EFFECTS OF EVACUATION AND OF AIR RAIDS ON CITY CHILDREN

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An attempt is made in this article to assess the effects (a) of evacuation and (b) of air raids on the children attending the Manchester Child Guidance Clinic. So much has been written about the physical advantage to children of being out of big cities that it seems worth while to try in some way to assess and reduce to terms the psychological effects of war on them. Admittedly the numbers are small and represent a selected set of children in that they have been referred to a clinic of this nature, but in one group of figures these numbers are placed side by side with the total school population so that some comparison may be made. So far as the clinic is concerned the numbers represent all cases under treatment there in July, 1939, plus all those referred since that time up to March, 1941. From these figures only two groups have been excluded, the reason for exclusion being obvious: (1) cases coming from neutral and reception areas; (2) cases of proved mental defect.

TABLE I.—*Relation of Clinic Cases to School Population*

	Clinic Cases	Figures of Total School Population
Total number of cases	131	88,610
Total evacuated since September, 1939	88 (67%)	60,427 (68%)
Returned within 4 months	65 (50%)	65,303 (75%)
Further returned by end of 6 months	18 (15%)	12,065 (14%)
Still evacuated	5 (4%)	
Evacuated after raiding began	20	Further figures not available owing to continuous re-evacuation
Returned within 3 months	3	
Still evacuated	17	

Table I is designed to show the relation of the clinic cases to the general population, and is self-explanatory, except that it should perhaps be stated why the periods of four months and six months have been chosen. The four-months group comprises the children who either failed in evacuation from the beginning or who at any rate were unable to weather the Christmas holiday period. The six-months period is intended to be rather an elastic one covering those children who returned between Christmas and Easter or with their schools at Easter. A considerable number definitely came back for this latter reason, or because they obtained places in secondary schools which themselves had returned. It will be noticed that while the figure for the original evacuation of clinic cases is closely parallel to the percentage of the total school population which evacuated, the children who returned show a considerable discrepancy. It is difficult to explain this or to be sure whether the fact that we were able to pay regular visits to the parents contributed anything towards their stability in this matter.

Table II is an analysis of the reasons for which these children returned and needs more explanation. Under the

heading "Parents' Request" are the cases in which the parents wished to take the child home. The reasons for this change of attitude are important. There was first the question of billeting costs. Only two of the parents complained of this, and in one case the complaint was quite unrelated to reality, and occurred in a family the father of which was in a regular and stable job and before any question of active contribution by parents had been raised. The commonest reason was just that the parents wanted the children home. Some of these cases are perhaps worth quoting, since they show that the parents themselves were maladjusted people.

Case 1.—Girl aged 11. I.Q. 96. Youngest of a family by twelve years; unwanted by mother, who felt very guilty about her feelings. Evacuated in September. Brought home in November. The mother reports: "I was afraid something might happen to her. I thought she wasn't happy. They said she was: I think she was afraid of hurting their feelings."

Case 2.—Boy aged 17. I.Q. 122. Referred for stammer. Father committed suicide, and the boy had found him dead. Youngest of the family and the only one living at home with the mother, the others being married. In a secondary school and doing well. Brought home because the mother was lonely.

Case 3.—Boy aged 12. I.Q. 87. Referred for truancy and pilfering. A difficult, very anxious boy whose mother was in a state of chronic ill-health, and who was extremely antagonistic to all his home surroundings; was taken home suddenly by his father because the foster-parents complained that he was difficult to manage.

Under the heading "Child's Request" we have included those cases in which the child requested and was allowed to come home. Nearly all these cases are reported as "home-sickness"; but in a few the child complained of being lonely when alone in a billet or objected to the billet; one disliked having to be in bed by 6 p.m. Two were specifically anxious about the parents at home.

Case 4.—Boy aged 11. I.Q. 156. Ran away from billet. A stammerer. Ambitious over-earnest parents who are afraid he will not get on, as he is too interested in cricket. He took another boy with him, and they started to walk back home, a distance of some fifty miles, and when this proved impossible went to get advice from the police.

