

**The FRIENDS emotional health prevention
programme: 12 month follow-up of a universal UK
school based trial.**

Paul Stallard, Professor of Child & Family Mental Health/Consultant Clinical Psychologist,
University of Bath/Avon and Wiltshire Mental Health Partnership NHS Trust

Neil Simpson, Consultant Paediatrician, Community Child Health, Bath and North East
Somerset Primary Care Trust, Bath NHS House, Newbridge Road, Bath, BA1 3QE

Sue Anderson, School Nurse Team Leader, Bath and North East Somerset Primary Care
Trust, Bath NHS House, Newbridge Road, Bath, BA1 3QE

Meghan Goddard, Undergraduate Psychology Student, University of Bath, Bath, BA2 7AY

Corresponding Author: Paul Stallard
Mental Health Research & Development Unit
Wessex House
Level 7
University of Bath
BA2 7AY
Email: p.stallard@bath.ac.uk

Abstract

A universal cognitive behaviour therapy emotional health programme, FRIENDS, was provided in schools by trained school nurses to 106 children aged 9/10. Anxiety and self-esteem were re-assessed in 63 children one year after completing the programme. The significant improvements in emotional health identified 3 months after FRIENDS were maintained 12 month after completing the programme. Of the 9 children identified at baseline as high risk, 6 (67%) had moved into the low risk category by the 12 month follow-up. Of the low risk children, none had become high risk by follow-up. The study conclusions are limited by a small sample size and the absence of a comparison group. They are however consistent with previous studies and suggest that FRIENDS delivered in schools as a universal intervention can have a significant medium term effect upon emotional health.

Key Words: FRIENDS, CBT, Anxiety, Prevention, Universal

Introduction

There is considerable evidence to demonstrate that emotional health disorders in children are common, incapacitating, and pervasive and increase the risk of subsequent problems in adulthood (1, 2, 3, 4, 5, 6). Despite their significance comparatively few children with anxiety or depressive disorders are referred to specialist child mental health services for treatment. The UK National Mental Health Survey found that over an 18 month period only 22% of those with significant mental health disorders received treatment from specialist child and adolescent mental health services (7). In particular, those with emotional disorders were least likely to have contact with specialist services.

Findings such as these suggest that alternative approaches are required if a more significant effect upon the emotional health of children is to be achieved. Attention has therefore turned towards early intervention and prevention as a way of improving both the immediate health of children and young people as well as contributing to their longer term resilience (8).

Preventative interventions can be classified as universal, selective or indicated and share the common aim of preventing significant mental health disorders from developing (9). In terms of provision, universal approaches are applied to whole populations (e.g. all children in a class) whereas selective approaches target groups at enhanced risk of developing mental health problems (e.g. children attending special schools). Indicated approaches are early interventions provided for those displaying mild symptoms in order to prevent more significant disorders from developing

Reviews have highlighted that mental health prevention programmes can have a positive effect upon anxiety and depression (10, 11, 12, 13). However many preventative studies have a comparatively short follow-up and so the longer term preventive effects have not been well documented. Similarly, the issue of whether universal programmes are as effective as selected or indicated preventive approaches is an important issue for service planners and yet has received comparatively little attention. In one of the few studies to examine this issue there were no differences between universal, indicated or combined universal and indicated approaches to the prevention of depression in adolescents with elevated symptoms of depression (14). However when examining the whole sample comparable improvements were found in children receiving the universal programme and a no-intervention control group. This led the authors to question the value of universal approaches in the prevention of depression.

Although research is limited universal preventive approaches, particularly for depression, appear to result in more modest effect sizes (12, 15). In targeted interventions the sample is chosen on the basis of risk status and the control group is therefore likely to have higher

levels of depressive symptoms at baseline and follow-up. This is in contrast to universal interventions where initial levels of symptoms are lower and may not therefore be high enough to demonstrate a significant effect at follow-up. However whilst selective and targeted approaches may result in larger effect sizes they tend to suffer from low recruitment rates that can severely limit their potential impact and use. Universal approaches on the other hand result in less negative stigmatization, higher participation rates and even with more modest effects, can have a significant public health effect (16).

