A Model Intervention for Girls with Disruptive Behaviour Problems: The Earlscourt Girls Connection

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ABSTRACT

In 1996, the Earlscourt Girls Connection (EGC), a gender-specific programme for young girls with conduct problems was initiated at Earlscourt Child and Family Centre, a children's mental health agency. As part of an evaluation of the EGC, analyses of behavioural change according to primary caregivers' ratings were conducted comparing admission scores with 6 ($N = 72$) and 12 month ($N = 58$) follow-up. At follow-up, the girls were rated as lower on the total score for externalizing behaviours and on several internalizing and externalizing subscales of the Standardized Client Information Systems (SCIS). The girls were also rated as having increased in prosocial behaviours. Differences in scores on externalizing behaviours had small to medium effect sizes and a large effect for the improvement in social relations. Variability in intervention responsiveness provided direction for future development of this multifaceted treatment programme for aggressive girls.

RÉSUMÉ

En 1996, le programme *Earlscourt Girls Connection* (EGC), conçu tout particulièrement pour les jeunes filles présentant des troubles du comportement, a été mis sur pied au centre de santé mentale pour enfants *Earlscourt Child and Family Centre.* Dans le cadre d'une évaluation du programme EGC, on a analysé les changements de comportement tels qu'évalués par les fournisseurs de soins primaires; les scores attribués au moment de l'admission des filles au programme ont été comparés à ceux attribués 6 mois plus tard ($N = 72$) et 12 mois plus tard ($N = 58$). Lors de ce suivi, les filles ont obtenu un score total moins élevé en ce qui concerne les comportements d'extériorisation ainsi que des scores moins élevés pour plusieurs sous-échelles mesurant les comportements d'intériorisation et d'extériorisation identifiés par les « *Standardized Client Information Systems* » (SCIS) (Systèmes normalisés d'information sur les clients). Elles ont également obtenu des scores plus élevés relativement à leurs comportements prosociaux. Pour ce qui touche les comportements d'extériorisation, les différents scores notés indiquaient des effets faibles à modérés; on a toutefois observé une grande amélioration sur le plan des relations sociales. La variabilité des résultats obtenus a servi de paramètre en vue de l'amélioration future de ce programme de traitement à composantes multiples pour filles agressives.

Concern about how young girls are growing up has increased in Canada and elsewhere (Leschied, Cummings, Van Brunschot, Cunningham, & Saunders, 2001), fuelled by reports of elevated levels of problem behaviours, such as overt

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violence (Moffitt, Caspi, Rutter, & Silva, 2001), teen pregnancy (Zoccolillo & Rogers, 1991), and school dropout (Pulkkinen, 1992). In spite of these concerns for girls' development, little is known about young girls who are at particular risk for experiencing problems through adolescence and into adulthood. We know little about the etiology of their problems, other than that they are likely to arise from early patterns of aggressive and antisocial behaviours (Woodward & Fergusson, 1999). Although much has been written about childhood aggression, little attention has been paid to gender-specific issues, particularly the development and treatment of aggression in girls. Treatments primarily developed for, and evaluated with, boys have been implemented with, or delivered to, both boys and girls, with little attention to their differential effectiveness (Brestan & Eyberg, 1998). The impact of girls' aggression has generally been underestimated and considered to be less harmful to society than that of boys' aggression (Tremblay et al., 1996). This relative lack of concern for female aggression may be linked to the lower prevalence rates of aggression for girls than boys (Offord, Boyle, & Racine, 1991), the social forms of girls' aggression (Bjorkqvist, Osterman, & Kaukiainen, 1992), and the clearer association of boys' antisocial behaviour with adult criminality (Farrington, Loeber, & Van Kammen, 1990).

