PREVENTION, YOUNG CHILDREN AND THE SCHOOLS[1]

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RESUMO

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Um conjunto de diretrizes é considerado para o desenvolvimento e a avaliação de programas de prevenção em escola para crianças pequenas, através da exposição de tres tópicos interrelacionados: o primeiro que descreve o Projeto de Prevenção Primária em Saúde Mental desenvolvido pelo Centro de Estudos Comunitários da Universidade de Rochester. O segundo o qual revê os esforços de disseminação deste programa fundamentado por esta abordagem e por último o que memoriza os esforços

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mais recentes no desenvolvimento de modelos reais de prevenção para crianças pequenas na Escola.

PALAVRAS CHAVE: Prevenção Primária, Saúde Mental, Programa de Saúde Mental.

INTRODUCTION

This article has its roots in a small meeting held in Rochester, N.Y. (USA) in July, 1990. At that time, staff members at the University of Rochester Center for Community Study spent several delightful days with three distinguished representatives of school psychology in Brazil (Solange Wechsler, Raquel Guzzo and Vera Gomes), discussing common interests in prevention programs for young school children.

Since then we have remained in close touch with the Brazil delegation, and have provided information and materials relevant to the new school mental health models we have been developing. As an outgrowth of that dialoguing process, I received a cordial and much appreciated invitation to visit Brazil to participate both in its First National Conference in School Psychology and several later associated activities. Although I would very much liked to have done that, it turned out that there was a time-conflict between your event and a national training conference that we are conducting in Rochester. So, with regret, I was obliged to decline the invitation. Happily, your conference will be attended by Deborah Johnson who directs a related network of innovative school based mental health programs now operating in 70+ school districts in the state of California. Debbie is thoroughly

familiar with school-based preventive programming in general, and with the work going on in our "adobe hacienda" in particular.

Although I'm regretful that I can't be at the conference, I nevertheless feel closely identified with, and warmly supportive of, its purposes. In that spirit, in the process of overworking FAX lines between Brazil and Rochester, we hit upon an alternative way to further the conference's objectives, that can both expiate my sense of guilt and express my support for your efforts. That way for me to write a paper built around the work we have done in developing and evaluating school-based prevention programs for young children.

Let me say at the very outset, that the words prevention, children and schools that frame my title, have guided all of the Center's efforts for the past 35 years, and will probably guide most of what we do in the next 35 years. Although our quest for new knowledge in these hallowed areas remains on-going, our learnings to date direct attention to innovative new ways in school mental health that: (a) seriously challenge past dominant approaches in that field; and (b) serve as harbingers of how such approaches are likely to be conceptualized and delivered in the 21st century.

This article is intended only as a brief, global summary of: (a) the thinking that has powered our efforts; (b) the kinds of programs we have developed; and (c) why we consider these to be important and informative. It will meet its goal if it stimulates thinking about options and alternatives that can be meaningfully applied to future school mental health programming in Brazil.

I shall focus on three interrelated topics. The first, and most basic, is our preventively oriented school mental health program, called the Primary Mental Health Project. The second reviews our extensive dissemination efforts based on this approach. The last, and perhaps most intriguing, summarizes recent efforts to develop "true" primary prevention models for young school children. Each of these three components is a saga in its own right. This finite overview will touch only the tip of the iceberg for each.

Primary Mental Health Project

In 1957, we broke a bottle of champagne over a new entity called the Primary Mental Health Project. Because that title was cumbersome, it soon acquired the acronym PMHP. Notwithstanding many real-world adversities, PMHP has somehow managet to survive. More than that, it has grown to the point where its octopus-like tentacles now touch 500+ school districts around the world. Rather than plunging directly into a description of PMHP, I shall start with a brief review of history and evolutionary that may help to clarify: (a) what we are now doing; (b) how we got to that point; (c) why we think its helpful to be there; and (d) how our efforts to date shape future agendae.

Let's begin in the early 1950s, when the PMHP concept first began to gestate. That was shortly after I had completed my Ph.D. degree in clinical psychology and accepted a faculty position at the University of Rocheste. My job roles and activities were typical for the time. I did some teaching and puttered around in several then-fashionable research areas as part of the eternal quest for tenure. I also did my fair share of clinical work, plying the Rorscharchs, TATs, Binets and Wechslers that

were standard "tools-of/the/trade" in the 50s. I even confess to having been extensively involved in doing psychotherapy; indeed I was reputed to be among the finer "mm-hmmers" of the era.

Its not that I found those activities uninteresting or unrewarding, or even that I was a inept clinician. Rather, like a slow process of lead-poisoning, I began to experience a gnawing sense of frustration less about the technology I was using **per se**, and more about its limited power in relation to the level of dysfunction being addressed in clients. Particularly in prolonged dyadic interactions with troubled adults I often noted longstanding problems that had built-up and fanned out over the years. With increasing persistence and clarity, a question that took form in the darker recesses of my (then adequately funcioning) cortex, was: "How much current discomfort and ineffectuality could have been short-circuited had the person's problems been identified and engaged constructively much earlier on"? When that question survived the stringent test of several years of Cowen's finely-honed ruminative processes, prospective actions (solutions) began to take form in my mind.

The foregoing reactions were more a matter of slow "pebble-piling" than a sudden, brilliant "Aha" experience. Indeed, as this thinking was gradually unfolding, I noted some interesting linkages between it and the observations of several colleagues working in the schools. Two such observations were especially influential during PMHP's gestation period. The first was that school mental health referrals, many for serious problems, seemed to peak at the transition point between elementary and high school, at which time they sharply overtaxed available resources. In looking at the cumulative (often thick and "dog-eared") dossiers of referred children, we

noted antecedents of current problems that teachers and other school personnel had observed as far back as kindergarten or first grade. Either help for such children had not been available or people had hoped that if they closed their eyes long enough the problems would disappear. Far from vanishing, many of these early problems became more deeply rooted, complex, and disturbing, over time.

A second, equally vexing observation, often made by classroom teachers, was that a major portion (50%) of their time was preempted by a very few children (3 or 4) in a class of 25 or 30, to the detriment of the maladpting children themselves, the educational experience of the rest of the class, and the teacher's ability to do a decent job. Such feedback was mindful of industrial accident proneness data suggesting that 80% of all work accidents befell about 20% of the work-force.

The realization that help for young maladapting children was not available either when, or in the amount, needed was the actual motor force that started PMHP. A decision was made to concentrate scant professional resources at the primary grade level to develop a systematic program for early detection and prevention of school maladjustment. Although we realized that reallocating resources in a finite system required compensatory cutbacks (e.g., services at the intermediate levels) we hoped that the new approach would minimize later more serious maladaptation and, with that, the ultimate need for services at the upper levels. That decision, in any case, was PMHP's midwife. It has been central to the project's ways ever since.

Thus, PMHP can be seen as one way of addressing perceived insufficiencies in past mental health approaches. Its key initial technologies were to detect

ineffective functioning in young children as soon as possible and to provide them with early, preventively-oriented help. At the same time, PMHP's respect for the processes of self-evaluation and correction has made it an ever-evolving, rather than a "stand-pat," program. Clinical and/or empirical data about the model's limits have fueled continuing efforts to strengthen it. Even more important, experience gained through PMHP led to a somewhat different, less literal conception of our basic goals, i.e., "How can young children's adaptation and well-being be optimized from the very start?' A subtle distinction between that and prior phrasings of PMPH goals is that it bypasses specific mention of the literal procedures of early detection and intervention. In other words, although early detection and intervention, as forms of ontogenetically early secondary prevention, offer one useful way to improve children's psychological well-being, they are *not* necessarily the only, or even best, way. That shade of meaning is important to keep in mind as PMHP's evolutionary course is charted later in this artichle.

