

Society of Pediatric Psychology Presidential Address: Back to the Future in Pediatric Psychology: Promoting Effective, Accessible, and Affordable Interventions

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Pediatric psychologists have been affected by the political and economic changes in health care during the last few years. The changes manifested in the new models of health care delivery (i.e., managed care) have stressed practitioners (Roberts & Hurley, 1997). While trying to maintain quality of care, practitioners must also attempt to contain cost and provide unencumbered access to services. This situation has created questions about the value of our services. Defining the value of pediatric psychology interventions is complex since it involves the interrelationship between cost, quality, and access. Pediatric psychology has historically emphasized engaging in more applied intervention research, analyzing the benefit and cost of interventions, and looking toward prevention as the most cost-effective of all possible interventions. Thus, the historical roots of pediatric psychology may help to provide a practical template by which the question of value in health care delivery can be understood and effectively negotiated in the future.

This article will examine the value of the services provided by pediatric psychologists in terms of the interface between accessibility (i.e., fast), cost (i.e., cheap), and quality (i.e., good). Although the

historical underpinnings of pediatric psychology have emphasized short-term, effective treatments and prevention that are compatible with the new health care delivery models, empirical research on efficacious treatments and prevention have not always kept pace with the need. Suggestions are made for returning to the historical foundations of pediatric psychology in order to provide greater value to pediatric psychology interventions in the future.

Historical Roots of Pediatric Psychology

Pediatric psychology is a relatively new discipline. Logan Wright did not coin the term pediatric psychology until his 1967 *American Psychologist* article, which described three goals of the pediatric psychologist. First, he called for a clear role definition of the pediatric psychologist and the establishment of a formal organization. In 1968 the Society of Pediatric Psychology was founded and for three decades has been the primary organization for psychologists working with children, adolescents, and families with medical problems within health care settings. A second goal for Wright was the development of professional training for pediatric psychologists. In the last few years there has been a rapid expansion of graduate programs (Tarnowski & Simonian, 1997) and internships/postdoctoral fellowships (Simonian & Tarnowski, 1997) reflecting

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diverse opportunities for pediatric psychologists. Finally, Wright called for the construction of a new body of knowledge through applied research (Wright, 1967).

The early years of pediatric psychology were characterized by practitioners providing services for patients with developmental disabilities and providing assessment with a pediatric population. At the same time, the applied research that characterized these early years often focused on innovative interventions designed to ameliorate medically related problems. Because of the practice style of the pediatric psychologist, these interventions tended to be behavioral, symptom-focused, and short-term in nature. Unlike the clinical child psychologist, the pediatric psychologist has a strong tradition of being behaviorally oriented (La Greca, Stone, Drotar, & Maddux, 1987). The pediatric psychologist also tends to have a practical orientation to treatment in the fact that interventions must be proven to be effective, economical, and time-efficient (Peterson & Harbeck, 1988). Innovative treatments for tracheotomy addiction (Wright, Nunnery, Eichel, & Scott, 1968), medication refusal (Wright, Woodcock, & Scott, 1970), enuresis (Finley & Wansley, 1976), and encopresis (Wright & Walker, 1976) helped define the field of pediatric psychology in the early years and set a standard for the importance of time-limited, cost-effective interventions.

Prevention and health promotion has been another area of basic orientation that pediatric psychology has maintained throughout its existence (Roberts, 1986). Whereas the previously described applied research has focused on interventions designed to improve the status or functioning of a child or family, prevention and health promotion research has focused on interventions made before the development of a psychological or health problem. Prevention studies have always been published in the *Journal of Pediatric Psychology (JPP)* and within the last few years the relative proportion of prevention articles has increased (La Greca, 1997).

Pediatric psychology appears to be at the right place at the right time. With the emphasis on short-term, effective treatments and prevention as the promise of the field, one might believe that pediatric psychology would be in an excellent position in this era of managed care and other new models of health care delivery where efficiency and prevention are valued.

