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SPECIAL SYMPTOMS OF CHILDHOOD

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The six symptoms covered in this chapter—enuresis, encopresis, tics, stuttering, thumb-sucking, and nail-biting—are special in the sense that each may occur as an isolated symptom, not necessarily part of any syndrome. When first diagnosed as a symptom, the response occurs at a specific stage of development and is the result of stress related to that particular stage. Beginning as a bodily response to some inner and/or outer conflict, it may eventually become a habit with its own functional autonomy.

There are other special symptoms of children, including fire setting, hair pulling, and various eating and sleeping disorders. These particular six were chosen, however, not because they are any more troublesome than others, but because they are more likely to occur as isolated symptoms and to be treatable as such.

Since these symptoms are all developmentally determined, they may cluster together in various combinations to produce age-related syndromes which are then more difficult to treat. Since they may occur as part of normal development, it is important to make an early differential diagnosis, to treat only if necessary, and then in the least obtrusive manner.

There is controversy as to the exact etiology of these symptoms, with the spectrum ranging from simple maturational factors through elaborate psychoanalytic constructs. Most psychiatrists today, including this author, are of the opinion that, for the most part, they are multifaceted in origin.

Enuresis

Diagnoses

Definition

In the United States, if a child continues to suffer urinary incontinence diurnally past the age of three years or nocturnally past the age of five years, he is usually considered to be enuretic. Dividing the enuretics into primary (those who have never stopped wetting) and secondary (those who have stopped wetting and started again after at least a six-month period of dryness) has proved to be a necessary division when attempting to diagnose this symptom. It is normal for a child to be incontinent on occasions during the transition from first having an autonomous bladder to the developing of regular urinary control.

Prevalence

Enuresis is found in all parts of the world, but the prevalence figures for

specific ages are different in various countries, probably due to the difference in child-rearing practices. For example, Sweden reports only 8 percent of the children with enuresis at five years, while for the United States, overall estimates range from 10 to 15 percent at this age, with a drop to 5 percent at eleven years. In general, enuresis occurs more frequently in boys than in girls. At ages five or six, however, there is little sex difference in the prevalence figures, while at age eleven there are twice as many boy enuretics as there are girls. The ratio of primary to secondary enuretics is about four to one.

Evaluation

When a psychiatrist begins treatment of an enuretic child, he must be sure that the child has had a thorough physical examination, a urinalysis, and, particularly in the case of girls, a urine culture. An adequate medical history should be taken, including the type, frequency, and place of the wetting. A family history should be obtained, in which all previous efforts to cope with the wetting should be explored. It is important to rule out any nonfunctional reason for the urinary incontinence, such as obstructive uropathy, infection, foreign body, sickle-cell anemia, or diabetes insipidus. About 10 percent of the children who suffer urinary incontinence do so because of organic reasons.

Etiology

Neurophysiological

From a neurophysiological point of view, there is still much controversy about the etiology of enuresis. Although Hallgren considered it to be an inborn developmental deviation, which was, for the most part, genetically determined, Esman claims that enuresis is a maturational disorder, associated with the child's pathological awakening from Stage 4 sleep.

Much information has recently been provided by sleep researchers on the possible connection between nocturnal enuresis and sleep disturbances. Most researchers feel that children who are deep sleepers and consequently in Stage 4 for longer periods of time will be unaware of the messages coming from their full bladders.

Esman has written about the maturational lag theory—as to the cause of enuresis in children. These lags show up as immature functioning in other areas, from reading disabilities to delayed dentition. Among them, and often picked as a prime suspect for the cause of the enuresis, is an immature bladder with less than age-appropriate capacity. This belief has to be weighed carefully against the findings of those who study bladder capacity and who have demonstrated that an improvement in bladder functioning alone does not correct bed-wetting. In addition, Dische found that children who wet by night and day are more likely to be disturbed emotionally than those who wet by night alone, which suggests that the cause of bed-wetting is more than simply neurophysiologically determined.

Interpersonal

Continuing conflicts in the home, in school, and with peers, resulting in depression, regression, or aggression, have in the past been considered by many psychiatrists to be an important cause of primary enuresis. More recently, however, these conflicts have been thought to be the result of the wetting rather than the cause of it.

Intrapsychic

In a study of seventy-two enuretics, Gerard found that most of the 90 percent left after organicity had been ruled out suffered from oedipal level conflicts. The personality traits exhibited were aggressive or passive-aggressive in nature, and the conflicts revolved around sibling rivalry or strong identification with the parent of the opposite sex.

Both Katan and Sperling have described the fantasies of genital damage expressed by their enuretic patients. Katan reported that frequently a traumatic experience had preceded the appearance of the symptom. She listed the nature of the traumas as follows: (1) separation from a beloved person who had trained the child; (2) jealousy aroused by the birth of a sibling; (3) the discovery of the differences between the sexes by viewing another child; or (4) viewing an adult; and (5) an operation that was experienced as a castration.

