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Adopting a population-level approach to parenting and family support interventions ☆

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Abstract

Evidence-based treatments and preventive interventions in the child and family area have not met with widespread adoption by practitioners. Despite the high prevalence of child behavioral and emotional problems, many parents and families in need are not receiving or participating in services, and when they do, the most efficacious interventions are not what is usually provided. Simultaneously addressing the issues of low penetration and insufficient dissemination of evidence-based programming requires a population approach to parenting and family support and intervention. Process issues are important, particularly in relation to engagement of stakeholders, recruitment of practitioners, consideration of organizational factors, and use of media and communication strategies. This article discusses why there is a need for a population-based approach, provides a framework of how to conceptualize such an approach, and describes an example from our own work of a recently initiated prevention trial that illustrates a population-based approach in action. The rationale, structure, and goals of the Triple P System Population Trial are described in the context of the aforementioned population framework.

Keywords: Evidence-based intervention; Parenting; Children; Families; Population; Dissemination

1. Introduction

In both the prevention and treatment arenas, there is an accelerating emphasis on the promulgation of evidence-based interventions for the problems of children and families (Biglan, Mrazek, Carnine, & Flay, 2003; Kazdin, 1991; Ollendick & King, 2004; Prinz & Connell, 1997). The field of clinical psychology has approached this problem primarily, though not surprisingly, from a clinical perspective focusing on individual children and families. An alternative approach focuses on families from a population and public health perspective. Applying a public health perspective to child and family intervention, a relatively new, innovative, and potentially paradigm-shifting approach is to adopt population-wide strategies that seek to optimize impact and reach larger segments of the child/family population (Sanders, Turner, & Markie-Dadds, 2002; Spoth, Kavanagh, & Dishion, 2002).

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The process issues in a population approach to intervention differ substantially from therapy process issues. Population-based prevention, which is truly a paradigm shift for psychosocial interventions, necessitates the consideration of other processes such as engagement of stakeholders and practitioners, navigating organizational factors, using media and communication strategies to engage the population to achieve sufficient penetration, and facilitating program implementation.

This article considers the rationales and basis for operating at a population level in the area of parenting and family-based interventions. The Section 1 discusses why there is an apparent need for a population-based approach. The Section 2 provides a framework of how to conceptualize such an approach. Finally, the Section 3 provides an example from our own work of a recently initiated prevention trial that illustrates a population-based approach in action.

2. Need for population-based approach

2.1. Prevalence of child behavioral/emotional problems

Child behavioral and emotional problems are quite prevalent in the population, particularly among younger children. Surveys of parents indicate that as much as a quarter to a third of children in the general population exhibit behavioral and emotional problems that present parenting challenges and risk for subsequent adverse outcomes (Burns, Hoagwood, & Mrazek, 1999; Zubrick et al., 1995). Unfortunately, a high proportion of children with behavioral or emotional problems never receive either preventive or treatment services (Burns et al., 1999; Zubrick et al., 1995), and those who do typically do not receive empirically supported parenting interventions (Taylor & Biglan, 1998).

2.2. Family-based intervention

From an efficacy standpoint, family-based programming, based on social-learning, functional analysis, and cognitive-behavioral principles, is the treatment of choice particularly for early behavioral problems and conduct problems in general (McMahon & Kotler, 2004; Prinz & Jones, 2003). Parenting and family support programs that are based on the same conceptual models have also proven efficacious for prevention (Prinz & Dumas, 2004; Sanders, Markie-Dadds, Turner, & Ralph, 2004).

2.3. Limited parental access

Despite high prevalence rates for child behavior problems, only a small proportion of parents ever participate in a parenting/family intervention of any kind, and even fewer in one that is evidence based (Zubrick et al., 1995). If the delivery of programs is restricted for example to mental health clinics and private-practice clinicians, then parental access to programming is like to be quite limited. In fact, most contact points where parents routinely confer with front-line professionals (e.g., primary care, educational and daycare, public health) do not provide evidence-based information and support for effective parenting. The problem of access is multi-faceted: (1) most professionals with whom the general population of parents has contact are not prepared to provide evidence-based consultation about parenting and child behavior; (2) by and large, many parents who need assistance with child behavioral and emotional issues either cannot get adequate services or do not seek it out; and, (3) as a result, evidence-based interventions are reaching only a tiny proportion of children and families in the population.