One encouraging universal school based anxiety preventive programme is FRIENDS. Based upon Kendall's well evaluated Coping Cat programme (17, 18), Paula Barrett and her colleagues in Australia modified the programme to be used as a preventative intervention. The immediate effectiveness of FRIENDS as a universal intervention has been demonstrated. Significant post intervention reductions in self reported symptoms of anxiety have been reported (19, 20, 21). There is emerging data to document the longer term benefits with post-intervention reductions in anxiety being maintained at 12 months (22, 23). More recently the longer term benefits and preventive effect of FRIENDS have been reported in a three year follow-up study (24). Rates of students classified with high symptoms of anxiety who participated in FRIENDS were relatively stable across the three year follow-up at 16%, 17% and 12%. By comparison rates increased in the control condition from 21%, 25% through to 31% by the end of year three.

Although these studies highlight the potential benefit of FRIENDS the majority of this research has been undertaken by the project developers in Australia. Further pragmatic research is required to demonstrate the longer term benefit of FRIENDS in other countries where the method of delivery and educational context might be different. This proposal therefore aims to address this issue by reporting the 12 month follow-up of FRIENDS provided as a universal intervention delivered by non-mental health specialists in a UK context.

Method

FRIENDS

FRIENDS is a structured cognitive behaviour therapy (CBT) programme. Over ten one hour sessions children learn a range of practical skills designed to help them identify their anxious feelings and to learn to control them; to identify unhelpful anxiety increasing thoughts and to replace them with more helpful thoughts; and how to face and overcome their problems and challenges. Each child has an attractive workbook that they complete throughout the programme (25). The format of the programme involves large and small group work, completing exercises in workbooks, role plays, games, activities and quizzes.

In addition to the child sessions there is a psycho-educational session for parents. This provides parents with information about the cognitive model underpinning FRIENDS, the programme content and the skills their children will be learning.

FRIENDS Programme Leaders

In Bath and North East Somerset school nurses were trained to deliver FRIENDS. A two-day training session was provided to familiarise them with the FRIENDS programme and the underlying theoretical model of cognitive behaviour therapy. The training involved a mixture of presentations, role plays and exercises in which the school nurses worked through each of the FRIENDS sessions. Each nurse received a leader's manual providing a detailed structure for each of the 10 sessions. They attended a monthly supervision group of approximately 1.5 hours. In addition the school nurses participated in end of FRIENDS programme reviews where the content of each session and problems encountered in the delivery and understanding of exercises and concepts were discussed.

Programme Delivery

FRIENDS was provided as part of the school curriculum over the course of one academic term. The programme was provided to whole classes of children and in each class was led by two trained members of the school nursing team. The class teacher and any classroom assistants also participated in the programme and were involved in leading and facilitating small group work. The target staff/student ratio was 1/7.

Participants

Children aged 9/10 in 4 classes from 3 junior schools in Bath and North East Somerset participated in this study. An opt-out consent process was approved by the Ethical Committee and required parents to return a reply slip if they did not want their child to complete the study assessments. One parent refused permission resulting in the initial cohort consisting of 106 children (60 boys, 46 girls).

Assessments

Prior to this study, children completed self-report assessment on three separate occasions. Initial assessment (T1) was undertaken six months before participating in FRIENDS. Baseline assessment (T2) was completed prior to starting FRIENDS with the third assessment (T3) being completed 3 months after the FRIENDS programme. The results of the 3 month follow-up have previously been reported (26). In this study, children were re-assessed 12 months (T4) after completing FRIENDS and completed the following assessments.

(1). Spence Children's Anxiety Scale (27). This self-completed 44-item questionnaire assesses anxiety in the different areas of social phobia, separation anxiety, panic attacks and

agoraphobia, physical injury fears, obsessive-compulsive disorder and generalised anxiety disorder. The scale has high internal reliability and good concurrent validity (Spence 1997).