The preceding "Remembrance of Things Past", in Marcel Proust's idiom, is our first historical slice. It is to describe a problem we perceived and a skeletal notion that began to form about how that problem might be gainfully addressed. To do a little of what sociologists call "languaging up", we began to move in the direction of a Kuhnian "paradigm shift" (Kuhn, 1970) reflecting the conviction that regnant ways in mental health were insufficient to address the range and magnitude of existing problems, and that the time for a 4th mental health revolution was upon us (Prevention Task Panel Report,

1978). Indeed, in 1967, we published a volume called **"Emergent Approaches to Mental Health Problems"** which reflected this budding notion (Cowen, Gardner & Zax, 1967). All of our subsequent efforts are fully consistent with the spirit of that volume.

The wisdom of hindsight makes it a lot easier to explain how we evolved as we did. It makes everything sound logical and planful and buries the multitude of and false-turns that were at once the land-mines we hit, and the source of constructive, if painful, learning. We did not, in 1957, write a master scenario for the next 35 years. Rather we groped, we stumbled, we erred and we evolved. If indeed it seems in retrospect that there has been a "method to our madness," be assured that there were many times when any such method was mignt ily obscured.

Although we had formed 35 years ago, what Edward Chace Tolman called a "gross congnitive map" of what we wanted to do, there were I'm sure, many different ways in which we could proceeded. If we didn't realize it then, Seymour Sarason's writings, particularly his heuristic concept of "the universe of alternatives", made this point crystal-clear. Of Sarason's many stimulating volumes of one of my true favorites is **The Culture of the School and the Problem of Change**. The closing line in that volume beautifully captures this point: "The present is pregnant with many different futures" (Sarason, 1982).

Not surprisingly, the gross cognitive map we had begun to form in the 1950s featured the three nouns that frame the title of this article: prevention, children and schools. Prevention was to ber our goal, woung children

our prime targets and schools our locus. Without laboring the point, I can say a few words about why these key-words seemed (and still seem) so important to us. I would be surprised if these notions were any less applicable in Brazil thay they are in the USA.

The concept of prevention intrigued us because it harbored meaningful solutions to vexing problems that the classically defined mental health field had been unable to solve. One such problem was the fact that the existing mental health system lacked the resources needed to meet the demand for help, much less the underlying need. Moreover, those limited resources were inequitably distributed and poorly suited to major segments of the population, following the general rule that help was least available where it was most needed. Finally and importantly, the mental health system had always been singularly oriented to casuality and its reapir. As a result of that "end-state" mentality, professionals typically came into play when evident deficit was brought forcibly to their attention. Prognostically, that is the poorest time to intervene, since rooted psychological dysfunction most resists change (Zax & Cowen, 1976). Hence prevention for us became one deity at whose altar we would long worship.

But why young children? Our reasoning went as follows. Young children are relatively flexible and malleable. Whatever the nature of their problems, they are less likely, than for older children, to have rooted or fanned out. Thus, in the energy conservation sense, we reasoned that young kids offered the potential of maximal miles per gallon for a given investment of mental health time and energies.

And finally, why schools? Schools, in our view, are natural settings for conducting prevention programs with children. They are a key force, second only to the family, in the child's early formation. For at least 12 years, children spend 30-35 hours a week in schools. There, they have vital shaping contacts with important mentors and identification models. Schools also bring together large numbers of children under a single roof and administrative aegis and, as such, offer unique opportunities for actions and programs that can enhance their cognitive and behavioral development. Hence the issue for us was less to justify abstractly the pristine beatuy of the new Holy Trinity of prevention, children and schools, and more the need to develop demonstrably effective techologies reflecting those emphases. The work done over the course of PMHP's 35 years represents one systematic, indeed stubbornly persistent, effort to do exactly that.

Let's now consider PMHP more concretely. The approach is best seen as a structural model with four emphases: (a) it focuses on young children before problems root; (b) it uses active systematic screening to identify children at risk; (c) it expands the reach of helping services by using carefully selected trained, supervised non professional "child-associates"; and (d) it changes professional roles to co-ordinating, consultative and resource activities with school personnel, to increase sharply the reach of early effective preventive services (Cowen, Trost, Lorion, Dorr, Izzo & Isaacson, 1975).

Beyond those overarching emphases, PMHP is sufficiently flexible to accommodate **de facto** variation in its literal practices. Thus, actual school-based programs

may vary somewhat in such things as: (a) specific measures used for early detection and screening; (b) depth and types of professional staffing patterns; (c) types of people who serve as child-associates (e.g., volunteers vs. paid nonprofessionals; homemakers, students vs. retired persons, etc.); (d) ways of recruiting, training and supervising associates; and (e) how associates actually work with children (e.g., individual vs. group; relational vs. behavioral orientations). Such variation is ap it should, indeed must, be since any school program, to be effective, must adapt to realities of its own "pond-ecology" (i.e., **its** specific needs, resources, belief systems and prevailing practices). Accordingly, no single program description fully captures how PMHP operates in **all** schools. The following is a smoothed over account of how the program works.

First, brief objective screening measures were developed to profile young children's school problems and competencies (Cowen et al., 1975). Continuing efforts have been made to streamline these measures and strengthen their psychometric properties (Hightower, et al., 1986; 1987). Most project referrals are initiated when the teacher sees signs of ineffective functioning in the child: acting-out and disruptive behaviors; shy-anxious behaviors; learning difficulties, or combinations of the three. Other school personnel and parents also make referrals.

Screening and referral data are reviewed at an assignment conference involving the principal, school mental health professionals, teachers and child-associates, i.e., the PMHP "team." That conference seeks to understand the child's situation and to establish appropriate intervention goals and strategies. Following

receipt of parent permissions, child associates begin to see referred children regularly.

PMHP schools, depending on size, have two to five, 1/2-time child-associates who serve as the program's direct help-agents. Although associates receive time-limited training to prepare them, PMHP depends more on selection than on training variables (Cowen, Dorr & Pokracki, 1972). Associates are supervised by the school mental health professionals. They get on-the-job training through school conferences and consultation sessions, and are provided additional specialty training options over time. They are paid at a school district's prevailing hourly rates. By carrying caseloads of 13-14 children, they expand sharply the reach of early preventive services. In some implementing districts volunteers are used in the child-associate role.

Teachers, asssociates and professionals exchange information, and coordinate goals. Substitute time frees teachers to attend consultation and progress-review conferences. Midyear conferences take stock of each child's progress and, when indicated, realign goals and procedures. End-of-year termination conferences evaluate children's overall progress and formulate recommendations for the next school year.

PMHP consultants visit schools regularly to support professionals, provide enrichment and upgrading of skills for program participants, and consider challenging cases. The PMHP school professional's role differs from the traditional one. Much less time goes to direct one-to-one services; much more goes into training, consultative, and resource activities for school personnel and associates.

In that way, PMHP can get at many more problems early, when they are still manageable, and prevent future difficulties rather than counterpunching after it is too late. The approach, far from implying professional obsolescence, points to new more socially utilitarian professional roles. The parent PMHP in Rochester, N.Y. is now located in 25 urban and suburban schools. Last year roughly 1,000 youngsters received an average of 22 helping contacts, for a total of 22,000 child serving contacts.