We join others in advocating that this lack of scientific attention needs to be redressed (Lescheid et al., 2001; Moffitt et al., 2001; Pepler & Sedighdeilami, 1998). Researchers and clinicians need to turn their attention to this group of vulnerable and marginalized girls to develop a better understanding of the etiology of girlhood aggression and intervention strategies that are effective. There is increasing evidence that girls who display aggressive behaviours at an early age are prone to experience major difficulties throughout their lives. Although boys and girls experience similar difficulties, some problems are specific to girls' development (Moffitt et al., 2001; Robins, 1986). For example, childhood aggression has been linked with poor school motivation, premature school leaving (Pulkinnen, 1992), and drug use (Cairns & Cairns, 1994) in both boys and girls; however, truancy and running away are particularly problematic issues for girls with an early aggressive history (Schlossmann & Cairns, 1993). As well, these girls tend to encounter profound gender-specific problems associated with sexual development (Caspi, Lynam, Moffitt, & Silva, 1993), early sexual activity (Lenssen, Doreleijers, Van Dijk, & Hartman, 2000; Ray & English, 1995), teen pregnancy (Schlossman & Cairns, 1993) and adult depression (Moffitt et al., 2001). Finally, there are indications that an intergenerational cycle of violence may be operative. Early aggression in girls has been associated with forming intimate relationships in adulthood with antisocial partners who themselves are less educated and abusive (Moffitt et al., 2001) and it has also been associated with having offspring who exhibit early behavioural and health problems (Serbin, Moskowitz, Schwartzman, & Ledingham, 1991). The social and economic burdens associated with not attending to possible negative trajectories for girls with an early aggressive history appear to be considerable.

Gender-Specific Treatment Intervention.

Earlscourt Child and Family Centre (ECFC) is a family-focused urban treatment agency for aggressive and antisocial children under the age of 12. Typically, the ratio of referred girls to boys at ECFC has been 1:5, which is similar to client data reported by other programmes. Prior to 1996, girls receiving treatment at ECFC participated in programmes based on interventions designed for boys and were usually involved in treatment groups with few girls. Assessments of the programme datasets called into question the inclusion of girls in supposedly gender-neutral programmes. As a result, the Centre developed a gender-specific programme, integrating what was known about the risk factors for girlhood aggression that had emerged through research and clinical practice. This innovative intervention for high-risk girls, the Earlscourt Girls Connection (EGC), appears to be the first reported gender-specific programme for preadolescent aggressive girls.

Theoretical framework. The EGC programme is guided by developmental theory, which suggests that development is shaped by the interaction of risk and protective factors which exist within the individual child, the family, and the community (Rutter, 1985). Risk factors are dynamic characteristics or processes which lead directly to a psychosocial disorder (Rutter, 1990). Protective processes, such as having a mother with a higher level of education (Werner & Smith, 1992), may operate to buffer the effects of risk processes. At the individual level, development is influenced by predispositional risk factors (e.g., temperament) which interact with protective factors (e.g., accelerated language development). At the family level, the quality of relationships (e.g., attachment, hostility) and the interactions between the child and her family (e.g., parenting style conflict) shape development by placing the girl at risk for behaviour problems or protecting her by supporting adaptive functioning. In focussing on the broader social context, the peer group and school comprise two important community domains of risk and protective processes. The ECG is also informed by other theoretical frameworks, such as relationship theory (Miller & Stiver, 1991), social learning theory (Patterson, 1982) as well as a multisystemic approach to helping families. With this developmental-contextual framework, the ECG focuses on the impact of aggressive girls' adjustment difficulties and functioning not only during childhood, but also during adolescence and adulthood.

