Antisocial Behaviours in New Zealand Youth: Prevalence, Interventions and Promising New Directions

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Violent criminal acts and other serious crimes perpetrated by young people represent a complex and pervasive clinical problem with detrimental consequences for victims, the families of victims and perpetrators, and the larger community. Compounding the problems posed by youth violence and criminality is the general lack of success that mental health and juvenile justice services have had in ameliorating serious antisocial behaviours in youth. Mental health, social and judicial services in New Zealand are under mounting pressure to provide effective treatment programmes for increasing numbers of antisocial youth. Multisystemic therapy (MST) is a family- and home-based therapeutic approach that has been viewed as a highly promising treatment for antisocial youth. The potential of MST as a treatment option for antisocial youth in New Zealand is discussed.

Antisocial behaviours in youth represent a complex and pervasive clinical problem, with large numbers of antisocial youth coming to the attention of mental health, social welfare and youth justice systems throughout the Western world each year (Rutter, Giller, & Hagel, 1998; Smith, 1996). Recent statistics from the USA, UK and New Zealand indicate that antisocial behaviours are manifested in between 4 and 15% of young people (Fergusson, Horwood, & Lynskey, 1997; Office of Juvenile Justice and Delinquency Prevention, 1999). Unlike other, internalising psychological disorders, the harmful effects of antisocial behaviours extend beyond the young people themselves to disrupt the functioning of their families, peers, and the communities within which they live (McGeorge, 1997). Given these harmful effects, it is not surprising that mental health, social and judicial services in New Zealand are under mounting pressure to provide effective treatment programmes for increasing numbers of antisocial youth (Brown, 2000; McGeorge, 1997; Mental Health Commission, 1998; Te Puni Kokiri, 1996).

Reducing youth crime and the other associated costs of antisocial behaviour in New Zealand continues to be a priority for governments as demonstrated by the range of programmes and services in place. Unfortunately, we know relatively little about the comparative effectiveness of available treatments for youth antisocial behaviour in New Zealand. In particular, there is limited information on what works to reduce Maori youth offending. Moreover, the research that does exist tends to focus on short term results rather then the maintenance of positive long term outcomes. The current discussion will focus on these issues by first providing an overview of the prevalence and developmental course of antisocial behaviour. Then, currently available treatments for youth antisocial behaviour in New Zealand will be reviewed, with a particular emphasis on those treatments that have been empirically demonstrated to have positive effects in other settings. In particular, the promising implications of Multisystemic Therapy (MST) for the treatment of New Zealand youth will be considered.

Prevalence and Developmental Course of Antisocial Behaviour

Recent New Zealand statistics suggest that the prevalence of antisocial behaviour in adolescents is increasing. In total, there has been an 80% rise in apprehensions of youth between the ages of 14 and 16 over the past decade, with dramatic increases in antisocial and/or drug related offences (63%), violent offences (89%), property damage (155%), and property abuse (84%) (Ministry of Justice, 2000). Children with an early onset of the disorder (i.e., before age 10) are predominantly male, with prevalence rates becoming more similar across gender during the adolescent years (Ministry of Health, 1998). At age 18, prevalence rates drop to approximately 5% for both males and females (Fergusson, Horwood, & Lynskey, 1993). On average, Maori youth are three times more likely to be apprehended, prosecuted and convicted than non-Maori youth (Owen, 2001).

Current Treatment and Intervention Programmes for Antisocial Youth

Given the prevalence of antisocial behaviours and the damaging consequences of these behaviours for youth, families, and the broader community, the need for effective, readily available treatments is urgent. Because antisocial behaviour has been linked with a diverse and complex range of individual, family, peer, school and community correlates, development and implementation of effective treatment interventions represents a significant challenge (Mulvey, Arthur, & Reppucci, 1993). Moreover, antisocial youth come in contact with a range of social service agencies (e.g., mental health services, the Youth Justice system), and therefore receive differing treatments with varying degrees of intensity and effectiveness. Indeed, given that it is often unclear who is responsible for responding to youth antisocial behaviour, we currently lack a comprehensive and integrated approach to addressing this issue.