The Era of Managed Care

Managed care has become an economic necessity because of the rapid rise in health care costs during the last two decades. During the 1980s health care costs rose at an unprecedented rate. This increased cost to business and government has made increased health care expenditures prohibitive. While inflation over the last few years has been below 5%, health care costs continue to rise at a much higher rate partially due to the underlying cost structure of health care (Broskowski, 1994). The total cost of health care is a function of the *unit price* multiplied by the *number of units* used. In the past when costs rose, hospitals and doctors under a fee-for-service reimbursement system would simply charge their patients more for the services rendered. Thus, doctors, hospitals, and other health care delivery systems were not rewarded to be efficient since whatever the provider charged was willingly paid by insurance companies. In the same way, there was little incentive for cost containment from patients since they were personally insulated from the costs because the insurance companies paid the provider directly. Finally, as long as employers were able to offer health care as a tax-deductible fringe benefit to employees without adversely affecting their profits, there was also little incentive for change. These factors tended to escalate the cost for each unit of health care provided because of the absence of any mechanism to control costs.

While the cost per unit of health care was increasing, the quantity (number of units) of health care services also increased. Sociological factors contributed to utilization of services, such as the aging baby-boomer population who now require relatively less inexpensive acute services and relatively more expensive chronic health care. In addition, there has been a shift in societal expectations to desire more frequent and intensive utilization of health care services (Broskowski, 1994). These factors have fueled the increases in health care utilization, which include pediatric psychology services.

Beginning in 1983 with prospective payment through DRGs (i.e., diagnostic-related groups) for Medicare patients, the government and insurance companies shifted from a fee-for-service reimbursement to capitated reimbursement in an attempt to contain costs. Although some might argue that this is a form of rationing, it was generally recognized that when there are limited resources, there must be

some limiting of care. Even prior to these new health care delivery systems, rationing was done de facto when a powerful political group could lobby for more health care resources for its constituency. Unfortunately, the outcome of this political action has always been at the expense of other less influential political groups. When one group would win, another group would lose in the allocation of finite resources. For example, if a government entity authorizes organ transplants, it may be at the expense of child immunizations. Kaplan (1993) has pointed out that the political losers in health care utilization have historically been poor women and children.

Obviously, there needs to be improvement in health care delivery so all groups, including children, get their fair share of health care resources. Unfortunately, managed care's promise of controlling costs has also created numerous untoward effects on the provision of psychological services for children and families, including limitations to access to psychological services for the child and family, increased ethical and legal liabilities for the psychologist, and reduction of income for the psychologist (Roberts & Hurley, 1997).

Value in Pediatric Psychology

The value of any good or service (including pediatric psychology intervention) can be described in terms of three components: fast, cheap, and good. Fast is related to how quickly and easily children and families can access health care providers. Throughout my 20 years of practice, patient access has always been problematic. It is common for a patient to wait four to eight weeks for a routine appointment. From my experience this limit to access is not atypical and is a hidden form of rationing that permeates all child mental health care. In addition, from a health care financing standpoint, there are major gaps in insurance coverage for children and families. It has been estimated that between 32 and 40 million people are uninsured in the United States, with many of these uninsured being children (Kaplan, 1993). The affluent do not have problems obtaining care for their children; they can just pay for it out of pocket. In addition, working people with adequate health insurance can obtain services, although they may have to wait until an appointment becomes available. In managed care plans, access is often limited because certain professional

services or providers are not covered under the particular managed care plan (Roberts & Hurley, 1997). The indigent often are provided services for their children under social programs such as Medicaid. Unfortunately, few providers of psychological services will take the low reimbursement rate of Medicaid, and, as a result, indigent patients often have chronic difficulty accessing psychology services. The families who appear to have the least opportunities to access psychological help are the working poor and/or the middle class with either poor insurance that does not cover psychological services or no insurance whatsoever. These patients must seek treatment from providers who charge on a "sliding scale," but again a limited supply of these practitioners exists in many communities.

The problem of how to improve access is often solved by health care administrators by limiting access to the provider and/or increasing productivity of the provider. In my experience many pediatric psychologists are compelled to increase patient volume by working more hours during a week to keep up with those greater patient care demands. This trend is occurring in many fields besides psychology. Although workers in the United States are becoming more productive, they must work more hours per week in order to maintain that productivity. At the same time workers spend more hours per week working, the median family income has dropped (U.S. Bureau of the Census, 1995). Thus, like many in the general population, pediatric psychologists are working more hours for less relative compensation.