Treatment

Biological Therapy

Because of the large developmental factor in the etiology of enuresis, most children eventually stop bed-wetting spontaneously, with a 12 to 15 percent remission rate yearly. In the meantime, however, since the incidence of secondary emotional and behavioral problems is so high, Dische considers it most beneficial to eliminate the symptom when possible.

The tricyclic antidepressant, imipramine, is the drug most commonly used in treating enuresis. While 80 percent of the children reduced their wetting and 50 percent had achieved total dryness when placed on imipramine, Shaffer and associates reported that the drug started to help immediately but that the wetting resumed when the drug was discontinued. Imipramine can occasionally have the worrisome side effect of postural hypertension and of possible heart block in patients with preexisting cardiac condition defects. In an effort to discover if the tricyclic worked for enuretics by its alpha-adrenolytic action on the neurotransmitters, Shaffer and associates gave the non-tricyclic, indoramin, (which mimics the tricyclics in the above effect on the neurotransmitters) to fourteen enuretic children (aged four to twelve years), but the drug had no significant effect on the bed-wetting.

Ritvo and associates, in studying imipramine's effect on the sleeping patterns of enuretics, found that the wetting occurred in all stages of sleep, rather than only in Stage 4. They postulated that the imipramine reduced the amount of REM sleep. Kales and associates concluded that imipramine's effect was more related to the time of night than to the stage of sleep. They felt that when the child was in the deepest sleep early in the night, imipramine reduced the bladder's excitation and/or increased the child's bladder capacity. (Later in the night, in light sleep, the child presumably is more responsive to the bladder's signals.)

Behavioral Therapy

A conditioning approach in the treatment of enuresis was first used by Mowrer and Mowrer in 1938. However, it is only recently that the positive effects of a mechanical device have overcome the reluctance of pediatricians to use it with children who, the pediatricians felt, might be psychologically traumatized by it. In i960, Eysenck wrote that since enuresis represented a failure of the child to learn to gain urinary continence, a conditioning device should work. He felt that symptom substitution could not follow since the enuresis, as a symptom by itself, had no underlying conflict. By 1966, Werry reported that in studies involving more than 1,000 children a 75 percent success rate with the bell-pad mechanical device was achieved with no increase of psychiatric problems. He advised that the bell-pad device be

considered a possible treatment for any enuretic child of six years or above who is disturbed by his symptom and who has failed to respond to simpler measures. Presently quoted figures for the bell-pad device are usually 60 to 75 percent success with about a 25 percent relapse rate. A relapse simply leads to another period of treatment, which usually meets with success. Some earlier problems with conditioning device treatment have been resolved, as the bell-pad machines are now easier to get and safer to use. If they are used as the only treatment, they may still present problems since the noise created by the machine often wakes the entire household. The child may allow the noise to continue as a means of getting the attention he unconsciously seeks, in spite of the nuisance to himself. Usually this secondary gain can be avoided by using some other type of behavioral modification as well, such as offering the child a reward if he achieves dryness.

The assumption is that the bladder of an enuretic child is smaller than the age-appropriate size. Yet in a study of eighteen enuretic children and controls, Harris and Purohit proved this assumption unfounded. They conducted bladder training with the enuretics for thirty-five days. The children drank water, practiced holding, and were rewarded for retaining progressively larger volumes of fluid before voiding. Although the bladders did become larger, the wetting didn't decrease. Some authorities claim, however, that because it is urodynamically a rational idea and puts the responsibility on the child, bladder training is worth trying if other methods

of treatment have not worked. Controlled breathing exercises have also been suggested as a means of helping the child hold the urine longer.

Brazelton outlined a child-oriented approach to bladder training that may begin when the child is around two years of age, and that is geared to each child's developmental capacities. Of 1,170 children trained in this manner, he found that only 1.5 percent were wetting by five years of age.

Although waking a child to prevent wetting at night was a favorite method of behavioral therapy in the past, it is felt to have many drawbacks. It is often difficult to waken the child since he is in deep sleep, and also, it puts the responsibility on the one who wakens him, rather than on the child.

Behavioral therapy will only be successful when the child is ready to be trained and only if the parents have the motivation and ability to help in the training. If there is more than one nocturnal wetter in the family, it is best to start with the oldest first, as there is a possibility that the others may identify with his success and stop without further help. The reward system usually works better than the punitive one. Since the reward system most often used is the operant conditioning model, with success or failure so dependent on the person (usually the mother) setting up the guidelines and consistently following through on them, behavioral therapy by itself is seldom totally successful. With the adjunctive use either of medication, or of a conditioning

device, it has a better chance to succeed.

Psychotherapy

Although only about 2 percent of enuretics (the secondary type) will need psychotherapy for either underlying intrapsychic or interpersonal conflicts, it is very important for them to receive it. Since all these children will have had at least a six-month period of dryness, they may resume wetting by day as well as by night. Because of the nature of the conflicts usually involved, it is best initially to see the mother and child together. Later it may be necessary to see the child alone in either psychoanalytically-orientated or supportive psychotherapy, according to the severity of the conflicts.

