PSYCHOGENIC MEGACOLON IN CHILDREN: THE IMPLICATIONS OF BOWEL NEGATIVISM*

BY

PHILIP PINKERTON

From the Department of Psychological Medicine, University of Liverpool

(RECEIVED FOR PUBLICATION SEPTEMBER 24, 1957)

Introduction

The demonstration of a precise histopathological basis for Hirschsprung's disease (Whitehouse and Kernohan, 1948; Zuelzer and Wilson, 1948; Bodian, Stephens and Ward, 1949; Swenson, Neuhauser and Pickett, 1949; Hiatt, 1951; Lee and Bebb, 1951) has permitted a radical revision in our concepts regarding the aetiology and management of megacolon. The condition should be designated more accurately as congenital neurogenic or aganglionic megacolon. It is possible to differentiate this state from a more commonly occurring group of cases, also characterized by colonic enlargement, but in which no spastic, aganglionic segment or other organic lesion can be demonstrated. These cases have been designated as 'idiopathic' or functional megacolon (Bodian *et al.*, 1949). It is with this group that the present study is concerned.

Object of Study

Idiopathic megacolon has been attributed to a state of chronic colonic inertia (Bodian, 1952). The present investigation seeks to demonstrate, however, that megacolon can develop in children primarily on a basis of emotional factors. The condition so produced closely resembles idiopathic megacolon in clinical features and radiographic appearances. It is contended that the two entities are identical, and that, while colonic inertia forms the immediate basis of the disorder, its ultimate aetiology is psychogenic in nature.

The importance of this submission lies in the approach to treatment. It is claimed that sustained results are not procured in such cases from purely symptomatic measures of relief, and that a satisfactory long-term response is achieved only through adequate evaluation and correction of the relevant emotional factors which contribute to the condition.

* Abstracted from a thesis for the degree of M.D. awarded by the Faculty of Medicine, University of Edinburgh, 1956.

Case Material

Thirty cases are presented, 19 boys and 11 girls, ranging in age from 24 months to 15 years. In all of them there was a history of functional bowel disorder varying in duration from eight months to 15 years, and presenting mainly as chronic constipation, cumulative faecal retention and overflow soiling.

The series was collected over a period of three years. The chief sources of referral were consultant paediatricians and paediatric surgeons who had previously had the cases under treatment either as out-patients or in-patients. Investigation had shown no organic basis for the disorder, and the children were referred for psychiatric opinion either because of their unsatisfactory response to standard treatment measures or because the disorder was suspected to have an emotional basis. In those of the series investigated by barium enema, radiographic appearances confirmed the presence of functional megacolon.

For comparison, a series of control cases was constructed from the record of admissions to a general paediatric hospital over the five-year period, 1950 to 1955. Examples were sought of children of equivalent age range referred with a history of constipation which warranted investigation and treatment in hospital, but in whom no organic lesion was demonstrated and who had responded satisfactorily to routine treatment procedures without subsequent relapse. Twenty-one cases, 14 boys and 7 girls, were found to fulfil these criteria.

These cases were traced and followed up independently by a senior psychiatric social worker, who conducted her assessment on each case in parallel with the model adopted for the investigation of the primary series. In this way, unbiased comparison between the two groups was made possible.

The clinical material thus comprised 51 children, 30 of whom formed the primary series under study, and the remaining 21 the control group.

Statistical Analysis

Statistical analysis of comparable findings in these two groups is of limited value because of the small numbers involved, but, using a Chi-squared test with Yates' correction for small numbers, four significant differences between the primary and control groups are apparent. It seems reasonable to ascribe aetiological significance to each of these four factors, namely, (1) parental personality characterized by excessive rigidity and/or excessive anxiety; (2) primary coercive toilet training; (3) parental fears and prejudices relating to constipation; and (4) parental over-valuation of the child (Table I and Fig. 1).

Formulation

From the analysis of case material, compared with the findings of the control group, it is possible to construct the following formulation to explain the aetiology of psychogenic megacolon.

The primary mechanism involved, I suggest, is a state of negativism on the part of the child, expressed as persistent refusal to defaecate or, less frequently, as defiant soiling. If handled unwisely, this state may result in cumulative retention of faeces with progressive loading of the rectum and terminal colon and subsequent overflow faecal soiling. Ultimately, chronic dilatation of the distal bowel develops which is demonstrable radiographically. Confirmatory evidence of such negativistic trends in the children under study is provided in their clinical assessments.

It is significant that with one exception in the primary series, this negativistic pattern developed during the first three years of life. As such, it coincides with the period of resistance (Kanner, 1948), or the phase of defiance (Menninger, 1943), undergone by most children at the stage in their emotional development when they become aware of their independence from the mother as a separate personality. During this period, provocative and testing behaviour towards parents is common, and bowel negativism is one of the acknowledged forms which such behaviour may take.

Indeed, it is recognized as so universal a pattern that in itself it could hardly represent the entire psychogenesis of the bowel disorder. Moreover, the onset of constipation in the control group also coincided, more or less, with the period of resistance through which some of these control group children might be assumed to be passing. Yet negativism in these latter cases, where it existed, did not give rise to a degree of bowel disorder commensurate with what was found in the primary series. Clearly, therefore, additional factors must operate to bring about the differential response between the primary and control groups.