2.4. Barriers to participation

As typically offered, parenting and family-based interventions operate in the context of various barriers to participation, a few of which are noted here as examples. One common barrier is that access to parenting consultation is dependent on the parent being referred to another practitioner or service instead of receiving immediate assistance. This means that a parent would have to make contact with two different providers before actually receiving consultation.

Another potential barrier stems from the amount of programming offered. Some parenting programs have only one level of intensity (e.g., 15 week program), which may not fit a family's preferences or might be more than what many families need to solve the issues at hand. A related problem has to do with delivery format. Most parenting and family-based programs have only one format, which is usually either a group format (several families seen as a group) or

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individual therapy format (each family seen individually for several specified sessions, typically 60–90 min per session). Few evidence-based programs offer a brief consultation format, and even fewer offer a broad range of formats that all adhere to the same principles of parenting and child development.

Parental perception of stigmatization can be another potential barrier to participation. Unintentionally, programs about parenting have become associated all too often with mandatory, punitive-framed assignments for parents who have maltreated their children or who have become embroiled in bitter custody disputes. Similarly, some parenting programs are designed and marketed, at least in the U.S., for low-income families. The result of these associations is some parents perceive enrollment or participation in a parenting program as a stigmatizing or demeaning activity, despite the fact that many parents in the general population readily acknowledge the need for practical information about effective parenting strategies.

2.5. Inadequate dissemination of evidence-based interventions

Empirical support for family-based treatments and preventive interventions has been well established (Prinz & Dumas, 2004; Prinz & Jones, 2003; Taylor & Biglan, 1998). Practitioner adoption of evidence-based interventions for both treatment and prevention has been quite limited in a number of application areas, and the family/parenting area is no different (Biglan et al., 2003). Much of the services in the child and family area are non-evidence based (Webster-Stratton & Taylor, 1998).

3. Preconditions for population-level intervention

3.1. Evidence of efficacy and effectiveness

The presumption underlying the deployment of population level interventions is that the component programs have shown evidence of efficacy and effectiveness. Going to scale at a population level, though potentially cost effective, is nonetheless a major investment that cannot be predicated on programs that have not been sufficiently validated.

The field is just beginning to formulate standards of evidence necessary for broad dissemination of an intervention program. For example, the Society for Prevention Research (2004) has promulgated standards of evidence for viable preventive interventions. According to these standards, a program that is deemed ready for broad dissemination must have clear evidence for efficacy and effectiveness (described in detail in the standards), have materials and services that facilitate going to scale (e.g., manuals, training, and technical support), provide clear cost information, and have appropriate monitoring and evaluation tools. These criteria are important for understanding what is needed to conduct broad dissemination of a preventive intervention, including interventions for parents and families.

However, there is an additional distinction that is relevant, namely that dissemination of parenting interventions on a broad scale and taking a population approach to parenting programming, while overlapping, are not entirely synonymous. In addition to the aforementioned dissemination criteria, a successful population approach requires evidence of flexibility, ease of accessibility, cost efficiency and practicality at a population level, and effectiveness in population-level applications.

3.2. Consumer acceptability and cultural appropriateness

To be useful at a population level, an intervention needs to have broad consumer appeal and appropriateness across diverse segments of the community. The movement towards designing a different intervention or program for each of potentially many specific cultural groups, while based on good intentions, is perhaps neither feasible nor desirable. A more viable alternative is to create a set of programs that is flexibly constructed to serve many populations. Acknowledging cultural variation in expression and style, programs need to emphasize facets of effective parenting that have relatively broad appeal across cultures. Guiding principles can and should be sufficiently encompassing and flexible so as to be reasonably robust for many family styles and configurations. The associated parenting strategies derived from the guiding principles can be presented first in ways that are broadly applicable (i.e., in practical terms and with culturally relevant exemplars) and second in a manner that offers options and choices for parents so that they can be the arbiters of their own cultural (and personal) values. In some ways, consumer and cultural-group considerations coalesce. Providing a flexible range of program formats, emphasizing parents' goals and parental selection of parenting

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actions, encouraging parent ownership of parenting strategies and program elements, and drawing on exemplars that are within each family's experience are ways to enhance both consumer acceptability generally and cultural appropriateness specifically.

3.3. Involvement of multiple disciplines

For broad access, interventions need to be delivered via many different settings and venues. Practically speaking, this means that the programming needs to cross into several disciplines because each setting has its own practitioners. If an intervention is to be truly accessible to the population, it needs to belong to practitioners from several disciplines rather than monopolized by one or two.

