries related to her daughter's visits. J would visit her mother at agreed times during the day but when J was a few minutes late, D would experience thoughts of something terrible having happened to her daughter and would telephone in a state of high anxiety.

J expressed a sense of desperation concerning the amount of reassurance her mother required and the number of telephone calls she received from her, which she found disruptive to her own life. J would pop round to her mother's house an average of three times a day and would attend when visitors were

expected; therefore, additional telephone calls for reassurance and to request that she come round again were having a considerable impact. Nevertheless, D would comment that J does not give her enough sympathy and does not care for her in the way that G had done. J's perspective appeared to conflict with D's because she viewed her mother as more capable and less needy; as well as holding a differing concept of the basis of relationships. D's concept of relationships appeared to be "carer" – "dependent".

### Assessment

The assessment was carried out over three sessions in D's house. D engaged well and was willing to discuss her difficulties. J attended the first two sessions.

#### *Formal standardised measures*

It became impossible for D to complete a Beck Anxiety Inventory (*BAI*, Beck & Steer, 1993) (as discussed in Wells, 1997) because she was unable to read and when the questions were read to her, she had difficulty hearing and then remembering the questions and answer options. The State-Trait Anxiety Inventory (*STAI*, Spielberger, Gorsuch & Lushene, 1983), (as discussed in Wells, 1997), was attempted to gain a clearer understanding of the difference in her general anxiety and situation-specific anxiety. However, the same difficulties were encountered.

Following this, the aim was to obtain information about D's general levels of anxiety and the peaks in her anxiety levels relating to her situation-specific reactions. The approach agreed was to use a diary sheet for D to note the time, situation, thoughts and feelings at various time-points during the day and on occasions when her anxiety peaked. Since D was unable to see, she agreed to give this information to J, who would record it. However, by the second assessment session, it became evident that J had been filling in the sheet from her own perspective instead of her mother's and when asked for more detail about the events, they would disagree on the ratings and situations.

It was clear that any method of data-collection had to be possible for D to use on her own, so a 100mm line was employed, where she could make a vertical pen-mark along a horizontal thick black line, visible to her, which represented anxiety levels from 0 to 10. D would do this three times a day (See Appendix). This would account for general anxiety and situation-specific anxiety because it invited questioning of any peaks throughout the day, for which D could then give extra information verbally about each event when asked. It was also decided that D would record whether or not she had gone out each day, eaten before visitors' arrival, and carried out any independent activity. This she did by making a tick or cross on an activity sheet (large print, one sheet per day). There was also an attempt to record whether or not she had resisted phoning J, and resisted taking a Valium when she felt anxious. However, this recording was inconsistent because D would forget whether or not she had done so, resulting in blank spaces on the activity forms. Recording of these has therefore been omitted from the analysis and report.

D was able to recognise the cycle of her anxiety patterns and thoughts. Her understanding of her difficulties in this way favoured a cognitive behavioural formulation. In addition, Hendriks, Oude Voshaar, Keijsers, Hoogduin, and van Balkom's (2008) meta-analysis supports the use of CBT for late-life anxiety.

During the process of discussing her thoughts in various situations, an additional anxiety was revealed. This anxiety was expressed as a thought about being unable to cope without J. Attached to this was a fear about losing J or something 'terrible' happening to her that would render her unable to help D. D described this 'help' as J being practically available to carry out physical tasks, but also emotionally available to be sympathetic, a shoulder to lean on, and someone to enjoy spending time with.



## Formulation

In summary, D reported anxiety, ruminations, and physical symptoms including a 'funny tummy'. As a result, she would worry that she may vomit or need to go to the toilet. This increased her anxiety levels and she worried about this particularly when receiving visitors to her home or when going out. To preempt this, she would avoid eating when expecting visitors and avoided leaving the house. Beliefs about having escaped disaster only as a result of her avoidance-behaviour, then led to further certainty of vomiting/needing the toilet in subsequent 'funny tummy' episodes. D's focus on her physical limitations and symptoms lead her to rely more heavily on J, in turn increasing conviction in her belief that she

cannot cope alone. A 'Downward- arrow' technique revealed underlying beliefs about being weak and vulnerable but also exposed a strong sense that unless D remained needy, her daughter would no longer care for her or visit her. This conditional belief was crucial to the resulting maintenance cycle, along with learned patterns of interactions from experiences in her past.

D's presentation was formulated using Laidlaw, Thompson, Dick-Siskin and Gallagher-Thompson's (2003) Cognitive Model for Cognitive Behaviour Therapy with Older Adults.

In this model, D's early experiences, discussed earlier, and the activating event of G's and P's death, triggered her core beliefs and

### Formulation Part 1 Cognitive Model for Cognitive Behaviour Therapy with Older Adults

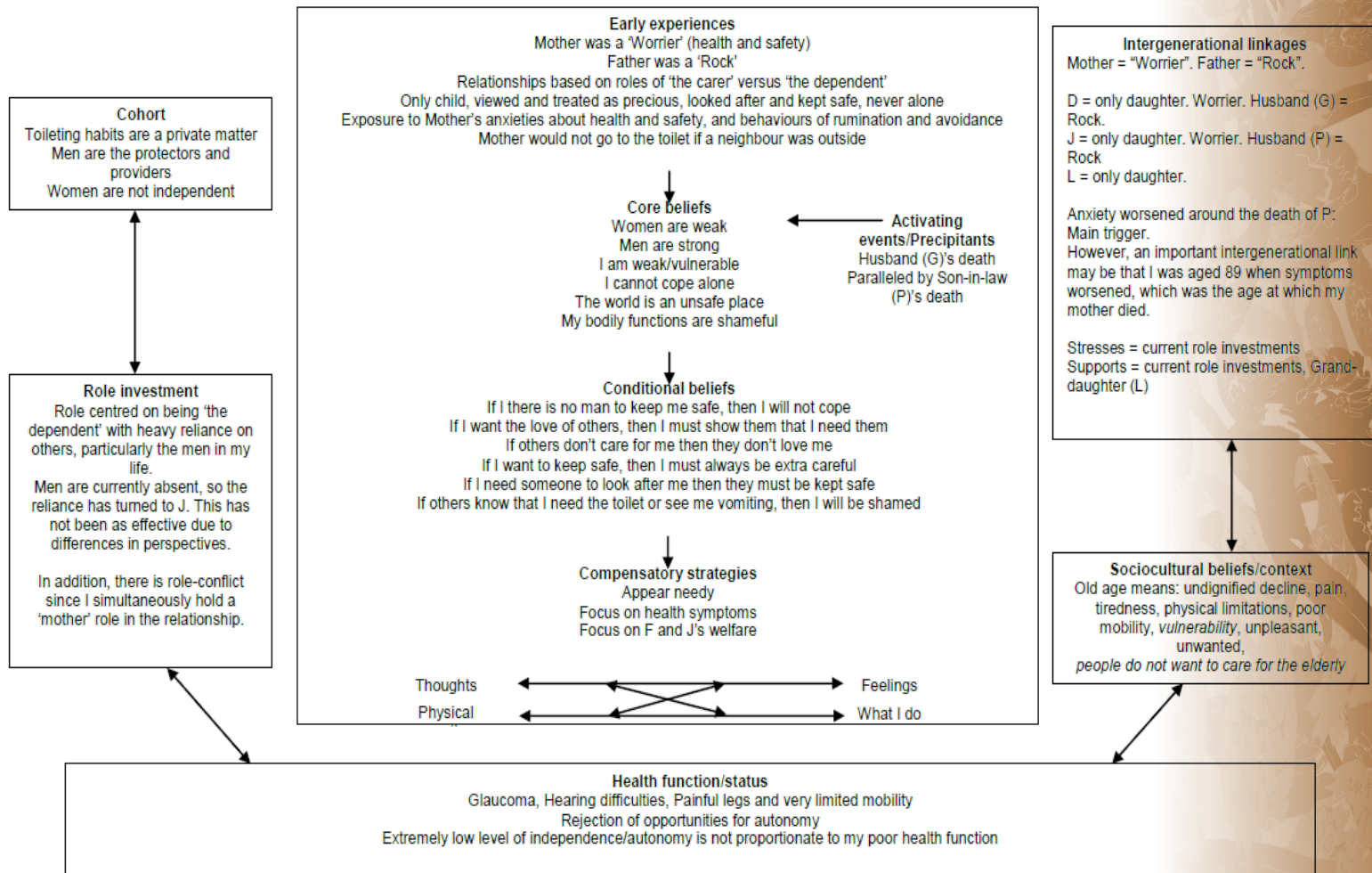


Figure 2(a): Modified Cognitive Model for Cognitive Behaviour Therapy with Older Adults (Laidlaw, Thompson, Dick-Siskin and Gallagher-Thompson, 2003)

conditional beliefs about her vulnerability and activated her self-imposed rules to compensate for this. These combine serially, leading her to employ compensatory strategies of appearing needy and focusing on her health and her daughter as carer. This pattern ultimately generates D's maintenance cycles of thoughts, feelings, physical sensations and behaviour, discussed above, which shaped her presentation and brought about the referral to services. The elements surrounding the evolution of D's formulation include the beliefs of others in her

cohort/generation, sociocultural beliefs, her health- function/status, her role investments and intergenerational linkages. These structure the context in which her cognitions occur. Figure 2 draws together this information and information discussed earlier into Laidlaw et al.'s (2003) model.

### Intervention

After some discussion, D decided on aiming to tackle her anxieties about eating prior to the arrival of visitors, anxieties about going

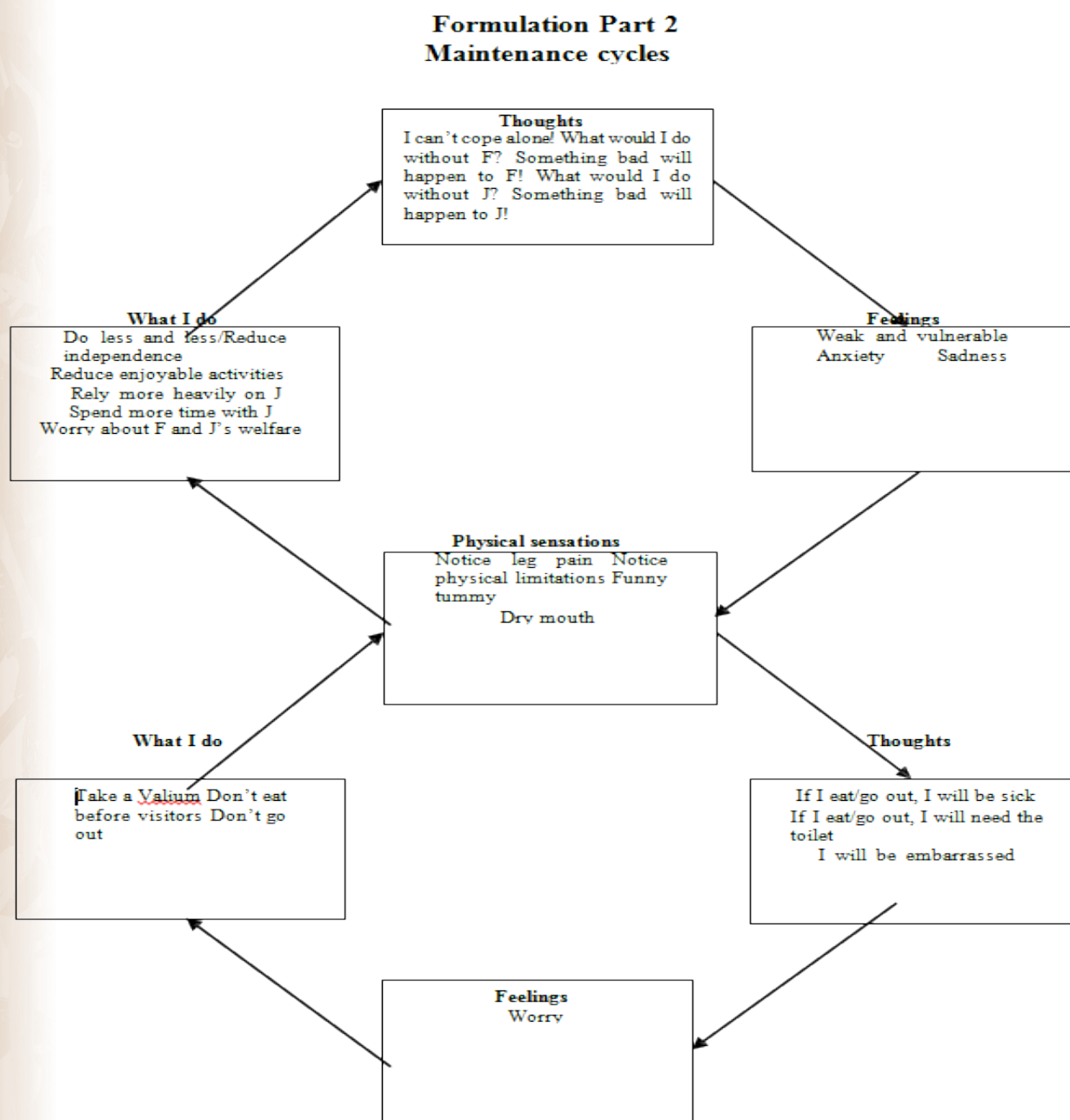


Figure 2 (b): Maintenance Cycles

out and anxieties about being unable to cope without J. There were four intervention sessions carried out in D's house. J attended three of them. The sessions were based on a CBT approach.