Programme description. As with other ECFC programmes, the EGC was designed to incorporate evidence-based interventions associated with childhood aggression in general, as well as knowledge about the specific etiology and treatment of girlhood aggression. The long-term goals of EGC, to have girls stay in school and out of trouble (i.e., delinquency, teen pregnancy, antisocial behaviour) are addressed through a multisystemic intervention. The core 22-session curriculum is a multifaceted programme comprised of three components: SNAP™ (Stop Now And Plan) group for girls; SNAPP (Stop Now and Plan Parenting) group for parents; and, GGUH (Girls Growing Up Healthy) a group

for mothers and daughters. The child and parent groups are anger management and skill building interventions. Guided by internally developed manuals, the concurrent groups span 14 weekly sessions. The group courses were developed on the basis of what we know about girlhood aggression in particular (e.g., social forms of aggression) and childhood aggression (e.g., cognitive distortions) in general.

The SNAP™ group programme for the girls incorporates a cognitive-behavioural approach (e.g., role playing and generalization activities) that helps girls manage their impulsivity, think about the consequences of their behaviours, and develop a socially appropriate plan (e.g., find another playmate, ask for help, and use positive self-statements to counter cognitive triggers) (Levene, 2002). The focus in the girls' programme is on all forms of aggression, but the greatest emphasis is on social forms of aggression (e.g., verbal assaults, gossip, exclusion, spreading rumours). The gender-segregated group, as opposed to the norm of mixed-sex groups, involves processes characterized by relationship development and brainstorming.

The SNAPP group programme for parents has a cognitive-behavioural foundation for learning anger management skills, while acquiring effective, contingent parenting skills (Levene, 1997), with some emphasis on social forms of aggression that girls display or experience. When the girls and their parents have completed their respective group programmes, and when girls have reached the age of 8 years, mother and daughter pairs then participate in GGUH, an eight-session group course, guided by an internally developed manual. Our own experience and some limited research (Pepler & Craig, in press) suggests that for aggressive young girls, the relationship with a same-sex parent and same-sex modelling are key factors in the development of aggression; therefore, they are potential targets for effective interventions. The GGUH focuses on physical and sexual health, as well as on emotional issues. At a meta-level, through various structured activities (e.g., sharing their life stories, defining "harassment" through evaluating scenarios, planning for a girl's first menstrual period with ECFC "Period Planning Kit") the pairs expand and enhance their relationship and ways of communicating (Levene, 1997).

Family counselling may also occur prior to, during, and after, the group components to augment parenting skills and to respond to multisystemic sources of stress. Treatment planning is individualized, based on specific family factors and level of risk. Other EGC components, such as community hook-up, advocacy, specialized tutoring, or individual befriending (by a staff member or volunteer), are recommended on a case-by-case basis. The EGC has continued to evolve and introduce additional components in response to feedback from families, a growing understanding of their needs, and emerging research. Recently, for example, the Centre began to offer a maternal depression group to meet a significant clinical need. We also have become increasingly aware of the need to provide a model of ongoing service delivery that addresses the chronic nature of disruptive behav-

iour problems and reflects the developmental risks and challenges faced by the girls at EGC. We have attempted to address some of these complex maturational issues with the introduction, three years ago, of a Leader-In-Training (LIT) programme for girls over 12 who still require support and are interested in continuing to participate in treatment.

Previous EGC Research

There is still much research required on the negative trajectories of aggressive and antisocial girls. As one step toward constructing a foundation for understanding girlhood aggression, we embarked on a qualitative inquiry, "Girls growing up healthy: A qualitative study" (Levene, Madsen, & Pepler, in press). The focus of this exploratory study was to uncover salient themes through interviews with 16 families at admission to treatment. The majority of parent participants were mothers, as 69% of the families were mother-led, single-parent families. The noncustodial fathers were not actively involved in their daughters' lives and were not available for interviews. The parent and child narratives proved to be powerful and rich sources of information and raised important questions for future research and related treatment programmes. Six areas of potential risk emerged from the wide-ranging discussions: early difficulties, family relationships, abuse, school, peer relationships, and community issues. The first two domains of risk were of special note. Early difficulties characterized all of the girls who participated in the study. Their early years were burdened by a range of risk factors, the most prominent being physical, temperamental, and constitutional problems and a potentially difficult parent-child relationship. The mother-daughter relationship and the loss and/or absence of a father-daughter relationship emerged as salient themes associated with the evolution of a risk trajectory for girlhood aggression. The qualitative analyses also highlighted the need for more definitive risk identification tools and studies. In developing a risk assessment device, the EARL-21G (Early Assessment Risk List for Girls), we have incorporated the prominent risk factors identified in this study (Levene et al., 2001). This risk assessment device was developed with the primary purpose of identifying well-defined, evidence-based risk factors and facilitating the identification of risk with young girls. With a codebook developed from the EARL-21G, we have begun a retrospective file study as part of a multiphase evaluation of the EGC. This file study will provide a detailed profile of the ECG girls who may be at risk for negative adult outcomes, including risk for future offending.