In New Zealand, a range of treatments for antisocial behaviours is offered within different contexts, with some programmes adopting a prevention model that targets "at risk" youth and their families before the child's behaviour brings him or her into contact with the mental health, social or judicial system (McLaren, 2000; Maxwell & Morris, 1998; Singh & White, 2000). Other programmes provide treatment after the youth manifests a serious clinical problem. The focus of treatment also differs across various programmes, ranging from individually-based approaches to community-based programmes that integrate a range of services spanning family, school, and broader support systems. Some of the more promising treatment approaches available in New Zealand are summarised here.

Individually-Based Treatment Approaches

Problem-solving skills training (PSST). Problem-solving skills training (PSST) is an individually-focused treatment approach offered by many child and adolescent mental health agencies. PSST primarily targets the youth's cognitive deficits and distortions in reducing antisocial behaviour (Dodge, Price, Bachorowski, & Newman, 1990). This treatment involves the use of modelling and reinforcement tasks to assist young people in developing and applying appropriate cognitive problem-solving skills to real-life situations. Outcome studies with adolescents (Durlak, Fuhrman, & Lampman, 1991; Kendall, Reber, McLeer, Epps, & Ronan, 1990) have demonstrated significant reductions in adolescent aggressive and antisocial behaviour at home, at school and in the community. Although treatment effects have been achieved and maintained with samples of clinically referred children (Kendall et al., 1990), some evidence suggests youth with higher levels of impairment in all domains (i.e., academic delays, lower reading ability, parent psychopathology, family dysfunction) respond less well to treatment. Similarly, younger children (5-7 years old) appear to benefit less from this treatment than older youth (11-13 years old) (Kazdin & Weisz, 1998).

Residential and forensic services. In New Zealand, children and young persons with severe conduct disorders are increasingly being referred to secure residential facilities. Such facilities clearly meet an essential need for conduct-disordered youth who present an immediate safety risk to themselves or others. These homes may also provide needed care for young people who have no established caregivers or who are unable to return home because their caregivers have been deemed unfit. However, the harmful effects of grouping antisocial youth together in such environments are of increasing concern to mental health professionals. Indeed, an estimated 29% of the controlled intervention studies on group and peer-based treatments for antisocial youth demonstrated negative outcomes (Lipsey, 1992), including increases in problem behaviour and negative life outcomes in adulthood (Arnold & Hughes, 1998; Dishion, McCord, & Poulin, 1999). Moreover, research findings suggest that treatment gains occurring in residential setting placements are usually not maintained in the long term (Kazdin, 1997; McLaren, 2000; McLean & Grace, 1998; Sherman, Gottfredson, McKenzie, Edck, Reuter, & Bushway, 1998). These overall findings would also be applicable in the case of recently built youth prisons in New Zealand.

Family-Based Approaches

Parent management training (PMT), (Patterson, Chamberlain, & Reid, 1982): is another promising family based approach offered by mental health agencies in New Zealand where behavioural strategies are used to help parents develop the necessary skills to manage their children's problematic behaviours in a more successful fashion (Kazdin, 2000). Specifically, parents are trained to identify, define and respond to their child's problem behaviour by applying positive reinforcement techniques, negotiation skills, contingency contracting, and appropriate negative consequences. Parents are then supported and guided as they apply their newly developed skills to increasingly problematic situations. Clinically significant treatment effects have been reported on a wide range of post-treatment and short-term follow-up measures (Kazdin & Weisz, 1998). Unfortunately, these treatment gains have been shown to diminish over long-term follow-up. Moreover, the generalisation of this approach to adolescents appears limited, as stronger treatment effects have been found for younger children exhibiting relatively less severe problems (Frick, 1998).

Multidimensional treatment foster case (MTFC), (Chamberlain, 1994): is a community-based programme that places young people with antisocial behaviour in therapeutic foster homes within the community. Using principles of social learning theory, the foster family is trained to apply behaviour management strategies to provide structure and contingencies to the young person in the home, school and community (Chamberlain, 1994). Concurrently, the natural parents are also introduced to the therapeutic model, with the ultimate goal being the youth's return to his or her natural parents within a short period of time (average of 7 months). A clinical trial demonstrated that MDFC youths had fewer arrests than their counterparts in residential care (Chamberlain & Mihalic, 1998). Due to these positive

treatment gains, MDFC has recently been recognised as a promising programme for violence prevention by the Centre for the Study of Violence at the University of Colorado (Chamberlain & Mihalic, 1998).

