J. Child Psychol. Psychiat., Vol. 13, 1972, pp. 279 to 287. Pergamon Press. Printed in Great Britain.

CHILDHOOD HALLUCINATIONS

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INTRODUCTION

THE SUBJECT of childhood hallucinations requires clarification. Whilst studies in adults can provide the basic framework the application to children needs careful qualification. In addition to the physical and psychological immaturity of the processes involved there are limitations of communication and some differences of clinical settings.

This paper aims to: (a) Review concepts in adults in relation to childhood phenomena.

(b) Present the findings of childhood hallucinations in clear consciousness in a child psychiatric population.

(c) Provide a descriptive account of examples of important types of childhood hallucinations occurring in clear consciousness.

DEFINITIONS

An hallucination is defined by Jaspers (1962) as *a false perception which is not a sensory distortion or misinterpretation but occurs at the same time as real perceptions.* Kanner (1957) described hallucinations as *sensory impression without external stimulation* and Weiner (1961) defines them as *a perception of non-apparent, possibly non-existent internal or external stimuli.* Using such definitions does not lead to a clear distinction between hallucinations, pseudo-hallucinations and vivid imagery which is particularly important in children. Sedman (1966, a, b) and Jaspers (1962) have clarified this area in adults. Jaspers emphasised that perceptions are located in "external objective space" having concrete reality, objectivity and are defined in a clear and detailed manner with a constancy independent of will. Images, on the other hand, are located in "inner subjective space", are less clearly defined and are not constant, being dependent on recreation by the will. He groups pseudo-hallucinations with imagery and sees them both as varying considerably in terms of detail and consistency. Sedman (1966a) defines hallucinations and pseudo-hallucinations as perceptions through the senses distinguished by the subject as real and not real respectively. He describes visual pseudo-hallucinations as clear detailed, Technicolour, three dimensional projections with a human content of deceased relatives or strangers occasionally associated with auditory experiences of the person's name being called. These were seen and heard by the real eyes and ears in contrast to Jasper's view that they appeared only in the "mind's eye". The content

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Accepted manuscript received 14 *April* 1972

was almost invariably psychologically meaningful. The patients' critical judgement led them to recognise that these were not true percepts despite mediation through the sense organs. Sedman claims that subjects easily distinguish imagery and pseudo-hallucinations from true hallucination but had difficulty putting into words the reason for the distinction. The child's problems in this distinction are evident, compounded by other difficulties in verbalisation considered below. It has been questioned however whether an individual can always distinguish the relevant experiences sufficiently clearly. Fish (1967) denies that a clear cut distinction exists but does not give evidence to support this. Segal (1970) produced evidence that young adults in unfamiliar circumstances, with brief unrepeated sensory input, had difficulty distinguishing between illusion, vivid imagery and hallucination. Sarbin (1967) reminds us of the dangers of being influenced by social and nosological factors in distinguishing fantasy, dream, false impression and hallucination. His critical comments on linguistic influences such as the use of metaphors, the verb "to see" and qualifying clauses such as "I thought" are of equal importance in children.

CHILDHOOD ASPECTS

An account of childhood hallucinations would need to include at least the following information:

(1) Sensory modality.

(2) Description-including intermittent or continuous, infrequent or common, ill-defined or clear, simple or complex, fragmented or organised.

(3) Whether the child can appreciate the pathological nature of the hallucinations.

(4) Occurrence of imagery and pseudo-hallucinations.

(5) State of consciousness—clear, altered or variable.

(6) Associated disease—functional or organic.

(7) Psychological meaningfulness and interpretation. Whilst this is important, it is considered outside the bounds of the present study.

(a) The main problem is the *distinction of pathological conditions from the normal phenomena* associated with the immature individual and was explored in the early studies of Despert (1948). Horowitz (1970) has made a major contribution to the general understanding of imagery in adults and this is of relevance to children. Hallucinations in children may not be clearly distinguished (or even the possibility of their existence be raised) because of cognitive, emotional, social and learning influences. At an early age the child has private meanings without reference to the outside world (Piaget, 1952) and is limited in knowledge of what is possible in the real world (Eisenberg, 1962). Their descriptive ability is limited and in discussion of experiences the child may use words such as "see" in a number of the 29 possible meanings given in the Oxford English Dictionary. Variability in attention and memory, particular for less vivid experiences, is liable to produce even more false negatives in children than Horowitz found in adults. Anxiety may lead to a child being most reluctant to discuss or even reveal frightening experiences (as illustrated by the usual behaviour following nightmares), and imagery of particular personal

significances, for example under stress or deprivation, may be deliberately concealed by the child. The opportunities the child has had in developing skills in translating experiences into words may be a further limiting factor (Eisenberg, 1962). Finally, Horowitz (1970) lists a number of changes in current mental state which can affect subjective experience and communication and these are even more important in children viz. change in consciousness, attention, affect, attitude towards others, appraisal of situation, expectation, plans, wishes to comply or resist.