(2). Culture Free Self-Esteem Questionnaire Form B (28). This 30-item self-completed scale provides an overall score of self-esteem as well as sub-scales assessing general, social, academic, and parental self-esteem. The scale has been extensively used, has good psychometric properties with a total score of 10 or less identifying children with very low self-esteem.

Assessments were completed in the classroom during the school day. Parental consent involved an opt-out process where parents returned a reply slip if they did not want their child to complete the assessments. Eligible children were provided with a booklet containing the assessments and the project was explained to them. The children had an opportunity to ask any questions and those who were prepared to complete the questionnaires signed an assent form. Each question was read aloud by the researcher and then the children entered their response in their booklet.

Results

Of the 106 children who participated in the original study, 71 were contactable. The remaining 35 children had changed schools or moved out of the area. Of these, 4 parents declined permission for their child to participate in this follow-up study. A further 2 children did not want to participate, 1 child could not be identified from the information they provided and 1 child had large amounts of missing data. Twelve month follow-up data was therefore obtained from 63 children (34 boys and 29 girls), 59% of the original cohort.

(i). Comparison of initial symptomatology of 12 month completers and non-completers

In view of the missing data a comparison was undertaken of the pre-FRIENDS functioning of those children who completed the 12 month assessment and those who did not. Non-parametric Chi Square comparisons revealed no significant differences in the gender composition of those who completed the 12 month assessment and those who completed either the initial or baseline assessments (T1: Chi Square =.01, df=1, p=.92; T2: Chi Square=.23, df=1, p=.63).

Similarly, there were no significant differences between 12 month completers and non-completers on the initial assessment (T1) for total self-esteem ($t=1.67$, $df=68$, $p=.099$) or total anxiety ($t=.011$, $df=87$, $p=.911$) or on the baseline assessment (T2) for total self-esteem ($t=1.58$, $df=87$, $p=.118$) or total anxiety ($t=.831$, $df=86$, $p=.408$).

Therefore gender and initial symptomatology of those who did and did not complete the 12 month follow-up assessments were comparable.

(ii). Comparison of functioning over time

A comparison of all children who completed assessments at each point of time is presented in Table 1.

Insert Table 1 Here

Analysis of variance indicates a significant effect over time for total self-esteem ($F(3,323) = 6.55, p=.0001$) and anxiety ($F(3,323)=8.58, p=.0001$). This effect was significant on all the sub-scales of the Culture Free Self-Esteem questionnaire except for that assessing parental self-esteem and all sub-scales of the Spence Anxiety Scale except that assessing fear of physical injury. Post hoc Tukey comparisons revealed that these effects were significant between the initial assessment (T1) and the three (T3) and twelve month follow-ups (T4). There was no significant difference between the initial and baseline assessments (T1-T2) suggesting that symptoms were stable in the 6 months preceding FRIENDS. Similarly, there were no significant differences between the three and twelve month follow-up (T3-T4) suggesting that post FRIENDS gains were maintained.

(iii). Matched group analysis

Of the 63 children who completed assessments at 12 months, 3 had not completed either the initial or baseline assessments and 3 had not completed the 3 month follow-up. The data from the remaining 57 children were selected and an analysis of this matched group undertaken. The last available data was used to substitute for any missing assessments and the analysis above was repeated.

Insert Table 2

There was a significant effect over time on total self-esteem ($F(3,224)=2.96, p=.033$) with post hoc Tukey comparison revealing no significant effects between the initial and baseline (T1-T2) or post –FRIENDS (T3-T4) assessments. The difference was between the initial (T1) and 12 month (T4) assessments ($p=.025$). There were no significant differences on any specific sub-scale although the general self-esteem subscale approached significance ($p=0.055$)

ANOVA revealed significant time effects for the total anxiety scale ($F(3,224)=6.70, p=.0001$). Once again post hoc Tukey comparisons revealed no differences between the initial and baseline assessments (T1-T2) or post-FRIENDS (T3-T4) assessments. The differences were between the initial assessment and the 3 month (T1 - T3, $p=.003$) and 12 month (T1 - T4, $p=.002$) follow-up and the baseline assessment and 12 month follow-up (T2-T4, $p=.034$)

In terms of the sub-scales, there were significant differences on the panic ($F(3,224)=4.23$, $p=.006$), separation anxiety ($F(3,224)=7.55$, $p=.0001$) and obsessive compulsive disorder ($F(3,224)=7.40$, $p=.0001$). These differences were significant between the initial assessment and the 3 and 12 month follow-ups.

