Using prevention science to reduce the risk of child neglect

Diane DePanfilis

Child neglect is the most prevalent and least understood form of child maltreatment both in Australia (AIHW 2007) and the United States (USDHHS 2008). There is a general consensus that because child neglect is multi-dimensional, no one method will be effective in preventing it. Use of prevention science principles (Cole et al. 1993), which focus on enhancing protective factors and decreasing risk factors, should be used to target families and communities, but be applied in such a way as to individualise and recognise their differences. This paper uses the stages of prevention science to illustrate the development, implementation, and evaluation of a community based prevention program called Family Connections (DePanfilis & Dubowitz 2005; DePanfilis, Dubowitz & Kunz 2008). Implications of this process are considered in the context of recommendations of the World Health Organization for preventing child maltreatment (Butchart, Harvey, Mian & Furniss 2006).

KEYWORDS: prevention science, neglect, families, intervention, research

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Dr DePanfilis' research focuses on understanding what interventions work best to increase the safety and well-being of vulnerable children and families.

Child maltreatment, and child neglect in particular, remain major public health and social welfare problems across the world (Gilbert, et al. 2008). In 2006, the World Health Organization (WHO) report on the prevention of child maltreatment, *Preventing child maltreatment: A guide to taking action and generating evidence*, recommended that this problem achieve the prominence and investment in prevention and epidemiological monitoring that is given to other serious public health concerns (Butchart, Harvey, Mian & Furniss 2006). However, despite these urgent challenges, child neglect still remains the most prevalent form of child maltreatment in Australia (AIHW 2007) and the United States (USDHHS 2008).

Child neglect has been defined as 'behaviour by a caregiver that constitutes a failure to act in ways that are presumed by the culture of a society to be necessary to meet the developmental needs of a child and which are the responsibility of a caregiver to provide' (Straus & Kantor 2005). However, the heterogeneity of the phenomenon and the inherent difficulty of specifying omissions of care (unmet needs) rather than abusive actions, make this form of maltreatment difficult to conceptualise (Straus & Kantor 2005). Child neglect is at least as damaging as physical or sexual abuse in the long-term, but has received the least scientific and public attention (Gilbert et al. 2008). And, because of the many forms and types of child neglect—for instance, failure to provide adequate food, clothing or accommodation; not seeking medical attention when needed; allowing a child to miss large amounts of school; and failure to protect a child from violence in the home or neighbourhood or from avoidable hazards (Gilbert et al. 2008) — no single prevention or intervention strategy can be expected to work to prevent it (DePanfilis & Dubowtiz 2005). Despite some increase in research that identifies risk and protective factors for child neglect (see, for instance, Schumacher, Slep & Heyman 2001), which is a necessary prerequisite for designing prevention programs, information on effective approaches to prevent neglect is limited. In prior reviews of neglect focused on prevention (Holden & Nabors 1999) and intervention (DePanfilis 1996, 1999; Gaudin 1988, 1993; Wolfe 1994) multiple authors have noted the paradox that although neglect is the most prevalent form of child maltreatment, it has infrequently been targeted for specific intervention and even less often targeted for preventive intervention.

Prevention science (Cole et al. 1993; Institute of Medicine 1994; Kellam, Koretz & Moscicki 1999; Weissberg & Greenberg 1998) is built on the premise that there are precursors to health and social problems. The goals of prevention science are to decrease risk factors (precursors to child neglect) and increase protective factors (moderators, reducing the effects of risk exposure) (Hawkins, Horn & Arthur 2004). This framework is consistent with a public health approach (Institute of Medicine 2002) and an ecological developmental model (Bronfenbrenner 1979).

The purpose of this paper is to report on the use of prevention science principles to design, implement, and evaluate a multi-faceted, community-based, service program that works with families in their homes and in the context of their neighbourhoods to help them meet the basic needs of their children and reduce the risk of child neglect.

STAGES OF PREVENTION SCIENCE

There are essentially four broad phases of prevention science. Each will be described with illustrations from Family Connections, a community-based program designed to prevent child neglect (DePanfilis & Dubowitz 2005; DePanfilis, Dubowitz & Kunz 2008). These stages include:

(1) identify and describe the problem and consider epidemiological data about the problem (i.e. child neglect);

(2) identify risk and protective factors related to child neglect;

(3) design and conduct pilot efficacy studies, replication trials, and large scale effectiveness trials; and

(4) facilitate the dissemination and widespread adoption of prevention principles and strategies in community service settings (Cole et.al. 1993; Institute of Medicine 1994; Weissberg & Greenberg 1998).

DEFINE AND DESCRIBE CHILD NEGLECT

The first stage included defining child neglect and its various sub-types and then examining the epidemiology of the problem, including the nature, extent, and effects of child neglect, particularly in the community targeted for the prevention program. As indicated previously, child neglect is the most common and the least understood form of child maltreatment. In general, neglect refers to (1) acts of omission of care to meet a child's basic needs that (2) result in harm or a threat of harm to children (DePanfilis 2006; Dubowitz 2000). A prevalent form of child maltreatment, it is also most likely to recur compared to other forms of maltreatment (DePanfilis & Zuravin 1999a), particularly in Baltimore – the geographic site selected for this prevention strategy. The effects of neglect impact upon children significantly (Gilbert et al. 2008) therefore warranting serious attention to developing strategies to prevent it.