Changes in the Basic PMHP Model

PMHP has been an evolving program. Change has been catalyzed by a productive marriage between service and research. Thus, research studies address live program issues and relevant findings are fed back to strengthen program services. Several program enhancing components have been offspring from that marriage. One such program trained associates to conduct small groups both to reach more children and because some children are face-valid candidates for groups (Terrell, McWilliams & Cowen, 1972). About 10% of all PMHP children are now seen in groups. In some PMHP offshoot programs, with different resource patterns and operating styles, that figure is much higher. Similarly, the need to reach more families stimulated the development of a new parent-asssociate training program. A curriculum was developed to prepare seasoned associates for roles as mental health assistants in such activities as communication with parents about the project, feedback to and from families, and crisis management. That program too addressed a real project need and was warmly received by schools.

Research findings have also stimulated program changes. An early finding showing PMHP to be more effective with shy-anxious, than with acting-out children (Lorion, Cowen & Caldwell, 1974) led to the development of a program to train associates in the use of Ginnottian limit-setting methods with acting-out children. When this approach was found to improve outcomes with such youngsters (Cowen, Orgel, Gesten & Wilson, 1979) it was incorporated into the project's mainstream.

Similarly, several PMHP studies showing relationschips between stressful events and school adjustment problems (Felner, Ginter, Boike & Cowen, 1981; Felner, Stolberg & Cowen, 1975; Sterling, Cowen, Weissberg, Lotyczewski, & Boike, 1985) led to the development of mini-program models to train associates for work with children who had experienced recent life-crises (Felner, Norton, Cower & Farber, 1981). This aspect of new programming has burgeoned over the years and given rise to several primary prevention thrusts to be considered presently.

PMHP has also developed an active Planned Short-Term Intervention (PSI) model for children with identifiable focal problems (Winer, Weissberg, & Cowen, 1988). PSI, which is limited to 12-sessions, has an educational focus and is built specific ways to deal with target problems. Concurrent contacts with parents and teachers are designed to enhance program gains. Both because PSI has been shown to be effective (Winer et al., 1988) and because it expands the reach of resources, the approach is appealing to underresourced systems.

Direct PMHP program extensions such as those described come about in a low-key way. When clinical or research data identify potential ways of expanding the program's scope or enhancing its efficacy, a pilot program is initiated to address the issue in question. These "beach-head" programs are first de-bugged on a small scale. Promising ones are then more fully tested using an appropriate research design. When supported by outcome data, the new models are more widely incorporated in PMHP through new rounds of associate training.

From Day 1 onward, PMHP has been fully committed to a process of close research scrutiny, reflecting both "bread-and-butter" questions such as "Does the approach work?", and a myriad of other issues that have both clarified our understandings of children's school adjustment and shaped new program directions. Although we have never claimed that PMHP is the best school mental health project around, nor even the best researched school mental health project, we are quite sure that it is the most extensively researched school mental health project, ever.

PMHP Program Dissemination

Although the challenge of further refining PMHP continues to this day, the basic project model and its empirical base were pretty well laid in place by the mid-1970s. Indeed, at that time, we published a major volume describing all aspects of the PMHP development to date (Cowen et al., 1975). Since then, two new sets of activities have occupied more and more of our attention

Most of PMHP's support during its early developmental years came from the National Institute of Mental Health (NIMH). By the mid-1970s, NIMH and other funding agencies had become convinced that programs that ignored dissemination were at grave risk of an early archival fate. The key challenge words they sounded were "utilization of knowledge". The message we heard from NIHM was that any future support they might provide for PMHP would be in national dissemination, rather than for the local program as in the past. This major shift in emphasis launched a long voyage, still very much alive, in PMHP program dissemination.

A first step, in 1972, was to start a small PMHP consciousness-elevation program. PMHP descriptive materials were sent to highly placed administrators in school districts around the country. Next, intensive PMHP training workshops were held for personnel from school districts interested in program implementation. These workshops were followed by two "hands-on" options: (a) site visits by PMHP staff members to provide concrete help with program start-up issues (e.g., associate selection and training; screening procedures); and (b) short-term internships in PMHP demonstration schools for line-personnel from new districts, to see the program in action and discuss its practices and issues with local PMHP staff.

Over a 4-year period, this approach started a limited number of new programs (Cowen, Davidson & Gesten, 1980). To accelerate the pace of the dissemination process, four PMHP Regional Dissemination Centers (RCs), each based on its own

successful program implementation, were established in Texas, Ohio, California and North Carolina. Each RC replicated PMHP's dissemination activities, with the ultimate goal of facilitating new implementations in its own geographic area. At the end of that 4-year period, we identified 87 active PMHP-type, shoool-district level programs (Cowen, Spinell, Wright & Weissberg, 1983).

Although the RC development was constructive, it lacked the policy mandate or resources needed to produce **systematic** program dissemination, i.e., bringing effective preventive services to millions of youngsters in need, in thousands of school districts around the country. Moreover, the locus of responsibility for porgramming in education and mental health at the time was shifting from the federal to the state level. Given that trend (still evident today), it became apparent that future systematic dissemination of PMHP could best proceed through an informed partnerschip involving those who were expert in the approach and duly empowered representatives of **state** agencies (Cowen et al., 1983).

Hence, PMHP's next dissemination thrust involved working directly with state agencies to promote program implementation. Interested state administrators were invited to PMHP training workshops. There they were given detailed information about the program's operation, and in-depth opportunities to discuss how implementation might best work in their state. Concurrently, detailed guidelines were developed listing the concrete steps, commitments, and resources required

of states as well as the resources and support elements that PMHP staff could bring to state level dissemination. These efforts have borne significant fruit (Cowen, Hightower, Johnson, Sarno & Weissberg, 1989).

The single most extensive within-state PMHP development to date, understandably, has been in New York. With support form the NY State Dept. of Education, there are now 120 implementing shcool **districts** in the state. Several aspects of this development are of special interest and modeling value. One is the establishment of several effective rural consortia made up of 6-7 districts with shared program resources for associate training, supervision and consultation. This approach has both sharply expands the reach of services in those districts and provides sources of interchange and stimulation that serve as antidotes to the discouragement and "burn-out" that have long plagued personnel in isolated systems with few resources (Farie, Cowen & Smith, 1986). Another unique feature has been the rooting of PMHP in some truly "high-risk" areas of New York City, where the program is now working effectively. Indeed, the New York State dissemination program has grown to the point where seven Regional Centers have been established to model the program and promote new implementations in all corners of the state.

Significant program expansion has also taken place in other states (Cowen et al, 1989). California, Washington, and Connecticut, for example, have passed specific PMHP enabling legislation with supporting budgets. This has led to a rapid growth of programs in those states. The California development about wich

Debbie Johnson can say much more, is especially instructive. An initial legislative act authorized, and provided seed money for, the basic statewide program. Subsequent legislation, designed to insure the program's continuity and growth, allocated to it proceeds from the sale of impounded merchandise (e.g., a yacht picked up in a drug-"bust"). Together, these states now have some 150 implementing school districts. And, although we can no longer accurately track **all** new implementations, we estimate that more than 500 school districts around the world are now using the PMHP model. Collectively, these programs screen and bring intensive, effective helping services to tens of thousands of young school children annually.

PMHP's dissemination surveys highlight the diversity and imaginativeness of the new programs that have evolved. Diversity means several things. Geographically, for example, PMHP programs range from Australia to Jerusalem. Moreover, programs are located in large and small; urban, suburban and rural; and socioculturally, ethnically and racially diverse districts. The latter include predominantly Black or Hispanic school districts, as well as complex, racially mixed groups such as those in Hawaii. Thus, one attribute of the PMHP program model is its seeming adaptability to diverse situations, including those involving historically neglected and underserved populations.