The intervention consisted of psychoeducation, thought challenging and exposure to these anxiety-provoking situations. D already had experience of needing to contain her anxiety since there were occasions when she had wanted to telephone J in the middle of the night but chose to wait until a more appropriate time. This experience was used as evidence that she was able to contain her anxiety. Other strategies included relaxation, which she had used successfully in the past; and the use of a mantra which her father encouraged her to use as a child: "I can". Ayers, Sorrell, Thorp and Wetherell (2007) highlight in their review that relaxation and CBT are effective for late-life anxiety.

The first goal was to ensure that D was able to eat satisfactorily. Before beginning with the exposure tasks, she clarified that she was not predicting vomiting as a result of previous experience, but that it had arisen from her 'funny tummy' sensations. Psychoeducation was used to explain that her 'funny tummy' was likely to be due to her anxiety and thoughtchallenging was used to challenge her expectations and provide a more balanced perspective to help D in motivating herself to experiment. She was encouraged to experiment with eating and collect evidence. Psychoeducation was used to explain that once this occurred, it was likely that her anxiety would reduce, along with her 'funny tummy' sensations.

D agreed to attempt eating prior to the arrival of visitors and note her anxiety levels. She agreed to begin with a manageable amount, such as some Maltesers, then half a piece of toast, working up to a sandwich with filling.

Her anxieties about going to the toilet also arose from her 'funny tummy' sensations, therefore, the same principle was applied here. After psychoeducation, D said that she would be

likely to feel less anxious if her 'funny tummy' symptoms lessened, and this would be helped by getting used to the idea of going to the toilet with visitors present. However, she was not prepared to expose herself to the situation by going to the toilet while visitors were present, because she did not find this acceptable. This belief was tackled with questions about how long visitors stayed in the past and what would happen if she or someone else did need to go. D agreed that she would go if absolutely necessary, but this would be the only time she would allow and she predicted that she would feel anxious. However, if the occasion arose, she would use her strategies to contain her anxiety.

The second goal was to ensure that D was able to attend hospital appointments. Since it was the same anxiety preventing her from attending appointments as the one preventing her from eating, it was important for her to have gathered evidence to enable her to challenge her thoughts for the previous goal. Following this, she would use the same strategies to challenge her thoughts and contain her anxiety when attending appointments. A process of graded exposure was agreed with initial outings consisting of going for drives in her granddaughter's car and visits to J's house (three doors along in the same street), where she had not been for over a year. To increase motivation at this stage, J would encourage D to visit her by limiting the number of times she herself visits her mother. This was agreed between them after a conversation in which D admitted she "would be up there like a shot" in the event that J did not visit. In fact, this plan was slow to get underway and D was required to attend a hospital appointment in the second intervention week (which she successfully attended).

The third goal was to challenge D's thoughts about not being able to cope without J's help. The intervention for addressing this belief consisted of Socratic questioning and discussion about tasks that D could carry out for herself, those for which she required assistance, past occasions when J was not available, likely outcomes and problem-solving should this



happen in future. D decided to carry out activities which she had stopped doing but was still capable of carrying out. In addition, there was discussion about taking on a homehelp or befriender who could take on the other chores.

This was a more difficult goal than anticipated because D became concerned that J would no longer visit if she did not need her help. She found this prospect frightening and unacceptable.

Using problem-solving, an agreement was reached in which J would visit D at the same time as the home-help. This would be balanced with visits that D would make to J's house to maintain positive contact. This more flexible perspective was aimed at helping D maintain positive contact with J, in turn challenging her thoughts about necessarily appearing needy to maintain this. It was also aimed at encouraging her to go out using positive reinforcement and help her to challenge thoughts about her ability to cope without J since reliance on J would be reduced.

An A-B single case (quasi) experimental design was used to evaluate the intervention. This design uses repeated measures throughout an assessment or baseline phase (Phase A; in this case, spanning two weeks), and an intervention phase (Phase B; in this case, spanning three weeks). This design is the most basic, since any changes from Phase A to B are attributed to the intervention. Therefore, results must be interpreted with caution because it is entirely possible that the changes may have occurred without the intervention (Kinugasa, Cerin & Hooper, 2004).

#### *Data collection*

*There was no data collected for the first week of the assessment due to the problems of data collection described earlier in the report. The reason for the lack of data for the final week of the intervention was because D had seen improvement in herself and chose not to collect further data; instead preferring to reflect on her efforts and their results in preparation for the final psychology session. The data consisted of outcome variables of Subjective Units of*

Distress (SUDs) along with objective measures of activity:

1. D reported her anxiety level three times a day, every day from week 2 up to and including week 6, giving a total of five weeks worth of data.

Information collected once a day indicated whether or not D had:

1. gone out
2. eaten prior to the arrival of visitors
3. carried out any extra independent activity
4. resisted taking a Valium when feeling distressed
5. resisted calling J when feeling distressed

It was hypothesised that:

- a reduction in D's SUDs;
- eating prior to the arrival of visitors;
- carrying out extra independent activities;
- going out;
- resisting taking Valiums;
- and resisting calling J;

would suggest that the intervention had been effective.

It was acknowledged that all of these changes were unlikely to occur simultaneously and goals would be addressed in turn. However, it was also acknowledged that if general anxiety were to reduce, it would be possible that a knock-on effect on the other measures might occur as D may feel more able to manage her anxiety and engage in other activities. Therefore it was important to collect data for all goals as outcome measures throughout the assessment and intervention phases.

Recording of the latter two measures was inconsistent and so these have been omitted from the study. The data presented in this report shows 35 data points for each of the four remaining measures. A mean average of the three SUDs for each day was taken, resulting in one data point in the form of a 0-10 anxiety rating per day.

## Results

The data was plotted on a line-graph to be inspected visually, and can be seen in Figure 3.

### Visual inspection

The graph shows the four outcome measures throughout the baseline and intervention phases. It is possible to see that there was no extra independent activity, eating before the arrival of visitors, or going out during the baseline phase. However, during the intervention phase, D went out once, ate on nine occasions prior to visitors' arrival, and engaged in extra independent activities once in week five and twice in week six. This data is not included in the statistical analyses due to the small number of data points involved.

It is possible to see peaks and troughs in D's anxiety ratings over the baseline phase. These ratings show general anxiety as well as situation-specific peaks. During the baseline

phase, D was not engaging in any anxiety-rovoking activities and no situations likely to trigger her anxiety arose during that time. There were no situation-specific anxieties which D was able to identify at the time when questioned about the range of her SUD ratings. Since D could not attribute the peaks to any specific event, this phase appears to show general fluctuating anxiety.

In the intervention phase, five situation-specific anxiety peaks are evident:

a) A peak of anxiety is visible on the day on which D ate for the first time before visitors arrived. A clear anticipatory-anxiety peak is also visible on the day before. However there appears to be considerably lower anxiety on five of the subsequent occasions on which she ate before visitors arrived.

b) The peaks at week four/five were in anticipation of going to a hospital appointment, then attending the appointment, and then having

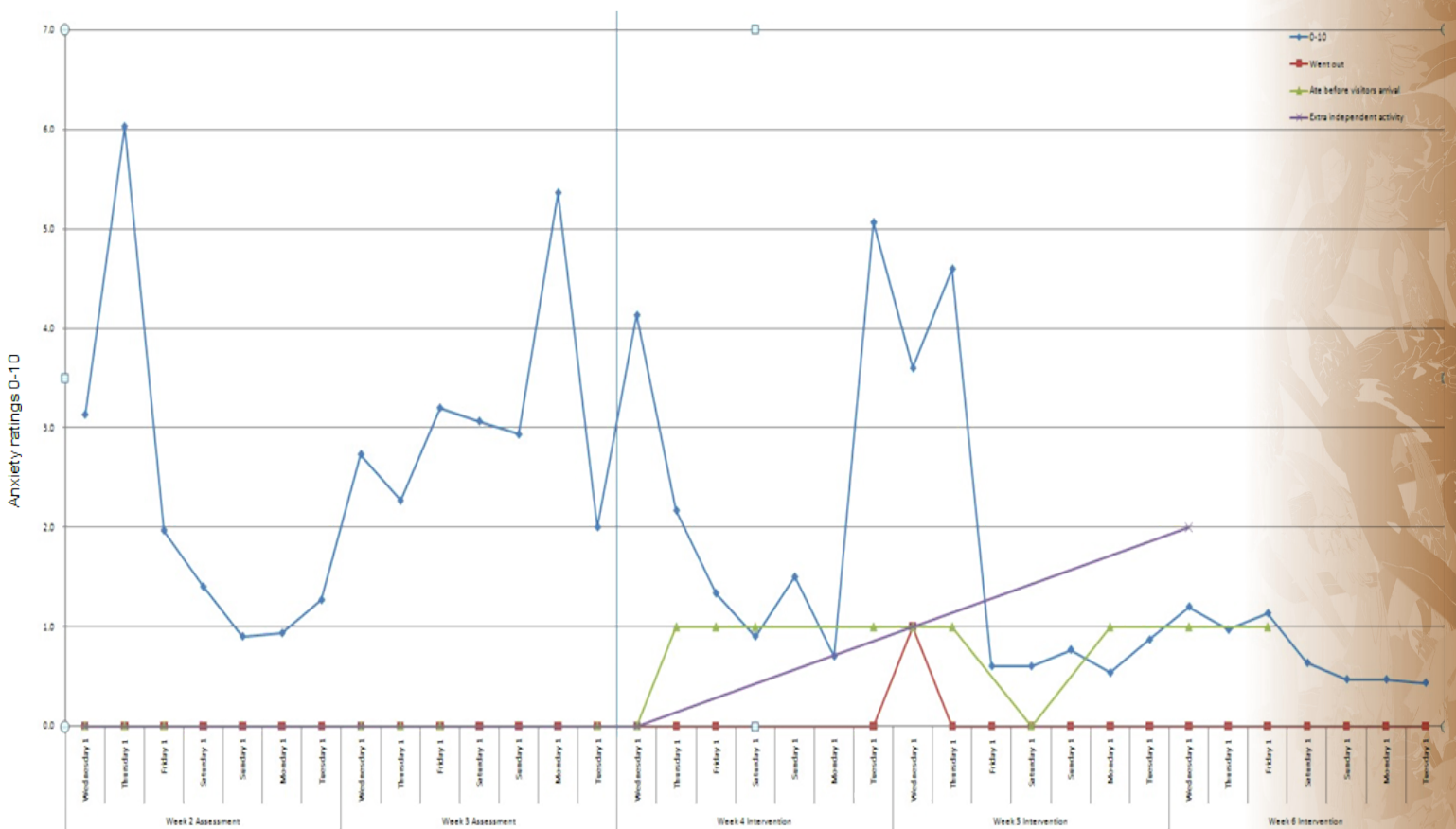


Figure 3 : Graph showing daily anxiety levels, extra independent activity, going out, and eating, through the baseline and intervention phases.

an eye-test at home. It is interesting that D's anxiety peaked at those times, yet she ate before visitors and before going out.

It is important to note that the week four/five peak includes the first time that D carried out an independent activity without help or prompting from J. It also shows lower anxiety in week 5/6 when D carried out two extra activities independently.

The plotted data shows both general and situation-specific anxiety in the intervention phase. However, the baseline phase only shows general anxiety. This introduces a confounding factor when attempting to evaluate the intervention. For improved comparability between the baseline and intervention phases, the situation-specific ratings in the intervention phase were adjusted. This was carried out by calculating the mean of the ratings on either side of the situation-specific SUDs. Figure 4 shows

the general anxiety levels with the identified situation-specific peaks removed.