IDENTIFYING RISK AND PROTECTIVE FACTORS

The second stage of prevention science involves identifying risk and protective factors (Mrazek & Haggerty 1994). Risk factors are defined as characteristics that elevate the probability of an undesirable outcome (Masten & Wright 1998). Once identified, interventions aim to reduce the presence or meaning of specific risk factors in the life of that individual or family. Protective factors are defined as characteristics that promote resilience or moderate the effect of risk factors (Masten & Wright 1998). Therefore, preventive intervention is designed to help families develop or promote existing protective factors to offset or reduce the effect of risk factors. Child neglect does not occur in a vacuum. There is a general consensus that factors that increase or decrease risk of child neglect should be conceptualised on multiple levels: individual, family, community, environment, and culture [or society] (Belsky 1992). Further, ecological models suggest that when stressors (of a variety of kinds: parent, child, social conditions) outweigh supports, or when potentiating factors are not balanced by compensatory ones, the probability of child neglect increases (Belsky 1992). Thus, the goal of the exploration of risk and protective factors is to then design prevention strategies geared to increase protective factors and decrease risk factors (Kirby & Fraser 1997; Masten & Wright 1998; Thomlison 2004). In the case of preparing to develop the Family Connections program, author developers (DePanfilis & Dubowitz 2005) used results from their own longitudinal research about families in Baltimore (Black, Hutcheson, Dubowitz & Berenson-Howard 1994; Black, Hutcheson, Dubowitz, Starr & Berenson-Howard 1996; DePanfilis & Zuravin 1999a, 1999b, 2001, 2002; Harrington, Dubowitz, Black & Binder 1995) and a review of risk and protective factors identified from other research (e.g. Schumacher, Slep & Heyman 2001).

DESIGNING AND TESTING PREVENTION STRATEGIES

The design of prevention strategies should directly address the identified risk and protective factors. Since the etiology of neglect suggests multiple dimensions and causes, there is general agreement that to prevent neglect, individualised tailored interventions will have the greatest chance of success ... in other words, 'one size does not fit all' (DePanfilis 2006). Ideally, the framework for implementing prevention strategies will be articulated in an intervention manual (Camacho-Gonsalves, Leff & Torrey 2002) and fidelity criteria will define a protocol for delivering preventive strategies so that the intervention will be implemented consistently and as intended (Mobray, Holter, Teague & Bybee 2003). In the case of Family Connections, the intervention manual specifies the theories that drive the intervention, the philosophical principles for guiding the ways in which families are served, the process of outreach and engagement, the protocol for a comprehensive family assessment, methods to define intervention outcomes and

case plan goals, selection of strategies to facilitate the achievement of goals and outcomes, and methods for evaluating changes in risk and protective factors over time (DePanfilis, Glazer-Semmell, Farr & Ferretto 1999).

Building on key principles of home visitation (Guterman 2001), Family Connections was designed as a multi-faceted, community-based service program that works with families in their neighbourhoods to help them meet the basic needs of their children, reduce the risk of child neglect, and enhance the overall functioning of the family and children. The program operates from an ecological developmental framework using Bronfenbrenner's (1979) theory of social ecology as the primary theoretical foundation. Child neglect is thought to evolve when risk factors related to the child, caregivers, family system, and the environment challenge the capacity of caregivers and broader systems to meet the basic needs of children. Family Connections uses a home-based, family-centred model of practice consistent with other home-based, tailored intervention approaches (Dunst, Trivette & Deal 1988; Kinney, Strand, Hagerup & Bruner 1994). Nine practice principles guide Family Connections interventions: community outreach, individualised family assessment, tailored interventions, helping alliance, empowerment approaches, strengths perspective, cultural competence, developmental appropriateness, and outcome-driven service plans (DePanfilis, Glazer-Semmell, Farr & Ferretto 1999). Individualised intervention is geared to increase protective factors (e.g. social support) and decrease risk factors (e.g. parental depressive symptoms) for child neglect.

The core components of the Family Connections demonstration program included:

(1) emergency assistance

(2) home-visiting family intervention (family assessment, outcome-driven service plans, individual and family counselling)

(3) advocacy and service coordination with referrals targeted toward risk and protective factors, and

(4) multi-family supportive and recreational activities.

Because we were interested in understanding whether shorter versus longer services were more effective with supporting families to achieve outcomes, families served for three versus nine months were assigned to receive the same core services, but for different lengths of time. Clinical self-report and observational measures (DePanfilis et al. 1999) were integrated into the family assessment, and service plans were developed accordingly. Similar to other home-based interventions (Lutzker & Rice 1987), Family Connections combined education of graduate students with service to the community. Social work first and second year interns completed the objectives of field placement courses by providing most of the services delivered for either three or nine months. These services were under the close supervision of a faculty member. Interns received weekly individual supervision and clinical seminars, and they followed a detailed intervention manual (DePanfilis et al. 1999). The program was based in a row house in the community and most services were provided in participants' homes.