It is contended that anal negativism forms the basis of the disorder, but that it is aggravated, or intensified, by specific conditioning factors operative in the primary series to a significantly greater degree

TABLE 1
CASE FINDINGS IN PRIMARY SERIES AND CONTROL GROUP

	Primary Series (30)	Control Group (21)
Age at onset of symptoms (years):	Less than 1 12 1-3 17	8 13
Sex distribution:	Male 19 Female 11	14 7
Clinical features:	Chronic constipation 25 Pseudo-diarrhoea 5	Abdominal colic, constipation with or without vomiting: 18 Constipation: 3
Radiographic findings:	Considerable dilatation of rectum, pelvic and descending colon, often with redundancy of pelvic loops	Normal
Response to treatment with laxatives, enemata:	Of temporary benefit only	Satisfactory
Parental personality:	Perfectionist, strict or domineering: 19 Overanxious, emotionally tense: 9	Normal
History of coercive toilet training:	17	None
Parental fears of constipation:	22	1
Parental over-valuation of child:	18	2
Negativism in child:	30	5

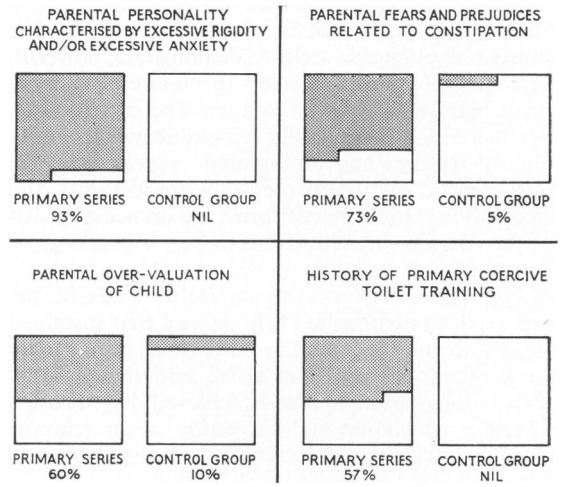

FIG. 1.—Statistically significant differences between primary and and control groups.

than they are in the control group. Given a basis of bowel negativism, it is the operation of these contributory factors, sufficiently intensely or for a long enough period, which converts the case into one of psychogenic megacolon. These factors can be classified as predisposing, precipitating and perpetuating.

Predisposing Parental Personality. The two main personality variants found among the parents of the primary series are, first, the perfectionist, rigidly obsessional parent who seeks to train the child by coercive methods to acquire bowel control at a premature stage in his development, in advance of adequate neuro-muscular maturation; and, secondly, the over-anxious, over-solicitous parent whose general attitude to the child is fraught with tension, and who closely supervises bowel evacuation because of her fears for the child's well-being.

Predisposing Parental Prejudices and Misconceptions. Linked to these emotional patterns in the parent are certain ingrained misconceptions with which the act of defaecation is still widely invested. These in turn give rise to various fears concerning the allegedly harmful effects of constipation. The over-anxious parent is specially prone to such fears.

Equally widespread is the notion of filth which invests the faeces once they are evacuated. The obsessional and fastidious type of parent is most prone to experience a sense of obnoxiousness regarding the stool, and to imbue the child with an irrational feeling of disgust or shame towards a perfectly natural product of excretion.

Thus we have the combination of personality type and parental attitude to defaecation, which accounts for much of the pressure to which these children are subjected in attempts to promote their regular bowel function.

Predisposing Environmental Factors. Particular circumstances surrounding the life situation of the child may conspire to generate excessive tension in the parents' attitude towards him and may provide the motive for excessive attention to his bodily functions. In the main, the factor involved is emotional over-valuation, which in turn contributes to excessive parental concern for the child.

Precipitating Stress Factors. Focal circumstances may provoke the immediate reaction of bowel difficulty against a background of any of the predisposing factors already discussed. There is, for example, fear of defaecation resulting from accidental fright during bowel action. While such events may induce temporary inhibition of stool, it is doubtful whether the effect ever persists and becomes chronic in the absence of predisposing factors which are already operating.

Similarly, although the disorder began as simple constipation due to intercurrent factors, in a number of the primary series it required the introduction of additional factors to elaborate the disorder into one of major bowel disturbance. It is highly significant that such a development did not take place in the control group, although each of these cases had an equivalent basis of simple constipation.

Perpetuating Factors. Excessive parental anxiety, alone or combined with excessive parental rigidity, will continue to operate if the child's initial response to treatment is unsatisfactory. In these circumstances, persisting parental tension will act as a perpetuating factor.

Continuing constipation in itself may give rise to anal spasm, secondary anal fissure, rectal prolapse or peri-anal dermatitis, any of which may perpetuate the disorder through the resulting pain on defaecation.

Yet another perpetuating factor may be the child's own reaction of anxiety and guilt in face of the persisting symptoms, or in response to parental attitudes of censure or ostracism.