3.4. Matching program design to population needs

Population needs with respect to parenting and family programming are driven by high rates of child behavioral and emotional problems, common child-rearing challenges experienced by a substantial proportion of parents, and adverse outcomes for large numbers of youth and families. Add to this that the vast majority of parents do not seek out services through mental health providers, either for themselves or their children. To be effective then, prevention and early invention programming for parenting and family support needs to be designed in such a way as to optimize the likelihood that parents would make best use of the available information and services.

4. Potential determinants of population effects

4.1. Program design features

4.1.1. Minimally sufficient programming

Population oriented intervention strategies by definition necessitate efficient programming. Treatment and preventive interventions for parents typically have fixed formats such that all families receive the same amount of programming whether needed or not. For example, some therapy programs for childhood conduct problems impose a set length of treatment (typically around 16 sessions), and some home visitation programs aim for a massive number of sessions for every parent (e.g., 50–75 sessions over a two-year period), without questioning whether these levels of intensity are more than what is sufficient to achieve success for most families. An alternative strategy more attuned to population implementation is to provide the minimally sufficient programming (and no more) that is required to meet the parent and family needs and solve the problems at hand.

4.1.2. Self-regulatory framework

In a free society, parents can choose to participate in parenting programs, or not. Under such circumstances, engagement becomes an issue when practitioners make demands on parents related to program participation. An alternative that is especially adaptable to a population approach is the notion of invoking a self-regulatory framework (Bandura, 1989, 1995; Karoly, 1993). Working within a framework that supports self-regulatory processes, practitioners need to make it clear both in word and deed that the parents are in charge of the consultations and their own families. Practitioners serve as sources of information, support, and guidance when requested, but parents articulate the goals they would like to achieve with their children and choose from a viable menu the parenting strategies that best fit their family and effectively solve the issue at hand.

4.1.3. Accessibility

To truly invoke population-based implementation, parents need to be able to access parenting information and support through many different portals and settings. If access to programming about parenting is primarily or even substantially through mental health settings, only a small proportion of parents will actually be exposed and relatively few children will benefit. Parents in the general population come into regular contact with many professionals (e.g., primary healthcare providers; daycare, preschool, and school staff), most of whom have little or no training in evidence-based parent consultation. To greatly increase accessibility, programming needs to tap the many providers and settings that serve parents and families on a routine basis.

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4.1.4. Avoidance of single disciplinary ownership

Too often, parenting programs are discipline specific. Psychologists, counselors, parent educators, clergy, and nurse practitioners, to name a few, have their own parenting programs that were designed by and for their respective disciplines. Such endeavors may help to strengthen disciplinary identification and advocacy, but parents who are the primary consumers and children who are the beneficiaries are not well served by single discipline ownership of parenting programs. By involving many different service providers who work with families on the "front line", a program has a much greater chance of attaining population reach without getting mired in guild or turf issues.

4.1.5. Address multiple goals and outcomes concurrently

Having a different kind of parenting program for each specific child problem (e.g., aggressive behavior, ADHD, anxiety problems, social-skills development, common difficulties related to eating or sleeping, etc.) is inefficient and in some instances artificially fragmented. To best serve the population, parent programs need to be practical and cross-cutting, and address multiple goals and outcomes concurrently.

4.1.6. Quality of training and resource materials

A population approach requires the education of practitioners who are already in the workforce, using effective but cost-efficient training procedures. Some of the professional training regimens in the parenting and family intervention area are of high quality but are potentially impractical or unattainable because hundreds of hours are required for the training process. Perhaps a more achievable training goal is to provide just enough instruction and support to place average practitioners across disciplines in a position to be able to carry out programming in a manner at least sufficient to produce positive gains for parents and children.

A related consideration pertains to the resource materials for practitioners and parent consumers of the programming. Practitioners need program manuals that are easy to follow, flexible, and consistent with the guiding principles of the particular intervention. Parent resource materials likewise should be straightforward and practical, while being true to the principles and strategies of the intervention model. In addition, parent resource materials should provide flexible options for assimilation, including video demonstrations, workbooks for self and practitioner guided programming, and brief informational guides to address specific parenting issues.

4.2. Organizational factors

Increasingly, programs promote themselves as having an evidence base that demonstrates their efficacy and effectiveness. The decision to adopt an empirically supported intervention is a complex process and represents a major commitment for an agency or organization. Adequate consideration of the implications for an agency or service in embracing such programs is required. Our experience in disseminating parenting interventions to organizations and agencies in several different countries has highlighted the need to view adoption of innovation in an ecological framework that views practitioner uptake and implementation as an organizational change process that includes proper preparation of staff and undertaking a variety of organizational tasks.

