WAR CONDITIONS AND THE MENTAL HEALTH OF THE CHILD

BY

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Last February Miss Dunsdon, our psychologist, made a survey of 8,000 Bristol school children to assess the incidence of strain following air raids. Her findings were that about 4% of this large sample of the school population showed some signs of strain, either purely psychological or else psychosomatic. Among the psychological symptoms noted were general nervousness, trembling, crying, and aggressive behaviour. Among the psychosomatic symptoms were headaches, anorexia, indigestion, enuresis, soiling, pallor, and epistaxis.

Of the 300 children showing signs of strain 120 suffered from frankly psychological symptoms. These occurred twice as often in the 5-7 group as in the senior school group (aged 11-14). About 170 children suffered from psychosomatic disorders. These were especially frequent in the oldest group of senior school children, and this form of anxiety disguised as physical symptoms was the characteristic reaction of the 11-14 group.

Taking both types of reaction together, Miss Dunsdon found that the younger children felt the strain and lack of sleep more readily than the older ones, who have developed more control and can repress their feelings to conform with adult standards with greater success. Half the cases occurred in the infant group (5-7), another third in the junior group (8-10), and less than a quarter in the senior school children.

This survey concerned the general school population at a time when severe raids were occurring fairly often. I thought, however, that it would be a matter of interest to try to find out how children who had suffered special stress were reacting after some months had elapsed and during a period of freedom from raids. I have therefore carried out a special survey, lasting a fortnight, of a group of children who were exposed to an air raid of maximum severity. This group were the in-patients of the Children's Hospital in Bristol at a time when the hospital was damaged by several high-explosive bombs and the children were evacuated to another hospital at the height of the raid, under particularly terrifying circumstances.

On the night in question there were 54 in-patients, ranging in age from 2 months to 12 years. This was the occasion of the second severe raid on Bristol. Shortly after nine o'clock the hospital was damaged by several high-explosive bombs. The warden of the sector immediately ran to the hospital at which I was on duty, a quarter of a mile away, where a squad of Regular soldiers were standing by to help deal with incendiaries. On receiving the message the soldiers immediately dashed off in an Army lorry to the Children's Hospital. The scene on arrival was extraordinary. Soldiers were crunching through a litter of broken glass, fallen plaster, and blown-in black-out material, picking children out of cots and beds and, tucking them under their arms, running down the steps and dumping them pell-mell into the lorry. The hospital was in darkness, and the only light came from the fires raging in the city below. A very heavy barrage was in progress and heavy high-explosive bombs continued to fall quite close to the hospital. Most of the children were transferred by lorry to my hospital; a few babies were carried in the arms of the soldiers the quarter of a mile, while spent fragments of "flak" were buzzing down freely. All 54 children were evacuated without a scratch, and the only serious casualty among the nursing staff was the night sister, who had been cut by glass.

Here, then, was a really traumatic incident. I still feel a little frightened myself when I recall it. I have tried in this survey to find out how this incident has been integrated in the minds of the various children.

I do not know whether many readers have undertaken a follow-up of cases in a bombed town; but the search on which I embarked rather light-heartedly proved more than usually difficult. On one occasion the address I had been given proved to be a heap of rubble, and in many cases evacuation, convalescence, and the absence of both parents on war work necessitated many extra visits and a good deal of correspondence. I consider myself fortunate, therefore, that I have been able to trace 51 out of the 54 children.

Of these 51 children 44 are alive; 7 had died—3 of cerebrospinal fever, 1 of diphtheria, and 3 of the illnesses for which they were originally admitted. Of the 44 survivors 5 still have symptoms which can be directly attributed to their experiences on the night of the raid—a percentage of 11. This is barely three times the number found six months ago by Miss Dunsdon in her survey of the school population in general.

Parents reported that on their arrival home from hospital, generally about a week or a fortnight after the incident, 27 children (61%) showed signs of distress. But the majority were stable in a period ranging from three weeks to two months. "He sweated freely when the sirens went the first week he was home"; "She was normal in three weeks"; "She was frightened for nearly two months."

Perhaps the best example of the normal process of digestion of the experience was that of a little girl aged 3 years. At first on her return home Janet woke frightened by the sirens and wouldn't say a word to the grown-ups about what had happened. But at the end of three weeks she was overheard telling her dolls about how the bombs fell and how the windows fell on us; "a man came and took me away to another hospital in a car." After this discussion of the incident with her dolls she was much steadier; she sleeps through the sirens, and only wakes when the barrage is particularly heavy. She has no other nervous symptoms now.

All the children showing persistent signs of strain are between the ages of 1 and 5½; this confirms Miss Dunsdon's finding that the youngest age group is the most vulnerable.