Primary Prevention Steps

The second new thrust I mentioned was more planful. Its roots can be traced to the book we wrote about

PMHP (Cowen et al, 1975). In the last chapter of that book, overviewing everything we had done and accomplished to that point, we made this observation:

> "...without demeaning our own effort we end-up with the Avis-like conclusion that PMHP, conceptually, is only second best. Although the approach is realistic, responsive to present realities, and much preferable to established, rutted, school mental health practices, it does not come to grips with the heart of the problem" (p. 370).

Though we did not fully realize it at that time, we were in fact setting a future agenda pivoting around the challenge of moving from ontogenetically early preventin toward true primary prevention, i.e., developing effective ways to promote wellness in young children from the start. This new agenda did not mean abandoning PMHP; rather it meant building on it more basic, primary ways. Indeed, the climate of trust and credibility that PMHP had created in schools over many years was a key factor in facilitating this new thrust.

Although there was little going on anywhere, by way of primary prevention for children in 1975 when we made that observation, we had the fuzzy notion that different primary prevention ways could be imagined within a universe of alternatives built around the broad goals of promoting wellness and forestalling anticipated negative outcomes (Cowen, 1977). Three such strategies, in particular, seemed especially applicable to young children in school settings: (a) training children in skills or competencies know to relate to good adjustment; (b)

modifying school or class practices in ways that enhance educational and behavioral outcomes; (c) developing interventions for children at-risk by virtue of exposure to stressful life events and circumstances, designed both to strengthen their adaptive skills and to defuse the negative outcomes known on base-rate to follow such exposure.

Since 1975, we have been heavily invested in developing and evaluating primary prevention programs to reflect these three strategies (Cowen, Hightower, Pedro-Carroll & Work, 1990), while concurrently refining the basic PMHP model and expanding its reach geometrically. Although these primary prevention programs are still evolving and are less well developed than the basic PMHP, they have led to major changes in how we allocate our energies and have added incrementally to our knowledge about effective preventive programming in the schools.

Figure 1, which looks quite official and precise, is little more than a crude attempt to depict this gradual portfolio change process. First, it makes clear that the basic PMHP model has always been the largest single component of our total effort and still is. That component has grown some 50-fold since we first hung out the project shingle. Until the mid-1970s it was 100% of our operation. At that time, the new thrusts in dissemination and primary prevention programming surfaced. As of 1976, the latter were still only minor "blips". Since then, both have grown steadily and healthily and, as of 1991, each accounts for roughly 25% of the total building effort.

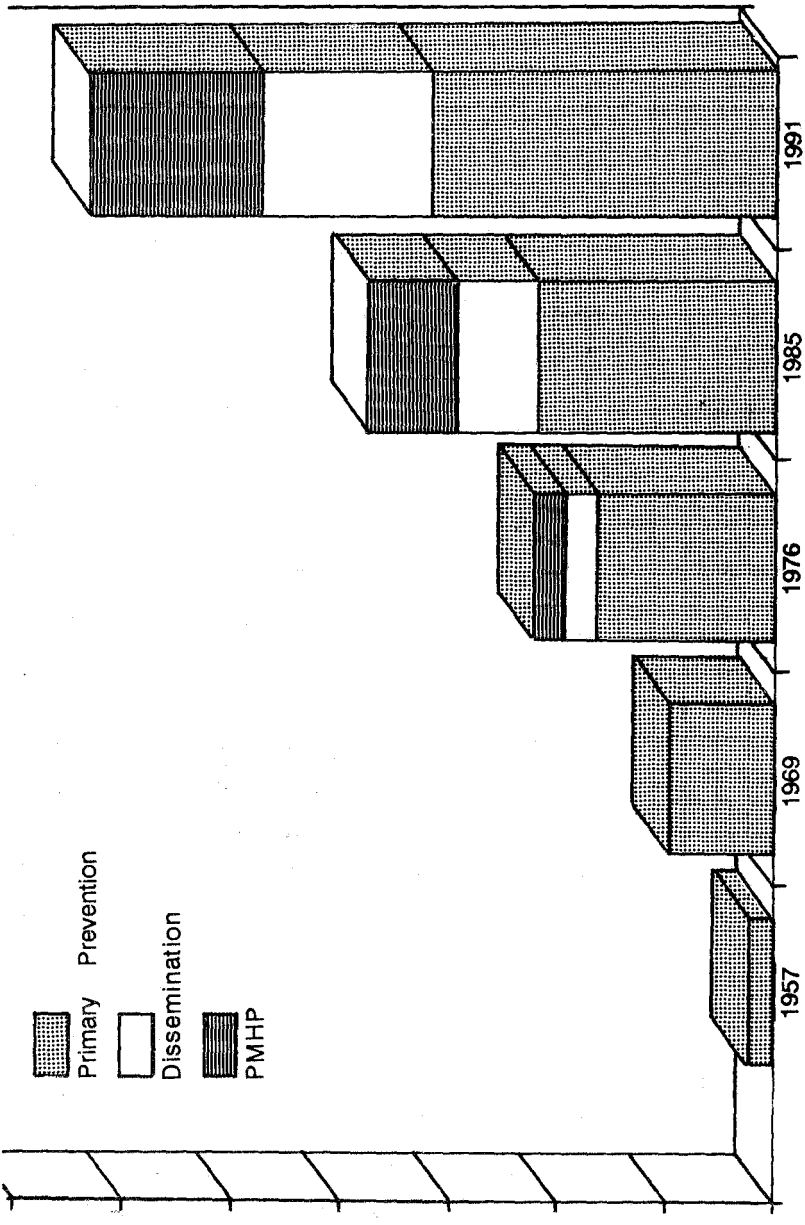

Figura 1. PMHP, Program Dissemination, and Primary Prevention Involvements 1957-1991.

The rest of this article focuses on these newer primary prevention doings. Several years ago, in an atypical burst of energy, I developed what I grandiosely called a mini-structural model for primary prevention designed to provide a rough sketch of how such programs, in general, can be conceptualized, conducted and refined (Cowen, 1984). A brief examination of this model may offer a helpful backdrop for the specific primary prevention programs I'll be describing. Indeed it may even have some minor orienting value should you dislike *our* recipes and wish to develop your own new primary prevention directions.

Figure 2 depicts this 5-stage model schematically. The stages are listed along the middle axis. To keep things relatively simple, I focused on only two primary prevention strategies from the larger universe of altenatives. Type 1 are competence enhancement approaches and Type 2 are approaches to minimize the effects of life stress. The model can equally well be applied to fit other basic primary prevention approaches such as social system change or empowerment.

The first point to strees, and it is very basic, is that all primary prevention programs must rest on a generative knowledge base justifying their existence (Cowen, 1980). Whereas for competence enhancement programs, that base consists of data showing that the presence of certain competencies relates to adjustment and their absence to maladjustment, for Type 2 interventions the relevant generative knowledge base is the one showing that certain life situations or events predispose negative psychological outcomes in children.

