CYPE(4)-10-14 – Paper to Note – Paper 5

RESEARCH TO SUPPORT THE PYRAMID MODEL

1. Research evidence supporting the Pyramid approach

The Pyramid model

The Pyramid approach is a three-part package that was developed from 1978-82 in the London borough of Hounslow, in action research funded by the Economic and Social Research Council. The aim was to identify an effective 'integrated, preventive child care system' that could be replicated in any primary school, within existing resources and without interfering with teaching. The package of routines that emerged, consisting of screening, multi-agency consultation and activity group therapy, had been tried, tested and evaluated by teachers and support service staff involved in the project.

A secondary school follow-up of the experimental children and their controls four years later indicated substantial benefits from the Pyramid intervention. Four-fifths of the children who had been identified as vulnerable and who had participated in an activity group or club, were still holding their own in the mainstream of high school; by contrast, three-quarters of an untreated control group were either in pupil support units or had dropped out of school.[1]

Theoretical base for the Pyramid intervention - why short term groups?

In Newcastle in the late 1970s, a study of school-based methods of mental health promotion (by Kolvin) found that for primary age children, short-term therapeutic groups were the most effective technique, with benefits that appeared to increase with time. Three years after the start of the school-based experiment 78 per cent of children 'at risk of maladjustment' who had taken part in a ten-week playgroup could be taken off the 'at risk' register, compared with only 44 per cent of their untreated controls.[2] This research outcome chimed well with the American High Scope findings, where an enjoyable pre-school experience enabled many high risk youngsters to stay in mainstream education and mainstream life generally.

Why younger children in groups?

The American psychologist Mortimer Schiffer[3] argued that the over-riding 'social hunger' of latency-age children is for acceptance by their peers. An environment where this hunger is satisfied can heighten awareness, increase receptiveness to social learning, build confidence and accelerate personal growth. Group work provides such an environment.

The evidence for early intervention

Graham Allen's paper on Early Intervention[4] sets out the case for intervening early to tackle children's problems, including evidence from brain development research, attachment theory, the prevalence of mental health issues across the UK, and the fact that children with mental health difficulties usually grow into adults with mental health issues. It calls for early intervention for children aged 0-18. Every taxpayer pays the cost of low educational achievement, poor work aspiration, drink and drug abuse, teen pregnancy, criminality and unfulfilled lifetimes on benefits. But it is not just about money: it is about social disruption, fractured lives, broken families, and sheer human waste. The emphasis is on providing children with the social and emotional skills they need to live happy, fulfilled lives. We need to keep intervening to break inter-generational dysfunction and produce better parents for the future and all the evidence points to early intervention being less costly, more effective and more humane.

2. Evaluating Pyramid clubs – a summary of the academic work to date

2013 – Michelle Jayman – University of West London

Michelle is looking at the effectiveness of Pyramid as an early intervention in secondary schools. An important aspect of her research is looking at the impact of Pyramid on students numeracy and reading ability. Currently three secondary schools in North Wales are involved in this research.

2010 – Maddie Ohl, Thames Valley University

Maddie Ohl has published a number of papers arising out of her PhD work. This work involved a large sample and a control group, amounting to around 400 children altogether in the London borough of Ealing and in Manchester. The control group were not children who needed Pyramid, as the plan was to do some longer-term follow up and it would have been unethical to identify them as needing Pyramid but not allowing them to attend a club. Measures (using the Goodman's Strengths and Difficulties Questionnaire - SDQ) were taken before the club, immediately afterwards, and 18 months after the club, and found that the club children improved and sustained their improvement, whilst the control group got considerably worse. It was possible to analyse the data for effects on gender and ethnicity, and it was found that Pyramid was suitable for boys and girls and worked equally well for children from a range of ethnic backgrounds. The research involved an evaluation of the assessment methods used to identify children for clubs, whilst a further paper reports on focus groups with the children which found that the children themselves identified the same improvements that the SDQ picked up. Academic attainment levels will also be retrospectively analysed for the Ealing children.