(iv). High Risk group

The impact of FRIENDS on children with more substantial problems was assessed by examining the 12 month follow-up scores of those children with the highest anxiety or lowest self-esteem scores at baseline. In terms of anxiety, 5 of the 57 children achieved baseline (T2) scores in excess of 54, a score that is consistent with children who are clinically anxious (Spence 1997). Inspection of the data revealed 5 children who had very low or low self-esteem (12 or less) at baseline. One child fell in both groups resulting in the high risk group comprising of 9 separate children, 15.8% of the sample assessed

There was no significant effect over time for self-esteem although the reduction in total anxiety scores for the high risk group was significant ($F(3,32)=6.537$ $p=.001$). Post hoc Tukey analysis revealed that the change between the initial and baseline (T1-T2) and the two post - FRIENDS (T3-T4) assessments was not significant. The change occurred between the initial assessment and the three (T1-T3, $p=.017$) and twelve month (T1-T4, $p=.012$) follow-ups and between the baseline assessment and three (T2-T3, $p=.029$) and twelve month (T2=T4, $p=.02$) follow-ups.

(v). Preventative effect

A preliminary exploration of the preventative effect of FRIENDS was undertaken by examining the number of children who exceeded the high risk criteria at the 12 month follow-up, i.e. scoring less than 12 on the Culture Free Self-Esteem Questionnaire or more than 54 on the Spence Children's Anxiety Scale. A total of 9 of the 57 (15.8%) children achieved baseline scores (T2) that resulted in them being classified as high risk. This compared with 3/57 (5.3%) who scored in the high risk range at the 12 month follow-up (T4). All 3 of these children were identified as high risk at baseline. None of the 48 children initially classified as low risk at baseline had moved into the high risk group by the 12 month follow-up.

Conclusion

The results of this pragmatic study suggest that the reduced anxiety symptoms and increased self-esteem found 3 months after FRIENDS were still evident 12 months after completing the programme. These findings also suggest that FRIENDS delivered as a universal intervention had both an intervention and preventive effect. In terms of intervention, 6/9 (67%) of the high risk group at baseline had become low risk by the 12 month follow-up. Similarly, in terms of prevention, no child who was low risk at baseline had moved into the high risk group at 12 months. Whilst it is not known how many low risk children would have developed significant

symptoms without FRIENDS this result is nonetheless promising. This finding needs to be seen in the context of a small sample size but overall these results are consistent with the existing literature detailing immediate and longer term gains of FRIENDS.

These results are encouraging although they do need to be interpreted with caution. The sample size was small with drop-out and attrition resulting in only 59% of the original sample providing both baseline and 12 month follow-up data. Inevitably children will change schools or be absent on assessment days and as such attrition rates are a particular challenge for follow-up studies. This rate is however consistent with other 12 month evaluations of FRIENDS where data from 67-60% of the eligible cohort have been obtained (23, 29). Furthermore, although it is not possible to form any conclusions about the symptoms of those children who could not be followed up, comparisons failed to demonstrate any significant differences in gender or levels of initial symptomatology. There is therefore no evidence to suggest that the cohort assessed in this study were not representative of the total sample from which they was drawn.

