ABSTRACT. Parents need to understand temperament because it has an impact on their daily interactions with their children. The essential messages for parents should be that temperament traits are real; they are important for both child and parent, and they are best managed by accommodation, not confrontation or attempts to change them. Parents can be reached at all levels of professional contact throughout childhood, including the newborn nursery at well-child visits, and in preschool or day care. Pediatrics 1998;102:1311–1316; temperament, infants, parents, child development.

ABBREVIATION. CNS, central nervous system.

Primary care physicians, whether pediatricians or family doctors, can play a major role in the positive mental health of their patient families. An essential part of this process is teaching parents about their children’s temperaments.

WHY TEACH PARENTS?

Information on Temperament Is Essential

Primary care professionals should make a special effort to impart information on temperament to parents because of its impact on parents, their children, and the daily interactions between them. This teaching should be expanded and enriched as basic education for child-rearing.

To Combat the Prevalent Misinformation

This education also is necessary to combat misinformation about child development that still clouds the diagnostic and therapeutic thinking of both professionals and parents. We have generally escaped the radical environmentalism of the 1930s and 1940s, the one-sided view that claimed that all behavioral development, for better or worse, is the result of the direct impression of the environment on the blank slate of the child. That model clearly has not fit with the accumulating experience of most seasoned observers. Meanwhile, however, the 1980s and 1990s have seen a popular swing to the opposite extreme of blaming a great deal of behavioral problems on some putative abnormalities of the child’s central nervous system (CNS), in particular, on a widely diagnosed condition called attention-deficit/hyperactivity disorder. This highly problematic diagnostic term has become the dumping ground for a great variety of childhood behavioral concerns, the majority of which have no demonstrated evidence or even reasonable suspicion of the assumed CNS malfunction.

With the prevailing manner of ascribing behavioral concerns to either a noxious environment or a disabled CNS, little or no room is left for the important role of the child’s temperament. Proponents of those two extreme views have attempted to dispose of these normal variations in several ways. One tactic has been to maintain that these traits do not exist at all, but are merely the perceptions of distraught mothers. This argument was highly popular in the 1970s and 1980s, but is heard less frequently today. Others have argued that even if there were such a phenomenon as temperament, parents are too emotionally involved to report on it accurately. Still others have promoted the contention that it does not matter whether parents or others rate it adequately or not because temperament is insignificant anyway. One eminent child psychiatrist told me about 10 years ago that it is all right for nurses and pediatricians to play around with the idea of temperament, but that no reputable mental health expert should take it seriously. On the other hand, of equal disservice to parents and children, is the current error of attempting to eliminate temperament differences by pathologizing them. That is, to recognize them but to attribute them to either parental mismanagement or CNS abnormalities in the child. Thus, misunderstandings and misinterpretations of temperament have been rampant.

Parents May Not Learn Otherwise

In view of the great importance of temperament differences and the distressing amount of misinformation about them in both professional and popular circles, the need for accurate education of parents is enormous. Without a well-conceived and vigorously executed plan of instruction, the parents of today will continue to face their challenging task without the valuable knowledge that is available to help them; instead they will be burdened by a deadening weight of popular but unsubstantiated theories.

These are the reasons we should teach parents about temperament. Herein I offer suggestions about topics professionals should discuss with parents, and
some thoughts as to when, where, how, and by whom this vital service can be accomplished.

**WHAT TO TEACH?**

The essential message of a temperament education program for parents should be that these traits are real; that they matter extensively for parents and children; and that they can be managed by accommodation, but not by confrontation or trying to change them.

The most practical definition calls temperament “behavioral style,” the “how” of behavior, or the characteristic way that the individual experiences and responds to the internal and external environment. Therefore, it has components of both emotion and behavior, and both must be described here. Although mood and intensity are predominantly emotional dimensions, others, such as activity, persistence, and adaptability, are best understood as observable behavioral reactions.