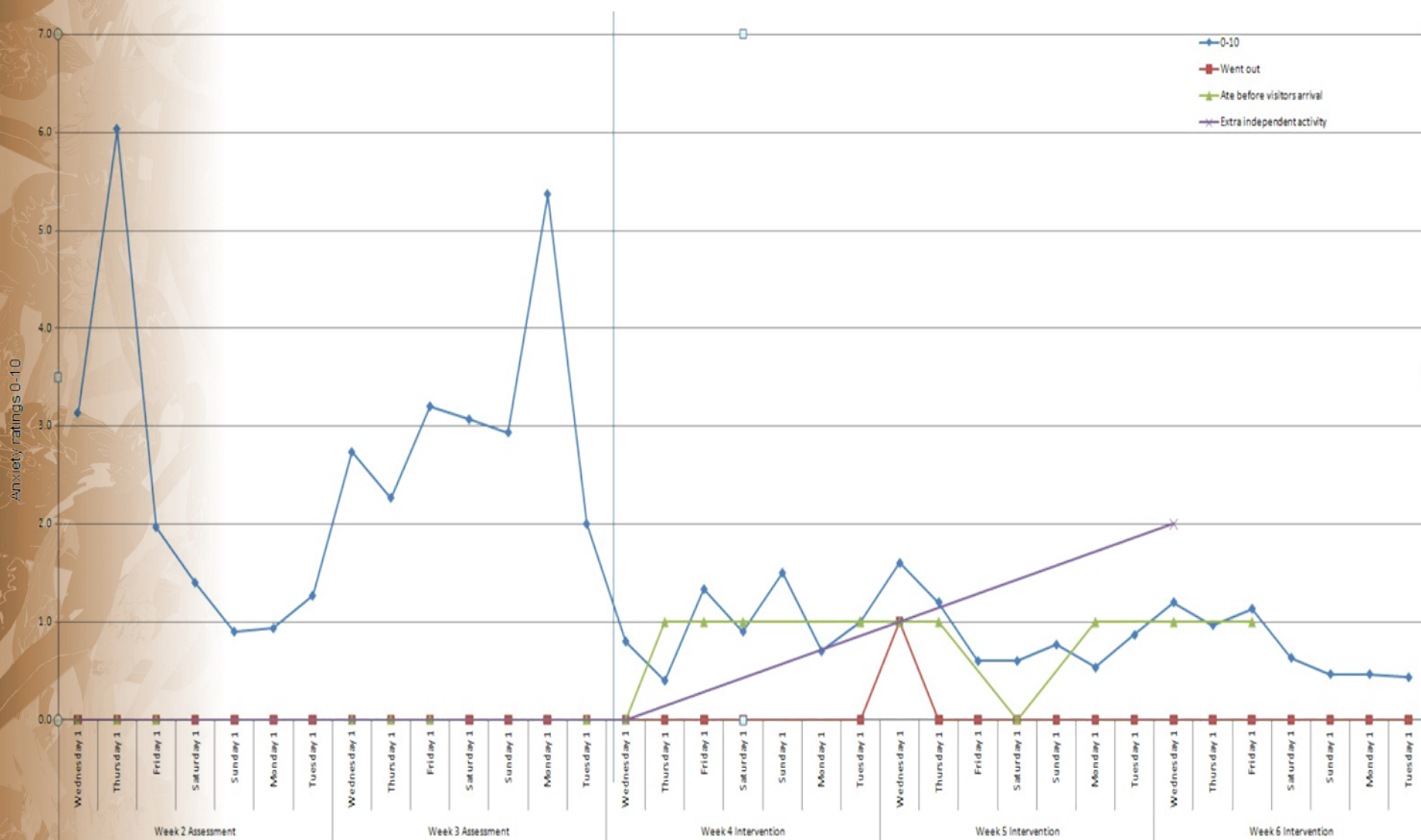
Visual inspection of this graph appears to show a reduction in general anxiety ratings between the baseline and intervention phases.

*Statistical Analysis:*

Statistical analyses are necessary to determine whether or not an intervention has been successful, since visual inspection alone is not enough to ascertain its efficacy.

The first set of analyses was carried out on the daily anxiety ratings, inclusive of the situation-specific anxiety in the intervention phase.

Initial results suggested that the data was autocorrelated:  $r(\text{lag } -1) = 0.242$ . Borckardt et al. (2008), explain that the term 'autocorrelation', sometimes referred to as





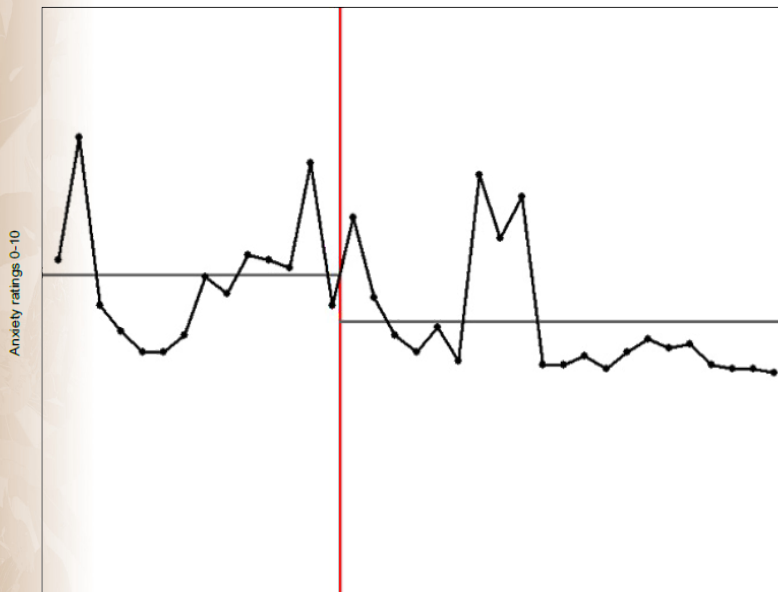


Figure 5 Graph showing daily anxiety data and the non-significant level change

‘serial dependency’ (Kinugasa et al. 2004) refers to a statistical situation of the value of a data-point being largely determined by the value of the data-point that precedes it, and from which subsequent data-points can be predicted. This is often the case in single-case experimental design studies. In such cases, conventional statistical methods are not appropriate because the autocorrelation would bias the results, producing a high risk of making a Type 1 error (an incorrect deduction that there is an effect of phase from assessment to intervention i.e. a conclusion that the intervention was successful when in reality it was not). This is because conventional statistical methods assume that the data-points are independent from each other. Therefore to analyse this data in determining the efficacy of the intervention, Simulation Modeling Analysis (SMA) was used, which is a method that accounts for autocorrelation.

SMA shows that the level change in anxiety ratings from phase A to B was not significant:  $R = -0.349$ ,  $p = 0.131$  (See Figure 5). The slope vector used to test for slope change (Slope Vector 2: 00000...12345...) showed a significant change in slope:  $R = 0.505$ ,  $p = 0.026$ . This reveals little slope in phase A, but a significant downward trend in anxiety ratings in phase B (See Figure 6).

The second set of analyses were carried out on the data comprised of the single data-point per day, but with the situation-specific factors controlled-for, as mentioned above. Initial results suggested that the data was autocorrelated:  $r(\text{lag } -1) = 0.242$ , therefore SMA was used again for data analysis.

SMA shows that the level change in anxiety ratings from phase A to B was significant:  $R = -0.674$ ,  $p < 0.01$  (See Figure 7). The slope vector used to test for slope change (00000...12345...) was chosen because

it best represents what happened in the baseline and theoretically what would have been expected in the intervention. The baseline showed very little slope, therefore “00000” was the best fit for that phase. Expectations of the intervention would have been a steady decline or a stable change. Representation of a steady decline would be “54321” but this was not an available option for this phase in the SMA programme. However, a slope vector of “54321” represents only the reverse of the correlation of “12345”, therefore “12345” was the best fit for that phase. This (00000...12345...) slope vector showed a significant change in slope:  $R = 0.554$ ,  $p < 0.01$  (See Figure 8). This also reveals little slope in phase A, but a significant change from Phase A to B in both level and slope.

Overall, the raw scores suggested a significant change in slope but not in the level. However, when the scores were corrected for situational factors, the results revealed a more marked improvement in anxiety ratings in both slope and level.

constrictiveness of her anxieties were

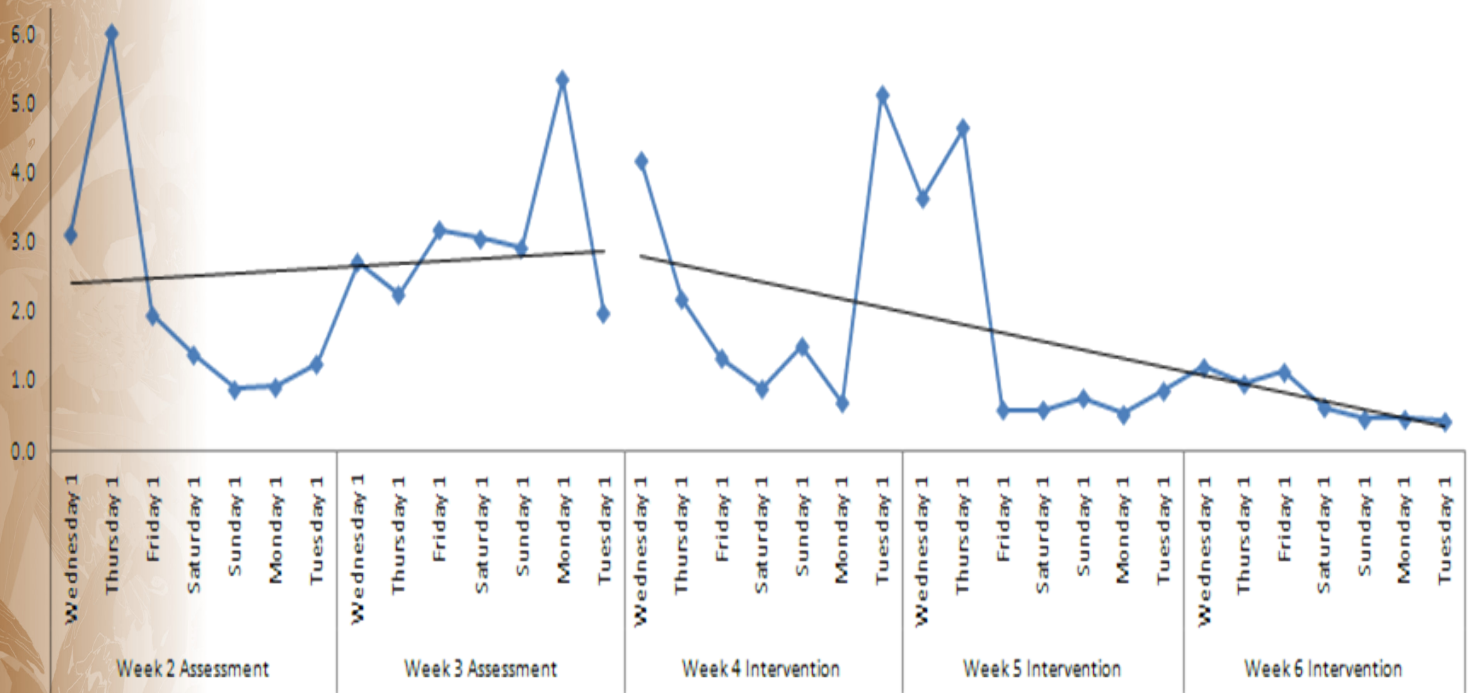


Figure 6 Graph showing daily anxiety data and the significant slope-change

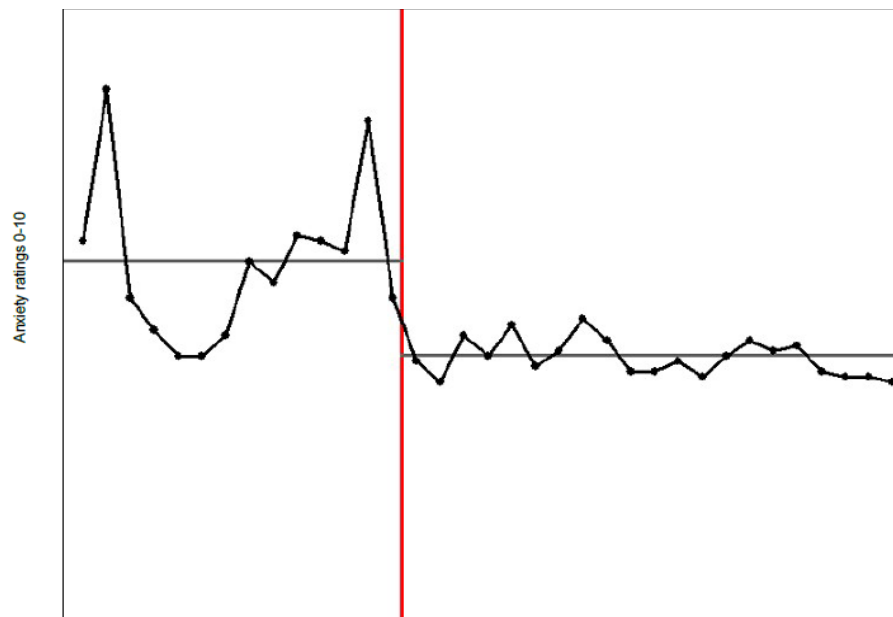


Figure 7 Graph showing daily anxiety data with situation-specific adjustments and significant level change