A further limitation is the absence of a no intervention comparison group to control for maturation or the passage of time. The results demonstrate that self-esteem and anxiety were stable in the 6 months preceding FRIENDS with significant changes occurring between the initial assessment (T1) and the, 3 and 12 month follow-ups. In the absence of a comparison group it is not possible to attribute the improvements reported here to the intervention. Reductions in anxiety and increases in self-esteem may reflect developmental changes which would have naturally occurred. Indeed although not statistically significant, there were improvements in anxiety and self-esteem scores between the initial and baseline assessments. This change might reflect a general trend towards improvement which could explain the absence of any statistically significant differences between baseline (T2) and the 3 (T3) and 12 month (T4) follow-ups. Further longitudinal studies using control comparison groups are required to examine this possibility and to substantiate these findings.

Despite these limitations these results are consistent with, and support, the growing literature demonstrating the positive benefits of FRIENDS delivered as a universal intervention. The possibility that such a structured school based intervention delivered by non-mental health specialists can have a significant impact upon children's emotional health raises important issues for service delivery. The programme is manualised and can therefore be readily used following appropriate training. It can be delivered by non-mental health specialists and therefore increases the wider availability of effective evidenced based mental health interventions. The universal, whole class approach increases accessibility and provides a way of clearly bringing emotional health issues into the classroom thereby reducing possible stigmatization. Finally, FRIENDS appears to have a direct effect both upon those currently presenting with elevated symptoms and also appears to benefit those with low level

symptoms in terms of preventing them escalating. Structured universal emotional health programmes will not be sufficient for all children and a number will need to be identified and referred on for specialist interventions. However finding that the status of 60% of the initial high risk group had positively changed by follow-up is encouraging. Whether these statistically significant reductions in questionnaire scores translate into important real life outcomes needs further assessment. However these results suggest that further research into universal emotional health programmes is warranted.

References

1. Costello, J.E., Mustillo, S., Erkanli, A., Keeler, G. & Angold, A. (2003). Prevalence and Development of Psychiatric Disorders in Childhood and Adolescence. *Archives of General Psychiatry*. 60: 837-844.
2. Kim-Cohen, J., Caspi, A., Moffitt, T.E., Harrington, H., Milne, B.J. & Poulton, R. (2003). Prior Juvenile Diagnoses in Adults with Mental Disorder Developmental Follow-Back of a Prospective-Longitudinal Cohort. *Archives of General Psychiatry*. 60:709-717
3. Woodward, L.J. & Fergusson D.M. (2001). Life Course Outcomes of Young People With Anxiety Disorders in Adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry*. 40(9):1086-1093.
4. Harrington, R., Fudge, H. Rutter, M., Pickles, A. & Hill, J. (1990). Adult outcomes of child and adolescent depression. 1. Psychiatric Status. *Archives of General Psychiatry*, 47, 465-473
5. Heijmans Visser, J.H., Ende, J., Koot, H.M. & Verhulst F.C. (2000). Predictors of psychopathology in young adults referred to mental health services in childhood or adolescence. *British Journal of Psychiatry*, 177, 59-65
6. Meltzer, H., Gatward, R., Goodman, R. & Ford, T. (2003). Mental health of children and adolescents in Great Britain. *International review of Psychiatry*, 15, 185-187.
7. Ford, T., Goodman, R. & Meltzer, M. (2003). Service use over 18 months among a nationally representative sample of British children with psychiatric disorder. *Clinical Child Psychology and Psychiatry*, 8,1, 37-51.
8. Licence, K. (2004). Promoting and protecting the health of children and young people. *Child: care, health and development*, 30, 6, 623-635.
9. Mrazek, P.J. & Haggerty, R.J. (1994). Reducing risks for mental disorders: frontiers for preventive intervention research. National Academy Press. Washington D.C.