The youngest child is now 17 months old. She showed evidence of the time-lag in the development of symptoms that we have already reported in adults, and began to have screaming fits and night terrors three to four weeks after her discharge from hospital. After another severe raid, in which her home was damaged, she was evacuated with her mother to South Wales, but is still very nervous, and suffers from night terrors, although she can tolerate the noise of engines.

The second child, aged 15 months at the time of the raid, is probably a mental defective. Though she has returned home to a raid-free district, her mother considers her much more nervous since she came home from Bristol.

The third child, aged 2 at the time of the raid, has also gone back home to a relatively quiet area. He was very excited occasionally on his return home, still does not like to hear the sirens, and generally cries out and yells every time he sees a gas-mask. He is an only child.

The fourth child, aged 3 at the time of the raid, is the youngest of three children. Her mother, who was suffering from what she described as a "nervous breakdown," described the child as coming home with "shattered nerves." She screams at night, talks and shouts in her sleep, cries when spoken to, picks sores on her fingers and face, suffers from diurnal and nocturnal enuresis, and soils herself. Even allowing for the mother's tendency to project her own symptoms on her child, I think this was the most severe case I saw.

The fifth child was a boy aged 5 at the time of the raid. Though very much better on his return to his country home, he is still afraid of the dark and suffers from night terrors if there

is no light in his bedroom. Bombs have been dropped near his home and the windows broken since his return.

It is interesting to note that four of these five children have persistent symptoms in spite of the fact that they have returned home to relatively quiet areas.

Taking the remaining children who recovered, I have attempted to analyse the progressive assimilation of the incident in the different age groups. Children under the age of 1 cannot express their feelings by talking and are unable to move of their own accord to a place of safety. Of the 10 under 1 year of age 4 died—3 of infections unfortunately contracted within a fortnight of the raid. Conditions after the raid multiplied the chances of infection, and, though strict isolation was practised, it is perhaps significant that every child who developed infection died, and this 100% mortality suggests a lowered resistance in these young infants. Of the 6 survivors 4 never showed any signs of upset, one was a little upset at first, and the oldest, aged 10 months, still suffers from night terrors.

The next natural group appears to be from the age of 1 to 3. There were 15 of these, one of whom died of meningitis. Of these children 4 showed no sign of strain at any time; 2 still suffer from persistent symptoms. The most common reaction in this group was that to the noise of sirens, or to any noise: "She jumped at the least little noise"; "He knew what the sirens meant and was terribly anxious"; "She put her finger to her lips when the sirens went and seemed to listen, and cried." This reaction soon disappeared in spite of many subsequent alerts. These children are of an age to walk, and some of them ran for a safe person or place when the sirens went. The earliest example of this was seen at 1 year 11 months: "He came after me when the sirens went"; "He runs to anybody on hearing bangs"; said "Bombs, Mummy," or "Is it all clear?"; "He asked to go to shelter when the sirens went." Another reaction observed in this group was a failure to recognize the parents on return home. "She didn't know us when she came out" (1/11). "He didn't know me—he was a bit strange" (1/11).

It is not until the 3-year-olds are reached that any attempt is made by the child to describe the incident. At first the account is disjointed and fragmentary.

Joyce (3/0) said: "They took me away; they wouldn't let Daddy come."

David (3/5): "The black-out came down on me; the soldiers took me away in the car."

Elizabeth (4/1): "The ceiling came down on my bed. I had a ride with the soldiers in a car."

George (4/5) talked about the nurses running up and down the stairs and the bombs dropping.

Brian (7/5) told his parents how his hair was full of powdered glass, how the nurses showed the soldiers where to go, and how the soldiers carried him out.

In this group of children, aged 3 to 7 years (13 cases), there was a slightly earlier phase noted when the child attempted to reject or deny the experience.

Graham (2/5), though talking well when he went into hospital, would for some time say nothing but "No" when he came home.

Sylvia (3/0) never talked about the raid.

Janet (3/0) wouldn't say a word at first, and then talked to her dolls as I have described.

Patricia (6/5) never spoke of her own accord of the raid.

Gladys (8/0), who was choreic, never spoke of the raid. She was described by the ward sister as "too awfully normal," but for some time would not play with the other children or join in the ward games. She is quite happy and bright now.

But in the next group of children, aged 7 to 11 (8 cases), there was a tendency to accept the raid as an adventure.

Brian (7/5) treated the raid and subsequent bombings as a joke, but he was upset when evacuated to Cornwall. He had an unlucky billet with a very rough coarse-mouthed foster-father, and was eventually rescued by his father. On his return home he was shy, and cried when spoken to.