School Based Interventions

School based interventions are widely used in New Zealand. For example, ***Tu Tangata*** is a school-based prevention programme now operating in 27 New Zealand schools that is designed to provide at-risk youth with access to high quality education (Puketapu, 1999). The programme also encourages parents, caregivers and community members to become involved in the daily learning activities of their children. Favourable outcomes include reduced student absenteeism and school suspensions, as well as higher levels of student motivation and achievement. More extensive evaluation is required to demonstrate the longer term effectiveness of this programme.

The Eliminating Violence (EV) Programme developed by Specialist Education Services (now Group Special Education - GSE) is another that helps schools to develop an optimal learning environment free of bullying and intimidation (Adams, 1999). Preliminary evaluation suggests that a year after programme implementation, schools with the EV programme have shown reductions in observed physical violence and rates of bullying in schools (Adams, 1999). Unfortunately, a current limitation of these school-based programmes is their restricted availability in New Zealand as well as a lack of controlled evaluation and long-term follow-up.

Community Approaches

Family Group Conference (FGC). The primary mechanism for dealing with youth offenders in New Zealand is a form of court diversion based on a process of restorative justice developed in the early 1990's referred to as the Family Group Conference (FGC). During the FGC, key stakeholders who have some interest in the youth's welfare (e.g., immediate and extended family), as well as those who might have been affected by the youth's behaviours (e.g., the victim) meet to establish a formal and binding decision about how to respond to the youth's problem behaviours. Offenders and family members are expected and encouraged to actively participate in finding solutions and making decisions about how best to satisfy the victim and restore justice (Morris, 1999; Singh & White, 2000). Although nearly 80% of young offenders are currently diverted from court hearings to FGCs, recent evidence suggests that 48% re-offend after six months (Scott, 1999). Moreover, the availability of additional programmes to work in collaboration with the FGC's structure and treatment goals has been reported to be limited (Barwick, 1999).

Police youth-at-risk programmes. These are part of a crime prevention package initiated by the New Zealand Police in 1997. Fourteen programmes are now funded in regions throughout New Zealand with a focus on preventing young people from entering a criminal lifestyle and/or the criminal justice system (Office of the Commissioner of Police, 2000). These programmes address a number of key areas of concern including an emphasis on hard line responses to serious young offenders, a concern for community and public safety, and a commitment to "investment in people" evidenced by the focus on prevention, early intervention and rehabilitation. Preliminary short term outcomes are promising with an average decrease of 78% in the number of offences/incidents committed by participants across all programmes. Follow-up evaluations are now required to ensure programme outcomes are maintained long term.

Strengthening Families. Strengthening Families is a recent initiative developed by the Ministries of Health, Education and Social Welfare to support families in which children are considered to be at risk of poor outcomes due to disadvantaged family and social circumstances (Wood, 1999). The broad aims of the Strengthening Families programme are to identify children in families at risk, to ensure that parents are aware of and meet their responsibilities to their children, and to improve the quality of services to these families through effective interagency collaboration (Wood, 1999). Safer Community Councils and Family Start are other examples of integrated services that facilitate the co-ordination of community agencies responsible for the care of youth. Whilst anecdotal evidence suggests that these initiatives are "making a difference", methodologically sound and rigorous assessment and evaluation of such programmes is required (McGeorge, 1997; McLaren, 2000).

Other community-based approaches. Other prevention-focused initiatives aimed at younger families include the Early Start programme based on longitudinal findings (Fergusson et al., 1993). This community-based approach aims to improve parenting skills and reduce the risk of child abuse, resulting in higher access to preventative care services and greater use of positive child health practices (Fergusson, 1999). Other developing community based interventions include the Mentoring for Children/Youth at Risk Demonstration project. Despite some positive anecdotal reports, the benefits of mentoring programmes remain unclear. It has been suggested that mentoring models require further development to fully meet the unique social and cultural needs of each youth (Singh & White, 2000).