It is contended that the interaction of these several contributory factors is responsible initially for evoking the child's resistance in the sphere of bowel function, and for subsequently elaborating his negativistic response to the stage at which psychogenic megacolon develops.

This hypothesis was put to the test in evolving a programme of psychotherapeutic treatment for the condition.

Treatment

Preliminary Orientation of Parental Attitude. Treatment was first directed to convincing the parents that what they had formerly regarded as a physical disorder was in fact of emotional origin, and that, in consequence, it would be necessary to substitute psychological methods of treatment for the local treatment hitherto adopted.

Parental reactions to this approach ranged from frank incredulity, through hostile resistance by obsessional parents or increased concern by over-anxious parents, to simple failure on the part of intellectually limited mothers to appreciate the relationship at all. In the latter case an authoritative approach was the only course practicable.

One of the difficulties was the implication that the parents themselves were intimately involved in the child's pattern of reaction, and that, henceforth, treatment was to be directed away from the present-

ing symptoms and conducted predominantly through them. In two cases, the maternal anxiety aroused by this implication proved too great for acceptance and both patients were in fact withdrawn from further attendance.

Dispersal of Parental Fears and Prejudices. In every case, acute parental concern was felt about the potential danger to the child's physical health as a result of his bowel disorder. Parents of predominantly rigid personality were as much beset by these fears as parents who were primarily over-anxious.

The task of reassurance was hindered in the majority of cases by advice or instruction about the importance of bowel regularity previously tendered by district nurses, health visitors, child welfare clinic staff, hospital medical and nursing staff or by the family doctor. Commercial advertisements about laxatives and books dealing with child care had also inadvertently helped to augment parental fears.

To overcome this attitude, and to dispel these misgivings, certain procedures proved valuable. As far as possible, for example, parents were initially interviewed in joint consultation with a paediatrician in sympathy with the psychiatric approach. At these interviews unequivocal and authoritative reassurance was given. It was necessary to repeat it until no vestige of doubt or misgiving remained in the mind of the parent. Vague or generalized advice merely served to heighten the parental anxiety. It was important to stress that no organic disease or abnormality of the bowel was present, that there would be no harmful results from persistence of the constipation, that spontaneous bowel function would be restored despite the 'stretching' of the lower bowel, that the child's rectal sensation had not been irrevocably lost and that anal fissure, rectal bleeding and rectal prolapse were only temporary sequelae. It was also necessary to explain to the parents that the child's wriggling and contortions did not represent his difficulty in expelling the faeces, but, on the contrary, indicated his determined attempt to retain them.

Although necessary, such dogmatic reassurance was of no lasting value in itself, save in the case of parents who were limited in intellectual endowment. For the majority of parents it was imperative to determine by supplementary questions how much of the initial advice had been absorbed, and to reinforce repeatedly those points which had not previously been understood or accepted adequately. Such interpretative reassurance could not be emphasized enough, reiterated too often or confirmed too insistently to ensure that it had been genuinely credited by the parents.

The limitations and dangers of excessive purgation had also to be emphasized. It was explained that, at this stage, drastic purgatives would serve no useful purpose and might, indeed, further impair bowel function. They were also likely to increase the soiling. It was equally essential that the medical advice given should be consistent, and that, therefore, laxative therapy should be discontinued, otherwise parents reasoned that if no danger were anticipated from permitting the constipation to go on untreated, why the need for maintaining laxatives.

Winnicott (1953) has referred to the need for 'symptom tolerance' in child psychiatric cases which present with physical symptoms. There is an understandable tendency among paediatricians to treat and remove presenting symptoms by direct approach as early as possible in the course of the disorder; whereas the discipline of child psychiatry advocates the frequent need for toleration of symptoms while the basic treatment is directed at the underlying causative emotional factors. This differential attitude, derived from the difference in training between the paediatrician and child psychiatrist, is exemplified in the treatment approach to the present series of cases. There was a tendency among paediatricians to continue standard treatment measures parallel with psychotherapy, either to 'make quite sure' or through a desire to resolve the disorder more rapidly by utilizing both methods of treatment together. They were intolerant of the persistence of symptoms.

Such a practice, however, is exposed to two risks. First, the parents may misinterpret it, and regard it as evidence that the medical adviser himself lacks confidence in the policy of suspending physical and medicinal measures; parental confidence is correspondingly undermined. Secondly, the maintenance of standard treatment measures may convey to the child that the emotional investment in his symptoms has not been withdrawn, and his motive for persisting in negativistic behaviour may thus be given fresh impetus.

For these two reasons, I found it advisable to suspend standard treatment procedures, apart from ensuring an adequate fluid intake.

Promotion of Parental Insight. It was just as important to avoid premature explanation to the mother of the emotional dynamics of the child's disorder in advance of her preparedness to accept such explanation. The more effective policy in practice was to withhold interpretation until the parents had disclosed their own resistances and preconceived opinions so that these could first be dealt with.

Having first assured them that there was no physical basis to the disorder, suggestions were put to them along the following lines. If there was no organic reason to prevent the child opening his bowels, why did he continue to hold back? Clearly this policy was causing him discomfort and pain and therefore, presumably, he must be deriving some compensatory gain. What might his motive be?