**Temperament Is Real**

Despite popular misinformation to the contrary, temperament differences in children are real. The research evidence is abundant, and the clinical and personal experience of every observant professional should leave no doubt that these differences are not merely the imaginings of overstressed mothers. The only basic controversies in describing temperament are how best to divide this indivisible phenomenon into several dimensions and whether clusters or single traits are more descriptive. A full review of these matters is beyond the scope of this article but is readily available elsewhere. That these phenomena are variously viewed now, and may be regarded differently in years to come, in no way diminishes the basic fact that temperament exists.

My personal preference has been for the nine dimensions of Thomas and Chess and their New York Longitudinal Study because of their uniquely clinical derivation and their record of widespread practical use. They are activity, regularity, initial approach/withdrawal, adaptability, intensity, mood, persistence/attention span, distractibility, and sensory threshold. Although some researchers and clinicians like to use the New York Longitudinal Study clusters of difficult, easy, and slow-to-warm-up, for me considering the nine characteristics separately has proven to be more informative and more valuable clinically.

Approximately half of temperament has a genetic origin, with the remaining half still awaiting attribution to the other possible sources of the psychosocial environment, the nonhuman environment, and the child’s physical condition. The stability of temperament appears to be low in the early days and weeks of life but increases by 2 to 3 years and becomes stronger at least into middle childhood.

**Temperament Matters**

Not only are temperament differences real, but they matter considerably for parents and children. The child’s behavioral style affects both the way parents feel about themselves and the way they function as parents. For example, agreeable, flexible infants are likely to make their parents feel happy, competent, and successful. Irritable, inflexible infants, on the other hand, have been shown to influence adversely their parents’ self-esteem, satisfaction as parents, marital harmony, mood, and decisions about when to return to work. Similarly, the way parents function in their role as caregivers, in supplying the physical, developmental—behavioral, and socialization needs of their children, is clearly altered by the kind of child they were given to work with. Some children are far harder, and others far easier, to protect, stimulate, guide, love, and socialize.

Children’s temperament differences matter for themselves in practically every aspect of their life adjustment. Some physical problems, such as accidents and abuse, are more likely to occur to certain types of children. The outcome of many illnesses is affected by the child’s response to the stress the illness has induced. The rate of developmental progress is to a small but significant degree accelerated or delayed by temperament differences. A “poor fit” between the child’s temperament and the values and expectations of the caregivers is one of the most common sources of parent–child interactional distress and of reactive behavior problems in children. Several traits, including persistence/attention span and adaptability, will be of major importance for scholastic achievement when the child starts school.

Thus, children’s temperament matters in a multitude of ways for the parents, the children, and the interactions between them. These effects are all part of our current knowledge and should be included in any program for education of parents.

**How to Handle Temperament**

The third component of a temperament education program is how to handle it. Once identified, temperament differences should be accommodated to minimize unnecessary stresses without making concessions to the necessary goals of child-rearing. Denying that temperament exists is doomed to failure. Trying to work against it will only generate more stress and make matters worse. Attempting to change it, at least in infants, should be avoided. Perhaps irregular sleeping or eating patterns can be encouraged gradually to be more rhythmic, but little else seems possible at present. As children grow older, into the preschool and school periods, they often will learn how to moderate temperamental traits that are disruptive for harmonious human relationships. These alterations include diminishing the intensity of expressed feelings or curbing the impulse to withdraw from new social contacts. In the infancy period, however, recognizing the temperament pattern and accommodating it to make a better fit are the primary lessons for parents to learn. Although the basic information needed by parents may be extensive, it is readily available in libraries or bookstores.
TEACHING: WHEN, WHERE, AND BY WHOM?

When and where should parents learn about temperament, and who should teach them? The simple answer is that all professional contacts throughout childhood should have appropriate components of understanding and mastery of this kind of anticipatory guidance.

Newborn Nursery: Learning to Individualize Care

Prenatal visits serve primarily to begin the doctor–parent relationship and generally are not concerned with issues of infant behavior. In the newborn nursery, however, there is a real baby, and discussions of infant states and traits are no longer just theoretic.