Case 5.—Girl aged 13. I.Q. 111. Referred for truancy. Evacuated at outbreak of war. Returned because she was unhappy and lonely. Is an only child, brought up at first by grandmother because mother wanted to continue going to work; feels neglected in her home and anxiously tries to behave in a grown-up way. Over-developed physically, and looks and behaves like 16. Makes fantasies of having brothers in the Services and of having children; she always has twins, so that they will not be lonely.

The third and biggest group is that in which the request came from the billet, and in it are detailed the various symptoms of which complaint was made; the simple heading "Personal Difficulty in the Billet" is self-explanatory. Perhaps the most interesting feature of this group is that in all the cases under the heading "Truancy" the symptom is said not to have occurred before the war started. This is borne out by an investigation which we recently conducted into cases of truancy reported to this clinic. We found, starting from September, 1937, when the clinic was reorganized under the local authority, that between

TABLE II.—*Cases Evacuated in September, 1939; showing Reasons for Return and Apparent Effect of Evacuation*

Reason for Return	Age Group			I. Q.			Apparent Effect of Evacuation			Unchanged by Evacuation
	5-8	8-12	Over 12	B.	N.	S.	Better	Worse	Symptom attributed to Evacuation	
Parents' request	5	8	1	3	6	5	2	5	—	6
Child's request	2	7	14	5	10	8	2	4	6	8
Billet's request :										
Enuresis	1	1	2	—	1	3	—	3	—	1
Pilfering	—	4	1	1	3	1	—	—	3	1
Truancy	—	4	3	3	2	2	—	—	5	—
Unmanageable	—	5	4	1	5	3	1	3	2	3
Illness	1	2	1	1	3	—	—	—	—	4
Personal difficulty in billet	—	3	3	1	4	1	—	1	1	4
Other reasons	2	2	6	1	4	4	1	1	2	4
Total							6 (8%)	17 (24%)	19 (28%)	31 (43%)

September, 1937, and September, 1939, 48%, and between September, 1939, and March, 1941, 52% of the total were referred for truancy, though the clinic was closed for two months and was working short time for another two. Of these truants two entirely ceased when they returned home and one after a short period of treatment. Of the pilferers whose symptom was apparently produced by evacuation, one has since died, one has now adjusted himself, and one has continued to steal. Of the group reported unmanageable, one came from a very disturbed home, where the father and mother were in constant disagreement, and the father violent and gaining his ends by violence. This boy's violence started when evacuated, but continued in his own home and, indeed, in any situation in which he was frustrated; a second was returned after three days as incorrigible: he had twitches and temper tantrums, but reacted well to treatment in a group and is now adjusted at home. He shows no anxiety in raids. The cases of enuresis form another interesting feature. Three out of four of these were worse as the result of evacuation, two of them advancing to faecal incontinence during evacuation. It is perhaps noteworthy that all these three are children of very superior intelligence, and that two of them have been very greatly improved with a short period of treatment. The one case of which we have no record we have been unable to trace since the original inquiry as to which of our patients were evacuated.

The results of this investigation go to show that emotional difficulties were either started or made worse in 52% of the cases examined and that in only 8% was the condition improved. One of this last group had been under treatment at the clinic for two years. She had originally been sent for refusing to go to school, or indeed to leave her mother at all, and we had the greatest difficulty in maintaining contact with her. During the period of treatment she gradually freed herself of her mother, at first consenting to being seen alone, then to making the journey alone, then to taking a clerical course in a commercial school, three of which she tried before finally settling down in one. She finally evacuated with this school and returned because she had completed her course. She was originally referred at the age of 13, and had on test then an I.Q. of 106; she was retested by the same psychologist after two years of treatment and had then an I.Q. of 126. She is now in a good job, which she has held eighteen months. While it is in a sense incorrect to say that evacuation helped this girl, since she was so far improved before it, it is nevertheless true that it helped finally to confirm her confidence and independence, and she proved by week-ends at home her ability to go and come as she wished.