Changes in the way practitioners work with families must be considered within the broader organizational context within which they operate. Although, some individual practitioners who are opinion leaders and internal advocates for change may have the capacity to bring new ideas and practices in an organization, in the absence of managerial level support such efforts can be met with considerable organizational resistance. Several organizational level factors must be taken into account and strategies developed to ensure that an intervention has sufficient support from managers or supervisors. Strategies are required to enable staff to be adequately supported and supervised to ensure program integrity, to minimize program drift, and to ensure that the intervention becomes part of the core duties of the practitioners in an organization.

Traditional organizational approaches, where decisions are made by management such as a chief administrator and communicated via a memo to staff (Backer, Liberman, & Kuehnel, 1986), are not the optimal for the adoption and subsequent implementation of programs. This kind of top-down imposition of an innovation, with insufficient consultation, input or ownership by the staff designated to implement it, may increase staff resistance to the change (Webster-Stratton & Taylor, 1998) and result in the innovation not being implemented.

Barriers within an adopting organization may also be a function of practice guidelines imposed by the organization or financiers such as third-party payers (Barlow, 1994). For example, consultation numbers and program formats may

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be restricted, and new interventions must be approved based on their perceived relevance and evidence base. Indeed, there are moves to use such clinical practice guidelines to provide immunity from malpractice litigation and to meet quality assurance criteria for accreditation (Barlow, Levitt, & Bufka, 1999), creating more pressure on agencies to carefully consider the interventions and services they offer.

4.2.1. The importance of line management support

Line managers are the immediate administrators or supervisors of staff who directly implement an intervention with families. They are also responsible for ensuring that sufficient resources are allocated for fund staff training and program implementation. A potentially effective intervention may be abandoned entirely because line managers do not inadequately prepare their staff or who have simply not thought through the organizational implications of adopting a program. For example, practitioners may require materials, equipment and other resources that were not budgeted for to deliver interventions to families. To attend training line staff may need to be released from their duties and unless there is funding to back fill other non-participating staff will have to carry the extra work load. Consequently, interventionists need to thoroughly brief line managers about the organizational implications of adopting an intervention.

An invitation to brief administrators about the program can be helpful in persuading a bureaucracy to support an initiative. Careful consideration should be given to identifying the levels of training and modes of program delivery that would best suit the agency's client population or strategic priorities. For example, some agencies may be in a position to run parenting groups and are therefore likely to need staff training that focuses on group intervention, whereas others deal primarily with individual parents and are more likely to need training in an individually administered program. Some agencies that seek to have their staff trained simply do not have the capacity to implement the program effectively, without other significant organizational changes. We have encountered agencies that have sought training for staff to overcome major organizational problems including inadequate funding, poor facilities and equipment, and internal dissent reflected in high staff turnover, poor leadership, lack of clear mission statements or a consistent theoretical framework. In such circumstances, the identification of organizational obstacles may preclude proceeding with training.

On the other hand we have encountered a number of situations where the provision of staff training was an essential part of enabling an organization to improve the level of skill of the workforce and part of an organizational shake-up. Managers should be encouraged to contact other agencies or services who are already using the program and are prepared to attest to the program's relevance, effectiveness, and applicability. Government agencies in different states often compare notes about how the program has been received by staff and parents.

4.2.2. Supervision

Once staff members have been trained and have begun implementing a program, staff require a support structure to encourage good program fidelity and the continued use of the program. Peer supervision support networks can be helpful to maintain program integrity and prevent program drift over time. Practitioner networks using the internet and listserves can promote better communication between program developers, evaluators, researchers and service providers.

The establishment of a peer supervision network within an organization is an extremely useful way of increasing practitioner confidence and self-efficacy in using a new intervention program. The supervision process can be designed to promote practitioner self-regulation. A useful format involves 5–6 staff, with a rotating peer facilitator and a nominated practitioner to be responsible for presenting a case in each session. Staff can be asked to bring along either a videotape or audiotape of a parent consultation session. A review process involves the practitioner outlining to the group their goals for the session with the client. The practitioner then stops the tape periodically to self-evaluate their performance and receive peer comments and suggestions. The practitioner is responsible for determining how to use the feedback provided.