Contemporary research has demonstrated considerable variation in newborn reactivity, and tests such as the Neonatal Behavioral Assessment Scale and its derivatives have made it possible to document them. Whether determined by a formal test such as the Newborn Behavioral Assessment Scale or by the skilled observations of experienced pediatric nurses or physicians, the particular pattern of infant behavior revealed by the newborn can be identified and demonstrated to the parents and its optimal management discussed. Although the postpartum hospital stay has been greatly curtailed by the cost-cutting measures of managed care, it still is possible to initiate parents into the process of “reading” their baby’s needs. This involves observing carefully how the infant functions and responds to various stimuli, estimating what these clues tell about the infant’s state and needs, and then providing the most suitable care. Although current research indicates that behavioral differences in newborn infants have little correlation with behaviors a few weeks later, it is important for parents to develop skill in understanding their child’s behavioral cues.

Well-child Visits: Facilitating Early Adaptation

In most industrialized nations, infants are taken to health maintenance visits with a pediatrician, family doctor, or nurse. During these encounters, a number of concerns are covered, including feeding, growth, development, behavior, illness, and immunizations. In addition to directing parents to pertinent literature on temperament, primary medical caregivers themselves can provide information and practical examples of how temperament matters. For example, some infants are more irritable, cry louder and longer, and are less soothable than others. Some infants do not get hungry regularly or like to try new foods. Predictable sleep patterns are not established easily in some but seem to come naturally to others. Available books do address these issues, but nothing teaches as effectively as a knowledgeable clinician, especially when pointing out that a specific behavior is probably evidence of the child’s temperament—something that can be accommodated by the parents, but cannot be changed easily.

Day Care: An Adjustment Challenge but a Chance for Independent Observations

These days, many children begin day care outside of the home when they are still infants. The temperament of some will result in a rapid and smooth transition from the home to the new environment, whereas for others it becomes a transient obstacle to the challenge of adaptation. These variations in response should be recognized for what they are, differences in reactive style, and not simply evidence of the quality of the child’s previous life experience or of the skill of the day care workers.

These issues aside, placing the infant in day care can have a valuable educational function for the parents. Outside observers, who watch the infant during the day, may be able to give the parents some perspective on their child. Well-trained and experienced workers are in a position to support or modify the impressions parents may have formed about the child’s individual style. However, unskilled workers can be a confusing or even harmful source of misinformation, such as when one told the parents of a bright and inquisitive but somewhat timid 3-year-old girl that she was “not curious,” because she did not enter a new play activity rapidly.

Differentiating Temperament, Behavioral Disorders, and Misperceptions

As children pass through infancy and into early childhood, their parents and outside caregivers frequently develop concerns about the normality of their behavior. Dealing with these situations is a particularly rich opportunity for teaching parents about temperament.

Temperament Itself

When an infant displays traits such as persistence, sensitivity, timidity, low adaptability, high activity, irregularity, irritability, low soothability, or any of the other common variations, we should help the parents identify the behavior as temperament and not misread it as something abnormal. We should not be surprised that this confusion is so common, given the prevalence of the current practice of ascribing normal behavioral traits to poor parental management or to a disabled CNS. This kind of parent education is probably the greatest unexploited opportunity to improve mental health services in current primary care. A relatively brief supplement to professional education concerning these matters could initiate a shift in this direction and make a profound difference in the quality of medical care.

Behavioral Problems or Disorders

Dysfunctional behavior can come from any one or a combination of three primary sources: noxious environments, intrinsic abnormalities such as learning disabilities, or a “poor fit” between the normal temperament of the child and his environment.

Recognizing that a behavioral disturbance involves the child’s temperament can help the clinician and parents understand why the child reacted to a situation that may have left other children unperturbed, and it aids in setting realistic goals for intervention efforts. An effective solution reduces unnecessary conflict and stress in the parent–child interaction. An improved fit between infant and environment allows the reactive problem to diminish and disappear. Because the
child’s temperament cannot be altered, however, a second step is necessary: learning from the experience—about the child’s temperament, the role it has played in the current disturbance, and the possibility that it might do so in the future.

For example, with colic there is usually nothing wrong with either the infant’s physical condition or the parents’ emotional state but, rather, a mismatch between a sensitive, irritable infant and parental handling that is not yet sufficiently tuned to the infant’s specific needs. Successful management improves the fit, reduces excessive crying, and educates the parents about the infant’s temperament. Failure to learn from the experience frequently leads to sleep disturbances in the second 6 months of life.