In children, especially those suffering from psychosis, rigorous criteria need to be applied before accepting pieces of behaviour as being representative of hallucinations. This has already been discussed elsewhere (Kolvin *et al.*, 1971). It is not sufficient for the children to be observed gazing round in a distracted manner or "looking as if he is hearing voices". At some time the child should describe the hallucinatory experience. This is special importance in infantile psychotic (autistic) children who frequently can be mistakenly thought to be attending to hallucinatory phenomena. These remarks are meant to highlight the problems of assessment in studying hallucinations in childhood rather than provide a comprehensive account of all factors involved.

(b) *Particular "normal" phenomena of childhood*

(i) Imaginary companions are classically reported by Bender and Vogel (1941) where the child can describe a clear image in external objective space and although the child may treat the image as real, he or she is easily convinced they are not. Bender found them to be not pre-psychotic but a beneficial mechanism helping the child through a deficiency in the child's material or, more often, social life. Loneliness was a frequent association. Such companions are common, as are imaginary play objects.

(ii) Eidetic imagery is the ability to produce vivid, almost perfect images of visually presented material which is not confused with reality. Anthony (1959) describes a decreasing incidence with age from 60 per cent at the age of 4 years to 7 per cent in adults and considers it often unrecognised. Haber and Haber (1964) however could only find 12 cases out of 151 children and not all of these were true "eidetikers". This is more in keeping with recent research findings.

(iii) Pseudo-hallucinations are reported by a small number of children under the guise of "visions". Mostly these are described as transient and shadowy. Older children more able to verbalise their experiences often remark that was "some kind of imagination" but are nevertheless frightened and upset by the experience. This affective disturbance and the brief experience lacking in clarity may make differentiation from an illusion difficult. Clinical experience suggests that pseudo-hallucinations occur more frequently in maladjusted rather than normal children, especially those coming from disturbed backgrounds.

(iv) The "night terror" is an uncommon phenomena particularly occurring in younger children. The child is not asleep yet unaware of surroundings or efforts to reassure him. He stares in terror, evidently visually hallucinated. The attack lasts a few minutes to half an hour and there is subsequent amnesia. Anthony (1959) in a study of 66 children referred with severe sleep disturbance found 30 had night terrors, 16 nightmares and 20 were sleepwalkers. Of those with night terrors 18

were aged 4–7, 7 were aged 8–10 and 5 were aged 11–14 years. Anthony points out that the cry of terror in the night may be due to a visual illusion, hypnogogic or hypnopompic hallucination, a nightmare or a night terror.

(v) Hypnogogic hallucinations were found in more than half of a group of students studied by McKellar and Simpson (1954) so that it is not surprising that such phenomena are frequently reported by children. The latter may describe them as dreams or visions. McKellar's students distinguished them from ordinary images by their being involuntary and "autonomous". They were not considered to be dreams because the subject did not participate in them, a distinguishing feature supported by Oswald (1962). Some subjects described real perceptions at the same time which Jaspers (1962) suggests distinguishes them from dreams. These distinguishing features can be sought in children but the accompanying affective disturbances, the altered state of consciousness and the likelihood of rapid forgetting make assessment difficult.

(c) "*Pathological*" *hallucinations* in children can be classified in two ways.

(i) *Associated state of consciousness* as suggested by Sedman (1966a) namely those with clear and those with altered consciousness. The latter adds yet another barrier between child and therapist.

(ii) *Coincident disease* is used by Weiner (1961) to classify hallucinations into primary and secondary groups. The first include phenomena described in section (b) above to which he adds hallucinations occurring in behaviour disorders. Secondary hallucinations arise in "obvious organic and functional syndromes" including toxic states, brain and systemic infections, drug effects (including withdrawal), epilepsy, organic brain disease, schizophrenia, severe depression and sensory deprivation.

Several studies have emphasised the importance of childhood hallucinations in the absence of a psychotic illness. Eisenberg (1962) reported a third as non-psychotic and Wilking and Paoli (1966) pointed out the association of a poor socio-economic background in their own and other series. Bender (1970) gives panic states in 3 to 6-year-olds and deprivation and immaturity in mid-childhood as the causes of non-psychotic hallucinations. Care must be taken to distinguish these from the excessive fantasy which may occur in children under stress. Wilking and Paoli (1966) summarise the clinical distinguishing features of non-schizophrenia hallucinations as being reality orientated, and adaptive whereas schizophrenic hallucinations were bizarre, fragmented, often with bodily hallucinations and paranoid delusions.