Multisystemic Therapy (MST)

Multisystemic Therapy is a family- and community-based treatment approach that has been shown to achieve long-term positive outcomes with antisocial youth. The treatment theory underlying MST is based on social-ecological principles (Bronfenbrenner, 1979) and causal modelling studies of serious antisocial behaviour (Elliott, Huizinga, & Ageton, 1985; Kazdin, 1991; Lipsey, 1992), which suggest that maladaptive behaviour is determined by a combination of difficulties within multiple systems in the individual's ecology (e.g., family, school, peer, community). Accordingly, MST targets the individual, family, peer, school, and community factors identified as contributing to and maintaining the problematic behaviour (Henggeler & Borduin, 1990). In particular, MST is focused on empowering parents and other members of the ecology to develop the necessary skills and competencies to help the

youth function more adaptively. MST is an individualised and flexible approach that integrates empirically-supported treatment methodologies, such as cognitive-behavioural protocols, behavioural parent training models, and the pragmatic family therapies (e.g., structural, systemic).

Although MST is essentially an amalgam of "best practice treatment models", many of which are currently being implemented in New Zealand, MST is distinguished from other currently available models by four unique characteristics: (1) a family preservation model of service delivery, (2) its proven long-term effectiveness through rigorous scientific evaluation, (3) its stringent quality assurance system which ensures high fidelity to the treatment model, and (4) ongoing, long-term evaluation of treatment outcomes.

First, MST is provided within a family preservation model of service delivery. In keeping with its emphasis on ecological validity, MST is delivered in the natural environment (e.g., home, school, community). Treatment plans are designed in collaboration with family members and are, therefore, family driven rather than therapist driven. The ultimate goal of MST is to empower families to build an environment, through the mobilisation of indigenous child, family, and community resources, that promotes health and adaptive functioning. The MST treatment process is very intensive (i.e., therapists are available to families 24 hours per day, 7 days per week), strength-based (i.e., systemic strengths are identified and used as levers for positive change), and time-limited (average duration of treatment is 4 months). MST providers often devote great amounts of time and energy aligning with families, and they accept full responsibility for engaging families in treatment and attaining positive clinical outcomes.

Second, a hallmark of MST has been the careful efforts undertaken to validate this model. Over the course of over 20 years of research, empirical findings indicate that MST has long-term efficacy in treating serious antisocial behaviour in adolescents (e.g., Henggeler, Melton, Smith, Schoenwald, & Hanley, 1993; Henggeler, Schoenwald, Pickrel, Rowland, & Santos, 1992), as well as a variety of co-occurring problems such as substance abuse, sexual offending, and severe emotional disturbance (Henggeler, Schoenwald, Pickrel, Rowland, & Santos, 1994). Specifically, MST has been found to reduce long-term rates of rearrest in antisocial youths by 25% to 70%, days in out-of-home placements by 47% to 64%, rates of substance use and substance-related arrests, as well as improve youth emotional and behavioural functioning and overall family relations. A recent meta-analysis of all published MST outcome studies found that after treatment, the average MST adolescent was functioning better and offending less often than 72% of those adolescents treated in alternative programmes, as measured by a range of instrumental and ultimate outcome measures (Curtis, Ronan, & Borduin, 2002). Follow-up data at 12 weeks, 59 weeks and 4 years suggest that beneficial treatment effects are generally sustained over time (Borduin, Mann, Cone, & Henggeler, 1995; Henggeler et al., 1993; Henggeler et al., 1992).

Third, an intensive quality assurance process has been developed to help MST programmes maintain strict adherence to the treatment model. Previous MST outcome studies clearly demonstrate that treatment adherence is predictive of positive treatment outcomes (e.g., reduced rates of offending and out of home placements, improved school attendance). Indeed, failure to maintain adherence has been found to compromise treatment outcomes across numerous research trials (Henggeler, Pickrel, & Brondino, 1999; Henggeler et al., 1997; Henggeler et al., 1999). Given the crucial importance of treatment adherence, two measures have been developed to evaluate the treatment fidelity of MST therapists and supervisors: (1) the Therapist Adherence Measure (TAM; Henggeler, & Borduin, 1992), and (2) the Supervisor Adherence Measure (SAM; Schoenwald, Henggeler, & Edwards, 1998). Evaluation across various sites and clinical populations suggests that therapist adherence measures are predictive of positive treatment outcomes and that supervisor adherence is linked to therapist adherence (Schoenwald, Henggeler, Brondino, & Rowland, 2000). Accordingly, administration of these measures is a crucial and ongoing part of the MST treatment process.