Table III refers to the immediate effect of air raids on children examined. We feel that the word "immediate" should be stressed, since we are not yet in a position to assume that we know what the final effect of living in constant risk of this sort of warfare is going to be on either the adult or the child population. It would perhaps be as well first to dismiss the last group, unfortunately a large one, in which we have no report of the child's reaction to raiding. We have therefore written them off as "no change," with the exception of five who are known to have responded badly to evacuation. The reason for this lack of reports is certainly partly that a number of these children

have been re-evacuated, especially since a bad raid at Christmas, 1940, and the parents have probably for this reason failed to answer letters referring to what they doubtless consider a past problem; partly that some of the cases are those discharged from the clinic a long time before, the parents again considering this a raking-up of old difficulties. It was impossible to visit personally so large a number of cases, so that inevitably the work was done by questionnaire. Finally, there undoubtedly exists in some parents' minds the fear that to admit that the child is anxious may lead to his compulsory evacuation.

In the other two groups there are one or two outstanding cases. First there is the single case reported as improved in spite of anxiety in raids. The symptom in this case was truancy from school. The boy was an adolescent in a central school, of superior intelligence, very over-protected by his mother. He broke down in evacuation when he was separated from this protection and anxiety on his behalf, and continued to be difficult on return, trading on his power over his mother, who went so far as to excuse him from attending the clinic when he found it difficult. He has now become an air-raid messenger, and this adult position of responsibility appears to have helped him to a stability in other directions also. It is true that he has perhaps not been in real danger, since he lives on the outskirts of the city, where bombing is slight; but he has nevertheless achieved an adult position, which his mother would never allow him, and has responded to it by giving up his truancy. The statement that he is anxious comes from the mother, who herself is very disturbed by raids.

The next interesting feature is the group of cases in which the symptom was attributed to raids. One of these was sleep-walking in a girl, accompanied by anxiety dreams of "Hitler stabbing her"; the second was general "nervousness"; three were cases of truancy, the second of these being especially striking:

Case 6.—A boy aged 11. I.Q. 82. Referred for truancy from school. He has a cataract in one eye and is afraid of the other boys. Cannot stand up for himself. This boy, after being bombed out of one of the most devastated areas, denied all anxiety in the raid, saying: "The whole of the back of the house fell down and we were sitting on the cellar stairs, and mother was afraid, but I wasn't"; and then described a dream in which he was "shooting at Germans coming down in parachutes, but, of course, I wasn't afraid, but mother is afraid of invasion."

Of those whose symptoms were aggravated by raiding three are enuretics, and the aggravation in two of these bears a definite relation to nights when there are raids. One of these two is a child of 8 with a self-assured manner and a swaggering walk who constantly plays with toys representing the street of a town, with everything huddled close together; always there is a protective fire-engine and sandbags, but the play includes no aeroplane. Two are stammerers; in one of these the stammer is slight except when he is brought to talk on either evacuation or air raids, when it becomes noticeably worse. Two were reported unmanageable and to be pilferers, and one as over-aggressive and quarrelsome. One child aged 8, whose parents insisted he was quite unmoved, produced the following gruesome fantasy, none of which is fact, as there was not even an alert. "Last night I was coming out

TABLE III.—Immediate Effect of Air Raids (Total Number known to have experienced Raids, 114)

Reaction to Raids	Age Group			I.Q.			Effect on Symptom				Symptom attributed to Evacuation	Type of District		
	5-8	8-12	Over 12	B.	N.	S.	Improved	Worse	No Change	Symptom attributed to Raids		Heavily Bombed	Moderately Bombed	Lightly Bombed
Anxious ..	4	14	9	10	11	6	1	14	6	5	5, in 4 of which raids also made matters worse	6	6	15
No apparent anxiety ..	7	26	20	8	28	17	—	4	38	1				
No report ..	6	16	12	6	19	9	—	—	29	—	10 5	5 5	14 16	34 13
Total ..	..	..	..	..	..	..	1 (1%)	18 (15%)	73 (62%)	6 (5%)	20 (17%)			

of the pictures when the sirens went and a little boy ran across the street, and they dropped a bomb and it went through his back and he was killed, and I went and told his mother and she screamed."