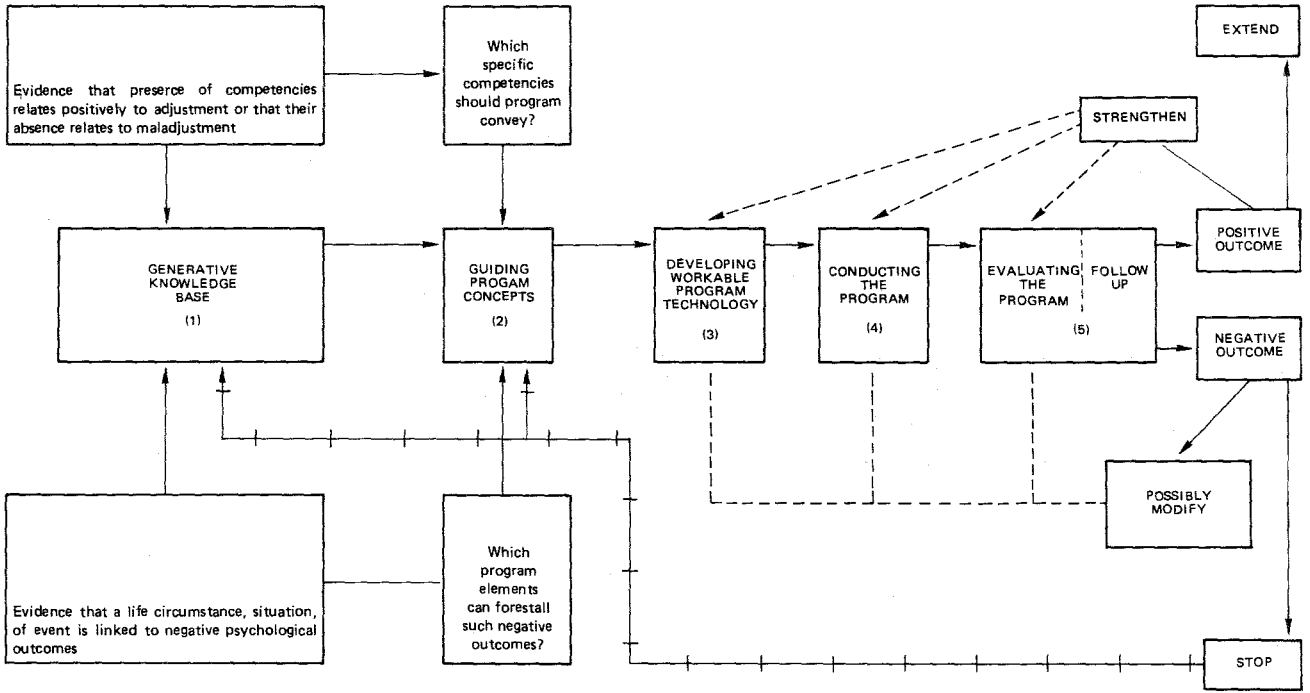

Figura 2. General Structural Model for Primary Prevention Program Development in Mental Health.

Some of these knowledge bases exist, others remain to be carved out These same knowledge bases also suggest which **specific** competencies mediate adjustment for a particular target group, or which program elements (e.g., support, training relevant skills) may help to forestall negative outcomes. The latter data establish a program's broad **quiding concepts**, i.e., what, in general terms, a program should include and convey! This step is depicted in Box 2.

The next nitty-gritty step, i.e., developing workable program techonology, requires that these broad guiding concepts be translated into **specific** curricula and methodologies. That step must consider the attributes of a program's specific target group. Thus, programs for 6-8 and 10-12 year old children of divorce, with identical objectives, call for some what different technologies (Pedro-Carroll & Cowen, 1987).

The fourth step, i.e., conducting the program is a bit more complex than it sounds. Leaders must know program components well and provide conditions that permit these components to "take". Program steps muts be closely monitored to insure that good guesses about methodology were, in fact, made. If not, program adaptations may be needed. These are "quality-control" steps. Finally, programs must be evaluated to determine whether the intended positive outcomes were achieved. Given that effective primary prevention programs must show meaningful, long-term adjustive gains (not just be dazzling meteors that fizzle), follow-up is an essential ultimate step in program evaluation.

The figure's many obsessional hatched and broken lines are to suggest that the model is more

complex than this brief summary implies. One message they convey is that even effective programs can be improved by shoring-up weak spots around steps 3, 4 and 5. With negative program outcomes the plot thickens. In such cases, the **source** of error must wag decisions about trying again. If the false turn occurred around steps 1 and 2, it will be a long haul, perhaps literally back to square 1.

Notwithstanding its sketchy and preliminary nature, this model has helped us to conceptualize, conduct, and evaluate primary prevention programs for young school children. This development is still very much in process and the programs we have thus far worked on, for several reasons, lack the range and depth of confirming outcome data that PMHP has. One such reason is that they are much younger. Another is that they are labor-intensive and time-consuming, often requiring changes both in the initial development process and in later extensions to groups that differ developmentally or socioculturally from the one to which the original program was targeted. Although we have worked on seven or eight different primary prevention programs, in the interests of space I shall touch only lightly on several of them so that I can consider others in greater depth.

Competence Training Programs

Among the programs that I'll pass over quickly are our several social competence training programs. The latter, relatively speaking, are among the better knowr types of primary prevention programs for young

children, with many good examples of them in the psychological literature. Even so, I'll say a few words about them, if only because they are among the first primary prevention programs we worked on.

Because existing generative knowledge bases show relationships between certain types of skills or competencies and adjustmet in children, training children in these skills should, in principle, have adjustment enhancing effects. One area in which such linkages have been shown is social problem solving (SPS). Extensive work by the Hahnemann group, based on an interpersonal problem solving training curriculum they developed, showed that children acquired the component program skills and, as they did, their adjustment improved. Both the cognitive and adjustment gains had short-term durability and linkages were shown between the two (Spivack & Shure, 1974; Shure & Spivack, 1978, 1982).

PMHP has developed several training curricula to teach children such SPS skills as alternative solution, consequential, and means-end trinking, and taking the role of the other. SPS programs for young and older children vary in complexity and specific exercises. All programs, however, are class-based and taught by the teacher, much as any other academic subject. Detailed program training manuals provide goals and methods for each session. Teachers are trained in the curriculum's use and receive consultation and supervision while the program is in progress. Separate curricula have been developed for 2nd-4th graders and Kindergarten-1st grade children (Weissberg, Gesten, Leibenstein, Schmid & Hutton, 1980; Winer; Hilpert, Gesten, Cower & Schubin, 1982).

The curriculum for 2nd-4th graders (Weissberg et al., 1980) seeks to teach children seven main problem-solving steps: (1) recognition and appropriate expression of feelings; (2) learning to say exactly what the problem is; (3) deciding on a goal; (4) an impulse-delay step, i.e., "stop and think"; (5) generating as many alternative solutions as possible; (6) thinking about the possible consequences of each solution (i.e., what might happen next?); (7) try a good solution and if it doesn't work, try another. A simplified version of the program developed for younger children (Winer et al 1982), focuses on steps two, five and six. Evaluations of various Rochester SPS programs have shown that all trained groups have acquired the component SPS skills and that there have been some adjustment gains, though fewer than those reported by the Hahnemann group (Gesten, Flores de Apodaca, Rains, Weissberg & Cowenr, 1979; Gesten et al., 1982; Weissberg et al., 1981).

Teachers and children have found the program to be interesting and enjoyable. Teachers also report effective applications of program learnings in dealing with everyday interpersonal problems in the classroom. For that reason, SPS trained teachers often continue to teach the program, or portions of it, on their own, in subsequent years. Because some teachers felt that the full program was time-consuming and somewhat repetitive, an abbreviated 20-session program was recently developed and conducted for 4th graders, under the direction of William Work. An initial evaluation of its efficacy yielded positive skill acquisition and adjustment data (Work & Olsen, 1991).

Although SPS training well exemplifies a competence training approach in primary prevention for children, it does not exhaust that strategy. Accordingly, PMHP's recent primary prevention efforts have sought to develop other types of skill enhancement programs, including programs to teach self-control (Stalonas et al., 1982) and appropriate assertiveness skills (Rotheram, Armstrong & Booraem, 1982). The latter, still evolving, programs are based on generative knowledge bases linking these skills to adjustment.