The second component, cheap, involves the cost of providing psychological services. Health care in the United States is quickly becoming unaffordable to many people. Health care costs are becoming a larger part of the cost of every good and service produced in the United States. As a result, our country has become less competitive in the world market. For example, in the manufacturing of a car, automakers spend more money on health care benefits for their employees than they do in buying steel for that car (Kaplan, 1993). Although the per capita cost of health care in the United States is the highest in the world, the patient satisfaction and effectiveness are not the highest. Kaplan has concluded that we are not getting good value for our health care dollar. In many settings the cost for mental health services is contained by replacing the relatively expensive doctoral-level

psychologists with master's-level counselors or nurse clinicians trained in psychological treatment techniques. In addition, even when it may not be the treatment of choice, group therapy is touted as an inexpensive alternative to individual treatment. Unfortunately, at this point in time, research has failed to conclusively prove that doctoral-level psychological care is superior in quality to subdoctoral-level psychological care (Weisz et al., 1995).

Finally, the third component, good, involves the effectiveness of treatments and interventions. This measure of outcome should be telling us if our investment of time, energy, and money has yielded an effective result. Essentially, we want to answer the following question: does this treatment work? In hospital-based settings physicians often ensure quality control by looking at patient morbidity, evaluating why the problem occurred, and instituting remedial procedures to correct the problem in the future. The goal is to remediate the untoward outcome. The current trend involves not only looking at those patients who have a poor outcome, but also looking at how to improve practitioner performance to an optimal level. The current approach is to strive for better care and not just avoid a catastrophic patient outcome. As a scientist-practitioner, the pediatric psychologist strives to improve outcomes based on our training, experience, and research, but often limited empirical data exist that conclusively prove that treatment is effective.

The interrelationship between access (i.e., fast), cost (i.e., cheap), and quality (i.e., good) lies at the centerpiece of managed care and other new models of health care delivery. Two of the components are usually fairly easy to obtain, but adding the third component is much more difficult. For example, it is certainly possible to have good, high-quality care that is affordable, but there may not be quick, fast access. This situation often occurs in underfunded community mental health centers who treat patients with the highest quality interventions, but there is often a long waiting list to be seen. In the same way, it is possible to have inexpensive, cheap care with fast access, but the care may not be effective and thus not be very good in quality. This situation occurs in some managed care clinics where patient access is emphasized at the expense of treatment quality. Finally, it is possible to have fast access and good quality care, but the care will likely be expensive. This situation often occurs with private practitioners who want to maintain high quality treatment standards and maintain quick access, but

who cannot afford to charge a lesser fee in order to provide those services. Unfortunately, since access and cost are easy to measure and "quality" is difficult to measure, there is always a subtle pressure to compromise the quality of the care provided (Rae & DiGirolamo, 1997).

Promoting Effective, Accessible and Affordable Interventions

As pediatric psychologists, we need to promote greater value in our profession. Each of the components of value (access, affordability, and effectiveness) must be addressed for the future. It is only through this practical reorientation that our field can remain economically viable to serve the future psychological needs of patients and their families.

How can the speed and efficiency of access to pediatric psychology services be improved? First, there must be greater education and training of allied health personnel, who are often the front-line contacts for pediatric patients and their families. Many of the routine interventions developed by pediatric psychologists have been successfully utilized by nurses and other health care providers. For example, psychologists have trained nurses in the use of appropriate behavioral techniques for pain control during noxious medical interventions. In addition, in the future pediatric psychologists will probably be doing less routine psychotherapy since subdoctoral-level psychologists and other mental health practitioners will be providing much of the routine interventions for they can provide them at lesser cost (Rae & DiGirolamo, 1997). Second, pediatric psychologists should devote greater attention to interventions that will promote health and prevent psychological or physical harm. Society is often more oriented toward fixing a problem rather than preventing it from happening. By using a disease prevention and health promotion focus, untoward health events could be avoided. Roberts's (1994) "Spitting on the Sidewalk" presentation focused on tobacco and smoking behavior, car passenger safety, and violence, which are imminent public health concerns and have not been adequately addressed by the field of pediatric psychology. Many other areas of childhood and adolescent mortality and morbidity also have a significant behavioral component. Child abuse, AIDS, STDs, childhood injuries, teen pregnancy, medical adherence, and substance abuse are examples of health

problems that might be helped through psychologically sound prevention and health promotion programs.