2010 – University of Ulster (UU) with Barnardos in Northern Ireland

PhD student Aine McKenna is undertaking a review of the effectiveness of Pyramid in addressing internalising disorders, including depression, anxiety, social withdrawal and somatic problems. The research has divided children into three groups: those who would benefit from a Pyramid club and received one: those who would benefit from a club but were not initially offered one; and those do not need an intervention, nearly 400 children in total. Each group was measured using the Goodman's SDQ and a subjective well-being questionnaire. Initial results suggest that Pyramid clubs build personal efficacy in terms of autonomy and responsibility, and promote self-expression, playfulness and conflict resolution skills. The UU approach is a strengths-based one, based on Lerner's human flourishing theory, whereby competence, confidence, character, caring and connection lead to contribution by the individual. The most striking feature of the research to date is around human connectedness, with 91% of participants feeling that they had made a new friend and were now more friendly with other children. The work is due to be completed in September 2011 for publication.

2009 – Buckinghamshire Education Psychology service

Research carried out by an Education Psychologist in Bucks in 2008/9 took a different approach, and compared two groups of children selected for Pyramid: one group were offered a club straightaway while the other group had to wait a term (a 'wait list comparison'). As expected, the children who went to the first club improved whilst the group on the waiting list did not, until they too went to a club. Using the Goodman's SDQ, it was found that the Pyramid children's emotional difficulties decreased, as did their hyperactivity scores, whilst the comparison group's scores increased over the same period. On a different measure, the Loneliness and Social Dissatisfaction Scale (Cassidy and Asher 1992), the Pyramid children's scores also decreased by a statistically significant amount while the comparison group's increased, suggesting that the children felt less lonely and dissatisfied with their social relationships after the club than they did before. Buckinghamshire has been evaluating its Pyramid work since it started in 2002, involving over 400 children, and has consistently found significantly reduced emotional difficulties scores on the SDQ.

2009 – University of Manchester, C Graham and Z Goodwin

This study[5] looked at whether the impacts of Pyramid were sustained a year on from the club taking place, and reviewed the results for a group of Year 3 children and a control group when they had moved on to Year 4. The group size was 57, with 33 children attending a Pyramid club (16 girls and 17 boys) and 24 who did not (18 girls and 8 boys). The Goodman's SDQ was completed by teachers, but the children also completed self-assessment questionnaires and parents completed a questionnaire. The study found that the children who attended the club had significantly poorer social and emotional health than the non-attendees prior to the clubs running. One year on, the differences between the club attendees and the control group were not significant: however the study found that this was due to the significantly worsened scores for the control group, rather than the improved scores for the Pyramid club children. Their conclusion was that Pyramid is successful in halting social and emotional problems from escalating against developmental pressures that are experienced by this age group.

2009 – Lincolnshire Healthy Schools study on Mobile Pupils

Originally planned as a study into the children of migrant workers, this study expanded to look at how successful Pyramid was as an intervention to help children who moved schools at times other than the normal times.[6] The study measured levels of shyness, participation in class and in the playground, pro-social behaviours and emotional well-being, and also considered locus of control and academic progress. It found that the children who attended clubs experienced significant increases in classroom participation and a decrease in shyness, with some evidence for academic gains and a noticeable increase in confidence.

2007 – Thames Valley University and University of Limerick: Maddie Ohl, Kathryn Mitchell, Tony Cassidy and Pauline Fox[7]

This study involved 94 children in three schools in the London borough of Ealing, 42 Pyramid participants and 52 non-problem children. All children were screened using the Goodman's SDQ at the start and at the end of the club. This study compares the numbers of children in the normal, borderline and abnormal range of the SDQ scales. Prior to the club, 15 of the club children were in the abnormal range, 12 in the borderline and 15 in the normal range, whereas the non-club children had 6 in the borderline range and 46 in the normal range. After the club, 20 of the club children had moved to an improved range, 20 stayed the same and two had a lower banding, whereas for the control group, 4 had improved, 44 remained the same and 4 had a lower banding. The biggest improvements in the club children were seen among the children in the abnormal range: of the 15 children in the abnormal range prior to the club, 3 remained in the abnormal range, 3 moved into the borderline range and 9 moved into the normal range.

2005 Manchester University

Two Psychology undergraduates, Amy Mawson and Rebecca Murphy, volunteered at Pyramid clubs in Salford and wrote up their findings[8] as part of their dissertation. They were able to match the club children with children from the same schools who acted as a control group. Their focus was how effective Pyramid clubs are at improving self-esteem in children, and also how other socio-emotional experiences are associated with low self-esteem and whether Pyramid is successful in improving these factors as well. Pre-club, Pyramid children had low levels of self-esteem but this improved by 15% after the club, whilst controls stayed the same. The biggest areas of improvement were in relation to personal, school and peers. Post-club levels of self-esteem were close to the controls.