10. Durlak, J.A. & Wells, A.M. (1997). Primary prevention mental health programmes for children and adolescents: a meta-analytic review. *American Journal of Community Psychology*, 25, 115-152
11. Horowitz, J.L. & Garber, J. (2006). The prevention of depressive symptoms in children and adolescents: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, 74, 3, 401-415.
12. Merry S, McDowell HM, Hetrick S, Bir, J. & Muller N. Psychological and/or educational interventions for the prevention of depression in children and adolescents. *The Cochrane Database of Systematic Reviews*. 2004; 2.
13. Wells, J., Barlow, J & Stewart-Brown, S. A systematic review of universal approaches to mental health promotion in schools. *Health Education*, 103, 197-220.
14. Sheffield, J.K., Spence, S.H., Rapee, R.M., Kowalenko, N., Wignall, A., Davis, A. & McLoone, J. (2006). Evaluation of universal, indicated and combined cognitive-behavioural approaches to the prevention of depression among adolescents. *Journal of Consulting and Clinical Psychology*, 74, 1, 66-79.
15. Horowitz, J.L. & Garber, J. (2006). The prevention of depressive symptoms in children and adolescents: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, 74, 3, 401-415.
16. Rose G. (1992). *The strategy of preventive medicine*. New York. Oxford University Press.
17. Kendall, P.C. (1994). Treatment of anxiety disorders in children: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 62, 100-110.
18. Kendall, P.C., Flannery-Schroeder, E., Panichelli-Mindel, S.M., Southam-Gerow, M, Henin, A & Warman, M. (1997). Therapy for youths with anxiety disorders: a second randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 65, 3, 366-380.
19. Barrett, P. & Turner, C. (2001). Prevention of anxiety symptoms in primary school children: Preliminary results from a universal school-based trial. *British Journal of Clinical Psychology*, 40, 399-410.
20. Lowry-Webster, H., Barrett, P., & Dadds, M.R. (2001). A universal prevention trial of anxiety and depressive symptomatology in childhood: Preliminary data from an Australian study. *Behaviour Change*, 18, 36-50.
21. Stallard P, Simpson N, Anderson S, Carter T, Osborn C & Bush S. An evaluation of the FRIENDS programme - a cognitive behaviour therapy intervention to promote emotional resilience. *Archives of Disease in Childhood*. 2005; 90, 10, 1016-1019
22. Lowry-Webster, H., Barrett, P., & Lock, S. (2003). A universal prevention trial of anxiety symptomatology during childhood: Results at one-year follow-up. *Behaviour Change*, 20, 25-43.

23. Lock, S. & Barrett, P.M. (2003). A longitudinal study of developmental differences in a universal preventive intervention for child anxiety. *Behaviour Change*, 20, 183-199
24. Barrett, P.M., Farrell, L.J., Ollendick, T.H. & Dadds, M. (2006). Long-term outcomes of an Australian universal prevention trial of anxiety and depression symptoms in children and youth: an evaluation of the FRIENDS programme. *Journal of Clinical Child and Adolescent Psychology*, 35, 3, 403-411.
25. Barrett, P.M., Lowry-Webster, H., & Turner, C.M. (1999). *Friends for Children participant workbook*. Brisbane, Australia: Australian Academic Press.
26. Stallard, P., Simpson, N., Anderson, S., Hibbert, S. & Osborn, C. (2007). The FRIENDS Emotional Health Programme: Initial Findings from a School-Based Project *Child and Adolescent Mental Health* 12 (1), 32–37.
27. Spence, S.H. (1997). The Spence Children's Anxiety Scale (SCAS). In I. Sclare (ED). *Child Psychology Portfolio*. Windsor, UK, NFER-Nelson.
28. Battle, J. (1992). *Culture-Free Self-Esteem Inventories (second Edition)*. Austin, Texas. Pro-Ed.
29. Barrett, P., Lock, S. & Farrell, L.J. (2005). Developmental differences in universal preventive intervention for child anxiety. *Clinical Child Psychology and Psychiatry*, Vol. 10, No. 4, 539-555

Table 1: Comparison of anxiety and self-esteem scores six months before, upon starting, and at three and 12 month post FRIENDS for all questionnaire completers