By such provocative suggestions, parents were stimulated to enlarge their concept of the disorder to include the possibility of emotional motivation, and to appreciate how their child's behaviour could conceivably be directed against them.

It was explained to them in general terms that young children often tried to even out the unequal balance between their own puny power, and what appeared to them to be the overwhelming authority of their mother and father. They could not defy this authority directly with impunity, but they often sought to do so indirectly by becoming obstinate and contrary in any sphere of behaviour which they sensed might upset their parents. The more concern shown over this conduct, the more the child tended to persist with it. This was emphasized as an entirely normal and almost universal pattern of behaviour. Parents must not feel therefore that they were necessarily to blame because it was adopted by their child. They had simply made the mistake, it was explained to them, of continuing to register excessive concern which the child had been quick to sense.

Modification of Parental Attitudes. At this stage, parents were sufficiently receptive to cooperate in reversing their original attitudes to the child's bowel function. They were advised to practise complete indifference towards the persistence of symptoms. No further mention must be made of the need for bowel movement, and no censure must be shown towards continued soiling. This was a difficult assignment for the mother. It meant in effect a policy of ignoring the symptoms in place of her former policy of perhaps agitated exhortation. Only confidence in the therapist, and the knowledge that she would be absolved from responsibility should anything go wrong, made it possible for her to pursue this course.

A frequent sequel, however, was the transfer of the child's negativism to some alternative sphere of conduct. Deprived of the focus of parental concern over his bowel symptoms, he might first attempt to re-establish his position by intensifying his references to bowel activity. For example, several children resorted to repeated demands to be helped in their toilet procedure. They would follow their mother around the house, insisting that she flushed the toilet for them, or unfastened their trousers, or in some similar way supervised their act of defaecation. Parents were instructed in advance to ignore all such overtures and to adhere strictly to their attitude of disinterest.

Group Therapy with Parents. In the great majority of cases, therapy was conducted predominantly through the parents and chiefly through the mother. In the course of formulating the treatment approach in the present study, a scheme was evolved for treating mothers by group therapy. Group leaders were chosen from among those mothers who had achieved the greatest depth of insight, who expressed enthusiastic support for the psychiatric view-point, and who were endowed with adequate talents for disseminating the principles which they themselves had absorbed. Four mothers emerged from the series as best suited for this purpose and as willing to cooperate. Each in turn formed the nucleus of a group of eight mothers, the membership of which changed from time to time as earlier cases acquired insight and dropped out, to be replaced by new cases. The group leadership similarly changed as a new leader came forward.

Group meetings were convened at regular weekly intervals for periods of one and a half hours under the general chairmanship of the therapist. His role was to supervise and guide the discussion but to remain as far as possible unobtrusive. He sought to promote free interchange of views between the older and more recent members, prompted by the group leader.

Considerable support was derived by new members through introduction to the group. Each in turn was relieved to find other mothers in similar straits and having to cope with identical problems. The inevitable prejudices, doubts, resistances and fears, once expressed, were more readily resolved within the group, and the acquisition of insight more readily promoted. There were repeated examples of sceptical and insecure mothers showing greater willingness to accept reassurance and advice from the group leader, or from older members of the group, than from the therapist direct. The evidence of success achieved by the psychiatric approach in earlier cases, and now placed squarely before the new case, was a potent therapeutic instrument.

Direct Therapeutic Procedures with the Child: (*a*) Admission to Hospital. In nine cases, it proved necessary to admit or re-admit the child to hospital for varying periods, under the supervision of the therapist. This step was taken with four of the

children because the mother's response to reassurance had not been sustained, or because she was too limited in intellect to benefit from the guidance given without some more concrete demonstration of how to manage her child. In the remainder of this group, carping parental pressure or excessive domination of the child were most effectively curtailed by temporary removal of the patient from home.

In the absence of separate in-patient facilities, all nine cases were individually admitted to a general paediatric ward through the kind cooperation of my colleagues. The nursing staff were prompted to adopt an attitude of bland detachment towards the persistence of bowel symptoms, and equally to ignore any associated symptoms such as refusal to eat, temper tantrums, emotional withdrawal or provocative behaviour. The child was treated warmly and tolerantly but with avoidance of fuss.

In the majority of these cases no specific play therapy as such was practised with the child. Treatment essentially comprised placing the patient in a temporary residential environment, designed to counteract pre-existing influences and to achieve resolution of symptoms by engineering a suitable atmosphere. It was found that these children responded well to consistent and detached handling. In the main, they adjusted readily to ward routine, with restoration of spontaneity and regularity in bowel function after a short interval. Subsequent supportive treatment with the parents depended upon the practical example set by managing the child in hospital.

Apart from admission to hospital as a means of temporarily modifying the child's environment, direct psychotherapy was required in a further group of cases, including some who were accepted as in-patients. Such direct intervention was necessary with the child for a number of different reasons. It might be that the symptoms had become so chronic and entrenched that the child had developed an overlying bland façade which warranted definitive treatment measures. This was particularly so among the older children. Alternatively, some children were so grossly inhibited, fearful and insecure as to merit direct therapeutic help. Yet a further important indication for direct psychotherapy with the child was the unresponsive attitude of the parent, or the persistence of parental intolerance and rejection, with failure to acquire insight.