At times, the primary enuretic will also need some supportive psychotherapy for emotional problems related to the enuresis, such as a poor self-image and a disturbed relationship with family and peers. The type of therapy used here should be most often supportive in nature.

Hypnotherapy has been reported by Olness and Gardner to be a successful type of treatment, but controlled studies of its efficacy in comparison to other existing treatment modalities have yet to be performed. The therapist's thorough familiarity with the techniques of hypnosis is clearly required if this modality is to be used either independently or in combination with other methods of treatment.

Prognosis

Most primary enuretics will usually show satisfactory progress without treatment if they have no associated neurophysiological immaturities. Many do relatively well with environmental supports alone even when associated immaturities, such as learning disabilities or poor motor skills, are present.

When the enuresis is associated with the more severe immaturities, such as encopresis and stuttering, the child will usually develop psychiatric symptoms of a characterological nature, if not given adequate treatment.

Most secondary enuretics who receive no treatment will develop psychiatric problems of a neurotic nature.

Encopresis

Diagnoses

Definition

If a child continues to have fecal soiling past the age of two and one-half to three years, and if a trial of toilet training has been unsuccessful, he is usually considered to be a primary encopretic. If he reverts to soiling again after a six-month period of fecal continence, he is considered to be a secondary encopretic.

Prevalence

Encopresis occurs in 1.2 to 1.5 percent of children, at a ratio of about five boys to each girl. About one-half of the encopretics are of the primary type and one-half are of the secondary type. According to Bellman, encopresis, in general, declines spontaneously at a rate of 28 percent per year and has almost disappeared by sixteen years.

Evaluation

Richmond and associates noted that since the constipation that often accompanies the soiling may be associated with a psychogenic megacolon, Hirschsprung's disease, as well as other organic problems, must be ruled out. A physical examination should be performed whenever the diagnosis is in question. Fecal soiling is also seen in the child with mental retardation or infantile autism, and as such, the soiling should be understood in a different manner diagnostically than in the child without these diagnoses. It is essential to get an adequate psychiatric history at the first meeting with the encopretic child and his parents. Whether the soiling is continuous from infancy or whether it is contiguous with some important event in the child's life are factors to be explored, as well as where and in what manner it occurs. The relationship between the parents and the child and between the child and his siblings and peers is also vital information. Although enuresis may often occur in the child who is encopretic, encopresis as a symptom is more troublesome

than enuresis and, in turn, is usually indicative of a more troubled child. Psychological testing can be helpful in delineating associated psychopathology.

Etiology

Neurophysiological

Since many children who are encopretic have soft neurological signs, language disorders, poor coordination, and other stigmata associated with the syndrome of minimal cerebral dysfunction, it is logical that one of the first special assessments made of the child should be along neurodevelopmental lines. Bellman reported that although there is a 15 percent incidence of childhood encopresis in the fathers of encopretics, genetics do not appear to be involved in the etiology of it. Among the many neurophysiological immaturities often found in the encopretic child is an immaturity of the musculature of the bowel that probably interferes with toilet training. Nevertheless, many children who have immature musculature of the bowel and who continue soiling past the usual age of achieving bowel autonomy do not go on to become full-blown encopretics. Therefore, further causative factors must be suspected.

Interpersonal

A mother who is adequate in other areas may have conflict over toilet training her child. When she tries to help the child who appears to be having a difficult time achieving bowel control, she may become engaged in a power struggle involving the child's conflict as to who or what has control over his bowel functioning—himself, his mother, or his bowels. Since this is the first instance of the child's giving up internal function to satisfy parental love and demands, he presumably finds it developmentally difficult. Prugh found that most encopretics had a history of early and often harsh toilet training. Bemporad believes it takes a particular kind of mother to produce a chronic primary or secondary encopretic. The mother who is unable to extricate herself from a power struggle is described by him as being erratic, emotionally inappropriate, and distant. Added to this, the father is often himself troubled, depressed, and sometimes schizoid. He is also frequently away from home. Being without the support of the father, both child and mother stay locked in a power struggle, in which both can only lose. On the other hand, a child's too close identification with the father may also cause encopresis as a result of an oedipal conflict regression to an anal struggle. Because the youngster eventually gains some gratification in winning over his mother or his father, he may fail to notice the effect his encopresis has on siblings, peers, and teachers. When, and if, he finally recognizes it, he may feel helpless and eventually become solitary and depressed. Anthony noted that the child's fears at school, in sports, and in social situations may precipitate

one stress after another. Eventually his encopresis may be used as a means of keeping people away from him, so that his maladaptive mode of interacting with his mother also becomes characteristic of his relations with others.

Intrapsychic

In distinguishing between primary and secondary encopresis, Easson wrote of the secondary type as being of psychogenic origin. He suggested that some of the precipitating emotional stresses may include the birth of a sibling, the loss of a parent, anxieties over sexual feelings, poor peer relations, or scholastic difficulties. Because of the conflicts aroused by these stresses, the child's growing independence is threatened so that he may regress to an earlier and more dependent type of behavior, which will include fecal soiling.