Misperception

Behavioral concerns also arise from parental misperceptions. A parent may regard a normally active child as “hyperactive” or an average toddler as “stubborn” either from misunderstanding or because the parent’s own problems deprive him or her of reasonable judgment. This situation calls for supplying information about normal child development or professional help for the parent. Harmonious parent–child relations will be enhanced by assisting the family in establishing a clearer, more objective view of the child’s actual temperament profile.

Physical Problems: Predispositions and Influence on Outcomes

Primary health care physicians for children spend approximately half of their time dealing with minor illnesses, but few seem to have recognized what a golden opportunity this presents for teaching parents about temperament. Temperament plays a significant part in the causation of some physical problems and can be a powerful element in the outcome of others.

There is a clear contribution of temperament in such widely diverse conditions as accidents, abuse, failure to thrive, obesity, and recurrent abdominal pains and headaches. How do we use this information? For example, if a temperamentally irritable and intense infant is becoming overweight because the parents are feeding him every time he cries, a reasonable intervention would consist of recognizing the aversive behavioral pattern, understanding it, and learning to deal with it by means other than excessive feedings. Similar steps can be taken in comparable situations to help the parents avoid destructive interaction patterns that will damage their children’s health, such as respecting a child’s timidity when it is a factor in recurrent abdominal pain.

The way an infant or child responds to the stress and discomfort of an illness, regardless of its cause, affects the way parents and medical personnel rally to the child’s care. The attention provided is likely to reflect not just the illness but also parental and professional impressions of the severity based to some extent on the child’s reactive behavior. It is easy to be persuaded that an infant who screams loudly and for a long time with an ear infection is worse off than the one who mildly, briefly, and patiently responds to the pain. Yet the severity of the ear infection often bears little relationship to the amount of complaining. We cannot doubt that infants and children who complain more forcefully probably will get their parents’ attention sooner and come to medical care more rapidly and more often. When the parents and the physician consider the reaction pattern of the infant in the diagnosis and plan of care, the overall management should be designed to avoid the extremes of too much and too little attention and arrive at the more appropriate intermediate level.

Preschool and School Performance: An Underappreciated Area of Temperament Effects

A discussion of temperament in preschool and elementary school is beyond the scope of this article. Nevertheless, several temperamental traits, particularly persistence/attention span and adaptability, have been shown to have a major impact on scholastic achievement in elementary school as measured by standardized tests, even after factoring out IQ scores. This information is discussed in greater detail elsewhere.

When studies are performed to evaluate task performance in the second year of life, a similar relationship is likely to be revealed. Persistence gets things done at all ages. Parents usually recognize this fact, but in toddlers they may be more impressed by their persistence at forbidden than at approved activities.

Reactions to Crises: Partially Shaped by Temperament

At all ages, children are confronted by a variety of crises, such as sibling birth and parental separation and divorce. In the first years of life, their reactions tend to be primarily regression in development and disruption of physiologic functions such as sleep and eating rather than the open expression of feelings seen in older children. Explanations of these reactions usually emphasize the importance of the nature and degree of exposure to the traumatic event, the quantity and quality of parental support, and the age and gender of the affected child.

Unfortunately, the contribution of the child’s temperament has been basically overlooked in discussions of crisis reactions. The quality and magnitude of the child’s response may be as strongly affected by preexisting temperament as by parental support, age, gender, or other factors. A convincing example is that the reaction to a younger sibling’s birth is predicted more accurately by existing temperament than by preparations made by parents or the timing of the birth. Clinicians can help parents anticipate and understand these reactions by taking temperament into consideration.

Methods of Teaching Parents

Three clear opportunities exist for clinicians to teach parents about children’s temperament.

Anticipatory Guidance

General discussions about temperament can occur at various times when parental knowledge needs to be augmented. These discussions can be
supplemented by various available resources (see “Resources”).

When Specific Advice Is Needed

On some occasions, general discussions are not enough, and parents need to know the child’s individual temperament profile and receive specific advice based on that. This step is indicated when parents or other caregivers are concerned about the child’s behavior, ie, whether evidence of a dysfunctional reaction has emerged. The goal is to clarify the contribution of the child to the troublesome interaction. Parent–child interactions can be understood and handled better by parents and professionals who gain this perspective.