(*b*) **Play Therapy.** The aims of expressive play therapy were, first, to penetrate the child's defensive façade and establish adequate depth of contact with him; secondly, to define his fundamental problem for him through the medium of projective play techniques; thirdly, to promote the working-through of his difficulties, with associated release during play of his pent-up hostility; and, fourthly, to restore his emotional stability following the resolution of these difficulties.

Three main techniques were employed in this procedure: (*a*) the 'World Picture' technique, with portrayal of the child's own fantasy productions in a sand-tray as described by Lowenfeld (1939); (*b*) the technique of free drawing by the child on paper; (*c*) the combination of expressive drawing on paper with a device known as the aggression board. This latter technique will be described as exemplifying the treatment approach.

This apparatus was evolved by Meals and Summerskill (1951), as a technique for diverting hostility in children under treatment. It consists of a sheet of thin plywood (3 ft. by 4½ ft.), held in a thicker frame, and supported behind by a hinged brace which fits into a thick wooden base on the floor. In the plywood sheet, a square hole (8 in. by 8 in.) is cut out in the lower half. The base supports the plywood at an angle of 45°, facing the child, with the top of the board inclined away from him (Fig. 2).

In the present work, the apparatus was used by

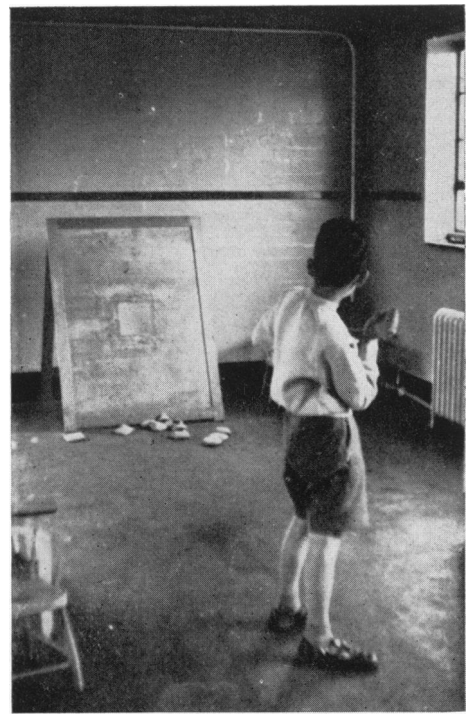

FIG. 2.—The aggression board.

inviting the child to make a drawing on a large sheet of paper of something which he particularly disliked; no other limitation was imposed. The paper was then taped across the aperture in the plywood board so as to cover the hole. Facing the board, at a distance of four or five yards, the child was provided with 12 bean bags and encouraged to throw them, one after the other, at the picture over the opening. If he struck the target the taut paper was ripped by the impact. If he missed the drawing, the bean bag hit the surrounding plywood with a resounding noise which was obviously satisfying to the child.

The more inhibited of the children under therapy were unwilling to use the apparatus and showed fear of its aggressive potentialities. With the remaining cases, however, it proved both of diagnostic and therapeutic value. The subject matter drawn by the child as an object of his dislike provided diagnostic information, while his treatment of the drawing permitted therapeutic release of his aggressive feelings.

The following examples will suffice to indicate the type of material which emerged. Repeatedly the drawings referred to the administration of enemata by nurses as experienced by the child himself. The treatment meted out to these drawings left no doubt about the patient's hostile feelings.

Figure 3 shows a drawing undertaken by Case 9. Case 11 was more forthright in his portrayal of the same subject (Fig. 4). In this drawing, the nurse,

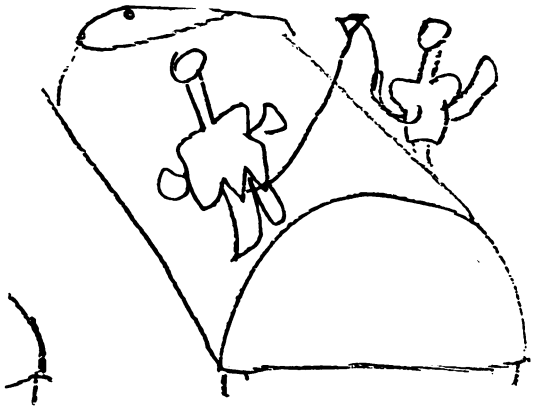

FIG. 3.—Drawing by Case 9.

menacing in appearance, is depicted as saying, 'I've never known anyone so rude, I'll give you another enema for that'. The child, though clearly sobbing, replies spiritedly, 'I'll give you an enema, you darn pest'. Treatment of this particular drawing was vigorously destructive with bean bags.

The same theme was repeated at a subsequent

FIG. 4.—Drawing by Case 11.

Nurse: 'I've never known anyone so rude, I'll give you another enema for that.'
Child: 'I'll give you an enema, you darn pest.'

session, during which the child threw handfuls of wet sand violently at the plywood board when he had exhausted the supply of bean bags. The actual scene is depicted in Fig. 5.