## Discussion

This paper presented the case of D, who was referred primarily for help with anxieties about vomiting, needing the toilet, and the safety of her daughter and her cat. The

impacting on her daughter's life and reducing D's activity levels to a remarkable extent. Further exploration of the issues involved revealed the nature of D's cognitions as 'fortune-telling', 'catastrophic', 'core anxious thoughts' (Heinrichs, Spiegel & Hofman, 2007)

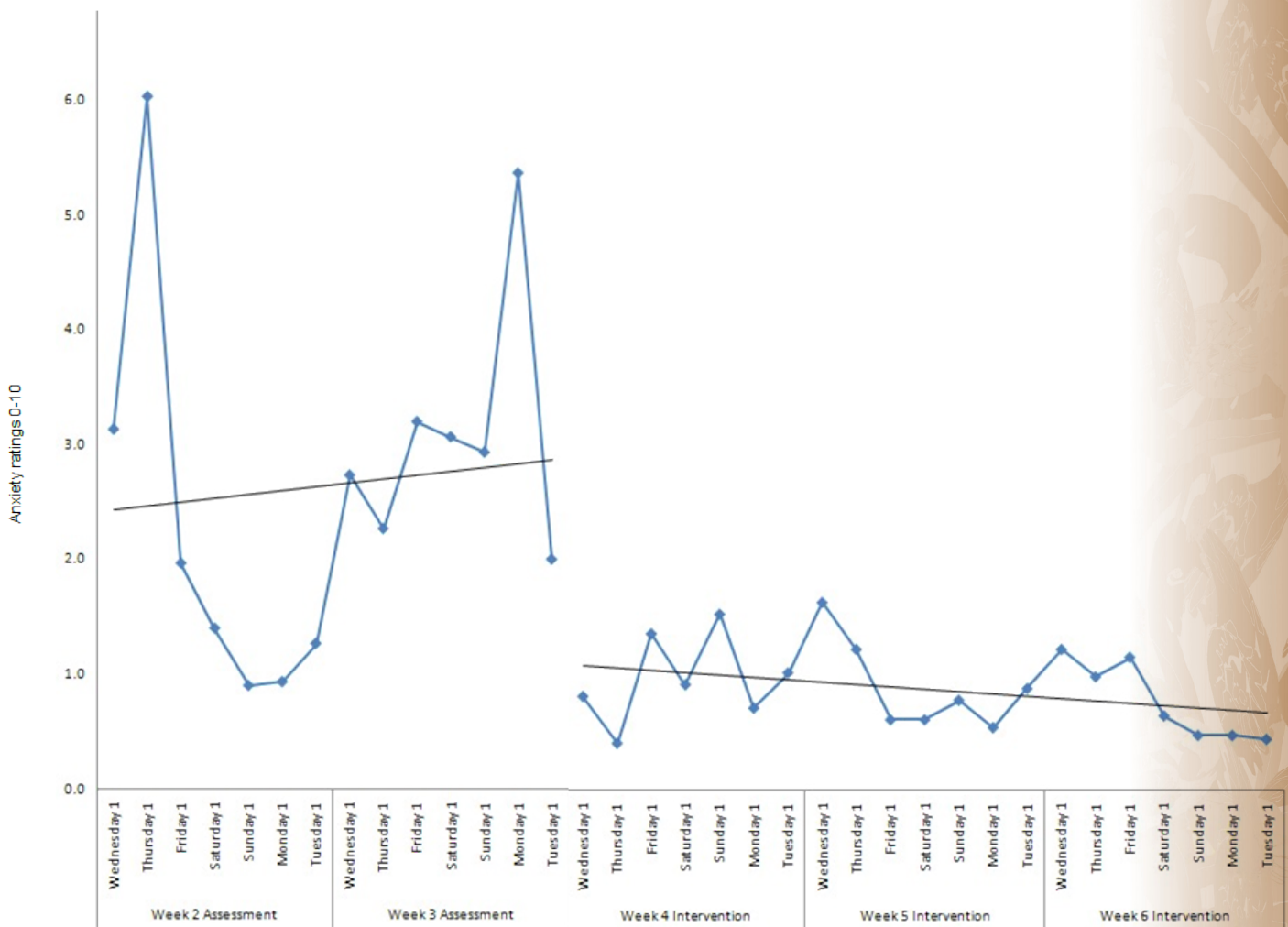


Figure 8 Graph showing daily anxiety data with situation-specific adjustments and the significant slope- change

about her daughter’s safety, and beliefs about her ability to cope. A CBT approach was used with an emphasis on exposure, producing positive results. The statistical analyses suggest that the intervention was successful in reducing D’s general anxiety.

The data indicating extra independent activity, eating before the arrival of visitors and going out, was not included in the statistical analyses. However, it does offer additional information that demonstrates remarkable and clinically meaningful change in behaviour, especially considering that it was not only the baseline phase during which this behaviour was absent, but in fact, had not occurred for quite some time prior to the first appointment. The visual inspection of the raw scores showed that D’s situational anxiety with regard to eating was lower, after the initial exposure, on subsequent

occasions.

By the end of this therapeutic involvement, D was able to eat before the arrival of visitors and before going out. While previously, she had stopped going out, she was able to attend a hospital appointment by the second week of intervention and is currently planning some future outings. She reports that her general anxiety has lowered considerably and that the situation-specific anxiety no longer includes mealtimes. She has begun to complete some tasks independently and is also planning for a home-help to reduce the reliance on her daughter.

Despite the encouraging results, as mentioned earlier, the statistically significant results must be interpreted with caution because of the nature of the A-B design. To measure for



situational changes, rather than general anxiety, a multiple-baseline design would have been more appropriate since it would allow for each situation to be measured and accounted for independently, and any effects could be attributed to the intervention with increased certainty.

Another reason for the results to be interpreted with caution is the decision to use average anxiety ratings per day in the analyses instead of the three SUDs for each day. The effect of any peaks or particularly low anxiety levels during the day may have been offset by other SUDs in the same day, pulling the average anxiety rating in one direction. A more accurate method would have been to analyse all of the SUDs data collected in its raw form rather than condensing it to average ratings. This would also have included identification of anxiety patterns in the times of day across all days. However, this approach would have involved more complexity in accurately describing and capturing the nature of the data and in analysing the results, which seemed unnecessarily complex for this piece of work.

Even though D's general anxiety appears to have reduced, both objectively and subjectively; it is suspected that the situation-specific peaks may continue to feature in D's presentation without continued intervention. Based on her formulation, her peaks are likely to be the result of her beliefs about her ability to cope - or more specifically, her inability to cope in the absence of a male figure to keep her safe. Further work would endeavour to increase her exposure to contrary evidence and employ continued use of the 'challenging' and evaluation techniques.

It is likely that some of the issues involved would have been a central factor in work carried out from a systemic perspective, such as the basis of relationships and intergenerational linkages (Dallos & Stedmon, 2006). Indeed, much of the conversation towards the end of the therapeutic involvement emphasised the relationship between various individuals in D's life and her relationship with anxiety. There is a possibility that the use of more systemic principles to explore D's anxieties could

produce effective results by freeing D to make choices about becoming less reliant on her daughter, whilst reducing the fear of jeopardising their relationship (Dallos & Stedmon, 2006).

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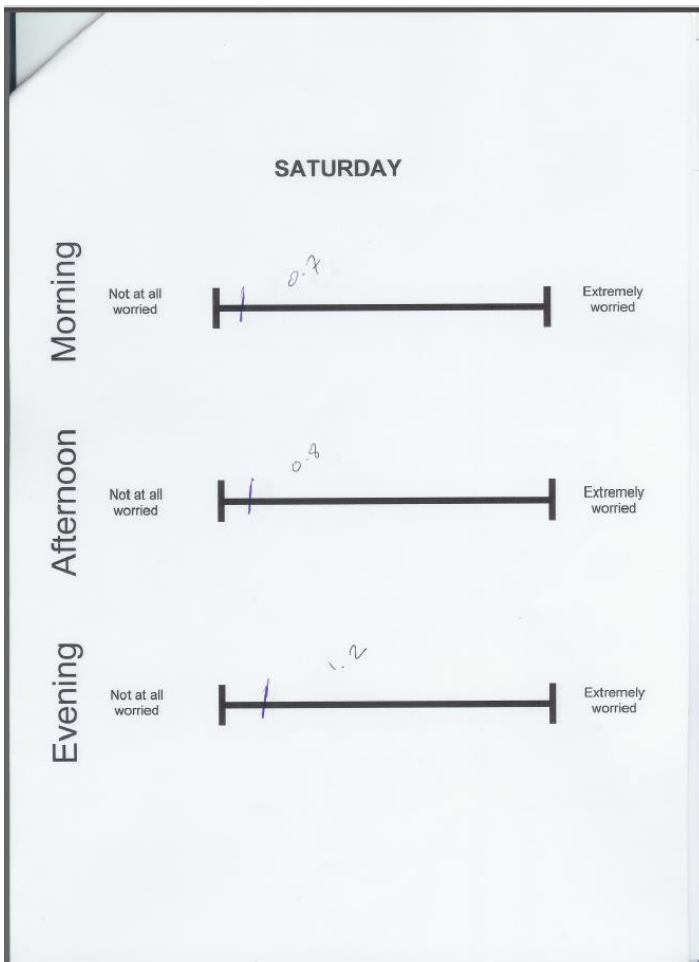
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**Appendix**  
Anxiety monitoring - 100mm lin

## Paranoid Ideation during a Simulated Social Encounter in People with either Psychosis with Persecutory Delusions or Anxiety Disorder

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### Reason for Study

To evaluate differences in the perception of threat in patients, with either psychosis in whom persecutory delusions are a key symptom or an anxiety disorder, during a simulated social encounter task.

### Method

A between groups design in which patients who met DMS-IV criteria for psychosis, with persecutory delusions ( $n=20$ ), were compared to patients with anxiety disorders ( $n=20$ ) as well as a matched healthy control group ( $n=20$ ). Participants observed videos of social encounters and rated the actors on paranoid ideation scales. Semi-structured interviews were used to explore reports of perceived threat.

### Results

Both patient groups provided higher scores ( $p<.01$ ) on a variety of paranoid ideation measures in comparison to the group of healthy controls but did not differ between themselves ( $p>.10$  for all measures). Patients with persecutory delusions inferred more detailed, negative attributes about the actors and failed to integrate the perception of hostile intent with other attributes.

### Major conclusions

Anxiety causes paranoid ideas during person perception in non-psychotic as well as psychotic patients. We propose that cognitive processing in patients with persecutory delusions differs from that of patients with pure anxiety disorders on the basis of poor integration of perceptual attributes and inadequate metacognition during person perception.

**Key words:** Person perception, intentions, persecutory delusion, anxiety.

### Introduction

A persecutory delusion is defined as a strongly held belief that someone, or something, is trying to cause you harm in some way, although to other people the evidence for this is lacking (Gelder et al 1989).