Perhaps the best way to develop such a profile is by using one of the standardized questionnaires for parents or teachers (see “Resources”). No convincing case has been made by physicians or teachers, however, for routine testing of all children with these scales or any others at any fixed point. For routine use or with lesser degrees of concern, sufficient data can be obtained by brief but appropriately focused parent interviews.

When a Functional Disturbance Has Developed

In this instance, knowledge of the child’s contribution can be helpful in resolving the problem.

Who Teaches Parents? The Strategic Position of Physicians During the Child’s Infancy

Health care planners agree that parents should take their infants and children to some sort of well-child checkups or health maintenance visits. During the course of nine recommended encounters in the first 2 years, the parent and child meet with the physician, nurse, and support staff. These medical personnel thus are in a unique position to talk about infant temperament. (Professional caregivers also may be able to contribute.) Mental health professionals such as psychologists, psychiatrists, and even social workers generally have little contact with parents during the first 2 years of the child’s life and, therefore, minimal opportunity to educate parents.

One must question how well this function is being performed by medical personnel presently given this opportunity. The opportunity probably is being lost to professionals who do not participate fully in this aspect of practice, or who, although interested, have not acquired sufficient knowledge themselves to be effective at the job. The most obvious solution is to broaden the education of physicians and nurses at the graduate, postgraduate, and continuing medical education levels.

Parent education is not limited to that which is taught face-to-face by professionals. It can be accomplished largely through many self-teaching mechanisms: books, tapes, and self-help groups. The ever-growing Internet has started to dispense some pertinent information in this area, but quality controls are lacking. Professionals can help parents select material that is scientifically reliable and avoid the well-intentioned speculation of self-appointed experts.

SUMMARY AND CONCLUSIONS

Parents need to learn more about children’s temperament. Understanding temperament is important for optimal growth and development, but parents are exposed to considerable conflicting misinformation.

The major lessons about temperament are as follows.

• Inborn differences in behavioral style are real
• These differences matter to parents and children in a number of ways
• They are best managed by accommodation to reduce unnecessary stress rather than by working against them

Informed professionals can provide parents much needed instruction about temperament. In the first 2 years of life, a variety of opportunities exist for pediatricians and other medical professionals to reach parents. Unfortunately, these opportunities are often underused.

Clinicians who revise their diagnostic and therapeutic practices to address temperament and teach parents undoubtedly will feel a marked increase in intellectual stimulation and professional satisfaction.

RESOURCES FOR TEACHING

For books, see “References.”

Professionals

Temperament Measurement Techniques

• Parent-report questionnaires (both sources provide the same scales and offer manual and computer scoring methods).
  • a) Behavioral/Developmental Initiatives, Suite 131, 1316 West Chester Pike, West Chester, PA 19382-6425; telephone: 800-BDI-8303; fax: 610–296–1325; e-mail: 74261.444@compuserve.com.
  • b) Behavioral/Developmental Initiatives, Suite 104, 13802 N Scottsdale Rd, Scottsdale, AZ 85254; telephone: 800–405–2313; fax: 602–494–2688; e-mail: bdi@primenet.com.
• Teacher-report questionnaires
• Pro-Ed Publishers, 8700 Shal Creek Boulevard, Austin, TX 78757; telephone: 512–451–3246

Parents

Videotapes

• Flexible, Fearful, or Feisty: The Temperaments of Infants and Toddlers, California Department of Education, PO Box 944272, Sacramento, CA 94244-2720.
• Kaiser-Permanente Health Plan, Audio-Visual Department, 1950 Franklin St, Oakland, CA 94612 (a series of four tapes on infant temperament).

Information on How To Start Self-help Groups

• Center for Human Development, Temperament Program, 1100 K Ave, LaGrande, OR 97850.
• The Temperament Project c/o Variety Child Development Centre, 9460 140th St, Surrey, BC, V3V 5Z4, Canada.
REFERENCES


* Recommended for parents.
# Teaching Parents About Infant Temperament

William B. Carey  
*Pediatrics* 1998;102;1311

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