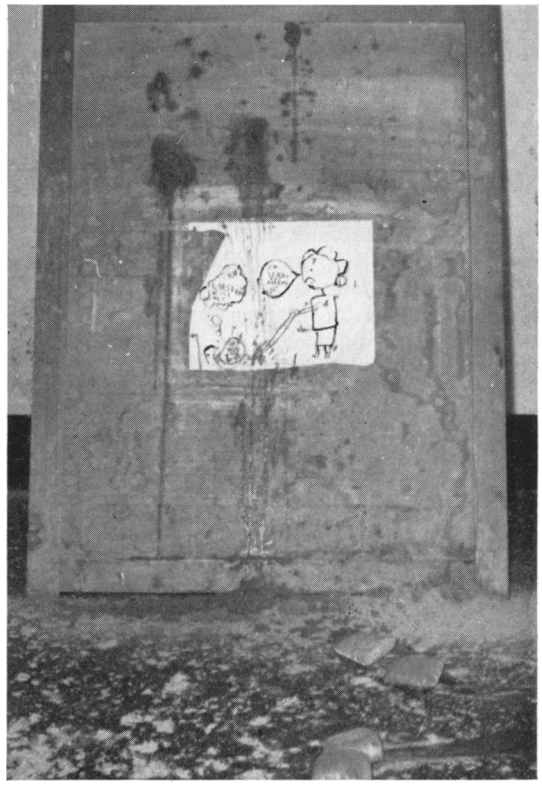

FIG. 5.—Aggression board with the drawing depicted in Fig. 6 in position.

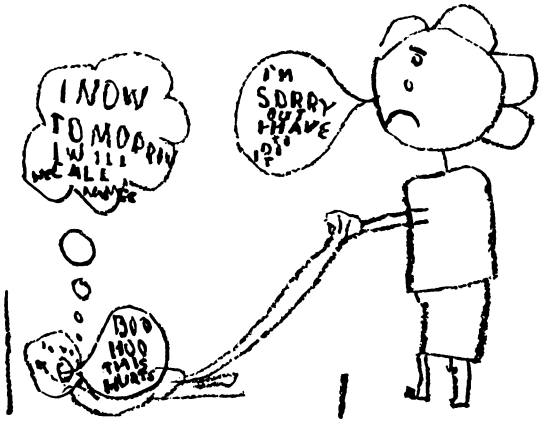

FIG. 6.
Child: 'Boo-hoo, this hurts.'
Nurse: 'I'm sorry, but I have to do it.'
Child: 'I know, tomorrow I will call you Nursie.'

Nevertheless, the verbal exchange between nurse and child in this later version is more conciliatory. The nurse, who no longer looks fierce, is saying, 'I'm sorry, but I have to do it'. The child openly concedes his discomfort ('Boo-hoo, this hurts'), but acknowledges the nurse's overture by replying, 'I know, tomorrow I will call you Nursie'. (Fig. 6.) This conciliatory trend was actually reflected in the patient's increasing stabilization and in the reduced intensity of his provocative behaviour at home.

By contrast, although the same theme was portrayed among the more inhibited and insecure children, their treatment of the subject was significantly different. For example, Fig. 7 shows a nurse administering an enema to a child behind screens in hospital. This drawing was done by a withdrawn little girl who volunteered no comment, and the picture itself seemed devoid of animation.

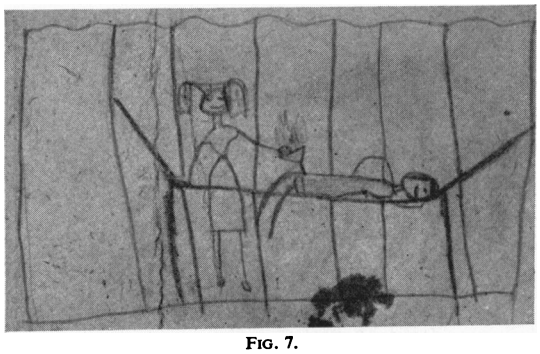

FIG. 7.

A further example of the same subject is portrayed in Fig. 8. This picture is more animated and captions have been introduced. The patient is saying, 'I'll teach you old Nursie a lesson'. The nurse, wearing a frightening expression, replies, 'No, you won't, you can't'.

It is interesting to compare this drawing with that depicted in Fig. 4, which so obviously expresses spirited defiance. In Fig. 8 the protest by the child is clearly more feeble and is emphatically overruled by the all-powerful nurse. The difference in attitude expressed in these drawings reflected the clinical difference between the first patient, a boy who was reacting with robust retaliatory behaviour, and the second patient, a girl who was much more inhibited and passive in response.

FIG. 8.
Child: 'I'll teach you old Nursie a lesson.'
Nurse: 'No you won't, you can't.'

Results of Treatment

With the kind of treatment outlined above, remission of symptoms occurred in 21 cases in the series, 17 of whom have now received no active treatment for periods up to three and a half years. Three children still continuing treatment are showing increasing symptomatic improvement. Of the remaining six cases, three failed to maintain attendance for treatment, and three have proved unamenable to psychiatric treatment (Fig. 9).