The field of pediatric psychology has always been philosophically supportive of prevention, but recent studies suggest that prevention research may be increasing. During the 5-year period from 1992 through 1997 *JPP* has published 6.4% of empirical articles on the topic of pediatric injury (La Greca, 1997). This is an increase in the proportion of empirical articles from the 3.8% in the area of prevention reported in the journal from 1988 to 1992 (Roberts, 1992).

How can the affordability of pediatric psychology services be improved? First, collaboration must be made with experts in business and accounting in order that pediatric psychologists can better understand cost-benefit comparisons of our interventions. In fact, pediatric psychologists often do not know the true cost of their interventions. A business mentality may help pediatric psychologists decide when an intervention is too expensive for the benefit obtained. In the same way, by having a complete financial analysis, pediatric psychologists could understand how to maximize the benefit to the patient at the lowest cost. Finally, analyzing the differences between an acceptable outcome and an optimal outcome might help to make our interventions more cost-effective. Although psychologists may not have the innate temperament or interest to analyze business aspects of practice, it is only by devoting more attention to cost-effectiveness research that our market competitiveness can be assured. Several examples exist describing the medical cost offset after providing psychological treatment to children and families (Roberts & Hurley, 1997). Studies that document the "cost-benefits" of pediatric psychological interventions have not been well represented in *JPP*, but are clearly regarded as being important for the future (La Greca, 1997).

How can the effectiveness of pediatric psychology services be improved? How can we be assured that we have a treatment that is good and that it works? Pediatric psychologists are firm believers in the scientist-practitioner model, but the appropriate scientific basis for many of our treatments does not exist. In order to further understand the empirical basis for our interventions, articles published in *JPP* from 1978 through the 1997, representing 20 years of research publication, were reviewed. Similar to other *JPP* reviews (Elkins & Roberts, 1988; La Greca, 1997; Roberts, 1992), non-

empirical articles such as editorials, literature reviews, book reviews, or comments were not included in the analysis. These remaining empirical studies were divided into one of three categories: (1) intervention, (2) relational/correlational, or (3) assessment. The first category involves intervention or outcome studies where an attempt is made to improve the psychological/medical status or functioning of child, parent, or family. Intervention studies were further categorized into case studies (usually descriptive in nature or within-subject designs with less than 10 subjects) and group studies (usually where between-group comparisons were made). Unlike other reviews of *JPP*, prevention research was included in this category if an intervention was made (Elkins & Roberts, 1988; Roberts, 1992). The second category involves relational, correlational, or explicative studies between two or more variables. These relational or correlational studies were subdivided into nonlongitudinal (with two or more variables) and longitudinal (with a minimum of two years following the subjects). Articles in this category included surveys, regression analyses, correlations between variables, meta-analyses, or other relationships between two or more variables. Finally, the third category involves assessment studies dealing with the development of clinical diagnoses through the use of tests and/or surveys. The assessment articles usually described the development or validation of assessment instruments.

In the present study, another experienced clinical child psychologist and I independently rated each article published between 1978 and 1997. If any disagreements occurred in the rating, a consensus discussion of the ratings took place by the raters. This procedure was similar to that undertaken by Roberts, McNeal, Randall, and Roberts (1996) with similar results. Table I contains the frequency and percentage distribution by content type of *JPP* empirical articles from 1978 through 1997. Only

Table I. Frequency and Percentage Distribution of *JPP* Empirical Articles by Content Type, 1978–1997 ($N = 691$)

Content Type	Frequency (%)
Intervention	123 (17.8)
Group	82
Case	41
Relational/Correlational	488 (70.6)
2 or more variables	462
Longitudinal	26
Assessment	80 (11.6)

Table II. Frequency and Percentage Distribution of *JPP* Empirical Articles by Content Type for Each 5-Year Cluster, 1978–1997 (*N* = 691)