We have also found that it is important to honor and celebrate the success of staff implementing the program. This can involve celebrating important milestones in the role out of the program (e.g., ceremony to acknowledge the first 100 parents who have completed, and the provision of public feedback to congratulate staff on achievements).

The proper documentation of decision making processes through keeping regular minutes and records of meetings and agreed upon actions and decisions is helpful to promote accountability.

4.2.3. Integration of programs into core duties

The ultimate sustainability of the program depends greatly on the extent to which the program becomes part of the core business of an organization and the duties and responsibilities of staff. Sometimes this requires an organization to

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reduce their commitment or replace entirely non evidence based programs with evidence based ones. This change is not an easy one for many staff who may be comfortable and attached to a familiar program even if it does not work very well. They many be quite threatened by the challenge of using a new program that has an evidence base but little staff commitment to it. This threat can translate into staff being critical or resistant to changes. Over time as staff become more experienced, familiar and confident with the intervention their resistance can be expected to decrease. It is important that managers make it clear to staff that they are not simply being expected to do more work by adding new programs to their existing duties.

4.2.4. Inter-organizational communication

The success of a program depends greatly on having good communication among key stakeholders including program administrators, disseminators, evaluators, participating organizations and service providers, consumers of the service, the media, and the general public. This aspect of the program implementation can be a daunting and time consuming one. For example, if a media campaign is planned that draws the program to the attention of the public, there need to be trained staff ready and willing to take referrals or deal with inquiries. To ensure a dissemination opportunity is not wasted, all of the pertinent individuals, affected by implementation or whose cooperation is required, need to be consulted and in agreement with what is proposed, especially if they are expected to devote staff time or resources.

Several strategies can be used to facilitate better communication among parties. These include the establishment of a community advisory board that consist of respected community representatives to provide advise to project coordinators or managers. This group can provide advice and guidance on issues such as how to promote awareness and interest of parents. A project website that can be used to provide basic descriptive information about the program, services available and trained service providers who can deliver the intervention in different communities. A practitioner network website can offer a "Frequently Asked Questions" service to providers, and a telephone hotline can be used as a vehicle for responding to their questions about the program. A quarterly newsletter can be used to provide regular updates on the progress on the programming.

4.2.5. Creating an evaluation culture

Many agencies and organizations pay lip service to the need to use evidence-based programs. Historically, the parent training field has been dominated by non evidence based programs. There continues to be some resistance to simply adopting programs that have been subjected to randomized controlled trials, with vocal practitioners claiming the results of clinical efficacy or effectiveness trials do not generalize to the specific population they serve, and that because a program they employ has no trial data does not mean it has no evidence base. The term "practice-based evidence" has been coined to describe the belief by some practitioners that the cumulative wisdom, knowledge and experience of service providers should no be dismissed. Similarly, even if an agency adopts and implements a program that has convincing evidence that it works elsewhere in other countries, states, communities or with specific ethnic or cultural groups, it cannot be assumed that it will be automatically effective in a particular agency. Consequently, organizations delivering parenting services need to become more self-reflective and outcome focused, and to view evaluation not as a threat but rather as an integral part of routine service delivery.

Many agencies and community organizations need assistance to develop an evaluation culture. An evaluation culture means selecting programs that have sufficient strength of evidence to warrant adoption. It also means that organizations should continue to evaluate whether the program in its disseminated form continues to be effective with the clients served by the agency. To facilitate such a process program developers design their treatment manuals to include a specific evaluation framework that can be used by agencies. Such a framework can include specific measures with demonstrated reliability and validity. For such recommendations to have any credibility the measures recommended need to be change-sensitive, brief, low-cost, and easy to use.

4.3. Broader socio-political context

In addition to the aforementioned requirements for population effects, there are a number of other considerations that speak to the broader socio-political context. Although somewhat beyond the scope of the discussion here, the broader socio-political factors are important and are briefly noted here: (1) effective political advocacy that cuts across political groups, governmental entities, and other large policy-related institutions; (2) funding streams that are imbedded in the institutional support structure and are sustainable over time; (3) utilization of social marketing and

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community strategies that link parents to the information and support strategies in ways that meet family needs without overwhelming the most intensive levels of programming; (4) consumer advocacy; and (5) need for effective public relations.

5. A research example: the Triple P System Population Trial

An example of population-wide implementation of evidence-based programming for families is found in the Triple P System Population Trial (TPSPT), which illustrates how many of the aforementioned principles can be incorporated into interventions and scientific trials. The TPSPT, currently in progress, aims at a population level to strengthen parenting, reduce risk for child maltreatment, and reduce the incidence of early child behavior problems.