Discussion

It is noteworthy that the present series showed a preponderance of boys to girls in the ratio of almost 2 to 1 (19 boys, 11 girls). In Bodian's (1949) original group of 34 cases of idiopathic megacolon, the corresponding numbers were 25 boys and 9 girls. Bakwin (1956) has commented that resistance to bowel training and the persistence of soiling is twice as common in boys as in girls. An explanation may lie in Freud's observation that

'the little girl is as a rule less aggressive, less defiant and less self-sufficient . . . The fact that she is more easily and more quickly taught to control her excretions is very probably only the result of this docility.' (Freud, 1946.)

In several cases of the primary series, there was a manifest tendency among the mothers to overvalue their sons relative to their daughters. This might conceivably provide the motive in some cases for the excessive focus of attention on bowel regularity in the male.

The personality characteristics which were found to predominate among the parents of the children in the present study have been noted by other workers in association with difficulties over toilet performance (Lehman, 1944; Comly, 1952). The personality features of obsessional rigidity, determination and perfectionism, which were so prominent in the parents concerned, correspond to the characteristics of the 'anal character' elaborated by Freud (1916).

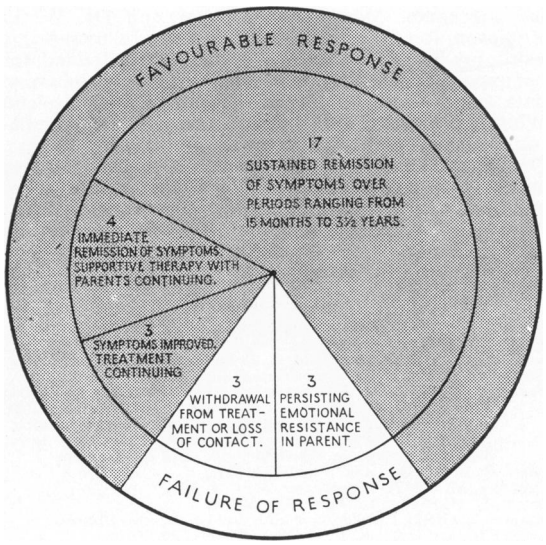

FIG. 9.—Response to treatment in the primary series.

A study of the family backgrounds of these parents yielded repeated evidence of the strict code of upbringing to which one or other parent, usually the mother, was herself subjected in her own childhood. It was significant that the parental attitude adopted toward the child was often in part determined by the parental attitude which had obtained in the previous generation.

The role of coercive toilet training in promoting bowel negativism has been stressed independently by different workers (Huschka, 1942; Swenson, 1953; Richmond *et al.*, 1954; Bakwin, 1956).

Prugh (1955) found that constipation, with or without faecal soiling, occurred twice as frequently in a group of children who had been subjected to early bowel training as in an equivalent group who had been trained at the usual time. He concluded, however, that it is not the timing or nature of bowel training which alone promotes difficulties over defaecation. In his experience, mothers who enjoy a warm and close relationship with their offspring can adopt premature or even coercive training without incurring any serious risk of subsequent bowel disorder. He adds, however, that 'if the relationship between mother and child is strained, undesirable procedures may offer a focus around which these tensions are expressed'. He therefore considers that 'the personality make-up of the mother, and her relationship to her child, are more important than her technique of toilet training'.

This view is borne out by the findings in the present series of cases, among whom 57% had been submitted to primary coercive training, whereas 93% showed evidence of parent/child tensions due to personality difficulties in the parents.

Paediatricians are alive to the fact that constipation is still widely invested by the lay public with ingrained fears and fantasies concerning its allegedly adverse effects. Accordingly, they recognize the importance of disabusing parents of such prejudices in the treatment of the child's constipation. Mac Keith (1955), Reichert (1955) and James (1955) all stress the need to emphasize to parents the wide range of normality in bowel function during infancy in order to avoid their unwarranted alarm. In the present series, the longest period of absolute constipation through resistance to defaecation was 83 days (Case 2), during which time the child, aged 3, continued to enjoy perfectly good health and remained symptom-free, eating normally and showing abundant energy throughout. Swenson (1953) reports a similar example of a child who had no bowel movement for eight months, without adverse repercussions.

In any case, some children show a constitutional tendency to infrequent bowel action, dating from the neonatal period. In the present series, there were three examples of this tendency. In each case, the mother had misinterpreted the condition as one of constipation with resulting undue concern and correspondingly rigorous treatment. Significantly, however, although the parental attitude has now been corrected and the overlying behaviour disturbance completely resolved, the child's pattern of bowel action in each case has remained unchanged, with a

bowel movement occurring at three- to five-day intervals. No harm results in such cases unless the child is treated for supposed constipation.

Much depends upon the orientation of the paediatric specialist, since it is to him that the majority of cases of this kind will be referred in the first instance because of their physical presentation. Chapman and Loeb (1955) aptly comment, 'The ultimate success of referral for psychiatric opinion depends upon the referring paediatrician's skill in allaying parental guilt and anxiety about seeking such help. His ability to explain the importance of emotional factors is itself an important factor in whether parents will actually follow up the suggestion of psychiatric referral. A small amount of extra time devoted by the paediatrician in talking to parents about these gastro-intestinal problems, and how life stresses and personality factors affect the ailment, is often one of the most therapeutic things he does. It is often useful to remember that the word "doctor" derives from the Latin verb "docere" —"to teach"!'