A potentially grave significance of hallucinations in adolescence was reported by Winn (1969) who found that out of 40 hallucinated 11- to 15-year-olds, 25 had hallucinations telling them to kill themselves and a further 5 threatened to do so in response to hallucinatory instructions to be aggressive. Three quarters suffered from a psychosis. The extremely disturbed backgrounds often with strong cultural beliefs in the supernatural may partially account for this finding.

Organic syndromes with hallucinations do not commonly find their way to psychiatrists. One would expect that the combinations of frequent febrile illnesses and the child's immature central nervous system would frequently produce delirious

states with hallucinations. This was not borne out, however, in a paediatric unit where only two children with hallucinations were seen out of 598 admissions (Morgan, 1972). One suffered from pneumonia and the other hyoscine intoxication.

PRESENT STUDY

Hallucinations in children in clear consciousness are reported in three groups of patients:

(a) 40 in-patients between the age of 5 and 15 years suffering from all types of psychiatric disorder except psychosomatic disorders. Only 2 of these had true hallucinations, both in clear consciousness, one, a child suffering from late onset psychosis and the other a non-psychotic behaviour disordered child. This gives a frequency of 5 per cent in patients sufficiently ill to merit admission to hospital.

(b) The next group consisted of 33 cases of childhood psychosis of late onset (from ages of 5–15) which have been reported previously. (Kolvin *et al.*, 1971).

TABLE I. HALLUCINATIONS IN 33 PATIENTS WITH LATE ONSET PSYCHOSIS

	Number	%
Auditory	27	81
Visual	10	30
Bodily	12	36
Total frequency	27	81

Neither visual nor bodily hallucinations occurred without auditory hallucinations. Fifteen patients complained of the voices they were experiencing, 10 complained of the content of the voices, 12 described them coming from their own body, whilst 16 admitted speaking to their voices. The bodily hallucinations were of a fantastic nature in 9 children. The above statistics merit descriptive qualification. The older the child the more complex the hallucinatory phenomena and at the older ages these gradually approximated to those found in adult schizophrenic patients. As early as the age of 9 and certainly by the age of 10 some of the hallucinations were beginning to be well organized and systematized. In this group the hallucinations always occurred in a state of clear consciouness and tended to be more frequent and continuous but responded rapidly to phenothiazine therapy. It is interesting to note that in only 3 of the 33 cases were there descriptions of a previous imaginary companion.

(c) The final group consisted of 47 cases of infantile psychosis (with an age of onset before 3 years). In these there were no cases with unequivocal hallucinations according to the above criteria. In fact in two of the 47 cases, both of whom had speech, there was a strong suspicion of hallucinations but in neither could an unequivocal account be obtained. In other cases there were lesser degrees of suspicion but often this could not be confirmed because of the lack of speech.

EXAMPLES OF CHILDHOOD HALLUCINATIONS

In this section a descriptive account is given of hallucinatory phenomena experienced in the three clinically important groups of disorders.

(*a*) *The psychosis of childhood of late onset*

An 11-year-old boy was referred with what appeared to be a depressive illness and in addition he was refusing to attend school. As the depression abated other symptoms began to appear, including incongruity of affect, neologisms, intense preoccupation with germs and repetitive hand washing. Delusions then became very evident—he was convinced that he was on another planet and some other beings had taken the form of his parents and that a whole masquerade was being undertaken to deceive and influence him. He saw his activities as being determined by outside influences, other children could read his thoughts and their eyes passed something into him. He experienced intermittent auditory hallucinations and described a variety of haptic hallucinations, e.g. being able to feel another boy touching him when he could clearly see that he was not.

These features remained patchily persistent for a number of weeks but phenothiazines eventually appeared to control most of the florid symptomatology. Some three years later he is coping reasonably well in a sheltered boarding school situation with phenothiazine cover. This fairly rapid response of the more florid symptoms, especially the hallucinations is a common feature of late onset psychosis.

(*b*) *The child under stress*

An 11-year-old boy coming from a home with considerable latent tensions related to parental incompatibilities and frequent absences of the mother from home suddenly began to describe people and objects in the room with him, side by side with the other reality perceptions. This included his mother and a boat with a hole in it but these percepts were less clearly defined and elaborate though three-dimensional. These phenomena cleared with in a few days with environmental change and psychological management. Discussion revealed that the child though appreciating the abnormal nature of the phenomena viewed them as real external objects. The hallucinations here were briefer, simpler and less bizarre than those described by children of a comparable age suffering from psychotic states.