Current Study

As an initial step in our multiphase research process, a preliminary analysis of the functioning of EGC girls at admission, 6 months, and 12 months following admission was conducted. Preadmission and follow-up scores on the Standardized Client Information System (SCIS) (Offord & Boyle, 1996) were analysed.

We hypothesized that girls would be less aggressive and more prosocial as a result of their involvement with the EGC treatment programme. Specifically, we expected to see an overall decrease in externalizing behaviour problems, including conduct and oppositional behaviours, with a corresponding increase in positive social relations. Although the programme was not specifically designed to address internalizing problems, we conducted exploratory analyses on these scales to determine whether there was a corresponding decrease with treatment.

METHOD

Participants

The primary objective of this study was to conduct preliminary analyses of the preadmission and follow-up data on the EGC over the programme's first four years of operation. For this evaluation, we included girls who were between 4-11 years of age, from the greater Toronto area, and whose files included admission and follow-up measures. Of the approximately 250 participants, 98 cases met the inclusion criteria with 72 files having six-month follow-up measures, and 58 having 12-month follow-up data. Although length of participation in the programme varied, most girls finished the core components of the programme within six months.

To ensure there was no selection bias in the sample for these analyses, those participants meeting inclusion criteria were compared to 98 randomly selected participants who did not meet the criteria. A multivariate analysis (MANOVA) was conducted on the mean T-scores on Standardized Client Information System (SCIS) (Offord & Boyle, 1996) at admission on the externalizing and internalizing scales, and on six subscales. There were no significant differences between admission scores for the two groups, indicating equivalence between the girls who were included and not included in the analyses.

Girls' characteristics. The girls ranged in age from 5 to 11, with a mean age of 8.9 years and all were attending school, from kindergarten through grade 7. With regard to specialized school programmes, 16% of the girls were in full-time and 23% were in part-time programmes for learning and/or behavioural problems. Other important issues that were noted about the girls in parent reports included repeating a grade (6%), physical abuse (10%), and sexual abuse (8%). According to parents' ratings at admission, the girls exhibited a wide variety of externalizing behaviour problems (ranging from sometimes to often) including: interrupts or butts in on others (97%); argues a lot with adults (96%); does not listen (96%); defiant (94%); temper tantrums (93%); angry and resentful (89%); cruelty, bullying, or meanness to others (85%); lying, cheating (82%); physically attacks people (61.2%); steals at home (40%); steals outside the home (37%); cruelty to animals (20%); vandalism (18%); uses weapons when fighting (13%); and runs away (13%).

Family characteristics. The majority of families of girls involved in EGC had a low or modest family income: 39% of families had an income of less than $20,000, 20% had an income between $20,000 and $40,000, and 29% reported an income greater than $40,000. The two primary sources of income were forms of government subsidy and salaries. Fifty-four percent of the girls came from single-mother households; 30% of these girls were living with their biological parents, 5% with adoptive parents, and 2% with grandparents (9% missing data). In a minority of families (16%), one of the parents reported being charged or arrested for a criminal offence.