Treatment

Biological Therapy

When first seen, many encopretics are constipated and may even be obstipated. Hence, the first task is to clear the bowel and then to help the child achieve and maintain a normal functioning bowel until, with the help of other forms of therapy, he can regulate himself. Halpern suggests the use of a laxative suppository only, while Hein uses stool softeners and enemas as well. Hein, a pediatrician, discovered that the amount of help produced by the

child's success in having the fecal soiling under control, even if it wasn't completely his own control, is worth the effort put into the early physiological engineering. Because of the child's need to escape the long ongoing power struggle with his mother over control of his bowels, it is best to limit the amount of this type of engineering to the least possible amount that will achieve success in the least obtrusive manner.

Behavioral Therapy

Since the encopretic child has not learned to respond to rectal cues, and either holds back and eventually becomes obstipated with leakage occurring or gives the feces up in an inappropriate place, he might be considered for behavioral training as soon as undue resistance to toilet training begins. Since so many encopretic children are late developers, however, it is important to distinguish between the children who are difficult to toilet train because of immaturity and those who are resisting for other reasons. If the former are forced to participate in a training program before they are ready, they may well become encopretics. Behavioral therapy should be attempted once the child has been declared by the pediatrician to be physiologically able to be toilet trained.

Wright and Walker claimed 100 percent success with 100 children over a five-year period, with an average duration of treatment of about four

months. Once the behavioral program was set up and explained to the child and the mother, the physician remained remote except for letters or phone calls. Carefully monitored charts and rewards were used.

Psychotherapy

In a child who has been conflicted over a long period of time as a result of fixation or regression, neurotic defenses will not necessarily disappear as a result of the symptom being eliminated. It is therefore helpful to provide supportive psychotherapy if associated psychopathology warrants. If the encopresis is treated before the child has developed ingrained neurotic defenses, formal psychotherapy may not be necessary after the symptom has cleared.

The most important and often the most difficult part of the treatment plan is the counseling of the parents. Because the parents are usually ashamed of the symptom, the child will often not be brought for help until teachers or relatives complain. By this time, there is often much hostility between the parents and the child and between the parents themselves. Because of their own personality problems and/or because of their conflicts over trying to manage the child's encopresis, it may be that each parent should be seen separately at first. Eventually they must be seen together, as their approach to the child and his problem must be consistent.

Because of the encopretic child's frequently associated immaturities, it may be necessary to help him achieve better academically, motorically, and socially. This will often involve special remedial help for him, as well as counseling by the school. Once the actual fecal soiling is stopped, however, he will be more acceptable to school personnel as well as to peers. In turn, this may help build his ego enough so that he will become more responsive to other types of therapy.

Bemporad noted that fathers were often more difficult to engage in therapy than the mothers. In some cases, this may possibly be due to the presence of childhood encopresis in the history of the fathers, as noted previously. In many situations, it may be necessary to involve parents in therapy for their own emotional problems.

Prognosis

If the primary encopretic has a supportive environment and does not have other associated neurophysiological immaturities, he usually does well with minimal professional help.

The secondary encopretic, whose symptom usually begins with some traumatic incident, may, if not treated, develop escalating psychiatric symptoms of a neurotic nature. These symptoms may continue, even if the encopresis phases out by itself at a particular developmental stage such as

puberty.

Because of the difficulties inherent in the family structure, as well as the child's own neurophysiological immaturities, the chronic (primary or secondary) encopretic may well go on to have emotional problems of a characterological nature.

Tics

Diagnoses

Definition

Tics are recurrent, involuntary spasms of specific skeletal muscle groups. They develop most frequently from ages four to ten. There are two types of psychogenic tics: first, the simple type, which usually involves a single set of muscles, such as those used in eye-blinking; and second, the more complex type, involving many sets of muscles, including those used in producing vocal sounds. Shapiro and associates differentiate those complex tics that involve the production of coprolalic sounds, which are usually referred to as Gilles de la Tourette's disease, from those which are non-coprolalic. He suggests that the former are neurogenic in origin and that psychiatric problems associated with them are secondary in nature.

Prevalence

The overall prevalence rate of tics in childhood is about 5 percent, Safer states, and by the age of twelve years, the rate has decreased to 1 percent, with little difference in the ratio between boys and girls for the simple tics. The more complex tics appear more frequently in boys.

Evaluation

In taking the psychiatric history of a ticquer, it is important to distinguish between a compulsive act and a tic. The ticquer, by definition, does not know when or how often he performs his tic, whereas the compulsive patient does know when he performs his act and may even try to stop himself from doing it. It is useful to obtain information on the motor patterns of the child, as well as on the prevalence of tics in the family background. Since severe tics often occur with the post encephalitic syndrome, obvious organicity must be ruled out.