According to one widely accepted theory of persecutory delusions, the threat anticipation model of paranoia (TAMP), high levels of anxiety in patients with these delusions biases cognitive processing such that people are perceived as threatening even when the social situation is neutral, or ambiguous, such as the look on someone's face (Freeman, 2007). Numerous experiments in social psychology, originally designed to evaluate the influence of anxiety on negative stereotyping, have provided strong support for such a bias during person perception (Wilder 1993). Hence it is not surprising to find a similar bias in people with anxiety disorders, who do not manifest persecutory delusions. Indeed perception of threat from other people is the cardinal feature of social phobia (Trower & Gilbert 1989; Salkovskis 1996; Rapee & Heimberg 1997) although this has also been reported in generalized anxiety (Wells & Carter, 2001), and panic disorder with and without agoraphobia (Clark et al 1997), possibly due to the high level of comorbidity between social phobia and the other anxiety disorders (Magee et al 1996).

However clinically we differentiate threat reports in patients with anxiety disorders and those with persecutory delusions. Freeman (2007) considers that patients with persecutory delusions manifest additional cognitive biases, in particular a bias to attribute harmful intentions to others, previously suggested by Frith (1992) and explained in terms of a theory



of mind (ToM) impairment. Alternative suggestions though prevail in the literature. Haut et al (2011) found that the experience of threat in patients with persecutory delusions activates core negative beliefs when perceiving others, which include malevolent intentions. This resonates with the clinical observation that paranoia is characterized by ‘specific negative beliefs about self and others’ (Freeman 2007, p435). Hooker et al (2011) found that patients with persecutory delusions failed to integrate the various perceptual dimensions during person perception to form a coherent whole. As such any perception of harmful intentions might then be reported inappropriately about another person and appear ‘out of context’.

A paucity of experimental studies comparing social perception in patients with persecutory delusions and patients with anxiety disorders means that we do not know whether these groups of patients differ either with respect to their tendency to erroneously infer harmful intentions, or whether such perceptions fail to be integrated with other perceptual attributes. By contrast studies on sub-clinical populations with high or low levels of anxiety using interactions with computer simulated avatars have shown that people with high trait anxiety tend to perceive avatars with suspicion or even as being threatening (Freeman et al., 2010 ;Freeman & Garety, 2004; Freeman et al., 2003; Fornells-Ambrojo, et al., 2008).

The purpose of the current study was to use a simulated person perception task in order to evaluate these different theories of how persecutory ideas are formed. As such we formulated the following hypotheses:

1. During a simulated social encounter, patients with either anxiety disorder or persecutory delusions, will reveal elevated levels of paranoid ideation compared to healthy controls.
2. Patients with persecutory delusions will infer significantly greater levels of harmful intent than patients with anxiety disorders during a simulated social encounter. (Evaluation of TAMP model)
3. Ratings of harmful intentions of actors will not correlate with other dimensions

of paranoid ideation in patients with persecutory delusions. (Evaluation of Hooker et al’s disconnection hypothesis)

4. Patients with persecutory delusions, but not patients with anxiety disorders, will provide verbal descriptions of the threats they perceive in other people which comprise more malevolent, person specific attributes. (Evaluation of Haut et al’s core negative beliefs hypothesis)

## **Methods**

### *Participants*

All patients were recruited through community mental health teams working in the counties of Cambridgeshire and Hertfordshire in England and were aged between 18-65, and spoke English well. Twenty met DSM IV diagnostic criteria for psychotic disorders following the Structured Clinical Interview for DSM IV Disorder (SCID). The other twenty patients had a DSM IV Axis-1 diagnosis of anxiety disorders, without any signs of psychotic symptoms, although this diagnosis was gleaned from case records and discussion with their clinician rather than the SCID. We were particularly selective in choosing only patients with psychotic disorder who also presented with persecutory delusions (persecutory delusions group) on the basis of a score  $\geq 3$  (moderate level of persecutory delusion) on the PANSS scale for Suspiciousness/Persecution Scale (P6). Diagnoses for both patient groups were confirmed by either a psychiatrist, who also completed the PANSS (JP) or a clinical psychologist (GC). A third group of twenty healthy volunteers aged 18-65 with no previous history of mental disorder, formed the healthy control group.

Potential participants with a history of brain injury, intellectual disability, current substance or alcohol misuse or limited understanding of English language were excluded.

The study was approved by one of the UK’s National Health Service Research Ethics Committee (Cambridge and Peterborough REC with ref no.: 07/H0306/99).

## Procedures

All participants were asked to complete a demographic questionnaire which included gender, age, ethnicity, years in education, current employment, and marital status. These data were used to match the two comparison groups (patients with anxiety disorders and healthy controls) with the patients who had persecutory delusions prior to inclusion in the study. Healthy controls were obtained from primary care surgeries or students enrolled on a course at the University of Hertfordshire. All were invited to take part in a computer simulation of social encounters called "Meeting Other People Simulation" (MOPS) and presented with a participant information sheet and consent form. The Beck Depression Inventory – BDI- II (Beck et al., 1996) and the Beck Anxiety Inventory – BAI (Beck et al., 1988) were completed by all participants.

### **Computer Simulation Task - Meeting Other People Simulation (MOPS)**

The MOPS computer simulation comprised a set of video scenes which utilized design features similar to those adopted by Freeman et al. (2005), in particular actors presenting neutral emotional features and performing some everyday behaviour for a brief period of time. The MOPS videos involved real actors whereas

Freeman's used computer generated avatars.

Participants observed a laptop screen where they viewed an image of 2 doors (See Figure 1A) with the written instructions: "Please explore this house, by choosing one of 2 doors. Try to form some impressions of what you think and how you feel about the people in the house and what they think about you". Participants were shown how to use the mouse pad to select one of the doors. The



Figure 1A – Frame requiring a choice be made by the participant

selected door then opened showing a new scene which involved one or two people, either two elderly people sitting at a table chatting and playing cards (see Figure 1B), a young man watching TV in what appears to be a lounge (see Figure 1C) or a young woman in a kitchen putting dishes into a cupboard. None of the actors expressed any positive or negative affect throughout and they were asked to look at the camera periodically (three times each). Each scene lasted approximately 60 seconds at the end of which the 2 doors reappeared with the same instructions. This process continued until the participant had experienced all three scenes in an order determined by the participant's door choice (the third choice was always the remaining scene not previously presented).



Figure 1B – Frame from "two elderly people playing a game of cards".

MOPS was tested for face validity by asking 5 university students to view both SIMS 2<sub>1</sub>, a popular avatar based computer game, and MOPS. After each presentation participants were



asked whether they could infer intentions and emotions in the characters. They were then asked to consider both SIMS 2 and MOPs and indicate whether the attribution of intentions and emotions was easier or more difficult with MOPs. All reported that it was easier to make these attributions with MOPs since it was more realistic.

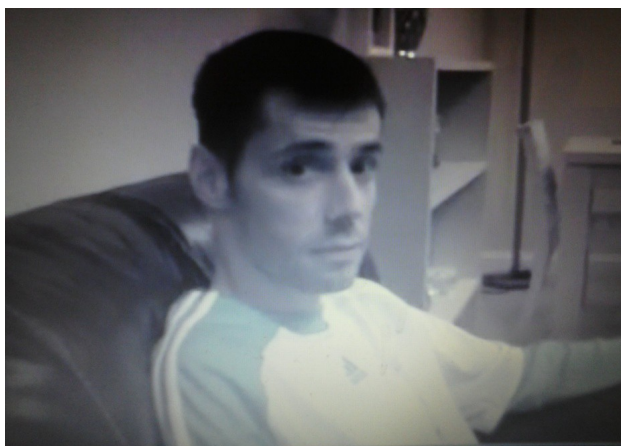


Figure 1C – Frame from ‘Young man watching TV’

### **Measures**

#### **Paranoid Ideation Questionnaires**

We used separate questionnaires to measure the following attributes about the characters in the videos: i) mistrust, ii) perceived power of the actor, iii) threat, iv) harmful intentions of actor.

Although several questionnaires are available for measuring trust and power of others, the questions are worded to assess personality traits or cognitive styles (e.g. have difficulty trusting other people) and so cannot provide a rating of trust toward actors in MOPS. Thus two new questionnaires were designed to specifically assess mistrust and perceived power of others.

#### ***Mistrust Questionnaire***

The questionnaire consists of 5 items each with a Likert-type scale indicating levels of agreement with the question (see Appendix A). High scores indicate high levels of mistrust in the video actors and low scores high levels of trust. The questionnaire was validated using a nonclinical sample (n=30). The criterion for trust was established by asking each participant to consider 3 separate people who they either definitely trust (scored as -1), definitely mistrust (scores as +1) or is trust neutral (scored as 0) and then complete the questionnaire for each. Internal consistency was good (Cronbach's

alpha = +0.86). Convergent validity of the questionnaire with the criterion was excellent  $r = + 0.97$  ( $p < 0.001$ ). Reliability was obtained by repeating measurements a week later ( $r = 0.99$ ,  $p < 0.001$ ). This questionnaire was presented after each of the video sketches.

#### ***Power of Others Questionnaire***

Power was considered to include superiority of another in the areas of stature, intelligence and worth (See Appendix B). Likert-type scales were used to indicate levels of agreement with the question. High scores indicated high levels of perceived power in the actors and vice versa. A similar validation exercise was used to that described above for the Mistrust Questionnaire with the wording changed to assess perceived power of others. Data from the pilot study produced a Cronbach's alpha of +0.70 indicating a satisfactory level of internal consistency and a correlation of +.96 ( $p < 0.001$ ) between questionnaire scores and the criterion measure providing evidence of excellent convergent validity. Test-retest reliability was high ( $r = .99$ ,  $p < 0.001$ ). This questionnaire was also presented after each of the video sketches.

#### ***Details of Threat Questionnaire***

This questionnaire was completed after all video sketches had been presented. Participants responding affirmatively that they had the belief that there was someone or something threatening in the videos were asked to complete the Details of Threat Questionnaire (adapted from Freeman & Garety, 2004). This comprises 10 questions worded in the second person (4 questions requiring a categorical ‘Yes/No’ response and 6 with Likert scales ranging from 0-10 which were used to derive a summed severity of threat score -see Appendix C). If a participant indicated that they did not



have any experience of harm or threat then the severity questions were not asked and a threat score of zero was assumed. Once the questionnaire had been completed the interviewer would seek a verbal explanation from the participant for their ratings by asking probe , but not leading, questions. For example if on Q1 the participant had responded affirmatively that they knew the person then probe questions were used to explore the nature of this acquaintanceship and how well they knew the person . Where necessary the interviewer would repeat back his understanding of the explanation given and seek validation from the interviewee.

### ***Harmful Intentions Questionnaire***

This was derived from the Virtual Reality Questionnaire (Freeman et al., 2005). The original questionnaire comprises of 15 statements requiring an “Agree” through “Disagree” rating on a 4 point scale. There are three sections of 5 questions each, namely persecutory ideation, neutral ideation and positive ideation toward others respectively. The wording of items in all three sections asks about the intentions of the actors, hence we considered the questions on persecutory ideation (Questions 1-5) to provide a valid measure of inferred harmful intent of the actors. Minor word changes were required to reflect the context seen in the three videos. e.g. “Someone in the house had bad intentions towards me” ( see Appendix D). This questionnaire was completed after all video sketches had been presented.

### Mood State Questionnaires

#### ***Beck Depression Inventory (BDI-II) (Beck et al., 1996)***

The BDI-II is the second edition of the Beck Depression Inventory. This is a 21-item self-report instrument for measuring the severity of depression.

#### ***Beck Anxiety Inventory (BAI) (Beck et al., 1988).***

The BAI is a 21 item scale that measures the severity of anxiety.

### **Data Analytic Strategy**

Four hypotheses were described in the Introduction. Hypothesis 1 makes the prediction that the patients with anxiety disorders and patients with persecutory delusions should both obtain higher scores for measures of paranoid ideation compared to healthy controls. Since we had 4 dependent measures of paranoid ideation (See paranoid ideation questionnaires’ section) we used a multivariate analysis of variance ( MANOVA ) to compare the groups . If this hypothesis is true then we would expect a significant main effect of group , due to the two patient groups scoring higher than the healthy controls but not differing between themselves.

Hypothesis 2 (test of TAMP model) makes the sole prediction that patients with persecutory delusions will obtain higher scores on the Harmful Intentions Questionnaire than either the patients with anxiety disorders or the healthy controls. This was evaluated by taking a total score on this questionnaire for each participant and conducting an ANOVA to see if there was a main effect of group and if so then a series of post hoc comparison to evaluate the source of any group differences.