2001 C Cooper, University of East London

This follow-up study[9], five years after attending a Pyramid club provided interesting qualitative and quantitative data suggesting strongly that the Pyramid clubs had made a considerable, positive impact on the majority of the sample. It also concluded that the relationship with club leaders was very central to the process, which enabled them to talk and explore friendships.

1999/2000 Institute of Education at the University of London

The results[10] indicate that children attending Pyramid clubs show greater improvements in self-esteem, locus of control, reading and maths ability than matched children who did not attend. Children reported increased happiness, confidence and improved friendships with peers after attending Pyramid clubs.

1998/1999 University of Surrey

Improvements in academic performance for children who attended Pyramid clubs were found: in comparison to the non-Pyramid children, those attending Pyramid clubs showed greater, significant, improvements in the emotional and peer interaction elements of the study[11].

In terms of writing performance, analyses indicated:

- no differential improvements in the copying task
- a significantly greater reduction in the proportion of errors produced by the Pyramid children compared to those produced by the non-Pyramid controls in the sentence generation task
- larger improvements in ratings of the stories produced by Pyramid children compared to controls in the free writing task – two independent assessors produced ratings

1996 – T C Skinner

Skinner found that for all three criteria measured, that is, depression, immaturity and social withdrawal, the experimental, or club children were showing significantly greater improvements than the controls. Symptoms of depression decreased by 30 per cent in experimentals, but only 20 per cent in controls; symptoms of immaturity and social withdrawal decreased by 54 per cent in the experimentals, but only by 34 per cent and 29 per cent, respectively, in the controls.[12] Club children were able to answer questions relating to their perceived popularity and their happiness, both before and after their participation in clubs. On both scales, highly significant improvements in self-concept were reported after the club experience.

1995 – T C Skinner

This post-graduate researcher from **Surrey University** analysed a survey of teachers' reports on children who had been subjected to the Pyramid procedures during the 1994-95 school year. He found a significant difference between the progress reported for those who had participated in clubs and those who had not. The most robust effect was for self-esteem, where 58 per cent of the children who attended a club showed some improvement, but only 10 per cent of the controls. Similar differences were found in children's social skills (52 per cent of attendees improving), relationship with peers (49 per cent) and relationship with adults (41 per cent). Twenty-two per cent of club children, compared with only 7 per cent of the controls, also made progress in writing.[13]

3. Other evaluations of Pyramid clubs

2006-07 Bracknell Pyramid project

Bracknell evaluated[14] the impact of Pyramid using four of the five Every Child Matters outcomes as follows:

Being healthy – routine screening of emotional health and wellbeing of the whole year group identified early triggers for action and ensured that every child's emotional health was reviewed at the age of 8: the multi-professional identification group also ensured that additional appropriate interventions were identified. Club activities such as Circle Time, group games and cooking activities were used to encourage positive emotional and physical health, and healthy lifestyles were promoted to children.

Staying safe – the screening identifies potential problems and solutions for children, while the clubs provide a safe environment for children to develop resilience, and all clubs operate within the 'Working together to safeguard children' policy.

Enjoying and achieving – clubs deliver new opportunities to experience and enjoy, help them to develop personally and emotionally thus increasing their willingness to actively engage in education and enabling them to achieve their full potential.

Making a positive contribution – clubs help children to develop socially and emotionally, build resilience, enable them to manage change and respond to changes in their lives, and encourage their participation in the decision-making. These skills can then be transferred to the child's wider life.

The project also identified benefits from children's participation and partnership working.

2003-2006 Northern Ireland

Barnardos in Northern Ireland, funded by the Children's Fund, ran 43 clubs for 441 children in 22 schools over three years. Attendance rates at the clubs were exceptionally high, with between 97 and 100 per cent attendance. All of the children involved said they would like to do something similar again, 75 per cent said they liked school more since the club, 87 per cent would recommend it to other children, and 85 per cent of the Primary 7 children said they found Circle Time helpful to discuss issues and concerns.

All of the parents and teachers agreed the children enjoyed the club. In addition, 98 per cent of parents said their child talked about the club and 78 per cent felt it had benefited their child. Eighty-six per cent of teachers noticed an increase in class participation, 71 per cent felt the children were more confident in group activities, and 86 per cent felt that the children's emotional health had improved. Twenty-eight local volunteers were recruited, two of whom subsequently returned to work after prolonged absences having gained the confidence to apply for work after being involved with Pyramid clubs.