Etiology

Neurophysiological

Children who develop simple tics may be hyperactive and are often accident prone, which contributes to their underlying concern about body hurt. Usually, however, they have good motor skills, particularly gross motor

ones. In contrast, children who develop multiple tics, in addition to being hyperactive, very often have poor gross and fine motor skills. A family history of tics is often found with the latter type. Although there are rarely any hard signs of organicity, there are usually several soft signs.

Interpersonal

Both Levy and Mahler noted similarities in the parents of ticquers. They believed the parents overprotected and infantalized their children but expected them to perform well, particularly academically. Anthony also described the parents, particularly the mother, as being inclined to restrict and pressure the child, without being interested in the child's locomotion, athletic ability, or independence. The child's motor development may have been restricted because of the parents' fear that the child's experimentation with his body might cause him physical harm. In some cases, the child may have had a physical illness that restricted his activity.

In a three-year follow-up study of 615 childhood ticquers at a clinic in Japan, Abe and Oda suggested that many, especially those who also had a family history of tics, may have developed their own tics by imitating family members. They also believed that for the tic to have become successfully established in the child, there had to have been neurophysiological proneness present.

Intrapsychic

The triggering emotional stress that produces the simple tic is usually posited by psychoanalytically-oriented writers to be oedipal in nature. In her study of ten children with simple tics, Gerard noted that in each case the symptom began following a traumatic incident that aroused fear of being injured. At any age, the child has a great emotional investment in his body, but at the oedipal stage he has specific fears of bodily damage, particularly of the genital area. For example, if he has seen something that he feels he should not have seen, an eye-blinking tic may develop, with the unconscious purpose of protecting him from punishment. By alternately seeing and not seeing, he can go on doing and undoing the punishable act, without fear of being punished but at the expense of not resolving the conflict. In Mahler's words, "tics are an attempted drainage of a chronic state of emotional tension and also the physiological accompaniment of a chronic affective attitude." Eventually the tic, if untreated, may become a way of responding to any anxiety-producing event. In other words, the tic, which had become a defense response appropriate at the moment of the trauma, becomes inappropriate when further used in response to a different trauma.

The triggering incidents of the more complex, multiple tic syndromes are usually anal and oral in nature, with the conflict being aggressive rather than erotic. The child who has usually had many previous emotional problems

presents with a history of the gradual emergence of several tics following a series of traumatic instances. The underlying concern can be one of injuring rather than being injured. The child is therefore both infantile and grandiose.

Treatment

Biological Therapy

Because of their muscle-relaxant qualities as well as their anxiolytic qualities, promethazine or diazepam may be useful as short-term adjunctive pharmacotherapy when the child may be having a difficult time in psychotherapy for a simple tic.

Haloperidol is the drug of choice for the more complex tics. In a recent study of its use, Bruun and associates report impressive results. Haloperidol's effectiveness, however, may eventually decrease with use.

Behavioral Therapy

For some of the children who have simple tics and for most of those who have the more complex tics, a conditioning type of behavioral therapy can sometimes alleviate the underlying fears or anxieties. Nevertheless, some of the behavioral therapy described by Yates has not fulfilled the expectations aroused by early reports.

Psychotherapy

Psychotherapy will only be successful when the tic develops abruptly after a traumatic event. Since the traumatic event may be hard to track down because of the child's need to defend against the anxiety associated with it, parents may have to be involved in the therapy at first. Eventually, however, the child must be seen alone, and, in many cases, in psychoanalytically-oriented psychotherapy.

If the tic has become chronic and is no longer directly associated with the original traumatic event but is now associated with any anxiety-producing event, other types of treatment may have to be employed in addition to the psychotherapy.

Parent counseling may deemphasize attempts to alleviate the symptom by simply telling the child to stop it. Trying to get the child to stop the tic without recognizing that he is defending himself against some fear or anxiety only makes him more aware of the tic; he will then become more anxious and the tic may be increased.

In counseling, the parents should be urged to exert less pressure on the child. If the child has been overprotected either because of an illness, or because of parental concerns over bodily hurt, the parents should be encouraged to help him establish more appropriate body boundaries for

himself so that he can become more independent.

Prognosis

Many simple tics will disappear without treatment by the time the child has reached puberty. Since the tic appears as the result of some specific conflict related to the emotional stage of development that the child has reached, often it will no longer be needed when he moves on to the next stage. At puberty, many old defenses are given up as new ones develop. Should the tic continue past puberty, it is unlikely to disappear without treatment.

The complex tics have a poor prognosis. Instead of disappearing as the child reaches puberty, they may become more severe. Even when they disappear with the use of medication, the underlying psychiatric symptoms, which are usually characterological in nature, respond poorly to psychotherapy.

Stuttering

Diagnoses

Definition

Stuttering, a disturbance of the flow of speech, is usually first noticed

between the ages of two and four. It is important to make a distinction between the non-pathological and the pathological type of stuttering. The non-pathological type is a simple repetition of certain sounds and words and does not appear to trouble a child emotionally. The pathological stutterers are very aware of their impairment and often have blocking and avoidance rituals as a result of the tension produced by the stuttering.