To evaluate Hypothesis 3 (test of Hooker et al’s disconnection hypothesis) correlation matrices were generated for each group using the 4 different measures of paranoid ideation. If the hypothesis is true then scores on the Harmful Intentions Questionnaire will correlate with other measures of paranoid ideation only in the anxiety disorders group and healthy controls but not in the persecutory delusions group.

To evaluate hypothesis 4 (test of Haut et al’s core negative beliefs hypothesis ) each interview was coded by one of us (GC) for reports of inferred attributes that could not be perceived visually such as the actor’s personality , intentions, knowledge, emotions, or other characteristics that had to be inferred. We further rated any such inferred attributes on the basis of whether they included specific malevolent details with clear conviction ( score = 2) or general negative comments or malevolent attributes held with partial

conviction . For example the young man ( See Fig 1C) was frequently reported to be threatening and following interview was variously described as “ I know him he is a drug dealer” ( Score=2) or “ He is very threatening “ ( score=1) Thus each interview received a single score. If a patient produced at least one explanation that received a score of 2 then this trumped the other scores.

If Hypothesis 4 ( test of Haut et al’s core negative beliefs hypothesis) is true then the patients with persecutory delusions should provide more explanations receiving a score of 2 than patients with anxiety disorders using a Fisher Exact test.

## Results

### Demographic details of Participants (Table 1)

All patients in the persecutory delusions group obtained at least a score of 3 on PANSS scale P6. Good matching was obtained for the anxiety disorders and healthy controls groups with the persecutory delusions group for all demographic variables. Fourteen of the patients in the persecutory delusions group received a diagnosis of schizophrenia (paranoid type), 3 schizoaffective disorder , 2 delusional disorder and 3 psychosis not otherwise specified. All patients in the anxiety disorders group met criteria for DSM IV axis 1 anxiety disorder of which a primary diagnosis was given as panic

**Table 1. Demographic details of the Participants.**

| Variable                   | Anxiety Disorders (n=20) | Persecutory Delusions (n=20) | Healthy Control (n=20) | Statistic                     |
|----------------------------|--------------------------|------------------------------|------------------------|-------------------------------|
| <b>Gender</b>              |                          |                              |                        |                               |
| Male                       | 13(65%)                  | 16(80%)                      | 14 (70%)               | $X^2 = 1.2, df=5$<br>$p=0.95$ |
| Female                     | 7 (35%)                  | 4 (20%)                      | 6 (30%)                |                               |
| <b>Ethnicity</b>           |                          |                              |                        |                               |
| White European             | 19 (95%)                 | 16 (80%)                     | 18 (90%)               | $X^2 = 2.3, df 5$<br>$p=0.8$  |
| Other                      | 1 (5%)                   | 4 (20%)                      | 2 (10%)                |                               |
| <b>Age(years)</b>          |                          |                              |                        |                               |
| Mean (SD)                  | 38.7(11.6)               | 34.6(9.7)                    | 35.9(12.1)             | F-ratio<br>$p=.491$           |
| <b>Higher Education</b>    |                          |                              |                        |                               |
| Yes                        | 6 (30%)                  | 3 (15%)                      | 8 (40%)                | $X^2=3.1,df=5$<br>$p=0.7$     |
| No                         | 14 (70%)                 | 17 (85%)                     | 12 (60%)               |                               |
| <b>Employment</b>          |                          |                              |                        |                               |
| Employed                   | 2 (10%)                  | 10 (50%)                     | 10 (50%)               | $X^2=9.8,df=8$<br>$p=0.2$     |
| Unemployed                 | 18 (90%)                 | 9 (45%)                      | 10 (50%)               |                               |
| Retired                    | 0 (0%)                   | 1 (5%)                       | 0 (0%)                 |                               |
| <b>Marital Status</b>      |                          |                              |                        |                               |
| Single/divorced            | 11 (55%)                 | 9 (45%)                      | 7(35%)                 | $X^2 = 1.6,df=6$<br>$p=0.89$  |
| Married                    | 9 (45%)                  | 11 (55%)                     | 13(65%)                |                               |
| <b>Clinical Depression</b> |                          |                              |                        |                               |
| BDI $\geq$ 20              | 13                       | 14                           | 1                      |                               |
| <b>Clinical Anxiety</b>    |                          |                              |                        |                               |
| BAI $\geq$ 16              | 19                       | 14                           | 1                      |                               |

**Table 2 Mean (SD) Scores for 4 Dimensions of Paranoid Ideation in the MOPS task.**

| Group                  | Trust      | Power of<br>Others | Threat     | Harmful<br>Intent |
|------------------------|------------|--------------------|------------|-------------------|
| Psychotic (n=20)       | 48.5(12.0) | 37.7(12.8)         | 34.7(15.0) | 10.9(2.9)         |
| Anxious (n=20)         | 49.6 (9.6) | 38.8(11.2)         | 37.2(12.1) | 12.2(3.0)         |
| Healthy Control (n=20) | 34.7 (9.3) | 14.5 (7.3)         | 0.0 (0.0)  | 5.3 (3.9)         |

disorder (n=2), social phobia ( n=3) , GAD (n=3) , agoraphobia ( n=3), OCD ( n=4) , PTSD ( n=2 ) with no specific diagnosis being given for the remaining three.

Table 1 also presents the frequencies of co-morbid depression (BDI-II  $\geq$  20) and anxiety (BAI  $\geq$  16). 70% of the people with persecutory delusions had co-morbid anxiety and 70% depression. In the anxiety disorders group 65% had co-morbid depression. In the healthy control group only 5% met criteria for either clinically significant anxiety or depression but in both cases the participants' scores were on the margins of clinical significance. These rates for the co-morbidity of anxiety and depression in patients with persecutory delusions are similar to those reported in previous studies (Mueser, et al., 2008; Matejkowski et al 2008; Green, et al., 2006).

Means scores for BAI and BDI-II differed significantly between the 3 groups ( $p < .001$  for both BAI and BDI) due to both patient groups scoring higher than the healthy controls ( $p < .001$ ), but there was an absence of any difference between the patient groups on either measure.

*Results - Hypothesis 1*

Means (SD) for all 4 measures of paranoid ideation are presented in Table 2 for each of the three groups.

Since none of the controls reported that any of the actors was threatening the severity questions in the Details of Threat Questionnaire were not asked (see test administration in section 2.3.1) and we have therefore assumed a mean score of zero and zero variance. As such the MANOVA was calculated using the other 3 paranoid ideation variable and excluding the severity of threat variable. However, zero falls well outside the 99% confidence intervals for the means of both clinical groups which indicates a substantially greater level of threat in both patient groups ( $p < .01$ ). Pillai's Trace was used as our multivariate test for statistical significance. Group differences in the MANOVA were significant,  $F(6, 106) = 10.7, p < .0001$ . This group difference completely disappeared with removal of the healthy control group from the analysis,  $F(3, 36) = .78, p = .5$ , which indicates that the two patient groups differed little and both differed significantly from the healthy controls.



### *Results - Hypothesis 2*

The ANOVA for the measure of harmful intentions produced a significant main effect of Group,  $F(2, 57) = 24.9, p < .0001$ . Post hoc group comparisons (t-test) revealed that the healthy control group obtained lower scores than both patient groups ( $p < .0001$  in each case). Contrary to the hypothesis though, the standardized effect size (Cohen's  $d$ ) for the difference in mean scores between the healthy controls and the patients with anxiety disorders was 1.9, indicating a large effect size. Also contrary to this hypothesis the post hoc t-test, comparing scores for the two patient groups, produced a significant difference ( $t=2.3, df=38, p=.02$ ) in the opposite direction to that predicted, in so far as the patients with anxiety disorders obtained higher scores than the patients with persecutory delusions.

### *Results - Hypothesis 3*

This hypothesis stipulated that the perception of harmful intentions by patients with persecutory delusions would not be integrated coherently with other perceptual dimensions. For the persecutory delusions group, harmful intention scores failed to correlate significantly with scores on any of these other dimensions –namely severity of threat ( $r = .33, p > .05$ ), mistrust ( $r = .00$ ), and power of others ( $r = -.13$ ) even when using a liberal 1-tailed test of significance. However in the anxiety disorders group we did observe significant correlations between the harmful intentions score and the scores for severity of threat ( $r = .58, p < .01$ ), power of others ( $r = -.43, p < .05$ ) but not mistrust ( $r = -.19$ ). In the healthy controls group we could not explore the correlation between harmful intentions and severity of threat due a floor effect on the latter. However the correlation with mistrust was significant ( $r = -.6, p < .01$ ) but the correlation with the power of others score was not significant ( $r = .01, p > .05$ ).

From these results it would seem that the attribution of harmful intentions by the persecutory delusions group were not integrated

with other perceptions, whereas they were well integrated in the anxiety disorders group.

### *Results - Hypothesis 4*

55% of patients with anxiety disorders and 75% of patients with persecutory delusions produced scores  $> 0$  indicating that they inferred negative personal attributes to the actors. However in the patients with anxiety disorders only 5% ( $n=1$ ) were given a score of 2 (person specific attributes inferred e.g. “He is a paedophile”) compared to 35% ( $n=7$ ) of the patients in the persecutory delusions group (Fisher Exact  $p = .04$ ).

### **Discussion**

In the Introduction we proposed four hypotheses. Our findings provided evidence to support hypotheses 1, 3 and 4 and refute hypothesis 2.

The findings relevant to hypothesis 1 corroborate much previous work on the tendency for people with high levels of anxiety to perceive threat in neutral, or ambiguous, social situations. Two influential theories have been used to explain these findings, namely the cognitive motivational theory of anxiety (Mogg and Bradley 1998) and the selective processing theory of Mathews and Macintosh (1998). Both theories consider that anxiety biases implicit (nonconscious) perceptual processing of stimuli as well as explicit (conscious) interpretations thereby increasing the experience of threat. Recent fMRI and PET studies endorse this dual influence of anxiety, by demonstrating that anxiety increases activity in a thalamo- mygdala circuit that can prime implicit processing of threat, as well as increasing activity in pre-frontal cortex that would enhance explicit processing of threat (Bishop 2008). Biasing the implicit processing of stimuli will result in automatic activation of cognitive and action schema associated with threat as well as raising the level of physiological arousal. In the context of the current study we consider that the priming of implicit processes will lead to a general bias in perceptual systems which

exaggerates perceptions of threat, mistrust, and personal vulnerability (excessive power of others) as well as the attribution of harmful intentions in other people. This priming will also activate the core beliefs that each patient routinely activates and which characterize their clinical presentation. This would explain the findings that were relevant to hypotheses 1,2 and 4.

The bias that anxiety exerts via pre-frontal cortical systems will influence selective attention as well as meta-cognitive and other executive processes which are required to evaluate the veracity of negative beliefs and search for alternatives (Depue et al., 2007).

The lack of correlation between ratings of perceived harmful intentions and threat severity in the patients with persecutory delusions endorses the findings of Hooker et al. (2011), suggesting that persecutory delusions can result from a failure to coordinate the networks involved in the integration of different cognitive processes during person perception (Hypothesis 3).

However none of these explanations account for why it is that patients in the persecutory delusions group used more person specific, malevolent explanations for their feelings of threat (Hypothesis 4). We reconcile these findings by implicating a generalized failure of vulnerable pre-frontal cortical systems that mediate meta-cognitive regulation, and the coordination of different cognitive processes which may be exacerbated by high levels of anxiety (e.g. Depue et al., 2007). These executive cognitive processes are known to be vulnerable in people with delusions, for example poor meta-cognitive processing is thought to incline patients with delusions to jump to conclusions (Garety et al 2005), or fail to inhibit implausible interpretations that form the basis of delusional beliefs (Turner and Coltheart, 2010).

A number of potential limitations need to be noted. Our groups were not large (n=20), although satisfactory statistical power was obtained in so far as we observed statistically significant differences between both patient groups and the healthy controls. This may well be due to our selection criteria for the patients with persecutory delusions which enhanced the homogeneity of this group. The employment rate of 50% in this group might be thought to indicate an unusual sample, although similar levels of employment are quite often reported in patients who are in an early intervention service (Henry et al., 2007; Chen et al., 2011), which were implemented in all community mental health services in England and Wales since 2004. Finally, there were methodological limitations with our semi-structured interviews which we could not avoid, especially having knowledge prior to each interview of the service making the referral of each patient, and hence the likely diagnosis. Also coding of interviews was completed by one of us (GC) and so we did not assess inter-rater reliabilities, although this choice was made following pilot work in which we found that the simplicity of the coding scheme meant complete agreement between raters.