Robert (11/0) thought it was thrilling; he was very excitable and rather manic. He wrote a vivid description of his adventures to an aunt, who forwarded the letter to Mr. Churchill, and the Prime Minister's letter of acknowledgment is now a treasured family possession.

In the last group of children (11 to 12½), of whom there were 4 cases, there is an example of a sense of responsibility for the younger ones.

David (11/6) would not leave his ward until all the other children had been evacuated. He asked the nurses to allow him to help them in carrying children out. He paid for his self-control with enuresis after subsequent air raids, and his mother noticed that in severe raids in the following months the only sign of nervousness was a tendency to talk all the time he was in the shelter.

Another point of interest is the reaction of these children to subsequent incidents, when their homes or hospitals were again hit. Leaving out the youngest child, who had been born in an air raid, there were 8 of these.

Ruth (4/0), after the original raid, was evacuated from my hospital when it was severely damaged by a bomb, and a month after her return home she saw the house on the opposite side of the road blown sky-high in a daylight raid. Yet I found her putting her dolls to bed on the front door-step opposite the ruins, quite friendly and charming. She had a stable father, leader of a first-aid party.

Elizabeth (4/1), in a subsequent raid in another town, talked of her previous experience.

Patricia (7/0), five months after the first incident, was in a hospital which was damaged by a bomb, but was quite cool and showed no signs of upset.

Diana (9/1) was cool in a raid at home when her mother and two sisters broke down, and was bright and happy in a raid when another hospital to which she had been moved was hit.

Doreen (10/5) went "hysterical" in the shelter at home in the next raid and was shaken by her disgusted father, a naval petty officer. She was evacuated to Devonshire a month later, settled down happily, and is looking very well.

Robert (11/0), the enthusiastic letter-writer already referred to, was transferred to another hospital in a town which was bombed two months later. The windows were blown in. Two months afterwards, in yet another hospital, the windows were again blown in by a near miss. Beyond being rather excited, he was not upset.

Grace (12/10) two months after her return home found the house wrecked when the family emerged from their Anderson shelter. But she is sleeping well and is looking better than ever she did.

Bernard (12/0) told his father how the ceiling, plaster, and glass came down on his bed: he thought he would be buried alive. In a subsequent raid he heard bombs whistling down, and dived under the bed so quickly that he cut his head open and was the only casualty. But he sleeps well now and, though he is an epileptic, has had no recent fits.

Summary

Of the children exposed to a major aid raid 61% showed signs of strain for a period of between three weeks and two months.

After seven months 11% of children still show persistent symptoms.

Persistent symptoms have not occurred in children under 1 year or over 5½ years of age.

The incident is assimilated in varying degrees according to the stage of development of the child's personality.

The earliest reaction is that to sirens and noise in general. In the walking child there is an attempt to run to safety. Later, in the talking child, there is an attempt to reject formulation of the experience, followed by an effort at describing or rehearsing

the incident, the description becoming more elaborate as the child is more mature. About the age of 7½ the tendency is for the child to accept the incident as an adventure. Finally, about 11½ a sense of responsibility for others appears.

The reaction to subsequent raids was on the whole remarkably slight. Out of 8 children who had severe later experiences only 2 showed pardonable anxiety, and they made rapid adjustment.

The most striking finding of this survey is the extraordinary toughness of the child, and his flexibility in adapting to potentially threatening situations.

I am indebted to my house-surgeon, Dr. Monica Hawkins, for tracing records while these children were in my hospital; and to Miss Pierson, the almoner of the Children's Hospital, and Miss Taylor of the Royal Hospital, Bristol, for help in tracing addresses.

THE NATION'S DENTAL SERVICES

PLANNING BY STUDENTS

A joint committee of dental students representing five London hospitals—Guy's, King's College, the London, the National Dental Hospital, and the Royal Dental Hospital—in co-operation with some dental schools in the Provinces, has prepared a memorandum¹ on the nation's dental services. It is a forthright document, especially in its analysis of dentistry as a career and its criticism of methods of teaching.

"Deplorable" Status of Dentists

The public status of the dental practitioner is declared to be deplorably low. The widespread ignorance of the nature of dental disease, and especially of its effect on systemic conditions, is described as appalling. Little more than £5,000 a year has been spent (by the Dental Board) on educating the ignorant public in the elementary principles of oral hygiene; some educational work is also done by the Central Council for Health Education, which the memorandum erroneously describes as a "department of the British Medical Association." The majority of the population have never been reached by dental propaganda, except by way of advertisements for proprietary tooth-pastes. Fear of the dentist's chair is still a factor to be reckoned with, and is considered by the students to be a serious reflection on dental technique. They believe that more research should be devoted to painless dentistry, but the responsibility lies very largely with the individual practitioner to cause his patient as little discomfort as possible while not impairing the efficiency of his work.