Class Environment Change

A second of our primary prevention thrusts focuses on modifying class environments or practices. This development rests on a generative knowledge base developed by Moos (1976; 1979) and others (e.g., Barker & Gump, 1964; Gump, 1980; Kelly et al., 1979 Stallings, 1975) showing important relationships between atrributes of classe environments and educational and adaptive outcomes in children. Environments are rarely neutral in their effects on people; rather they act to facilitate or impede people's adaptation (Cowen, 1980). This is no less true for school environments than for any other type of environment. Thus, another challenge for primary prevention is to identify environmental conditions or practiques that favor positive outcomes and to develop programs based on this information, to enhance such outcomes.

Because several of our own early studies with 4th-6th graders showed that perceived class attributes such as Affiliation, Involvement, and Order and

Organization related to positive adjustment and educational outcomes in children (Humphrey, 1984; Wright & Cowen, 1982), a next step was to try to engineer class circumstances to promote such perceptions. This has been done in two separate programs. The first was a modification of the "jig-saw" approach used by Aronson, Blaney, Stephens, Sykes & Snapp. (1978) to reduce problems of violence and racial tension Texas schools. We began a related program (Wright & Cowen, 1985) by rewriting curriculum for two major units, covering 10-12 weeks, in 5th grade social studies classes. Classrooms were divided into cross-gender, jig-saw units, excluding close friends and going across ability levels. Jig-saw units worked both vertically and horizontally. Along the vertical axis, one member in each jig-saw cluster was responsible for learning an assigned subunit of the curriculum and teaching it to groupmates. Along the horizontal axis, cutting across jig-saw groups, children in the various subgroups with identical assignments also met to get their facts straight and exchange ideas about how best to impart that information to their jig-saw mates.

Jig-saw children came to see their classes as more involved, said they were happier in class, and enjoyed school work more. Teachers also reported fewer problem behaviors and more competencies for them. Importantly, jig-saw students did better than controls on social study exams and report card grades. Indeed, the study's most interesting finding was that the largest academic gains were registered by children with initially low academic status (Wright & Cowen, 1985).

This primary prevention step has been extended through a related program called Study Buddy, developed

by Dirk Hightower (Cowen et al., 1990; Hightower, Avery, Levinson & Wannon, 1987). This class-based program pairs children and has partners work in dyads 3-4 times/ week, in 30-45 minute sessions, from October to May. Study Buddy has four basic components: (a) the initial process of forming student dyads; (b) the actual dyadic Study Buddy meetings during the school year; (c) a curriculum guide for teachers; and (d) on-going consultation with teachers while the program is in progress. The program is built around two main content strands, i.e., reciprocal peer-learning activities, and cooperative peer-relationship activities.

Study Buddy starts by providing children with a structured interpersonal experience designed to enhance their understanding both of the program and cooperative learning targeted to academic goals. In the first two sessions, each dyad completes a "Company Charter." This, basically, is a contract between the students and teacher, articulating partner responsabilities (e.g., working cooperatively, striving to complete equal amounts of work, and trying to solve problems together before asking the teacher). For the rest of Unit I (i.e., reciprocal peer learning), students work cooperatively towards shared spelling or arithmetic goals. Pairs establish goals by estimating how many quiz items they will answer correctly, help each other to complete student developed practice exercices, take class quizzes independently, and convene to decide if their "company" has met its collective goal. Overall, Unit I is relatively impersonal and structured.

Unit 2 (i.e, cooperative peer relationships) introduces skills associated with good interpersonal

relationships and then prometes conditions under which partners help each other to learn these skills. This unit has four major components. First communication skills are developed by having Study Buddies do structured interviews with each other. The next set of lessons develop cooperative work skills. For example, in one 2-lesson sequence, partners first decide where to locate their "headquarters" and then report their conclusions and describe their partner's contributions to the class. The next unit is built around structured activities designed to train effective problem solving skills, and the final unit provides an apportunity to practice these skills through skits presented to the class. After the formal program ends teachers are helped to develop and implement their own lessons, using subject areas and topics of their choice.

Program consulation provides support for teachers and considers issues associated with pupil pairing, the curriculum, program implementation, and small group processes. Consulation seeks to enhance teachers' problem solving strategies in relation to effective program operation. Program evaluations show that Study Buddy children have better school adjustment and peer-rated social skills, higher standardized achievement scores and fewer days tardy or illegal absences. Both Study Buddy pupils and teachers report more positive views of class environments (Hightower, Avery & Levinson, 1988).

What we have thus far learned from these two system change programs is encouraging. Although the structural model they reflect fits naturally into the school

context, more remains to be learned about the range and durability of these programs' preventive impact and how variations in program structure and content can best meet the needs of diverse groups of school children.

Stressful Life Events

The last primary prevention direction I shall consider illustrates a somewhat different strategy, i.e. intervening with children at risk by virtue of exposure to stressful life events and circumstances (SLE-Cs). This work has an ample generative base. PMHP itself has been heavily involved for several decades in research on the effects of life stress on children's school adjustment (Felner, et al., 1975; Sterling et al., 1985). So have many others in the field (Auerbach & Stolberg, 1986; Garmezy & Rutter, 1983; Honing, 1986a, b; Johnson, 1986). This work has shown consistent connections between the occurrence of SLE-Cs and school maladjustment (Johnson, 1986). Importantly, because such effects often take the form of academic decline and behavior problems, they pose vexing everyday problems for school personnel and create a climate of receptivity in the schools for promisinf solutions. If SLE-Cs do indeed harbor warning signs that adjustment and learning problems will follow, the challenge is to develop effective preventive interventions to forestall adverse outcomes for children who experience such events.

Parental divorce is a striking case in point. Divorce rates in the USA have trebled since 1960 (Report of Select Committee, 1983). Demographers predict that

children born today have less than a 50-50 chance of being in an intact nuclear family at age 18 (Glick, 1984). Indeed, PMHP's experience, by the early 1980s, was that more than 50% of its referred children came from single-parent families. This reality fueled the development of the Children of Divorce Intervention Program (CODIP), under the direction of Dr. Jo Anne Pedro-Carroll.

Since CODIP first started a decade ago, five different versions of the program, all school-based, have been developed (Pedro-Carroll & Cowen, 1987). All are conducted in mixed-gender groups ranging in size from 4-6 for young children to 7-9 for older children. All seek to prevent or minimize the negative sequelae that often follow parental divorce. CODIP is based on highly structured, sequential curriculum of 12-16, 45-75 minute sessions again depending on the children's age. Pairs of school mental health professionals serve as group leaders. They receive intensive training before the program starts and on-going consutation and supervision while it is being conducted.

CODIP features five components adapted to the developmental level and sociodemographic backgrounds of different target groups:

(1) It creates a supportive group environment in wich children feel free to respond and to proceed at their own pace.

(2) It teaches children to identify and express feelings, both generally and specifically in relation to the divorce situation.

(3) It clarifies divorce-related misconceptions, as for example those relating to self-blame or fantasies of reconciliation.

(4) It builds problem solving, communication and anger-control skills to help children cope more effectively with the many difficult situations that parental divorce precipitates (e.g., being used as a messenger between parents, being upset when a parent starts to date). It also teache children to differentiate between problems they can and cannot control and, for the latter, how to redirect energies into ageappropriate pursuits.

(5) It strives to enhance perceptions of self and family by emphasizing positive qualities in both, and dealing with feelings that many children of divorce have that they are different and defective.

The five versions of CODIP thus far developed are for 4th-6th grade and 2nd-3rd grade urban and suburban children, as well as Kgn. -1st grade children. Each has its own detailed curriculum reflecting the developmental and sociocultural attributes of the target group.