Measure	Time 1 Initial Assessment n=88, Mean (sd)	Time 2 Baseline Assesemnt N=89 Mean (sd)	Time 3 3 month follow-up n=87 Mean (sd)	Time 4 12 month follow-up n=63 Mean (sd)	One way Anova Significance	Time 1-3 Sig	Time 1-4 Sig
Total Self-Esteem	17.76 (4.47)	19.00 (4.48)	19.94 (4.38)	20.63 (3.63)	p=.0001	p=.005	p=.0001
General Self-esteem	6.99 (2.25)	7.58 (2.16)	7.98 (2.16)	8.30 (1.77)	p=.001	p=.011	p=.001
Social Self-esteem	3.03 (1.14)	3.22 (1.19)	3.44 (0.96)	3.52 (1.13)	p=.026		p=.038
Academic Self-esteem	3.48 (1.40)	3.78 (1.28)	4.00 (1.26)	4.21 (1.17)	p=.004	p=.038	p=.004
Parental self -esteem	4.26 (1.12)	4.42 (0.96)	4.53 (0.93)	4.60 (0.66)	p=.125		
Total Anxiety	34.07 (16.08)	31.72 (15.72)	25.39 (12.82)	24.30 (12.60)	p=.0001	p=.001	p=.0001
Panic Attacks	5.24 (4.27)	4.44 (4.41)	3.66 (3.42)	2.92 (3.82)	p=.003	p=.046	p=.003
Separation Anxiety	5.66 (3.75)	4.99 (3.23)	3.86 (2.75)	3.27 (2.40)	p=.0001	p=.001	p=.0001
Injury Fears	3.53 (2.92)	3.73 (3.00)	2.85 (2.35)	2.94 (2.42)	p=.096		
Social Phobia	6.08 (3.23)	5.98 (3.12)	5.11 (2.83)	4.78 (2.99)	p=.018		p=.049
Obsessive Compulsive	6.61 (3.47)	6.14 (3.82)	4.23 (3.10)	4.57 (3.49)	p=.0001	p=.0001	p=.002
Generalised Anxiety	6.96 (3.23)	6.44 (3.06)	5.68 (2.62)	5.83 (2.44)	p=.016	p=.019	

Table 2: Matched group (n=57) analysis of anxiety and self-esteem scores across all assessments

Measure	Time 1 Initial Assessemnt Mean (sd)	Time 2 Baseline Assessemnt N=89 Mean (sd)	Time 3 3 month follow-up n=87 Mean (sd)	Time 4 12 month follow-up n=63 Mean (sd)	One way Anova Significance	Time 1-3 Sig	Time 1-4 Sig
Total Self-Esteem	18.35 (3.96)	19.23 (4.26)	19.89 (4.29)	20.51 (3.70)	p=.033		p=.025
General Self-esteem	7.26 (2.08)	7.63 (2.19)	8.04 (2.20)	8.26 (1.83)	p=.055		
Social Self-esteem	3.12 (1.05)	3.26 (1.08)	3.39 (0.94)	3.51 (1.14)	p=.243		
Academic Self-esteem	3.61 (1.19)	3.84 (1.25)	4.04 (1.22)	4.14 (1.20)	p=.106		
Parental self -esteem	4.35 (1.04)	4.49 (0.93)	4.44 (0.91)	4.60 (0.68)	p=.527		
Total Anxiety	34.04 (17.57)	31.53 (13.76)	24.67 (13.10)	24.16 (12.73)	p=.0001	p=.003	p=.002
Panic Attacks	5.28 (4.34)	4.30 (3.98)	3.33 (3.42)	2.86 (3.97)	p=.006	p=.044	p=.007
Separation Anxiety	5.67 (4.00)	5.11 (3.10)	3.79 (2.70)	3.23 (2.40)	p=.0001	p=.008	p=.0001
Injury Fears	3.46 (2.86)	3.77 (2.92)	2.91 (2.31)	2.95 (2.47)	p=.244		
Social Phobia	5.88 (3.33)	5.75 (2.79)	4.88 (2.98)	4.75 (2.90)	p=.097		
Obsessive Compulsive	6.91 (3.89)	6.07 (3.75)	4.11 (3.19)	4.58 (3.60)	p=.0001	p=.0001	p=.004
Generalised Anxiety	6.84 (3.45)	6.53 (2.61)	5.65 (2.87)	5.79 (2.46)	p=.080		