The Children's fund outcomes that the Northern Ireland project was working to were:
1. identify and target children who are experiencing social and/or emotional problems
2. enhance children's self-esteem and resilience and improve social skills leading to learning and better future life chances
3. to improve family ability and capacity to meet their children's needs
4. to enhance children's learning by providing an intervention that demonstrably works
5. to enhance the social and educational opportunities of children by involving the local community

The Children's Fund evaluation[15] was that all the outcomes had been achieved.

2005 South Gloucestershire

Building on work going back to 1998, the South Gloucestershire Pyramid project evaluated outcomes for children who had attended clubs in the current year, the previous year and 2/3 years previously. The Year 3 evaluation of 80 children showed improvements from an average SDQ score of 12.2 (0-11 normal, 12-15 borderline, 16-40 abnormal) pre-club to 7.5 post-club. On all the individual elements of the SDQ (Hyperactivity/Emotional Symptoms/Peer Problems/Conduct Problems/Prosocial Behaviour), significant improvements were made from pre-club scores.

SDQ results were also presented for Year 4 children, pre-club, post-club and one year on. Results for 60 children showed an improvement from pre-club score of 12.2 to a post-club score of 8.6 and a one-year on score of 8.7, showing that the improvements were maintained. On the individual component elements, there was a small increase from the post-club to the one-year on score, but the increases kept the child well within normal limits. The exception was for Peer Problems where the one-year on score was a significant *improvement* on the post-club score.

Years 5 and 6 in one school, supported by an LSA, the Children's Fund Participation Worker and the Pyramid co-ordinator, produced questionnaires for children, teachers, headteachers, parents, and club leaders, asking them about the impact of the club. These were then used at another school as well. Children overwhelmingly felt happier during playtime, in the classroom, talking to adults and teachers, and had made new friends in the club. Teachers thought children who would not otherwise receive help had received some, reducing social exclusion in the classroom. Headteachers thought the main benefit to the school was the increased confidence of the children and the skills developed by the school staff involved. Parents felt their children enjoyed feeling special as part of the club and were happier in school. Club leaders felt that they personally got a lot out of the club and were very pleased at the changes in the children.

2002/03 Gainsborough[16], Lincolnshire.

This research identified positive shifts on the emotional scale, on peer relations and reduced conduct problems particularly, all of which were statistically significant at the 1 in 200 level or higher, again using the Goodman's SDQ. Ninety per cent of children were thought to have made a positive change, and their teachers commented, most frequently, that they were more outgoing/confident and their social skills had improved.

Sept 2002 – Sept 2003 Wandsworth Schools Pyramid Project[17]

The London borough of Wandsworth, working with the NSPCC, carried out a major evaluation of the effects of Pyramid at ten schools that ran clubs in the academic year. Using the borough's Coping in Schools Scale, improvements were identified in behaviour (scores increased by 59 per cent), self-esteem (up by 63 per cent) and learning and literacy (up by 65 per cent).

2002 Cardiff Pyramid Project[18]

Teachers were enthusiastic about the programme and saw positive changes in the children's, confidence and behaviour both in the classroom and in the playground. The majority of teachers felt that there was very little increase in workload or demands on their time and any slight increase would be offset by the benefits to the children. All children enjoyed the clubs and 60 per cent or more felt more positive about school, got to make friends and believed their behaviour had improved.

September 2001 - March 2003 and January 2002 – July 2005 Buckinghamshire Pyramid project[19]

These two studies carried out by the Buckinghamshire Educational Psychology Service identified very significant improvements in prosocial behaviour and reductions in peer problems, emotional problems, hyperactivity and conduct problems, using the Goodman's Strengths and Difficulties Questionnaire (SDQ) pre and post attendance at clubs. Almost 350 children who attended clubs had their SDQ scores reviewed.

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[5] 'An Evaluation of a school-based intervention programme: are the social and emotional health impacts sustained for one year?' A study conducted by C Graham and Z Goodwin in 2009 at the Department of Psychology, University of Manchester, under supervisor Dr A Theakston

[6] 'Introducing Pyramid clubs to support mobile pupils', by Lucy Gillott as part of her Post-graduate Certificate in Education, February 2009.

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