Prevalence

Safer has stated that the prevalence of stuttering in preschoolers is about 4 percent. This figure drops to about 2 percent in school-age children, as approximately one-half of the early stuttering is non-pathological in nature. Three-quarters of the children who are still stuttering by age ten will have become pathological stutterers. The symptom occurs more frequently in boys than in girls, at an average ratio of six to one.

Evaluation

In addition to obtaining an adequate psychosocial history, it is necessary to make a speech and language appraisal. Freeman and Ushijima suggested that the stuttering appears to occur in the attempted production of a stressed vowel. The child will stop on the consonant immediately before the stressed vowel and will continue to repeat it with a muscular spasm that involves breathing, speech, and articulation.

No significant differences in IQ have been reported. Although it is always tempting to have projective testing done in an effort to track down the origins of the child's particular conflicts, caution must be observed while attempting to test a stuttering child because of the child's anxiety associated with attempting to participate verbally in the test.

Etiology

Neurophysiological

About half a century ago, Orton presented the theory that when one hemisphere of the brain is not sufficiently dominant, both will function independently and the resulting two parts of the speech musculature will be poorly integrated and thus produce verbal difficulty. More recently, Moore and Lang found a reduction in alpha waves over the left hemisphere in nonstutterers and reduction in the right hemisphere for stutterers.

K. de Hirsch states that the stuttering is usually first noted when the child, in a short span of eighteen months, passes from a primitive to a highly integrated form of language organization. She feels it occurs when the child is beginning to think faster than he can verbalize, but that it will usually disappear, if the child is left alone, as soon as his neurophysiological development catches up with his cognitive development. Kolb and others remind us that, since stuttering often runs in families, many of the non-

pathological stutterers can be made into potentially pathological stutterers by anxious parents or relatives trying to help them, either by slowing them down in speaking or by saying the words for them.

Almost all current researchers in this area, including this author, accept the fact that there is a constitutional predisposition to stuttering, and that the origin of the strong familial history of stuttering is more likely the result of a neurophysiological inheritance than an imitative habit.

Interpersonal

Wyatt and Herzan believe that stuttering is due to a disturbance in the mother-child relationship when the child is first learning to talk. Kessler questions the significance of this factor, noting that many parents fail to respond to their child on his own verbal level without necessarily causing stuttering in the child.

Whether caused in any way by the relationship between the child and significant others, stuttering can certainly be made worse by their influence. In many cases parents and/or teachers may be made uncomfortable by stuttering, and a rejecting attitude may develop that may make the already anxious child even more anxious. Peers and siblings may begin to shun the child, and the child, in turn, may isolate himself from them. It is possible that as the child becomes aware of being rejected, panic sets in, causing his

articulative muscles to go into spasm. Thus, stutterers who are often thought to be nonassertive, tense, and insecure, may indeed be struggling with underlying aggressive feelings towards others. The expectation of failure to speak fluently may be self-fulfilling.

Treatment

Biological Therapy

Burns and associates, who believe that there is a problem with the central dopamingeric system in the pathogenesis of stuttering, found haloperidol to produce a 40 percent improvement in speech by blocking the dopaminergic system post-synaptically. This was in contrast to apomorphine, which had no significant effect on the speech. Although it too acted as a blockade, it did so pre-synaptically. Haloperidol does not appear to improve the speech by reducing anxiety as other anxiety-reducing drugs do not help stutterers.

Behavioral Therapy

As yet there has been no reliable attempt to evaluate mechanical devices for stuttering. Some devices tried are designed to prevent physical action, such as clamping of teeth, improper movement of the tongue, and improper breathing. Others have been designed to help certain muscles function more

appropriately.

For those who believe that stuttering is a learned response, speech therapy often appears to be the treatment of choice. The aim is to improve the speech as early as possible, so the attitude of others toward the child will change, in turn improving his image of himself. However, most authors have found that although operant conditioning may modify speech habits, to cure the stuttering child one has to use a diagnostic and treatment approach beyond the resources of the general theory of learning.

Timmons and Boudreau believe that auditory feedback therapy can be useful if it is not too rigorously administered. Brady has had success with a mechanical device worn as a hearing aid that helps the patient maintain normal rhythm of speech through a hidden metronome, the rate of which can be controlled by the patient.

Psychotherapy

If psychotherapy is undertaken early, it will be more effective if the mother is involved in the therapy as well as in separate counseling. There has been little success with analytically-oriented psychotherapy. Kaplan suggests that the only way to have the child released from the image he usually has of himself is to use a Gestalt approach, helping the child in gradual steps to be more aware of himself, and in doing so, making fluency become part of

himself. If the child does begin to become fluent while undergoing psychotherapy, speech therapy will not then be necessary. Most children who have not received help until latency age will require both psychotherapy and speech therapy. Although hypnotherapy has been used successfully with some stuttering adults, there has been little effort made in this direction with children.

Prognosis

When the stuttering has been of the non-pathological types, and recognized early as such, the child will rarely resume stuttering at a later date.