All versions of CODIP have been evaluated, with encouraging findings. Based on data inputs from children, parents, teachers and group leaders, CODIP participants, compared to matched no-program divorce controls, show significant improvement in adjustment, evidence fewer divorce related concerns, improve more in communication, problem solving and expression of feelings, and have lower anxiety levels (Pedro-Carroll & Cowen, 1987). Indeed, by end of the program, they are comparable to peers from intact families on some of these measures (Alpert-Gillis, Pedro-Carroll & Cowen, 1989; Pedro-Carroll & Cowen, 1985; Pedro-Carroll, Alpert-Gillis & Cowen, 1992; Pedro-Carroll, Cowen, Hightower & Guare, 1986). CODIP thus appears

to be one promising direction to follow in helping children to cope effectively with the myriad personal and family problems associated with parental divorce. The program model is now well established and has carefully developed curricular guidelines (Pedro-Carroll, 1985; Pedro-Carroll, Alpert-Gillis & Sterling, 1987). It has become highly visible its right and is being conducted in scores of communities around the country.

Our most recent primary prevention trip has been a fascinating and all-consuming one for William Work, Peter Wyman and myself. It is called the Rochester Child Resilience Project (RCRP). Although the RCRP is still largely at a generative level, and is the least well developed of our primary prevention thrusts, I am absorbed by the issues that power it and hopeful that its findings can help meaningfully to address a vexing set of social conditions. Although there is some conceptual kinship between the issues and strategies of CODIP and the RCRP, the latter addresses an even more complex and challenging set of issues.

Quite beyond exposure to individual stressful events, many children in modern society grow up in worlds of chronic and profound buffetings, aptly labelled by Norman Garmezy (1981) as "stressors of marked gravity." For many youngsters, these grim realities have seriously negative short and long-term consequences. However, some fraction of them, propelled by a special resilience that stems from sources not yet well understood, not only surmount the most profound life adversity but show unusual adaptive skills and competence in the face of it. These children have variously been called

invulnerable (Anthony & Cohler, 1987; Garmezy & Neuchterlein, 1972), invincible (Werner & Smith, 1982), or resilient. Garmezy spoke of them as healthy children in unhealthy environments. Werner & Smith (1982) described them colorfully as children who, notwithstanding heavy exposure to life stressors, "worked well, played well, loved well and expected well."

These are the children of heightened resilience - survivors, who come somehow in nature's crucible to find adaptive ways of coping with profound stress and to achieve a sense of mastery of their environments and control of their own destinies. How does this happen? What factors enable them to beat the heavy odds? And how can such information be harnessed both to forestall the harmful effects of chronic life stress and more basically to promote wellness in children at grave risk? These are the Holy Grails for which the RCRP has been searching!

The RCRP's concept of child resilience is based on two elements in Garmezy's earlier definition: coping and adapting well in the face of major, enduring life-stress. Thus, the project's first step was to identify target samples of stress affected (SA) and stress resilient (SR) children (Word, Cowen, Parker & Wyman, 1990). Our initial efforts focused on 4th-6th grade *urban* children, on the assumption that base-rates for SLE-Cs are highest in the inner-city.

The RCRP work reported was done in two year waves in nine innercity schools. Parents of 4th-6th graders in these schools were informed of the study and invited to participate. The 656 consenting parents completed a 32-item Life Events Checklist (LEC) and a brief child

adjustment rating scale. Former and current teachers also submitted brief adjustment ratings for these children. Although a few LEC items reflect specific events (e.g., divorce, death of a parent) most describe chronic, on-going processes such as family tension and violence, alcohol and drug problems, families being known to Protective Services. Only children whose parents checked > 4 SLE-Cs were considered for inclusion in the SR or SA groups. Beyond that criterion, to classify as SR required convergent evidence of good adjustment on the three screening measures (parent, current and former teachers) and for SAs, convergent evidence of poor adjustment on the same measures. These stringent definitional criteria identified 75 SRs and 72 SAs who took the study's extensive test battery. Separate in-depth interviews were completed with 136 of these children and 131 parents.

Several steps were taken to verify these initial group assignment procedures. First, SRs were compared to SAs on the Teacher-Child Rating Scale (T-CRS), an in-depth measure of young children's problem behaviors and competencies (Hightwer et al., 1986). SRs were significantly better adjusted than SAs on all seven of the measure's specific problem and competence factors as well as its three total scores. The two groups were also compared to appropriate T-CRS age and gender norms based on several thousand urban childen. All mean T-CRS factor and total scores for SRs were at least 1/2 SD above, and for SAs, 1/2 SD below these norms. (Work et al, 1990). We also identified a demographically matched group of classmates with scores of zero or one on the LEC and compared this group to the two criterion groups

on the T-CRS. SRs proved to be significantly better adjusted than the low stress group who, in turn, significantly exceeded SAs on the T-CRS. The combined SR and SA samples averaged nine SLE-Cs, roughly twice the number experienced by the remaining urban sample.

The two samples were proportional by gender and grade, and comparable in minority group status (60%) monthly family income ($600- $900), and proportions living with both natural parents (30%). These marker-properties well describe the racially diverse, low-income, highly stressed families that comprised the RCRP study group. The data cited show conclusively that these two highly stressed differed sharply in adjustment status and, in that sense, met the preconditions needed to study correlates and antecedents of resilient outcomes.

The RCRP's next goal was to identify factors associated with resilient outcomes, i.e., to flesh out the concept's nomological definitional net (Parker, Cowen, Work & Wyman, 1990). This step was built on a conceptually grounded search for child variables that might reasonably be expected to differentiate SR and SA outcomes. This search identified il variables used in the test battery and several others that become part of the child interview. On the test measurers, SRs, compared to SAs, rated themselves as: (a) better adjusted, both overall an on specific factors such as rule conformity, social skills and school interest; (b) higher in perceived scholastic competence, social competence, physical appearance, behavioral conduct, global self-worth, and self-esteem; (c) less depressed; (d) more empathic; and

(e) having both a more internal locus of control and more realistic control attributions. They also reported using more adaptive coping styles and social problem solving skills, and saw themselves as having more support available from their mother and friends (Parker, et al, 1990; Cowen et al, 1991). *A discriminant function analysis was used to identify a set of test predictors that most sensitively differentiated SRs and SAs.* The combination of global self-worth, empathy, realistic control attributions, social problem solving skills and self-esteem correctly predicted the group status of 84% of the children (Parker et al, 1990).

The child interview data (Wyman et al, 1992) elaborated the test findings. The interview included 28 open-ended and 144 objective items covering 12 broad domains such as: activities and interests; family interaction patterns; parent-child relationships; and discipline practices. Interviewers blind to the subject's status rated aspects of the child's adjustment and judged whether s/he was SR or SA. Interview data showed that SRs had both a stronger sense of self-efficacy than SAs (Cowen et al, 1991) and a more optimistic view of their future. They used more adaptive coping strategies and perceived their home discipline to be less harsh. They had more positive views of themselves and their mothers and judged their family situations to be more favorable. Additionally, interviewers rated SRs as better adjusted than SAs and correctly classified 80% of the sample (Wyman et al., 1992).

The parent interview (Wyman, Cowen, Work & Parker, 1991), also guided by prior conceptual formulations and

empirical findings, sought to identify developmental antecedents in the child, and family milieu factors associated with later SR and SA outcomes. Its 35 open-ended and 244 objective questions covered eight broad areas: family background information, developmental milestones; the infancy years (ages 0-2); the preschool years (ages 2-5); the school years (ages 6-current); discipline practices; views of the child's future; and parent and family factors. The interview took about 2 1/4 hours to administer. At the end, interviewers rated aspects the parent-child relationship, support available to the family, and the parent as a person, and judged whether the interviewee was the parent of an SR or SA child.