5.1. The system of parenting and family support

To address the problem of low penetration or utilization of parenting programs in the general population, Sanders and colleagues have developed a unique multi-level parenting and family support system known as the Triple P-Positive Parenting Program (Sanders, 1999; Sanders et al., 2004, 2002). The programming within Triple P builds on the substantial work pertaining to behavioral and social-learning based family interventions (Kazdin, 1997; McMahon, 2000; Miller & Prinz, 1990; Patterson, Reid, & Dishion, 1992; Prinz & Connell, 1997) Triple P uses a tiered system of intervention of increasing strength, ranging from media and information based strategies, to two levels of moderate-intensity intervention using a brief consultation format, to two more intensive levels of parent training and behavioral family intervention targeting parenting skills and other family adversity factors such as marital conflict, depression and high levels of parenting stress. Triple P's unique features include its universality, use of multiple levels of intervention to facilitate matching of intensity of intervention to need of family, its multidisciplinary nature, the use of flexible delivery modalities (media, individual, group, and self-directed) and its targeting of de-stigmatizing access points (for example through use of primary health care services, schools, and child care centers). Triple P is designed for all parents rather than only special populations, and its use of the mass media promotes wide exposure and facilitated access to the program.

A key feature of Triple P is the adoption of a self-regulatory framework, which permeates all levels of the system. Invoking self-regulatory processes is intended to increase engagement of parents, but it is also a key component in applying Triple P with families from different cultures. In collaboration with the practitioner, parents determine the intervention goals and styles of implementation consistent with their own family and cultural values. A broad menu of parenting strategies facilitates this process, making it easy to tailor the intervention to each family's needs and preferred style of interacting. Self-regulation also plays out in terms of the specific parenting strategies. The parenting strategies have explicit elements for strengthening children's self-regulation and self-reliance, compatible with developmental level.

A self-regulatory framework is also an important aspect of practitioner training. Throughout and beyond the training to become a Triple P provider, the practitioners are shown ways to solicit and use feedback (from the trainer, peers, supervisors, etc.) so as to enhance their professional development. Becoming a successful Triple P provider means actively using self-regulation in acquiring and maintaining the professional skills. Made explicit are the parallels for the self-regulatory framework found in parent-child, practitioner-child, and trainer-practitioner interactions.

Triple P programming has a relatively large and growing evidence base to support it, including several randomized controlled trials substantiating efficacy and effectiveness (Sanders, 1999; Sanders et al., 2004, 2002).

5.2. TPSPT design

5.2.1. Randomization of counties

The TPSPT involves randomization of 18 moderate-sized South Carolina counties to condition and assessment of effects at a population level. The intervention conditions are: (1) county-wide implementation of all levels of the Triple P System, versus (2) usual-services comparison. The 18 selected counties, ranging in population size from 50,000 to 175,000 per county, were matched up in pairs based on child maltreatment prevalence rate, approximate size (population), and poverty level (proportion of households below the poverty line), and then assigned to condition. The referent population in the 18 counties for the TPSPT consists of the parents/caregivers in all households with one or more children in the birth to seven-year-old range.

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5.2.2. Creation of multiple access points for parents

A key facet of the population-based dissemination of the Triple P system involves the engagement, training, and support of a broad array of service providers (practitioners) from several disciplines and settings including: health centers (primary healthcare providers), family support services (social workers, psychologists, and therapists affiliated with county health centers, mental health centers, and schools), social services (prevention workers, social workers), preschool and child-care settings (directors, teachers), kindergartens (teachers, guidance counselors, parent educators), private-sector practitioners, and other community organizations having direct contact with parents and families.

5.2.3. Media and informational strategies to increase population reach

In concert with a population approach, the TPSPT involves several media and informational strategies: (1) Local newspaper coverage of Triple P programming and dissemination in each county; (2) positive parenting articles in local newspapers; (3) public service radio spots about positive parenting and Triple P programming; (4) informational flyers and brochures distributed to community centers, advocacy organizations, and other entities having frequent contact with large numbers of parents; and, (5) informational mailings to family households in the 9 Triple P System counties. The purposes of these media and communication strategies are to normalize and de-stigmatize parental participation in Triple P, validate the concepts of positive parenting that are part of the Triple P interventions, to empower parents to take charge of the parenting self-improvement process, and to invigorate Triple P providers.