Measure

The Standardized Client Information System (SCIS) (Offord & Boyle, 1996), developed by Children's Mental Health Ontario, is a standardized measure used to assess family demographics and children's emotional and behavioural disorders and health status. The SCIS includes four questionnaires, which are completed by the parent, teacher, youth, and a general household form. For this preliminary analysis, only questionnaires completed by the parent were used due to the numbers of inconsistencies in follow-up collection on the other questionnaires. Parents were typically the biological parent but in some instances involved a stepparent or guardian. Ninety-one percent of the parent forms were completed by female informants and 9% by male informants. This parent SCIS measure was adapted from the Child Behavior Checklist (CBCL)(Achenbach & Edelbrock, 1983). The SCIS generates scores for overall externalizing disorders from three subscales: a conduct disorder subscale (12 items), an oppositional subscale (9 items), and a hyperactivity subscale (14 items). An internalizing disorder score is also generated from three subscales: an over-anxious subscale (11 items), a separation anxiety subscale (9 items), and a depression subscale (16 items). A social relations scale comprises three items that focus on how well the child relates to other children, teachers, and family members. Higher scores indicate greater impairment on all scales. Behavioural items are rated on a 3-point scale ranging from never to sometimes true to often or very true.

RESULTS

Severity of Problems at Admission

Admission criteria for EGC required that the girls' behaviour problems be rated within the clinical range by either the parent and/or teacher unless there were special circumstances. A T-score of 70 or greater represents the clinical cutoff for the externalizing and internalizing scales and subscales. As expected, the parent/guardians' ratings on the SCIS indicated that the majority of girls were in the clinical range on the total score for externalizing behaviours (60%) and the three externalizing subscales (63 %, 59 %, and 52 % for conduct, oppositional and hyperactivity subscales, respectively). Between a quarter and a half of the

girls were rated as having problems in the clinical range for the total score for internalizing behaviours (42%) and the three internalizing subscales (22%, 29% and 49% for the overanxious, separation anxiety, and depression subscales, respectively). Fifty-nine percent of the girls were rated as having social relations problems in the clinical range.

Changes in Parents/Guardians Ratings of Behavioural Problems of Girls

Six-Month Follow-Up. Multivariate analyses (MANOVA) were conducted to assess differences between the admission and six-month follow-up scores on the externalizing, internalizing, and social relations total scales and subscales. Data for 72 girls were available for this analysis, although not all girls had complete ratings on all scales. For externalizing measures, a multivariate main effect of time was found indicating that the girls' externalizing scores were lower at six months than at admission, $F(4, 139) = 2.52, p < .05$. The girls' mean scores for externalizing problems at six months following admission to the programme are presented in Table 1. Univariate analyses revealed significant differences between the admission and six-month scores on the total externalizing score, as well as on the conduct disorder and, oppositional behaviour subscales. For internalizing problems, there was no multivariate main effect of time between the admission and six-month follow-up. Similarly, the univariate analyses showed no significant differences over time on the total internalizing scale, or on the internalizing subscales. On the social relations scale, the girls' scores were significantly lower at six months ($M = 65.55$) than at admission ($M = 73.95$), univariate $F(1, 116) = 15.43, p < .001$.

TABLE 1
Means, Standard Deviations, and F Values for Externalizing Scales Comparing Admission and Six Month and Admission and 12 Month Data

SCIS Scale	Admission $N = 72$		6 Months $N = 72$			Admission $N = 58$		6 Months $N = 58$		
	M	SD	M	SD	F	M	SD	M	SD	F
Conduct Disorder	81.76	26.79	71.86	21.11	6.07*	86.29	29.49	72.14	22.78	8.37**
Oppositional	74.55	11.67	69.17	11.98	7.47**	75.43	12.87	69.72	14.40	5.07*
Attention Deficit	70.37	11.38	67.62	10.77	2.21	68.70	12.61	64.43	11.72	3.57
Externalizing	76.08	12.24	1.05	11.67	6.37**	76.07	14.18	69.31	13.55	6.89**

*$p < .05$. **$p < .01$.