## APPENDIX A – Trust Questionnaire

In relation to the character(s) during the simulation ...

|  |       |        |           |       |            |
|--|-------|--------|-----------|-------|------------|
| Q1. If he tried to talk to me I would have felt comfortable responding | Never | Rarely | Sometimes | Often | Very Often |
| Q2. I thought that he could end up being my friend                     | Never | Rarely | Sometimes | Often | Very Often |
| Q3. I would not mind letting him know more about me                    | Never | Rarely | Sometimes | Often | Very Often |
| Q4. I felt that I would never trust that person                        | Never | Rarely | Sometimes | Often | Very Often |
| Q5. I was curious to initiate a conversation with that person          | Never | Rarely | Sometimes | Often | Very Often |

Questions 1,2,3,5 were scored as “Never” =4 through “Very Often”=0. Scoring of Q5 was reversed.

## Appendix B - Power of Others Questionnaire

In relation to the character(s) during the simulation ...

|   |       |        |           |       |            |
|---|-------|--------|-----------|-------|------------|
| Q1. I felt small next to him                            | Never | Rarely | Sometime  | Often | Very Often |
| Q2. I thought he was cooler than me                     | Never | Rarely | Sometimes | Often | Very Often |
| Q3. I felt he was more attractive than me               | Never | Rarely | Sometimes | Often | Very Often |
| Q4. I felt he was threatening                           | Never | Rarely | Sometimes | Often | Very Often |
| Q5. I thought he was more intelligent and wiser than me | Never | Rarely | Sometimes | Often | Very Often |
| Q6. I felt that I was worthy compared him               | Never | Rarely | Sometimes | Often | Very Often |

Questions 1 - 5 were scored as “Never” =0 through “Very Often”= 4. Scores for Q5 were reversed.



APPENDIX C – Details of Threat Questionnaire <sup>2</sup>

This questionnaire has ten questions about the harm that you believe is going to happen or is happening.

1. Do you know who it is that is trying to harm you?

Yes / Maybe / No

2. How powerful is the person(s) trying to harm you? Please circle a number

0 1 2 3 4 5 6 7 8 9 10  
 No Power Extremely Powerful

3. What exactly is the type of harm that you expect to happen or that is happening (e.g. is the threat physical or verbal or both?)

.....

4. When do you think the harm is most likely to happen? Please circle one of the time periods

0 1 2 3 4 5 6 7 8 9 10  
 Long time ago Today

5. Where will the harm most likely occur? Please circle one of the options

Inside the house / outside the house / both in or outside the house.

6. How sure are you that the harm is happening? Please give a percentage estimate of the strength of your belief (0-100%) \_\_\_\_\_

7. How distressing is your belief that harm is going to happen or is occurring? Please circle a number

0 1 2 3 4 5 6 7 8 9 10  
 Not Distressing Extremely Distressing

8. If the threat did happen, how awful would it be? Please circle a number

0 1 2 3 4 5 6 7 8 9 10  
 Not Awful Extremely Awful

9. How well would you cope if the threat did occur? Please circle a number

0 1 2 3 4 5 6 7 8 9 10  
 Could not cope at all Would cope extremely well

10. Sometimes people who think harm is going to happen think that they may deserve this harm. Do you feel as if you deserve to be harmed in the way you have talked about? Please circle one of the options

Yes / Maybe / No

(The Threat Severity measure comprised the sum of scores given in response to questions 2, 4, 6, 7, 8, 9 with reversal of score for Q 9)

APPENDIX D – Harmful Intentions Questionnaire<sup>3</sup>

Please indicate which statement describes better your opinion about the characters in the house by ticking in the appropriate box

|  | I do not agree | I agree a little | I agree moderately | I totally agree |
|--|----------------|------------------|--------------------|-----------------|
|--|----------------|------------------|--------------------|-----------------|

1. Someone in the house was hostile towards me.
2. Someone in the house would have harmed me in some way if they could.
3. Someone in the house had it in for me.
4. Someone in the house was trying to make me distressed.
5. Someone in the house had bad intentions towards me.

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## Etiology and Treatment of a Case of Trichotillomania

Etiología y Tratamiento de un Caso de Tricotilomanía

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### Abstract

A clinical case scenario of a 12 years old adolescent with a Trichotillomania is presented in this paper. A principal causal factor related to the child's high anxiety levels was identified. This was taking place in certain situations of social nature, such as those in which the patient had to interact with peers and others in which there was an expectation of performing in a public context, which she experienced with significant emotional distress. The emotional distress was regulated later on by pulling her hair. Several therapeutic objectives were discussed; (1) reduction of the frequency of trichotillomania episodes, (2) reduction of the anxious-depressive symptomatology and (3) attain a better social and academic functioning. The goals were achieved utilising a cognitive-behavioural approach. The results indicated that the problema behaviour was extinguished and a significant reduction of social anxiety was also observed. The results supported treatment efficacy.

**Key Words:** trichotillomanía, etiology, social anxiety, treatment, cognitive-behavioural, adolescence.

### Resumen

En este artículo se describe el caso clínico de una adolescente de 12 años con diagnóstico de Tricotilomanía. Se identificó como principal factor causal el alto nivel de ansiedad que la menor presentaba en ciertas situaciones de tipo social, como aquellas en las que tenía que interaccionar con iguales y otras en las que se le demandaba alguna actuación en público, lo que vivía con un nivel de malestar emocional muy significativo, que posteriormente regulaba con la conducta de arrancarse el pelo. Se plantearon

como principales objetivos terapéuticos los siguientes: reducir la frecuencia de los episodios de tricotilomanía y la sintomatología ansioso-depresiva y conseguir un mejor funcionamiento en el ámbito social y escolar. Para ello se emplea una intervención de tipo cognitivo-conductual. Los resultados obtenidos son positivos, debido a que se elimina la conducta problema y se produce un descenso significativo de la ansiedad social, lo que confirma la eficacia del tratamiento.

**Palabras clave:** tricotilomanía, etiología, ansiedad social, tratamiento, cognitivo-conductual, adolescencia.

### Introducción

La tricotilomanía, encuadrada dentro de los trastornos del control de los impulsos no clasificados en otros apartados en el DSM-IV-R (APA, 2002) y que pasa a incluirse en la categoría de trastorno obsesivo-compulsivo y relacionados en el DSM-5 (APA, 2014), consiste en arrancarse el propio pelo de manera recurrente y compulsiva debido a una irresistible tensión que experimenta el sujeto hacia dicha acción. El vello puede arrancarse de diversas zonas del cuerpo, por ejemplo la cabeza, cejas, pestañas, brazos o vello púbico. Esta acción puede ser seguida, o no, de morder la raíz del pelo e incluso de comérselo.

Las consecuencias derivadas de este trastorno pueden afectar tanto física como psicosocialmente a los pacientes afectados (Christenson y Mansueto, 1999; Stemberger, Thomas, Mansueto y Carter, 2000).

A pesar de que en la actualidad se están incrementando el número de investigaciones con personas que sufren tricotilomanía

(Morales, 2012), los resultados obtenidos no son concluyentes en algunos aspectos tales como la etiología o la intervención (Duke, Keeley, Geffken y Storch, 2010).

En este marco cobra sentido el caso clínico que a continuación se describe, con los objetivos de examinar el papel causal que la ansiedad social puede ejercer en el desarrollo de una conducta de tricotilomanía y estudiar la eficacia de la intervención cognitivo-conductual en el tratamiento de este problema.

### Descripción del Caso

Presentamos el caso de una menor de 12 años, remitida desde el servicio de Dermatología Infantil, por presentar conductas de arrancarse el pelo de forma compulsiva y recurrente de un año de evolución. En el momento de la evaluación inicial existía una pérdida de cabello significativa (cuero cabelludo) y presencia de malestar clínicamente significativo, ya que se encontraba muy angustiada por el temor a que en el instituto se dieran cuenta de que le faltaba pelo y para que esto no ocurriera llevaba una felpa gruesa que cubría la zona afectada, y presentaba intensos sentimientos de vergüenza y culpa por ello. Presentaba también onicofagia. La menor había desarrollado algunas estrategias de autocontrol para evitar llevar a cabo la conducta de arrancarse el vello cuando le venía el impulso de hacerlo, como por ejemplo distraer la atención hacia otras tareas como dibujar o hablar con los amigos por Whatsapp, no resultando efectivas en la mayoría de ocasiones.

En el momento de la entrevista inicial los padres de la menor no eran conscientes de la gravedad del problema de su hija y se sentían confusos respecto a las causas de las conductas de tricotilomanía, atribuyendo erróneamente a la hija un control sobre su comportamiento.

La menor cursa 1º de ESO y su rendimiento escolar es excelente. Refiere una alta ansiedad asociada a las situaciones de exigencia escolares (exámenes, exposiciones en clase, etc.) y se trata de una adolescente muy retraída y que presenta mucha dificultad para

expresar sus estados emocionales. Los padres también son poco comunicativos. Se trata de una familia de origen marroquí. La paciente no suele realizar ninguna actividad fuera de casa y, exceptuando los contactos dentro del ambiente escolar, prácticamente no interacciona con iguales.

### Procedimiento de Evaluación

Para la recogida de datos se utilizaron los siguientes instrumentos y escalas:

1. **Entrevista clínica con la menor y su familia.** La entrevista es una herramienta imprescindible a la hora de obtener información necesaria sobre distintos aspectos del trastorno: inicio de la conducta problema, frecuencia del comportamiento, cantidad de vello arrancado, estado emocional (antes, durante y después de arrancarse el vello), estrategias empleadas para reducir o detener el comportamiento, intervenciones pasadas, modelo de familia, influencia de factores afectivos y cognitivos en dicha conducta, etc.
2. **Inventario del Comportamiento de Niños/as de 6-18 años para padres (CBCL/6-18)** (Achenbach y Rescorla, 2001). Evalúa presencia de psicopatología o problemas de conducta que pueden presentar niños y adolescentes, a partir de la información facilitada por los padres. Permite obtener puntuaciones en 7 escalas o síndromes: aislamiento, ansiedad/depresión, quejas somáticas, problemas sociales, problemas de pensamiento, problemas de atención y conductas agresivas.
3. **Autoinforme del Comportamiento de Jóvenes de 11-18 años (YSR/11-18).** (Achenbach y Rescorla, 2001). Reproduciendo la misma estructura que el CBCL, el YSR permite evaluar competencias, funcionamiento adaptativo y problemas conductuales, emocionales y sociales a partir de la información que facilita el propio niño/a. El autoinforme consta de 105 ítems referidos a posibles problemas y se

obtienen puntuaciones en 6 escalas: problemas afectivos, de ansiedad, somáticos, problemas de déficit de atención e hiperactividad, conductas oposicionistas-desafiantes y problemas de conducta.

4. **Test Autoevaluativo Multifactorial de Adaptación Infantil (TAMAI)** (Hernández, 1988). Este test mide el grado de adaptación personal, social, escolar y familiar y las actitudes educadoras de los padres, a partir de la información proporcionada por el menor. Se obtienen diferentes puntuaciones directas y percentiles en cada una de las áreas descritas.
5. **Autorregistro.** El autorregistro se le plantea a la paciente con una doble finalidad: realizar el análisis funcional de la conducta problema (identificar las relaciones entre la conducta, los antecedentes y las consecuencias) y conocer la frecuencia con la que la misma ocurría.

### **Análisis de los Resultados Pre-Tratamiento y Descripción de las Conductas Problema**

A partir de los autorregistros realizados se identifican como principales antecedentes y/o estímulos que generaban los episodios de tricotilomanía ciertas situaciones en las que tenía que interaccionar con iguales en el contexto del instituto y otras, también en el ambiente de clase, en las que el profesorado le demandaba llevar a cabo ciertas actuaciones en público (como salir a la pizarra, exponer sus deberes, etc.), lo cual vivía con un nivel muy alto de ansiedad. Posteriormente, ya en casa, donde solía encontrarse sola y aburrida, recordaba estas situaciones ansiógenas y le venía el impulso de arrancarse el pelo que no podía reprimir. Una vez llevada a cabo la conducta se sentía, por un lado, aliviada (se reducía la ansiedad previa) pero también experimentaba muchos sentimientos de culpa y otras emociones negativas, como tristeza o vergüenza, por lo que había hecho.