Fourth, consistent with the empirical emphasis that has characterized existing MST programmes, evaluation of MST treatment outcomes in New Zealand is underway. The collection and analysis of treatment adherence (e.g., TAM and SAM data) and ultimate outcomes (e.g., rates of recidivism, school attendance, days in out-of-home placement) up to two years following treatment is an ongoing part of MST. Such extensive evaluation of treatment outcomes and the relation between treatment adherence and ultimate outcomes will help us to determine the effectiveness of MST in New Zealand, as well as guide the process of its successful dissemination. In addition, the evaluation of treatment outcomes is an initial and necessary part of justifying the additional structural and policy changes that will likely be needed to facilitate widespread implementation of MST.

Recommendations for Successful Dissemination of MST in New Zealand

Policy/organisational changes. Given what we know about the dissemination of MST across a range of populations in North America and internationally, the success of MST in New Zealand will likely be dependent on implementing a number of policy and organizational changes. First, public health officials must be informed about treatment outcome research and committed to making funding decisions that are informed by sound empirical evidence (Santos, Henggeler, Burns, Arana, & Meisler, 1995; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998). Second, accountability for engaging families and attaining positive treatment outcomes must be shifted from families to administrators, therapists, and supervisors. Such a shift demands corresponding changes in evaluation processes, reimbursement strategies, and organisational procedures. Third, service providers must support the multilevel changes necessary to resource and maintain a new treatment approach. This support will include ongoing training and quality assurance mechanisms to ensure that supervisors and therapists are able to implement the treatment model and maintain treatment adherence. Finally, considerable

commitment is required on the part of policy makers, management staff, supervisors and clinicians to ensure rigorous evaluation of treatment outcomes, a process that is crucial to the implementation of MST.

Cross-cultural issues. Although the existing empirical literature on MST indicates that treatment outcomes are not mediated by culture, ethnicity or gender (Borduin et al., 1995), it cannot be assumed that the benefits of this model will automatically be replicated in New Zealand. Indeed, with New Zealand's unique blend of social, cultural, and ethnic variables, it is possible that modifications may be necessary to ensure that the successful treatment outcomes found in the United States will be replicated in this country. In particular, the principles of the Treaty of Waitangi must be incorporated into all aspects of health care. Moreover, both Maori and Pakeha involvement must be reflected at all levels of MST delivery, from bicultural organizational development to service delivery by therapists of differing ethnic and cultural backgrounds.

Conclusion

Failure to provide youth with appropriate treatment services with demonstrated long-term efficacy has recently been identified as a critical link missing in the "total system" of service delivery for challenging youth and their families (Morris, 1999). The findings of cross-sectional and longitudinal studies conducted over the past twenty years suggest that antisocial behaviour is linked to maladaptive interactions between individual characteristics and multiple family, social, educational and cultural variables within the young person's ecology (Elliott et al., 1985). Given the empirical evidence, there is now a growing consensus that effective and sustainable treatments should assess and intervene in multiple systems (Hazelrigg, Cooper, & Borduin, 1987; Henggeler, 1989; Mulvey et al., 1993).

A significant amount of evidence has emerged to support MST as an effective treatment for the severe and complex manifestation of antisocial behaviour in adolescents (Henggeler et al., 1999). Moreover, a number of national reviews of the etiology and treatment of antisocial behaviour have identified MST as an effective treatment model with the potential to bring about significant changes in the care and treatment of antisocial youth in New Zealand (e.g., McLaren, 2000; Singh & White, 2000). Although the MST model promises to be a valuable addition to existing mental health services in New Zealand, significant efforts will be needed to ensure that adherence to the treatment model is preserved, while concurrently taking into account the social, cultural, and ethnic factors that are unique to New Zealand.

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