In the second group one case stands out as noteworthy. This boy was referred as a pilferer and as stopping out late at night and being unmanageable. He came from an extremely unhappy home where quarrelling was incessant. Both parents were almost blind; the father was desperately ill and very irritable and difficult in the home, which was completely comfortless and in a heavily bombed area. His father died on the night of an air raid, and he showed no feeling about either one event or the other. One feels that this lad could permit himself to feel nothing lest life should become intolerable. Another was reported to be unaffected, yet will only sleep downstairs. Another, an adopted child, was said to "enjoy" raids and to stay out at night. As this left her adoptive mother alone in the house one wonders whether the mother's conclusion was really the correct one or whether the going out might not have been a deliberate act of aggression against her, as she is undoubtedly afraid.

Conclusion

It is striking that there seems to be little relation between heavily bombed areas and anxiety about raids. This point is strengthened by the fact that in another group of clinics situated in reception areas we have received from parents more complaints of children being anxious and disturbed by talk of raiding or sound of sirens, and that of these cases only two are evacuated from heavily raided areas; the rest have experienced little more than the sound of sirens or distant guns.

The general conclusion to be drawn from these investigations would seem to be that, whatever the ultimate outcome, the immediate effect of evacuation, which is separation from parents and a known and accepted environment, is worse than the immediate effect of raiding—that the fantasy, waking or dream, of the raid is provocative of greater anxiety than the reality.

I wish to thank the Director of Education for Manchester for kind permission to publish these cases, and the staff of the Manchester Child Guidance Clinic for their help in collecting the material.

WARTIME PRESCRIBING

SCOPE OF NATIONAL WAR FORMULARY

Elsewhere in this issue the attention of practitioners is drawn to the *National War Formulary* (H.M. Stationery Office, 6d. net.), compiled by a committee appointed by the Minister of Health. Below we give some account of its scope and contents. From December 1 next this *Formulary* will replace the present *National Formulary* for national health insurance purposes, and on and after that date no preparation should be prescribed by title only unless its formula is contained in the *N.W.F.*, the *British Pharmacopoeia*, or the *British Pharmaceutical Codex*.

Under the heading of "Wartime Prescribing" it offers some remarks on general limitations. Agar, for example, should be reserved for bacteriological uses; the use of cinchona as a bitter is discouraged; quinine should be reserved for the treatment of malaria; digitalis is best administered as 1/2 and 1 grain tablets of powdered digitalis; and ergot, the liquid extract of which is not an economical preparation, is also best administered in tablet form. Vitaminized oil *B.P.* has the same vitamin content as a high-grade cod-liver oil, and is a satisfactory alternative in most cases. Economy in alcohol is essential, and alternatives to alcohol are suggested for preserving surgical instruments from rust, and to surgical and industrial methylated spirit for the prevention of bed-sores. A circular on economy in the use of alcohol in surgery was recently issued by the War Wounds Committee of the Medical Research Council. Liquid paraffin also must be prescribed with due regard to economy; where oral administration is considered necessary economy can be effected by using a 25% emulsion, but this, too, should be used sparingly.