Because of the difficulties presented to persons involved with the stuttering child, there are few, if any, reports of the natural course of the untreated pathological stutterer. Intervention of one kind or another will have been introduced even before the stuttering has been declared pathological.

Thumb-Sucking

Diagnoses

Definition

The age at which thumb-sucking is defined as a problem depends on

whether one is viewing it strictly from a dentitional point of view or from an emotional point of view. Dentitionally, if the child has given the habit up by age four years, most of the dental pathology will be self-corrective. From a physiological point of view, most of the current literature quotes one year as being the age at which normal habitual thumb-sucking should cease, but from an emotional point of view it can still be considered normal up to the age of three years if it is connected with sleep or stress.

Prevalence

Thumb-sucking beyond age three is very common in many parts of the world. An overall prevalence rate for preschoolers is 61 to 87 percent. However, by age six the overall rate is down to about 20 percent. There is very little difference in the sex ratio of thumb-suckers.

Evaluation

A thorough psychosocial history should be taken and a dental examination given before thumb-sucking is diagnosed as a symptom. If it is diagnosed too early as a dentitional problem and if efforts are made to have the child give it up before he is emotionally ready, the habit may only become more entrenched.

Etiology

Neurophysiological

Although a review of the etiology of pathological thumb-sucking from a neurophysiological point of view produces contradictory and frequently inconclusive results, the etiology of normal sucking as a basic physiological need for general survival as well as for the development of face and jaws is noncontroversial. Ozturk and Ozturk feel that persistent thumb-sucking is specifically related to the immature position in which a child falls asleep. Others feel it is associated with the more general neurophysiological immaturities that often accompany special symptoms of childhood.

According to the psychoanalytic theorists, thumb-sucking, when it first appears, is an auto-erotic mechanism that the child employs when he is anxious. The anxiety develops because of the child's insecurity regarding his relationship with the feeding person, whether the feeding is by breast, bottle, or cup. Later the thumb-sucking may be used as a masturbatory equivalent.

Interpersonal

Sears and Wise felt that although a premature emotional withdrawal of the mothering person could be the triggering mechanism for thumb-sucking, there must be other factors that keep it going, since there was no significant difference in his study between the persistent and the non-persistent suckers in regard to such a factor. On the other hand, Massler says that in Africa where

breast feeding is prolonged, no habitual thumb-sucking occurs.

Golden compared studies of latency-age children in the Kibbutzim in Israel where the percentage of habitual thumb-suckers was 56 with a similar age group of children in Switzerland where the percentage was 59. It was thought that perhaps the statistics were so high in the Kibbutz study, because of the separation of the child from his parents, but the group of children who spent the night with their parents produced as many thumb-suckers as the group who lived in the homes for children only. The high prevalence in the Swiss population was ascribed to strictness in the home, but in the Kibbutz, where the prevalence is almost as high, childrearing is noted for its leniency.

Intrapsychic

Levy suggested that thumb-sucking occurred because some children have such a strong oral drive that it cannot be satiated even by generous breast or bottle feeding. Kessler indicated that some children rely on sucking as a substitute for other pleasures, both social and physical. She says that the child can learn how to retreat from both his own feelings and difficult situations by sucking in a trancelike state. But, she adds, it will serve as a successful defense against anxiety only until the child begins to feel guilt and/or shame about the symptom.

Treatment

Biological Therapy

If the child's persistent thumb-sucking appears to be associated with generalized stress, a mild anxiolytic medication, such as promethazine, may be used for a short time.

If the sucking is accompanied by other immaturities, then the medication used, if any, should be related to the specific immaturity. For instance, methylphenidate may be used for certain types of learning disorders.

Behavioral Therapy

Only mechanical devices that are not painful should be used and then only in a supportive manner. Pacifiers can be used during the day and a dental device at night. In general, behavioral therapy by itself does little to alleviate thumb-sucking, as drawing attention to the symptom may only produce more denial, at which the youngster is already very adept. But as an adjunct to other therapy, and if the child becomes interested in eliminating the symptom, an operant conditioning type of behavioral therapy with some type of reward system may be successful.

Psychotherapy

Psychotherapy is rarely necessary for thumb-sucking alone. If thumb-

sucking continues past early childhood and into latency, it is usually indicative of some emotional conflicts, and supportive psychotherapy might be required to uncover and resolve the conflicts. It is important to determine whether the habit is continued because there has been no effort to eliminate it by the counseling of the parents, with or without behavioral therapy, or whether the child is continuing to use it as a defense against anxiety or fear.

If an adequate psychosocial history is obtained, it will not be difficult to counsel the parents. The mother should be helped to distinguish problems the child may be having because of his own continuing immaturities from those caused by difficulties in the mother-child relationship. At times it may be necessary to help institute environmental changes.

Prognosis

The prognosis for thumb-sucking by itself is very good. If untreated, not more than a third go beyond nine years. By the early teenage years, there are very few thumb-suckers. Because of the threat to the dentition and the youngsters' gradually developing poor image of themselves if thumb-sucking continues, it is important to get help as soon as it becomes a problem, in spite of the benign nature of the symptom. If it is accompanied by an underlying emotional disturbance, then this should be treated rather than the thumb-sucking itself.