Summary and Conclusions

Each of the 30 cases described in the current study, despite their diversity of background, had in common the factor of conflict between parent and child in the sphere of bowel function. Parental efforts to promote bowel regularity had induced a reactive state of negativism in the child, manifested as resistance to defaecation. This in turn led to chronic faecal retention, with ultimate dilatation of the rectum and terminal colon if the condition was allowed to persist for a sufficient length of time. The megacolon so produced could not be attributed to any underlying organic lesion. On the evidence presented, it is of psychogenic origin and is of common origin with the condition sometimes called idiopathic megacolon.

The conclusion drawn from the current investigation is that, while colonic inertia forms the immediate basis of the condition, its development is secondary to the state of chronic constipation which results from persistent bowel negativism.

Rational treatment of the condition should therefore be directed towards resolving the child's negativistic behaviour, since this represents the ultimate basis of the disorder. Treatment must include exploration of the emotional factors within the parent/child relationship which determine the patient's negativistic response, and appropriate re-alignment of parental attitude so that the state of conflict over bowel function is removed.

Joint consultation between paediatrician and child psychiatrist ensures that such a comprehensive approach is instituted. Parental reassurance is thereby more effectively promoted, continuity in treatment is preserved, and, although the physical symptoms are viewed with detachment, there is no risk of neglecting the local bowel disorder while pursuing the broader treatment indications. The paediatrician gains insight into the emotional dynamics of the condition and the psychiatrist gains perspective upon its physiological aspects. Each discipline reinforces the contribution of the other, and the prognosis for successful treatment is thereby enhanced.

It is a pleasure to record my thanks to Professor N. B. Capon for his unfailing interest in this work and for his kindness in providing the facilities within the Department of Child Health of the University of Liverpool which made the project possible. I would also like to thank my colleagues, Miss M. E. Gurney and Dr. W. E. Robinson, for their invaluable help with the therapeutic work; my Psychiatric Social Worker, Miss E. Ireland, for her important contribution in compiling the control group data; our Senior Clinical Psychologist, Mr. John Graham White, for his help with the statistical work; my paediatric colleagues, and in particular Dr. Hudson, Dr. Keidan, Dr. Llewellin and Dr. Todd, for their close collaboration and for their courtesy in providing access to their wards; and to my two secretaries for their industry and patience. Above all I would like to express my deep appreciation to Professor W. Mayer Gross for his support, encouragement and inspiring stimulus.

References

Bakwin, H. (1956). *Pediat. Clin. N. Amer.*, Feb., 127.
Bodian, M. (1952). *Practitioner*, **169**, 517.
——, Stephens, F. D. and Ward, B. C. H. (1949). *Lancet*, **1**, 6.
Comly, H. H. (1952). *J. Iowa St. med. Soc.*, **42**, 565.
Freud, S. (1916). *On the Transformation of Instincts, with Special Reference to Anal Erotism.* Collected Papers Vol. 2, p. 164. The International Psycho-Analytical Library, No. 8, London.
——— (1946). *The Psychology of Women*, p. 150. New Introductory Lectures on Psychoanalysis. 3rd ed. London.
Hiatt, R. B. (1951). *Ann. Surg.*, **133**, 313.
Huschka, M. (1942). *Psychosom. Med.*, **4**, 301.
James, U. (1955). *Med. Press*, **233**, 280.
Kanner, L. (1948). *Child Psychiatry*, 2nd ed., p. 39. Illinois.
Lee, C. M. and Bebb, K. C. (1951). *Surgery*, **30**, 1026.
Lehman, E. (1944). *Amer. J. Dis. Child.*, **68**, 190.
Mac Keith, R. (1955). *Guy's Hospital Gazette*, **69**, 22.
Meals, D. W. and Summerskill, J. (1951). *J. clin. Psychol.*, **7**, 376.
Menninger, W. C. (1943). *Psychoanal. Quart.*, **12**, 161.
Prugh, D. G. (1955). *Ann. N.Y. Acad. Sci.*, **58**, 35.
Reichert, J. L. (1955). *Pediat. Clin. N. Amer.*, May, 527.
Richmond, J. B., Eddy, E. J. and Garrard, S. D. (1954). *Amer. J. Orthopsychiat.*, **24**, 391.
Swenson, O. (1953). *Amer. J. Surg.*, **86**, 497.
——, Neuhauser, E. B. D. and Pickett, L. K. (1949). *Pediatrics*, **4**, 201.
Whitehouse, F. R. and Kernohan, J. W. (1948). *Arch. intern. Med.*, **82**, 75.
Winnicott, D. W. (1953). *Proc. roy. Soc. Med.*, **46**, 675.
Zuelzer, W. W. and Wilson, J. L. (1948). *Amer. J. Dis. Child.*, **75**, 40