In addition to assessing the statistical significance of differences between admission and six-month follow-up scores, we calculated the effect size associated with the differences. A small effect size is in the range of $d = .2 - .3$, a medium

effect is in the range of d = .4-.6, and large effect size is in the range of d = .7-.9. The difference between the admission and six-month overall externalizing score approached a medium effect size (d = .42). Differences for the social relations scale between admission and six months approached a large effect size (d = .72).

Twelve-month follow-up. Multivariate analyses (MANOVA) were conducted to assess differences between admission and 12-month follow-up scores on the externalizing, internalizing, and social relations total scales and subscales. Data for 58 girls were available for this analysis, although not all girls had ratings on all scales. There was a trend for a time effect for the externalizing scales, $F(4, 116) = 2.22$, $p = .07$. Given the planned comparisons, we proceeded by examining the univariate analyses, which revealed significant differences between admission and 12-month scores on the conduct disorder and oppositional subscales, as well as on the total externalizing scale, as indicated in Table 1. For internalizing problems, there was no multivariate main effect of time between the admission and 12-month scores. Examination of the univariate analyses showed no significant differences on any of the subscales and the total internalizing scale. On the social relations scale, girls' scores were significantly lower at twelve-month follow-up ($M = 65.01$) than at admission ($M = 71.20$), univariate $F(1\ 96) = 6.33$, $p < .01$. The difference between the admission and 12-month total externalizing score represented a medium effect size ($d = .49$). For social relations scale, the difference between admission and twelve-month scores represented a medium effect size (d = .51).

Analyzing Change

Given that the analyses indicated significant differences between admission and follow-up measures on the externalizing and social relations scales, we were also interested in assessing whether these changes had clinical significance (Kazdin, 1977). Forty-four of the 72 girls who had six-month follow-up data were in the clinical range for total externalizing scores at admission. At the six-month point, fourteen (32%) of these girls had shifted to the nonclinical range and 30 (68%) of the girls remained within a clinical range. Thirty-six of the 58 girls who had 12-month follow-up on externalizing scores were in the clinical range for total externalizing scores at admission. At the 12-month point, 13 (36%) of these girls had shifted to the nonclinical range and 23 (64%) remained in a clinical range. For those girls who remained clinical at admission and follow-up, their externalizing scores did decrease significantly between admission ($M = 87.65$) and 6-months follow-up ($M = 81.55$), $t(29) = 4.11$, $p < .001$, and between admission ($M = 89.24$) and 12-months follow-up ($M = 82.07$), $t(22) = 3.64$, $p < .001$. A McNemar test for categorical data was conducted to examine the change in clinical distribution. Results showed a significant change in the distribution of girls in the clinical and nonclinical range for the externalizing total scales at 6 months ($p <. 001$) and at 12 months ($p <. 001$).

To assess factors associated with change, we examined the distributions at admission comparing those girls who had shifted out of the clinical range to girls

whose scores remained clinical at six months. This distribution was significantly associated with the admission total externalizing scales, $\chi^2(1, N = 72) = 14.96, p < .001$, the admission total internalizing scales, $\chi^2(1, N = 70) = 4.36, p < .05$, and the admission social relations scale, $\chi^2(1, N = 59) = 4.71, p < .05$. The girls who remained in the clinical range were more likely to have higher externalizing and internalizing scores at admission relative to those who moved out of the clinical range. For the twelve-month follow-up data, the distribution of girls who shifted out of the clinical range compared to those whose scores remained clinical was also associated with the admission total externalizing scales, $\chi^2(1, N = 58) = 9.27, p < .001$ and total internalizing scales, $\chi^2(1, N = 57) = 9.60, p < .01$. Again, those girls who remained in the clinical range had higher admission scores than those who moved out of the clinical range. No significant association was found between the admission social relations scale scores and scores at twelve-month follow-up.