5.2.4. How parents become engaged in Triple P

Parents link to Triple P in several different ways. By involving a variety of agencies and providers who serve families, the visibility and accessibility of Triple P is more obvious to parents. The settings include preschools, elementary schools, daycare centers, health clinics, community centers, social and mental-health services, religious organizations, and non-profit organizations. The media and communication strategies described are intended to raise awareness of Triple P and its benefits, and to encourage parents to seek out programming. Triple P providers are also encouraged to use parent-initiated contact as a critical time to broach the availability of Triple P parenting consultation and support.

5.3. Measurement process

In comparison with efficacy and effectiveness trials, the measurement processes for a population trial are more complicated and less well developed by the field. The TPSPT measurement procedures involve multiple domains and constructs that target population indices of penetration and impact, longitudinal assessment of practitioners, and evaluation of cost considerations. A random-dialing telephone survey of caregivers in households with children ages one to seven years is conducted annually in the 18 counties to assess media and informational exposure to Triple P, parent involvement in parenting consultation and support (generally and also specifically through Triple P), parenting practices, parental confidence and stress, and reports of child adjustment. From a process perspective, the telephone surveys are particularly critical to assessing the impact of the media and communication strategies in terms of awareness of Triple P, to what extent each media/communication source is contributing to that awareness, and how population demographics relate to parental awareness and participation.

Archival records, pertaining to child maltreatment, child hospitalizations and injuries, and child out-of-home placements, are being assessed over time for the 18 counties as part of the TPSPT. For all of these measurement domains, archival records have been accessed for the five years preceding the start of the trial to provide an extended baseline, and will continue to be accessed throughout the five years of the trial. The child maltreatment variables include rates of reported maltreatment, and then numbers of substantiated cases involving physical maltreatment, neglect, sexual abuse, and combinations of these. Rates of out-of-home placement of children provide an indication of a significant adverse impact of child maltreatment, with high tolls in terms of human and financial cost. If overall rates of child maltreatment are reduced, it is anticipated that the rates of out-of-home placement would also decrease.

The 500–600 practitioners in the 9 counties who are participating in the Triple P training courses are being followed longitudinally to study individual differences with respect to (a) parenting consultation skill acquisition, (b) program utilization, (c) facilitators and barriers to program implementation, and (d) perceptions of organizational factors. Self-report measures are administered before and after training, parenting consultation proficiencies are observed at the end of training, and structured interviews of practitioners are conducted 6 months and 18 months after training. With

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respect to process, this longitudinal follow-up with practitioners provides data about how the level of organizational support affects utilization of Triple P, about the kinds of factors that facilitate or impede adoption, and about the practitioner characteristics that may interact with organizational factors.

Costs are being tracked with respect to dissemination of the Triple P system. Training costs take into account practitioner recruitment, trainer and supervisory time, training materials, training venues, and practitioner time during and outside of training. Costs are also considered for the media and informational strategies, ongoing consultation and support for Triple P-trained practitioners, and resource materials for implementation with parents.

6. Conclusion

Operating at a population level to positively impact parents and their children requires a shift in our professional thinking. It is no longer sufficient to conduct efficacy trials on parenting and family-based interventions and treatments without considering how such programming can benefit larger segments of the population. The considerations offered here provide the beginnings of a conceptual framework for understanding, studying, and implementing population-based approaches to intervention. The Triple P System Population Trial provides an example of how this is pursued in actual application.

References

Backer, T. E., Liberman, R. P., & Kuehnel, T. G. (1986). Dissemination and adoption of innovative psychosocial interventions. *Journal of Consulting and Clinical Psychology*, *54*, 111−118.

Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, *25*, 729−735.

Bandura, A. (1995). *Self-efficacy in changing societies.* New York: Cambridge University Press.

Barlow, D. H. (1994). Psychological interventions in the era of managed competition. *Clinical Psychology Science and Practice*, *1*, 109−122.

Barlow, D. H., Levitt, J. T., & Bufka, L. F. (1999). The dissemination of empirically supported treatments: A view to the future. *Behaviour Research and Therapy*, *37*, 147−162.

Biglan, A., Mrazek, P., Carnine, D. W., & Flay, B. R. (2003). The integration of research and practice in the prevention of youth problem behaviors. *American Psychologist*, *58*, 433−440.