To maximize participation, families were offered an honorarium of $50 for completing the interview. Interviews were done either at the parent's home or at project headquarters, as the parent preferred. Objective scoring frameworks were developed for each of the interview's 35 free response items. Even so, the sheer mass of the interview data made it necessary to consolidate variables before undertaking the analyses. The following are among the important interview findings. For the infancy period, an easy child temperament, non-separation of the child and primary caregiver, support in childcare, and father involvements, all predicted later SR status. In the preschool period easy child temperament continued to predict SR status as did a good parent-child relationship. For the school-age period, both a good parent-child relationship and the caregiver's sense of parenting efficacy predicted SR outcome.

Sound parental discipline approaches in three concrete situations, age-appropriate changes in such

practices, and consistency of discipline also predicted SR outcome, as did optimistic parental views of the child's future both in general and in specific areas such as interpersonal relationships, school work and employment. Parent resources, an amalgam of positive self-views, having support available, and overall life satisfaction also predicted later SR status, as did positive interviewer ratings of the parent-child relationship, support available to the parent, and the parent as a person. Interviewers correctly classified 78% the sample as parents of SR or SA children.

Discriminant function analysis was again used to identify optimally sensitive parent interview predictors. A combination of seven predictors correctly classified 86% of the sample as SR or SA. Four of these predictors reflected the infancy period (easy temperament, father involvement, support in childcare and *non*-separation from the primary caregiver). Three others (positive expectation for the child's future, authoritative parenting styles and using consistent discipline practices), reflected later developmental periods (Wyman et al., 1991).

One other intriguing RCRP finding bears mention. In several places identical items were used in the parent and child interviews. This included one set of 22 objective and open-ended items assessing views of the parent child relationship, and a second set with 17 common items reflecting ratings of self-concept and characteristic behavioral and expressive motor style items. Parent-child self-rating discrepancy scores were computed in each domain, as an index of similarity of self-view and identification with the parents. In each case

SR parent-child dyads had significantly more congruent ratings than SAs (Gribble et al, 1992; Cowen, Wyman & Work, 1992).

The RCRP data I've reported took about four years to develop, collect, code and analyze. In good measure this was because we were dealing comprehensively with complex questions in a difficult to access, indeed often evanescent, population. We come away from this 4-year saga with important learnings about variables associated with childhood resilience and the myriad of child and familial antecedents that favor such outcomes even under the most pessimistic life conditions. The sum of this information offers some tentalizing leads for developing and conducting effective primmary prevention programs for many youngsters in modern society who are at grave risk for disastrous person and social outcomes by virtue of chronic exposure to profound life stress (Cowen, Wyman, Work & Parker, 1990). Because RCRP findings to date reflect a useful stride in that direction, we are continuing to explore the challenging enigma of childhood resilience in several new directions.

The first is an attempt to harness what we have thus far found, in the form of a primitive intervention model for young profoundly stressed children. The need for such a step is obvious. Our research has shown that many highly stressed children lack sufficient opportunities in their natural environments to acquire certain pivotal adjustment-enhancing skills. If they can somehow come to acquire these skills, they will be better able to cope effectively with continuing and new sources of stress.

Our nomological net studies have helped to identify some of these skill deficiencies, i.e., perceived competence, realistic control attributions, social problem solving, empathy (Parker et al, 1990). This information stimulates thinking about the development of a curriculum designed to impart these pivotal missing skills. We have made some progress in developing such an intervention plan and have already piloted it through several rounds (Iker, 1990). Althoung these efforts have not yet yielded conclusive confirmatory evidence of the intervention's efficacy, we remain convinced that such a step is crucial and are continuing to pursue that still "Unfinished Symphony".

A second task, one that should keep us busy for the next four years, is designed to shore up several weak spots in the original RCRP study. Although it was sensible and practical for the RCRP to start with 4th-6th graders, that was at best just a starting point. We have just launched a second round of the RCRP focusing on a 2nd-3rd grade urban sample. The appeal of this step is that it can advance our understanding of the phenomenon of interest to an even earlier level; its hazard is that the study is susceptible to the measurement headaches researchers face when dealing with this younger age-group.

Another corrective in the new study is based on the fact that generalization from the original RCRP was limited by its cross-sectional nature. Because children's adjustment status is not a "once-and-forever" thing, a richer understanding of the forces that subserve maintenance or erosion of resilient adaptation requires a

longitudinal-prospective research design. This feature is built into the new study. Hopefully, it will help to clarify understandings of the roles played by initially identified child, family, and transactional elements as well as on-going changes in family circumstances, both separately and interactively, in the maintenance or change in the adjustment status of highly stressed urban children over time.

Backing off from the resilience trees to glimpse its forest, the RCRP findings reported sound simultaneous notes of optimism and caution. On the plus side, by extending our knowledge of the correlates and antecedents of resilient outcomes among highly stressed children, they offer a framework for developing informed preventive interventions for high-risk children. On the other hand, the same findings underscore the complexity of the intriguing phenomenon of child resilience. Resilience is not a quality born into children. Rather such outcomes seem to depend, like the flowering of a delicate blossom, on a combination of felicitous conditions including qualities of the child, a favorable family milieu, and positive interactions between these elements. Hence, even though the notion of a preventive intervention with these youngsters is intrinsically appealing, an intervention that focuses exclusively on children-even one that provides optimal conditions and imparts essential skills and competencies effectively-may have serious limitations. Given current RCRP findings, a next logical preventive step is to develop a yoked child-family intervention. Beyond that remains the menacing specter of limitations on human development that are imposed by a social macrostructure that short-changes major

segments of society in terms of such critical factors as justice, empowerment and life opportunity (Rappaport, 1981; 1987).

In modern society, chronic exposure to major life stress is commonplace for many children. More often than not, such exposure is followed by serious adaptive failure at heavy cost both to individuals and to society. It is much easier, at this point, to perceive these problems than to find workable solutions for them. The twinned appeal of the concept of child resilience is that it offers a promising entry point for addressing these problems and for enriching a psychology of wellness (Cowen, 1991). For individuals oriented to the challenge of promoting psychological wellness, it is difficult to identify a domain that offers better opportunities than resilience, to blend rigorous scientific inquiry with urgently needed practical application.

This article, at the very best, transistorizes a complex saga. It has hit only a few highlights of that saga, and has buried many of its tortuous detours and flagrant errors. The latter, much a part of the saga, have contributed vitally to what we view as the building of a small, but better, mousetrap. Everything we have done over the years has pivoted around the three keywords: prevention, children and schools. Our experience in the trenches suggests that these keywords are now well established and pivotal for the future. Although they do not in any sense write a *complete* prevention story, they reflect one meaningful set of guidelines for any comprehensive future plan for advancing wellness. The American writer Henry David Thoreau once said: "There

are 1,000 people hacking at the branches of evil, for every one striking at its roots!" Striking at roots is the challenge and promise of prevention. We have chosen to direct our small portion of such a strike to young children in schools.

SUMMARY

COWEN, Emory L. Prevention, young children and the schools. **Estudos de Psicologia**, 8(2): 7 - 64, agost./dez. 1991.

General Guidelines on how to start, develop and evaluate prevention programs for yong children. Three main topics are discussed: 1) the primary mental health project, offered at the University of Rocherster; 2) efforts and difficulties presented on this program; 3) strategies and models for primary prevention programs in the schools.

Key Words: Primary Prevention, Mental Health and Program of Mental Health.

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