Durante las semanas previas al tratamiento, momento en el que se realizaron los autorregistros iniciales, la frecuencia de los episodios de tricotilomanía oscilaba entre 15 y 20 episodios semanales. Siempre los llevaba a cabo en el contexto de su habitación en casa y como situaciones antecedentes se registraron las que anteriormente se han descrito.

Los padres percibieron, a partir del CBCL/6-18, sintomatología significativa en la escala de retraimiento-depresión. Por otra parte, los resultados obtenidos, a partir del YSR/11-18, corroboran niveles de ansiedad clínicamente significativos en la menor. Las puntuaciones obtenidas en el TAMAI reflejan una ligera insatisfacción personal y una leve inadaptación a su contexto escolar.

### **Diagnóstico**

La paciente presenta un diagnóstico de F63.3 Tricotilomanía (trastorno de arrancarse el pelo) (312.39) (APA, 2014).

### **Tratamiento**

En función de los resultados de la evaluación descritos en el apartado anterior, se establecieron como principales objetivos terapéuticos los siguientes: 1) reducir la frecuencia de los episodios de arrancarse el pelo, 2) disminuir la sintomatología ansioso-depresiva, y 3) conseguir una mejor adaptación y funcionamiento de la menor en el ámbito social y escolar.

Se inicia tratamiento psicológico de tipo individual y empleando fundamentalmente técnicas cognitivo-conductuales. La aplicación del tratamiento completo requirió aproximadamente 12 sesiones, de frecuencia quincenal, duración en torno a una hora y distribuidas a lo largo de 6 meses. Además, se incluyeron sesiones de seguimiento durante el año posterior a la finalización del tratamiento, de frecuencia bimensual primero y cada 3 meses posteriormente, hasta confirmar el mantenimiento de la mejoría clínica.



Las tres primeras consultas se destinaron a la recogida de información y al planteamiento de los objetivos terapéuticos. A continuación se describe el proceso de tratamiento realizado, detallando los contenidos trabajados en cada sesión.

- **Sesión 1.** Se mantiene entrevista clínica con la menor y los padres. También se administran las escalas descritas con anterioridad.
- **Sesión 2.** Se realiza devolución de resultados a los padres y se les proporciona información acerca del diagnóstico de la hija: en qué consiste la tricotilomanía, factores causales y mantenedores del problema, etc. Posteriormente, también se proporciona psicoeducación del trastorno a la menor, se consensuan con ella los objetivos terapéuticos a trabajar y se le manda como tarea para casa autorregistro de los episodios de arrancarse el pelo.
- **Sesión 3.** Se analiza el autorregistro. Como se ha comentado anteriormente, cuando siente ansiedad elevada asociada a situaciones escolares o de interacción con iguales en el instituto por la mañana, posteriormente por la tarde ya en casa (concretamente en su habitación) las recuerda cuando está estudiando, o se encuentra en la cama o está aburrada. Experimenta una tensión elevada y se arranca el pelo. Las consecuencias son sentimientos de alivio y después culpa.
- **Sesión 4.** Entrenamiento en relajación muscular progresiva y relajación a través de la respiración.
- **Sesión 5.** Reestructuración cognitiva, detención de pensamiento, autoinstrucciones y autorrefuerzo.
- **Sesión 6.** Entrenamiento en conducta incompatible y exposiciones en imaginación y en vivo.
- **Sesión 7.** Habilidades sociales: psicoeducación de la asertividad y entrenamiento en habilidades para hacer frente a las críticas e iniciar

conversaciones.

- **Sesión 8.** Continuamos trabajando técnicas de asertividad y habilidades sociales.
- **Sesión 9.** Planificación de actividades gratificantes de ocio con iguales fuera del contexto escolar.
- **Sesión 10.** Repaso y refuerzo con la menor de todas las herramientas y estrategias de afrontamiento aprendidas.
- **Sesión 11.** Prevención de recaídas con la menor y pautas educativas positivas con los padres.
- **Sesión 12.** Despedida y cierre. En esta última sesión se vuelven a aplicar todas las escalas administradas al inicio (evaluación post-tratamiento).

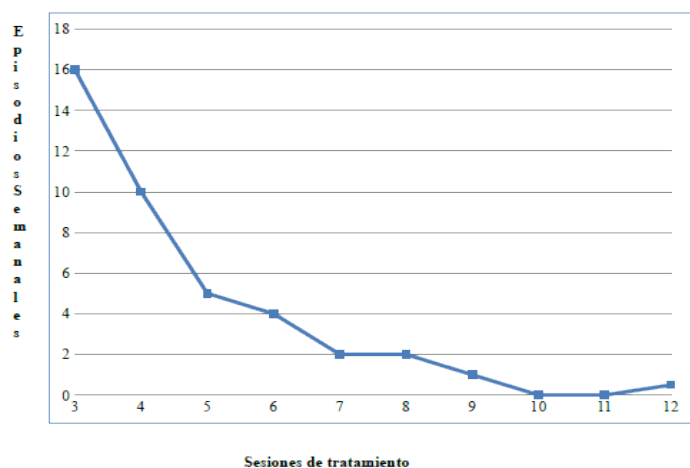
Como se ha comentado anteriormente, se realizaron 5 consultas de seguimiento, a los 2, 4, 6, 9 y 12 meses de la finalización del tratamiento, y antes de proceder a dar el alta definitiva.

### Resultados Post-Tratamiento

Después de las sesiones de tratamiento llevadas a cabo, la paciente presentó una mejoría clínicamente significativa, que es observada a partir de los datos proporcionados por las escalas y autorregistros.

Si atendemos a la información proporcionada por los autorregistros (figura 1),

Figura 1. Evolución de los Episodios de Tricotilomanía



observamos que se produce una disminución gradual de los episodios de tricotilomanía a lo largo de las sesiones, puesto que la frecuencia semanal pasa de 16 episodios iniciales a 5 en la 5ª sesión. En el momento de la evaluación posterior los episodios se habían eliminado casi completamente.

Por otra parte, los niveles de ansiedad de la menor (evaluados a partir del YSR/11-18) y las conductas de retraimiento y depresivas (medidas con el CBCL) se redujeron significativamente, no superando en el momento de cierre de la terapia criterios clínicamente significativos en ninguna de estas variables (ver figura 2). Las puntuaciones obtenidas en el TAMAI en la evaluación posterior a las sesiones de tratamiento reflejan una mejoría en cuanto a su nivel de satisfacción personal y su nivel de adaptación escolar (ver figura 3).

Hay que resaltar que la paciente también incrementó notablemente el número de interacciones sociales positivas y las actividades llevadas a cabo con iguales en tiempo de ocio, lo que indudablemente influyó en la mejoría alcanzada. Estos logros fueron posibles, además de por el trabajo individual realizado con la menor, también por la intervención llevada a cabo con sus progenitores, que adoptaron una actitud radicalmente diferente y más positiva en relación a la comprensión y atención de las necesidades psicosociales de su hija.

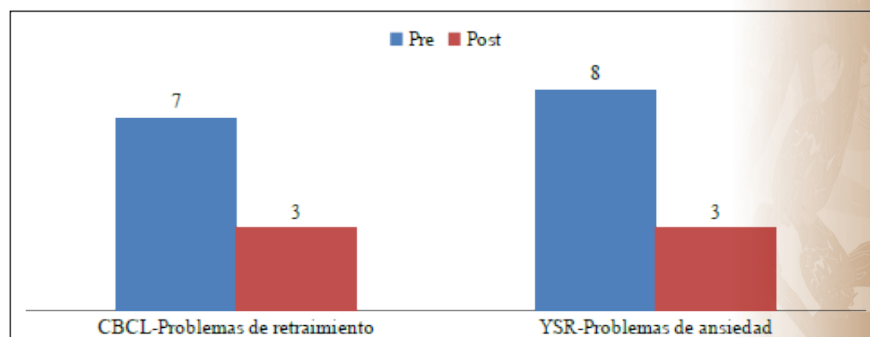
Estos resultados se confirmaron de manera rotunda en las sesiones de seguimiento mantenidas con la paciente y sus padres. Durante el año posterior al cierre del

tratamiento la paciente sólo presentó dos episodios muy ocasionales, coincidiendo con momentos de alto nivel de estrés, que la adolescente conceptualizó acertadamente como recaídas puntuales, y que supo resolver de manera efectiva poniendo en marcha los recursos personales aprendidos.

## Conclusiones

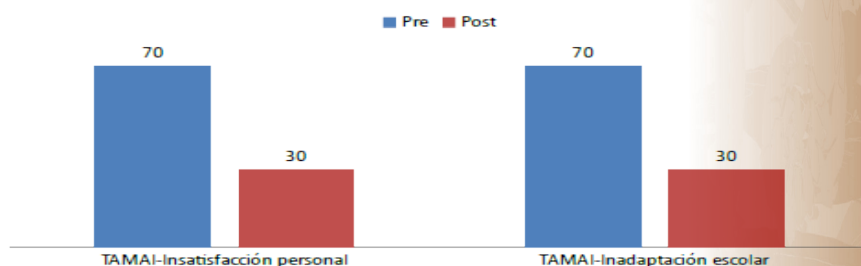
Como conclusión principal podemos decir que la intervención resultó ser efectiva ya que, tras la aplicación de las diferentes estrategias terapéuticas, se consiguieron los objetivos planteados: reducción de los episodios de arrancarse el pelo, disminución de la ansiedad a niveles no significativos y mejora del funcionamiento de la menor en los ámbitos social y escolar. En el momento del alta, tras realizar los seguimientos oportunos durante un año, se constataron los cambios producidos y el mantenimiento de los mismos.

Figura 2. Síntomas de Ansiedad y Conductas de Retraimiento/Depresivas antes y después del Tratamiento



Nota: Se consideran clínicamente significativas las puntuaciones superiores a 5

Figura 3. Satisfacción Personal y Adaptación Escolar antes y Después del Tratamiento



Nota: Puntuación media = 50. A mayor puntuación, mayores niveles de insatisfacción e inadaptación.

Por otro lado, los datos obtenidos nos permiten concluir que en este caso la ansiedad social que presentaba la paciente constituía un factor desencadenante clave de la ocurrencia de los episodios de tricotilomanía, lo que plantea la necesidad de realizar en este tipo de trastorno un análisis exhaustivo previo de los diferentes estímulos causales de la conducta problema en cada caso particular, y la obligatoriedad de trabajar sobre éstos para asegurar un éxito terapéutico.

Por último, como futuras líneas de investigación sobre el tema, se recomienda ahondar, por un lado y en relación al punto anterior, sobre los factores etiológicos de la tricotilomanía, estudiando distintos sucesos, situaciones particulares, cogniciones o experiencias emocionales negativas que pudieran desencadenar un episodio de arrancamiento de vello. Por otro lado, se plantea la necesidad de llevar a cabo más estudios empíricos que corroboren la eficacia de las intervenciones psicoterapéuticas aplicadas y examinar cuáles son las técnicas más influyentes en los cambios producidos.

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# Journal of Clinical Psychology and Psychiatry

## Instructions to Authors

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### Submission

Articles written in English or Castilian, not submitted for publication elsewhere.

### Manuscript Preparation

An electronic copy of the manuscript must be submitted to Dr Gustavo Camino ([gustavo.camino@gha.gi](mailto:gustavo.camino@gha.gi)). Articles must be typed double-spaced. Details of style may follow the British Psychological Society standards.

Articles may follow the indicated guidance:

*Title Page.* The title should phrase concisely the major issues. Author (s) to be given with professional occupation or terms of reference. Main author to be given with address and email address.

*Abstract.* For research papers. The abstract should include up to six key words that could be used to describe the article. This should summarize the article in no more than 200 words.

*Text.* This should begin with an introduction, succinctly introducing the point of the paper to those interested in the general area of the journal. References within the text will follow British Psychological Society guidelines.

*References.* All citations in the text should be listed in strict alphabetical order according to surnames. Multiple references to the same author (s) should be listed chronologically, using a, b, etc., for entries within the same year. Formats for journal articles, books and chapters should follow the British Psychological Society guidelines.

*Tables and Figures.* Tables should be numbered and given explanatory titles.

### Length

Papers should be no more than 5000 words, although the final decision will be at the discretion of the editorial.

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For articles containing systematic scientific research, the following headings should be included: objectives, design, methods, results and conclusions. Review articles should use the following headings: Purpose, methods, results, conclusions. For brief reports, they should be limited to approximately 2000 words, showing similar headings as a full blown research article.



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