To confirm these associations, we compared the admission scores of the girls who moved out of the clinical range to those of girls who remained above the clinical cutoff at both six and twelve months following admission. Results showed that admission scores for girls who were in the clinical range for externalizing problems at 6-month and 12-month follow-up were statistically higher than those for the girls who had moved into the nonclinical range at 6 months, $t(42) = 5.49, p < .001$ and at 12 months, $t(34) = 4.63, p < .001$. No significant differences were found on the total internalizing scale and social relation admission scores. Means and standard deviations are presented in Table 2.

To explore whether those girls who remained in a clinical range at follow-up were pure externalizing cases or showed any evidence of comorbidity on internalizing scales at admission, a series of chi-square analyses was conducted on the all internalizing subscales. Recent longitudinal research shows that depression appears to follow the onset of conduct disorder for girls and that the severity of depression increases as they enter adulthood (Moffitt et al., 2001). In the current

TABLE 2
Girls in the Clinical and Nonclinical Range at 6 and 12 Month Follow-up: Means and Standard Deviations for Externalizing and Depression Admission Scores

Clinical Range	6 Month					1 Year				
	Admission Externalizing Total Scale		Admissions Depression Scale			Admission Externalizing Total Scale		Admission Depression Scale		
	M	SD	M	SD	n	M	SD	M	SD	n
Clinical (>.69.9)	87.65	7.64	76.21	12.47	30	89.24	6.68	78.06	9.83	23
Nonclinical (<70)	75.73	3.92	65.99	12.32	14	77.89	7.72	69.71	12.36	13

study, a significant association was found on the depression subscale: those girls whose externalizing scores remained in the clinical range as compared to those who shifted to nonclinical range were more likely to also have admission depression scores in the clinical range at 6 months, $\chi^2(1, N = 44) = 7.91, p < .01$ and at 12 months, $\chi^2(1, N = 36) = 5.20, p < .05$ (see Table 2 for means and standard deviations). Over 70% of girls whose externalizing scores were in the clinical range at the three assessment points (admission, 6 and 12 month follow-up) were also in the clinical range for depression at admission, indicating comorbidity.

DISCUSSION

The present study comprised a preliminary analysis of functioning of EGC girls between admission and six months, and between admission and 12-month follow-up. Admission scores on SCIS parent forms for the majority of these girls were in the clinical range for externalizing behaviour problems. The results indicate a significant improvement between admission and follow-up. According to parent ratings, there was a decrease in externalizing behaviour problems at 6 months and 12 months following admission to the programme. On the social relations scale, there was improvement in social relations from admission to six months, which remained stable at 12 month posttreatment. The effect size for improvements in externalizing behaviour problems was in the small to medium range and in the medium to large range for social relations.

Although results indicate improved functioning for girls following their involvement in EGC, 68% of the girls were still in the clinical range on their total externalizing scores at 6 months and 39% remained in the clinical range at 12 months. These results are consistent with research identifying the vulnerability of antisocial girls (Robins, 1986) and with research on the stability of conduct behaviours. Moffitt et al. (2001) found that girls were as likely as boys to maintain their ranking in the overall distribution of antisocial behaviours, indicating that their problems were as stable as those of boys.

Examination of mean decreases represents half a standard deviation change on total externalizing scores at 6 and 12 months. Although the shift itself may not be substantial in terms of clinical significance (see Jacobson & Truax, 1991), combined with a small to medium effect size and a significant change in the distribution of girls in the clinical range, there is some indication of the positive effects of treatment. These findings are encouraging for a newly developed gender-specific treatment programme for antisocial girls. The girls who participated in the programme were rated as showing an overall decrease in externalizing behaviours placing them on a more positive trajectory than at admission and the behavioural improvements seemed to be maintained through the 12-month follow-up.