Nail-Biting

Diagnoses

Definition

Nail-biting, which may occur at any age, usually begins at about five years. It is rarely defined as a symptom, unless it is accompanied by other more troublesome symptoms.

Prevalence

Although nail-biting rarely begins before age five years, the peaking of prevalence does not occur until ages twelve to fourteen years. Most authors found that the sex ratio remained the same until about that time, when girls begin to bite their nails less frequently. In a study conducted in Yorkshire, England, Birch found an overall prevalence of 51 percent in 4,223 children.

Evaluation

Since many normal children bite their nails when under stress, it is important to study the frequency, the pattern, and the cause of nail-biting before diagnosing it as a problem. If the habit begins to become so compulsive that it interferes with the child's other activities, if it grows more aggressively vigorous, or if it is accompanied by other special symptoms such as enuresis

and stuttering, the child should be evaluated psychiatrically.

Etiology

Neurophysiological

Nail-biting is associated with general body tension, which at times may be accompanied by a tensing of the musculature. However, Massler and Malone felt that nail-biting alone is a simple tension-reducing mechanism, particularly under conditions of situational stress. When it occurs with other special symptoms of childhood, it is quite possible that there may be some unevenness of maturation that interferes with the child's functioning either at home, with peers, or at school.

Interpersonal

The origin of nail-biting has sometimes been ascribed to the child's feelings of rejection, since high statistics are found among institutionalized children as compared with those in family placement. It is possible, however, that many of the children who have remained institutionalized are children who have severe underlying problems that have kept them from being placed in foster homes. Therefore, as Goldfarb suggests, the rejection may not have been the actual cause of the nail-biting but, instead, the nail-biting and the feelings of rejection may both be associated with the internal tensions created

by being in the institution.

Intrapsychic

In psychoanalytic terms, nail-biting is viewed as an oral, sadistic habit that begins when the child is going through the oedipal stage of development. As with thumb-sucking, it is an autoerotic mechanism but at a higher level of functioning. At times it, too, may be a masturbatory equivalent.

Since many children go through this oedipal stage without nail-biting, one would have to suppose that the nail-biting child is in a more hostile battle with a parent than is normal. Since he is still dependent on the parent, the child can express his aggression by nail-biting without harming the object of his aggression. In addition, he can relieve the guilt caused by such hostility by hurting himself.

Nail-biting rarely occurs with thumb-sucking and a thumb-sucker rarely, if ever, becomes a nail-biter. Unlike the thumb-sucker, whose anxieties appear to be held at bay by the sucking, the nail-biter, whose anxieties appear to be near the surface, is a more outwardly troubled child.

If the symptom occurs by itself, it may be that the child is going through a period when his body, which had served him well up to this stage, no longer pleases him. If he eventually accepts his body, either through identification

with the parent of the same sex or, possibly in some cases, through identification with his parent of the opposite sex, he may outgrow the habit. However, if the nail-biting is accompanied by stuttering and/or enuresis, it may be that because of uneven maturation his body has not served him well during the earlier stages and is still not serving him well.

Treatment

Biological Therapy

There are no known mechanical devices that work. Trying to keep the child's hands from his mouth by immobilizing them only makes the problem worse. The child must be encouraged to use all his body parts, and particularly his hands, in vigorous gross motor activity, so that he learns that he has a usable and reliable body.

Behavioral Therapy

Negative reinforcement conditioning should be avoided. Since the child is already in a power struggle with himself, the significant people in his environment should set up a conditioning plan only if the child is in charge of it. He must be helped to feel that he is capable of setting up a self-help program, and following through on it, because of something that is in it for him.

Psychotherapy

Since the child who is nail-biting only is seldom seen in referral, when he is seen it is usually when the parents and child have not been able to resolve the child's oedipal strivings or the child has other symptoms as well as the nail-biting. In the first case, counseling of the parents is usually sufficient. The parents often need help in being more supportive of the child's wish for greater control of his world, while at the same time setting appropriate limits for him. Some environmental changes must at times be made if the child's conflicts, which basically revolve around his self-image, cannot be resolved otherwise.

If the child has other symptoms as well, he will probably require psychotherapy in a setting where the parent(s) can be involved if necessary.

Prognosis

In his study of adult nail-biters, in which he found an overall prevalence of 24 percent, Ballinger did not find untreated nail-biting to be an important psychiatric symptom. This finding was corroborated in another study of adults conducted by Walker and Ziskind, in which the prevalence of nail-biting by normals, mental defectives, and those who were emotionally disturbed was much the same. They did find, however, that the prevalence of nail-biting among sociopaths was higher than among normals. As indicated by

the authors, this finding does not suggest that nail-biters have a tendency toward sociopathy, but rather suggests that sociopaths may experience more anxiety than is generally attributed to them.

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