(*c*) *Toxic state*

This recently recognized type of symptomatic hallucination occurs infrequently after the use of Mandrax (a combination of methaqualone and diphenhydramine). Instead of becoming sedated the child was frightened, panicky, describing both auditory and visual hallucinations of a threatening nature. These were changeable with little logical sequence, the auditory hallucinations being brief whilst the visual were more prolonged. The hallucinations were considered to be real and it was impossible to convince the child of their pathological nature. There was no evidence of altered consciousness. The hallucinations rapidly disappeared on stopping the drug.

It is important to note that so far this has only been reported in children with pre-existing maladjustment or neurotic disorder. It may well be that Mandrax facilitates the emergence of hallucinations in a pre-disposed child.

DISCUSSION

Hallucinations in childhood have been studied by a number of authors but more systematic accounts are needed which would provide more definite information about incidence, etiology, phenomenology, and prognosis.

TABLE 2. REPORTED INCIDENCE OF CHILDHOOD HALLUCINATIONS

Author	Population	Incidence of hallucination (%)
Despert (1948)	28 psychotics	"common"
Jaffe (1966)	66/97 psychotics	67
Jaffe (1966)	20/25 psychotics with epilepsy	80
Jacobsen *et al.* (1966)	14/14 psychotics	100
Portell (1970)	39/66 psychotics	59
Kolvin *et al.* (1971)	27/33 late onset psychosis	81
Childers (1931)	25/148 schizoid children	16·9
Despert (1948)	4/58 neuroses	7
Bender (1954)	12/81 behaviour disorder	15
Jaffe (1966)	12/28 neuroses	43
Jacobsen *et al.* (1966)	2/14 behaviour disorder	15
Eisenberg (1962)	14,000 out-patients	0·4
Egdell and Kolvin (1972)	40 in-patients	5

Table 2 illustrates the very varied findings for the incidence of childhood hallucinations. The differing criteria used in both the recognition of hallucination and the diagnosis of the associated disorder account for most of the variations. The figures provided by Jaffe (1966) for his primary behaviour disorders appear disproportionately high in relation to the frequency of hallucinations in other reported series. The next highest frequency in neurotic and behaviour disorders is the 16·9 per cent of Childers (1931) but in our series this fell to 5 per cent. Explanations other than selectivity may account for the discrepancies. Jaffe himself questions the possibility of illusions being mis-diagnosed as hallucinations and the difficulty of distinguishing hallucinations from imagery. In our study, if less rigorous criteria had been used, 3 children with pseudo-hallucinatory phenomena, 2 with longstanding imaginary companions and third with an imaginary companion, vivid daydreaming, creative fantasying, and continuous muttering to himself, could easily have been included in the hallucinatory category. This would have brought our frequency figures to 12·5 per cent. If hypnogogic phenomena had been included this would have been very much higher.

In a random selection of 100 male patients Jaffe (1966) found that 77 per cent were psychotic. In direct contrast, in the United Kingdom, only a small proportion of in-patients suffer from late onset psychosis (Kolvin *et al.*, 1971). This suggests that the two series are not really comparable and different criteria are being used to diagnose psychotic conditions in the United Kingdom and the United States. This, however, could not account for the higher incidence found in patients by Jaffe compared with Bender. Finally Jaffe was using case records only, whereas in

the series reported here, all patients were examined personally by one or other of the authors.

The high incidence of hallucinations in childhood psychotic conditions of late onset (i.e. between 5 and 15) and the absence of hallucinations in psychosis of early onset (i.e. before the age of 3 years) is noteworthy. Fish (1962) has claimed that hallucinatory voices in clear consciousness in the absence of demonstratable brain disease is characteristic of schizophrenia and this is especially applicable when the hallucinations are well organized. In these circumstances the complete absence of unequivocal hallucinations in the early onset psychotics, even when they are older and able to speak, is of particular significance and is confirmatory evidence that infantile psychotics do not develop the more florid symptomatology seen in adult schizophrenia.

SUMMARY

The definition and problems in diagnosis of childhood hallucinations is the background of a critical review of reported figures of incidence. Hallucinations, occurring in clear consciousness in a child psychiatric in-patient population are presented. There was a frequency of 5 per cent in the general in-patient group. Eighty-one per cent of those with psychosis of late onset (5–15 years) were hallucinated in contrast to the infantile psychosis group (onset before 3 years) where none were found. Descriptions of children with hallucinations arising in great stress, late onset psychosis and Mandrax intoxication are given.

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