This stage also involves clearly defining the target population, eligibility criteria, and developing a logic model (W.K. Kellogg Foundation 2001) as a road map for delivering prevention strategies that will reduce risk and enhance protective factors and, ultimately, prevent child neglect. Specific strategies should be selected in the array of options based on a systematic review of the literature (Littell, Corcoran & Pillai 2008) about what is known about 'what works' to achieve intermediate and long-term outcomes. Testing these strategies should be implemented via quasi-experimental and experimental research designs to improve understanding about the efficiency and effectiveness of prevention strategies. The Family Connections program was tested through a federally-funded, demonstration study and is currently being replicated in eight locations in the United States.

Findings from the initial study (DePanfilis & Dubowitz 2005; Girvin, DePanfilis & Daining 2007) indicated differences in risk (parental depressive symptoms, life stress, parenting stress) and protective factors (parenting attitudes, parenting competence, social support) and child safety (physical and psychological care of children) and child behavioural outcomes (internalising and externalising behaviours) between the beginning, end, and six-months after case closure follow-up period for families served for three and nine months. However, children in families served for nine months were more likely to experience positive improvements in child behaviour. A separate study of cost effectiveness (DePanfilis, Dubowitz & Kunz 2008) determined that the 3-month intervention was more cost effective than the 9-month intervention in relation to positive changes in risk and protective factors and child safety. However, cost effectiveness analysis indicated that the 9-month intervention was more cost effective (CE ration = $276) than the 3-month intervention (CE ratio = $337) in relation to improved unit changes in the child's behaviour between baseline and six months after service closure.

Implementation of strategies is a complex process and one which should recognise the realities of controlling the implementation process in the real world (Aarons & Palinkas 2007). Research findings indicate that there are six primary determinants of successful implementation of Evidence Based Practice (EBP):

(1) acceptability of the intervention to the practitioner and the family

(2) suitability to the needs of the family

(3) motivations of the practitioner to use the intervention

(4) experiences with being trained in the specific intervention strategies

(5) extent of organisational support for applying the intervention strategies, and

(6) impact of the EBP on the process and outcome of services.

DISSEMINATE INFORMATION ABOUT PREVENTION STRATEGIES

The fourth phase of prevention science involves disseminating information about the effectiveness of preventive interventions and increasing the wide-scale implementation of prevention principles (Butchart et al. 2006). An effective prevention program is one that reduces the incidence of child maltreatment in the intervention population, or at least lowers the rate at which the incidence is increasing. The 2006 World Health Organization (Butchart et al. 2006) report suggests that criteria for effectiveness consider whether the program has used a strong research design, either experimental or quasi-experimental; has demonstrated evidence of a significant preventive effect; demonstrated sustained effects; and has replicated the program with demonstrated preventive effects. The Family Connections program is not yet at this stage of development. It used a quasi-experimental design in its original demonstration study, randomly assigning families to receive either three or nine months of intervention. The program was able to demonstrate that families who received intervention experienced a decrease in risk factors, enhanced protective factors, and there was an increase in child safety as demonstrated by observations of improved physical and psychological care of their children and a reduction of reports of child abuse and neglect (DePanfilis & Dubowitz 2005). However, it is only now being replicated with other target populations, so it is not yet ready to be disseminated widely.

Based on the level of evidence about other promising prevention strategies, the World Health Organization (Butchart et al. 2006) recommends a number of strategies for preventing child maltreatment at the society and community level including:

(1) implementing legal reform and human rights

(2) introducing beneficial social and economic policies

(3) changing cultural and social norms

(4) reducing economic inequalities

(5) reducing environmental risk factors.

This Report further suggests that a comprehensive strategy for preventing child maltreatment will include interventions at all levels of the ecological model. These address an array of risk factors from cultural norms, to family level risk factors. Supports for families by means of home visiting or other training programs should be selected based on the best available evidence. Families who are at highest risk for experiencing maltreatment should be targeted for efficient use of available resources.

SUMMARY

This paper has traced the four broad phases of prevention science to illustrate how those processes may be implemented. The first phase involves identifying and defining the nature and extent of the problem in the specific community being targeted for preventive intervention strategies. The second phase involves identifying both risk factors, that when present are likely to increase the likelihood of the problem (e.g. neglect), and protective factors that when present may reduce the likelihood of neglect. By precisely understanding these factors in a specifically identified targeted community, it should be possible to develop a preventive intervention that is specifically tailored to the cultural context of target populations. The third phase usually takes at least a year of planning to specifically identify inclusion and exclusion criteria, and to develop and document the protocol for the specific prevention strategies. Programs should document their protocols in intervention manuals and outline a logic model that describes the intended theory of change and methods for evaluating risk and protective factors over time. Experimental or quasi-experimental evaluation designs should be implemented to document both the process and outcomes of the implementation of the program strategies. After initial testing, similar steps should occur to replicate the use of the program with other target populations and communities. When strategies have been documented to truly prevent child maltreatment, then it is possible to disseminate information about these strategies on a wide scale basis. ■

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