Content Type	1978–1982 (<i>n</i> = 122)	1983–1987 (<i>n</i> = 152)	1988–1992 (<i>n</i> = 202)	1993–1997 (<i>n</i> = 215)
Intervention	23.8% (29)	22.4% (34)	12.9% (26)	15.8% (34)
Group	(10)	(24)	(18)	(29)
Case	(19)	(10)	(8)	(5)
Relational/Correlational	60.7% (74)	59.9% (91)	77.7% (157)	77.2% (166)
2 or more variables	(72)	(83)	(150)	(157)
Longitudinal	(2)	(8)	(7)	(90)
Assessment	15.6% (19)	17.8% (27)	9.4% (19)	7.0% (15)

17.8% of the articles published by *JPP* over the last 20 years deal with intervention; the vast majority of the research (70.6%) was relational, correlational, or explicative.

Given the fact that for clinical psychology the promotion of empirically supported treatments has become a high priority (Task Force on Promotion and Dissemination of Psychological Procedures, 1995), the proportion of articles in *JPP* devoted to intervention research is small. Most of the relational articles deal with the relationships or correlations between two or more variables. This type of research is more easily controlled than the quasi-experimental designs often required in intervention or treatment studies. Drotar (1997) has offered suggestions for dealing with the methodological difficulties inherent in pediatric psychology intervention research, but these suggestions often require flexible, creative approaches in the research formulation and design.

Correlational research may hold a greater appeal than intervention research for students and graduate faculty who are looking for projects with sufficient control in order to avoid difficult methodological problems. At the same time, the correlational studies hold limited interest to the clinician since they often do not have immediate practical application. In fact, very few of the *JPP* articles actually discuss any implications for clinical practice (Roberts et al., 1996). Although the field of pediatric psychology may be advancing the knowledge about psychological processes, relationships, and variables, our field has not been advancing our scientific knowledge about treatments and interventions at a pace needed to be helpful to clinicians for the next millennium. It should be noted that beginning with the 1998 issue of *JPP*, the Editor has requested that authors provide clinical implications of the empirical research within the *JPP* articles. This change should be very helpful to clinicians and,

hopefully, will stimulate additional intervention research in the future.

In order to analyze trends over the last 20 years, the articles were clustered into four 5-year time periods. Table II represents the frequency and percentage distribution of *JPP* empirical articles by content type for each of these 5-year clusters. For cluster years 1978–1982, 23.8% of the articles dealt with interventions, but there was a decrease to 12.9% by cluster years 1988–1992. The encouraging finding is that for cluster years 1993–1997 there has been a slight increase to 15.8% of articles dealing with intervention. This increase represents the diligent efforts by the *JPP* Editor to encourage submissions to four special sections (12/94, 10/96, 6/97, 10/97) and one special issue (12/93) on interventions in pediatric psychology during cluster years 1993–1997. In the early years *JPP* published a greater proportion of case studies pertaining to intervention, but most recently has published predominantly group interventions. This result is somewhat surprising since *JPP* has recently encouraged the submission of case studies (Drotar, La Greca, Lemanek, & Kazak, 1995). The proportion of correlational, relational, or explicative studies has increased for those same cluster years from 60.7% in the first cluster (1978–1982) to 77.7% and 77.2% in the third cluster (1988–1992) and fourth cluster (1993–1997), respectively.

Conclusions

During this redefinition of health care service delivery, pediatric psychologists must create additional value in our practice. To improve speed of access, our profession must train allied health professionals in empirically supported treatments. We must also develop a new enthusiasm for prevention since it represents the most cost-effective intervention. To contain and manage the cost of our services, we

must be doing more cost-benefit analyses to determine the efficacy of our interventions, even though it may create the difficult dilemma where we might have to choose between providing adequate rather than optimal care. To improve effectiveness, our profession must encourage intervention rather than correlational, relational, or explicative research in our graduate programs. In addition, we must ensure

that our research provides much needed clinical implications for the practitioner. We must go back to the future in pediatric psychology and build on the historical foundation as articulated by the pediatric psychology pioneers in order that we continue to be a viable clinical profession in the next millennium.

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Sanibel Island Lowtide. Photograph by Michael C. Roberts, Ph.D.