Those girls whose behaviour problem scores remained clinical at follow-up were distinguished on their admission scores from those girls who moved from a clinical to nonclinical status. Girls with behavioural ratings within the clinical

range at follow-up had significantly higher admission scores on the total externalizing scale and depression subscale than the girls who were rated within the nonclinical range at follow-up. There was significant comorbidity among the girls who remained within the clinical range: they were rated as high on both externalizing and depression scales. The issue of comorbidity is a particularly important consideration for the development of interventions. Comorbid disorders, compared to pure externalizing disorders, have been found to be more chronic with more complicating factors that can impede responsitivity to treatment, resulting in a poorer prognosis (Clarkin & Kendall, 1992; Shea, Widiger, & Klein, 1992).

Implications for Counsellors

The results of the ECG programme evaluation need to be interpreted with caution due to the limitations of the data set and the methodology. There is much to learn about the nature of girlhood aggression and effective gender-based interventions. Nevertheless, some potential guidelines for the delivery of programmes for aggressive girls emerged from the findings from this preliminary evaluation. The ECG interventions have displayed some level of effectiveness with a group of girls rated as having clinically elevated externalizing scores. The higher the level of difficulty evidenced at admission, the more likely it was that the girl would not move into the nonclinical range, even if her scores were moving in the desirable direction. These high-risk girls deserve the most intense interventions and the most support from counsellors and teachers to enable them to move onto a healthier trajectory. It is essential that we consider the role of depression in the functioning of girls who exhibit behaviour problems. The girls who experience comorbid aggression and depression problems require comprehensive, responsive clinical support, which must extend to their family and school contexts. It is a particular challenge working with these girls because their highly alienating and disruptive behaviours divert attention from their other problems, such as depression, which may not be as salient.

Girls who exhibit problem behaviours at a young age are at risk for being on a trajectory for long-term problems. An understanding of the potential consequences, such as school drop out, unemployment, physical health problems, teen pregnancy and psychiatric problems, assists with the identification of the domains of functioning among at-risk girls that require the most intensive interventions. Our experience in developing and delivering the EGC programme has highlighted the importance of addressing issues ranging from developing healthy relationships to dealing with social aggression. With comprehensive and tailored interventions, we hope to intervene to address the immediate problems experienced by aggressive girls and their families, as well as to prevent the potential problems that may arise as these girls meet the challenges of adolescence and adulthood.

CONCLUSION

The results are encouraging with regard to confirming the hypotheses regarding decreases in externalizing behaviour problems and increases in prosocial behaviours. Although the majority of the girls continued to score in the clinical range at follow-up points, a third of the girls were rated below the clinical range at follow up and parents generally rated their daughters as having fewer problems following participation in EGC. We recognize that there is much work to be done to refine the EGC based on ongoing programme evaluation to enhance the positive impact suggested by the present analyses. In addition, there is a need to focus not only on aggressive behaviour problems, but also on the comorbid depressive symptoms that may contribute to initial and ongoing problems, and serve as barriers to desired change. Although we will be able to speak more confidently about the EGC programme effectiveness with a stringent evaluation, this preliminary evaluation of the gender-specific programme for girls exhibiting aggressive and antisocial behaviours, suggests that the current intervention may be assisting the girls and their families to achieve positive change.

Future research will focus on the admission and treatment profiles of the girls who did not move out of the clinical range following participation in the programme. These future analyses will enable us to develop a profile of the factors that seem to place girls at risk for maintaining aggressive behaviour problems and develop treatment components to support positive change in at-risk girls and their social contexts.

The findings of the present evaluation must be considered in light of the limitations of the intervention and the evaluation design. As noted, the ECG programme is a "work in progress" which has evolved over the past five years. There was little to guide the development of this gender-specific programme beyond the interventions that had been designed for boys with conduct problems. The data available for the preliminary evaluation are limited in being incomplete for many of the girls in the programme and being based on parent ratings of behaviour problems. With these cautions in mind, the findings did provide some interesting information and suggest important directions for further research and programme development to support the optimal development of at-risk girls.

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