Liver extracts are controlled under a Defence Regulation; they are not to be administered save to persons suffering from pernicious anaemia or other megalocytic anaemias, nor given otherwise than by injection. Malt extract and preparations containing it should be prescribed only for children and tuberculous patients. Phosphorus is wanted for munitions. Phosphoric acid has been replaced by hydrochloric acid; hypophosphites and glycerophosphates have been excluded, and sodium acid phosphate remains only for use in association with hexamine. Potassium compounds should be prescribed only where the corresponding sodium compounds are not satisfactory, but potassium acetate and potassium chlorate have been retained as the sodium salts are not satisfactory alternatives.

Prescribers are advised against the ordering of confections and lozenges, which require sugar. Dextrose and glucose are rarely necessary except for intravenous and rectal administration. Sulphanilamide, sulphapyridine, and sulphathiazole in tablet form are included in the *Formulary*, but there is a note that the first of these is the most generally useful drug in the group, and should be prescribed unless there are specific indications for either of the others. A list of more than a dozen other drugs and their preparations which should be prescribed with particular regard to economy is given; these include salicylic acid and its salts, mercury and its compounds, hyoscine, and atropine. It is enjoined that the use of distilled water should be restricted to preparations for application to the eye and preparations in which, in the opinion of the dispensing pharmacist, the use of ordinary potable water would result in an undesirable alteration to the medicament.

Proprietary preparations, particularly those of foreign origin, should be avoided if possible. Many of them, in any case, are unobtainable, and their prescription would lead to inconvenience and delay. A list is given of proprietary drugs with corresponding non-proprietary equivalents, and prescribers are urged if possible to use the *B.P.* preparation.

Replacements and Limitations

Briefly to glance at some of the formulae, the first list is of six preparations for ear-drops. These are the same as in the *N.H.I. Formulary* save for some reduction of glycerin and rounding off of percentages. Five forms of capsule are indicated, but it is stressed that tablets and pills are generally preferable. Certain capsules formerly described, such as those of ergot, sandalwood oil, and preparations of iron, are omitted. On the other hand, capsules of concentrated solutions of vitamins A and D and of halibut-liver oil are added. The linseed poultice is discouraged; the only entry under "Poultices" is the kaolin poultice *B.P.* Among mouth washes the principal changes are the substitution of sodium for potassium and a new formula to replace glycerin of thymol.

Four flavouring and sweetening emulsions—aniseed, aniseed with peppermint, chloroform, and peppermint alone—have been introduced for mixtures in place of alcoholic preparations. Enemas are a new group as compared with the old *Formulary*; they include enemas of ox bile, of soft soap, and of oil of turpentine. The glycerins number two. A solution containing 25% of glycerin and 10% of sodium chloride has been introduced for intra-uterine use in place of pure glycerin. A glycerin of proflavine, which is evidently considered an improvement on acriflavine, is also included. The injections are mostly *B.P.* injections, but a new one, injection of papaveretum (2%), an antispasmodic preparation (dose, 5 to 10 minims), has been introduced. As a vaginal injection zinc sulphocarbolate is replaced by zinc sulphate. A good general linctus, with syrup as the basis, has been provided; in spite of economy in the use of sugar the need for one good sweet preparation was felt.

Linctus Simplex (Linct. Simp.)

Dilute sulphuric acid	..	..	..	5 minims
Emulsion of anise <i>N.W.F.</i>	..	..	..	2½ "
Emulsion of chloroform <i>B.P.C.</i>	..	..	..	5 "
Solution of Bordeaux B <i>B.P.C.</i>	..	..	..	1 minim
Syrup	..	..	..	to 60 minims

Liniments have been so framed as to save alcohol and to exclude the drugs mentioned for exclusion in the War Memorandum of the M.R.C. It is mentioned that strict economy should be observed in prescribing liniment of soap *B.P.* because it contains so much alcohol.

The formula of liquor antisepticus has been changed to meet wartime conditions. Chlorine antiseptics have also been overhauled. Eusol is not recommended, as being unstable; on this ground Dakin's solution or a new 2% solution of chloramine is preferred. A borax and formaldehyde solution is given for use in place of alcohol for preserving instruments in a sterile