Dental attention at child welfare clinics impresses the students as inadequate, though varying from county to county. The school dental service is a valuable effort, but only about 65% of the children receive attention, and for these the facilities are too irregular to permit any degree of thoroughness. The fundamental fault in the school dental service is the lack of sound training for dental surgeons in child dentistry, including orthodontics. The gap between school-leaving age and the age of eligibility—19—for the additional benefits scheme under national health insurance is one of the greatest of the shortcomings, and the insurance scheme itself has many drawbacks. Incidentally the students praise the dental clinics which in London and elsewhere set out to meet the needs of the poorer sections of the community. These are often referred to as commercial practices, for although the charges are cut to a minimum they are run as extremely profitable concerns. "We have watched the work of some of these clinics and have been favourably impressed by the quality of the work they turn out." About seventy large firms employ part-time or whole-time dental surgeons for their workpeople.

Dentistry as a Career

Only a comparatively small proportion of the population can afford to pay the full fees of private practitioners, but it is in this field that the great majority of dental surgeons work. The

Dentists Register, with between 14,000 and 15,000 dental surgeons and dentists, has remained almost stationary for the last fifteen years, and with the gradual dropping out of the "Dentists 1921" it is unlikely to show any marked increase in the near future. During the years from 1927 to 1937 the *Medical Register* showed an increase of 6,572, the *Dentists Register* an increase of only 204. In the United Kingdom there are four doctors to every dentist, but the *Register of Students*, 1938-9, shows the ratio of medical to dental students to be nearer six to one. Of those on the *Dentists Register* about 55% hold a diploma (L.D.S.); less than 2% hold the B.D.S., and less than 1% a higher qualification. The training is long and expensive. An initial outlay of £1,000 is necessary for education and subsistence, and from £500 to £2,000 for the purchase of a practice. The provision of more numerous and valuable scholarships and bursaries is urged.

In peacetime an average of only 24 women qualify annually, but school dentistry offers great scope for women, who also stand a better chance than men as candidates for posts of dental surgeons to maternity and child welfare centres.

Dental Education

Criticism of the methods of teaching is on the grounds of lack of modern apparatus, inadequate knowledge of modern methods on the part of the teachers, a tendency to ignore backward students, and insufficient supervision and aid from professional dental mechanics. Co-operation with manufacturers of dental goods, most of whom are willing to demonstrate their own techniques to students, is discouraged. A serious shortage of trained whole-time teachers is said to exist at all stages of professional training and at nearly all hospitals. Use is made as a supplementary provision of honorary visiting surgeons and demonstrators, but this is unsatisfactory for several reasons, one being that the student is often "taught two conflicting methods for the same operation on two consecutive days."

The examination system, while its advantage is conceded, has the drawback that the setting of a limited syllabus in certain subjects leaves to the teacher the responsibility of extending the syllabus; also that in marking examination results no account is taken of the student's hospital record.

It is also complained that the education of medical students in dental matters is neglected. The general practitioner of medicine is declared to have little or no knowledge of dental conditions and is rarely in a position to advise his patients to obtain dental treatment until some acute trouble arises. "Further, their lack of training in the administration of anaesthetics for dental operations renders them often almost a menace when called upon to perform this task." Again: "A medical house-surgeon is often expected to extract teeth with no previous experience of the operation whatsoever, and even no real knowledge of the anatomy of the parts concerned." It is considered that there are advantages in taking medical qualifications, however low, as well as dental qualifications. The dental surgeon can then speak to the medical man on equal terms.

Dentistry in Wartime

The work undertaken by the dental services with the Forces is mainly "conditioning"—that is, rendering a man dentally fit without impairing his masticatory powers. The tendency is to maintain Service personnel by depleting civilian practice, with the result that a position is arising in which there are not enough dentists to treat the civilian population or to maintain the standard of school dentistry. "Eighty per cent. of the younger members of the profession will have been absorbed into the Forces by the end of this year in order to change the neglected mouths of soldiers into examples of first-class conservative technique. But the school dental service, attempting to cater for the adults of to-morrow, has to pay as large a toll as any other branch of the profession to satisfy the demands of the War Office." It is considered that it would have been better to establish the wartime organization of the profession so as to provide only the most essential treatment for the Forces while doing everything possible to overcome the difficulties of treating the fluctuating evacuated populations and to ensure the finest service for children and adolescents. In one West of England town where, before the war, one dentist working half a day a week

¹ Issued by the Planning Committee of Dental Students, Royal Dental Hospital of London, Leicester Square, W.C.2. (1s.)