Burns, B. J., Hoagwood, K., & Mrazek, P. J. (1999). Effective treatment for mental disorders in children and adolescents. *Clinical Child and Family Psychology Review*, *2*, 199−254.

Karoly, P. (1993). Mechanisms of self-regulation: A systems view. *Annual Review of Psychology*, *44*, 23−52.

Kazdin, A. E. (1991). Effectiveness of psychotherapy with children and adolescents. *Journal of Consulting and Clinical Psychology*, *59*, 785−798.

Kazdin, A. E. (1997). Parent management training: Evidence, outcomes, and issues. *Journal of the American Academy of Child and Adolescent Psychiatry*, *36*, 1349−1356.

McMahon, R. J. (2000). Parent training. In S. W. Russ & T. Ollendick (Eds.), *Handbook of psychotherapies with children and families* (pp. 153−180). New York: Plenum.

McMahon, R. J., & Kotler, J. S. (2004). Treatment of conduct problems in children and adolescents. In P. A. Barrett & T. H. Ollendick (Eds.), *Handbook of interventions that work with children and adolescents: Prevention and treatment* (pp. 395−426). Chichester, England: Wiley.

Miller, G. E., & Prinz, R. J. (1990). The enhancement of social learning family interventions for childhood conduct disorder. *Psychological Bulletin*, *108*, 291−307.

Ollendick, T. H., & King, N. J. (2004). Empirically supported treatments for children and adolescents: Advances toward evidence-based practice. In P. M. Barrett & T. H. Ollendick (Eds.), *Handbook of interventions that work with children and adolescents: Prevention and treatment*. New York: Wiley.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys.* Eugene, OR: Castalia.

Prinz, R. J., & Connell, C. (1997). Prevention of conduct disorders and antisocial behavior. In R. T. Ammerman & M. Hersen (Eds.), *Handbook of prevention and treatment with children and adolescents: Intervention in the real world context* (pp. 238−258). New York: Wiley.

Prinz, R. J., & Dumas, J. E. (2004). Prevention of oppositional defiant disorder and conduct disorder in children and adolescents. In P. A. Barrett & T. H. Ollendick (Eds.), *Handbook of interventions that work with children and adolescents: Prevention and treatment* (pp. 475−488). Chichester, England: Wiley.

Prinz, R. J., & Jones, T. L. (2003). Family-based interventions. In C. A. Essau (Ed.), *Conduct and oppositional defiant disorders: Epidemiology, risk factors, and treatment* (pp. 279−298). Mahwah, NJ: Erlbaum.

Sanders, M. R. (1999). The Triple P-Positive Parenting Program: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behavior and emotional problems in children. *Clinical Child and Family Psychology Review*, *2*, 71−90.

Sanders, M. R., Markie-Dadds, C., Turner, K. M. T., & Ralph, A. (2004). Using the Triple P system of intervention to prevent behavioural problems in children and adolescents. In P. A. Barrett & T. H. Ollendick (Eds.), *Handbook of interventions that work with children and adolescents: Prevention and treatment* (pp. 489−516). Chichester, England: Wiley.

Sanders, M. R., Turner, K. M. T., & Markie-Dadds, C. (2002). The development and dissemination of the Triple P-Positive Parenting Program: A multilevel, evidence-based system of parenting and family support. *Prevention Science*, *3*, 173−190.

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Society for Prevention Research (2004). *Standards of evidence: Criteria for efficacy, effectiveness, and dissemination.* Falls Church, VA: Society for Prevention Research.

Spoth, R. L., Kavanagh, K. A., & Dishion, T. J. (2002). Family-centered preventive intervention science: Toward benefits to larger populations of children, youth, and families. *Prevention Science*, *3*, 145−152.

Taylor, T. K., & Biglan, A. (1998). Behavioral family interventions for improving child-rearing: A review of the literature for clinicians and policy makers. *Clinical Child and Family Psychology Review*, *1*, 41−60.

Webster-Stratton, C., & Taylor, T. K. (1998). Adopting and implementing empirically supported interventions: A recipe for success. In A. Buchanan & B. L. Hudson (Eds.), *Parenting, schooling and children's behaviour: Interdisciplinary approaches* (pp. 127−160). Hampshire, UK: Ashgate.

Zubrick, S. R., Silburn, S. R., Garton, A., Burton, P., Dalby, R., Carlton, J., et al. (1995). *Western Australia Child Health Survey: Developing health and well-being in the nineties.* Perth, Western Australia: Australian Bureau of Statistics and the Institute for Child Health Research.

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