"ecstasy," which Iago employs in speaking to the Moor himself, shows that he really believes the seizure of Othello to have been one different from a mere swoon—by being closely associated with madness—the words "madness" and "ecstasy" being, more or less synonymous in Shakspere's use of them. It is still further shown by what follows that Iago found it necessary to be cautious in assuming that Othello's mind had so far regained its balance as to make his proximity safe; and it is only when Othello states coherently his intention to continue his bloody work of retribution that Iago is reassured. Then, as if expressing an opinion as to Othello's restoration from his epilepsy, he says—

That's not amiss.
But yet keep time in all. Will you withdraw?

To me, then, it appears evident that Iago spoke so as to indicate the poet's intention, when he told Cassio that Othello was prostrate with epilepsy; that the term was meant to convey the same meaning as that which educated persons would gather from it at the present time; that comparison of "Othello" with "Julius Cæsar" shows the probability of a simple psychological motive in Shakspere's employment of epileptic seizures; and, finally, that the epilepsy of Othello, and the unconsciousness which accompanies it are synchronous with the extreme success of the villany of Iago, and that they form an essential and artistic feature in the development of the tragedy.

The Comparative Mortality of Different Classes of Patients in Asylums. By T. A. CHAPMAN, M.D., Medical Superintendent of the Hereford County and City Asylum.

In the Journal of "Mental Science" for April, 1877, I published a note on this subject, and had to regret that the conclusions deduced were drawn from comparatively so small a number of cases, that some further statistics on the subject would be necessary to show how far the figures then given could be depended upon.

It occurred to me to secure the statistics of several other Asylums to form an aggregate for this purpose, and found three other Asylums who have supplied me with the necessary statistics. Several others promised to do so, but from various reasons the returns have not been received. The

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

numbers are again small, and the results would be again open to exception on that ground, did it not happen that they agree very closely in their main features with those given in April, 1877; so that though the more minute accuracy to be obtained from larger numbers is still desirable, the results in their main outlines are sufficiently definite.

I have to express my thanks to the Superintendents of the Worcester, Carmarthen and Abergavenny Asylums for the trouble taken by them in making the returns. The figures are those for the year 1878; a classified list of patients was drawn out at the beginning of that year, and at its end those who died during the year were noted on the list.

The classification is the same as adopted in 1877. The following Table gives the figures for 1878 for comparison with the Table 5 of my first notes :—

TABLE 1.

Showing the Number and percentages of Deaths occurring among different classes of Patients in Four Asylums during the year 1878.

Classes of Patients.	Numbers Resident January 1st, 1878.			Deaths During 1878.			Percentage of Deaths on Number Resident.			Death Rate Corrected to Average Number Resident.		
	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.	M.	F.	Tot.
Probably Curable Cases	45	69	114	1	4	5	2·22	5·78	4·39	3·1	8·1	6·2
Congenital Cases:—Free from Epilepsy ..	113	91	204	3	2	5	2·68	2·20	2·45	2·8	2·3	2·6
Congenital Cases:—With Epilepsy	35	39	74	2	1	3	5·71	2·51	4·05	5·9	2·6	4·3
Epileptics(non-congenital)	132	102	234	15	4	19	11·36	3·92	8·09	12·1	4·1	8·6
Organic Brain Disease:—General Paralysis ..	50	11	61	19	2	21	38·0	18·18	32·78	57·0	27·3	49·2
Organic Brain Diseases:—Other forms	37	34	71	12	12	24	32·43	35·29	33·80	38·9	42·3	40·7
Chronic Insanity	546	665	1211	26	29	55	4·78	4·36	4·54	5·0	4·5	4·7
Totals ..	958	1011	1969	78	54	132	8·14	5·34	6·70	8·8	5·8	7·2
All except Epileptics and Paralytics	704	825	1529	30	35	65	4·26	4·24	4·25	4·4	4·4	4·4
Average Mortality in the Four Asylums for 1878, calculated on the Average Number Resident										11·8	6·3	9·0

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

For greater convenience of comparison I repeat the percentages from my paper of 1877, beside those of the present returns in the following

TABLE 2.

Percentage of Deaths on average Numbers resident in different classes of Patients.

Classes of Patients.	Hereford Asylum, 1873—1876.			Four Asylums, 1878.		
	M.	F.	Total.	M.	F.	Total.
Probably Curable Cases	3·4	7·1	6·0	3·1	8·1	6·2
Congenital Cases { Free from Epilepsy	1·9	1·7	1·8	2·8	2·3	2·6
Congenital Cases { With Epilepsy	8·2	4·7	6·8	5·9	2·6	4·3
Epileptics (non congenital)	12·4	3·2	9·0	12·1	4·1	8·6
Organic Brain Disease { General Paralysis ..	75·0	50·0	68·0	57·0	27·3	49·2
Organic Brain Disease { Other forms	26·5	—	18·0	38·9	42·3	40·7
Chronic Insanity	4·7	5·7	5·3	5·0	4·5	4·7
Totals	7·5	5·4	6·5	8·8	5·8	7·2
All except Paralytics and Epileptics ..	3·8	5·4	4·7	4·4	4·4	4·4
Average Mortality for these Asylums (i.e., including Admissions of the Year)	9·32	6·74	8·00	11·8	6·3	9·0

Whilst in my last paper on this subject I merely advanced these figures as presenting material suggestive of further research, I think I am now entitled, by the agreement of the second series with the first, to draw some conclusions as to the actual rates of mortality that prevail among different classes of patients. There is one disturbing cause in the 1878 figures, the elimination of which would probably bring the figures to a very close agreement; this is the fact that the female mortality for 1878 in the Worcester Asylum was extremely low, viz., 4·0 per cent., which is less than two-thirds of the average female mortality of that Asylum, and as the Worcester figures form a large proportion of the total, this seriously diminishes the percentages of mortality among females in the above Table. This low mortality of females at Worcester for 1878 appears to have affected all classes of patients, and it may be of interest to append the actual mortality in each class of female patients at Worcester for comparison with the above figures.

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

TABLE III.

Mortality percentage among female patients in the Worcester Asylum during 1878 on total residents (compare with third column Table I.)

Curable Cases	4·0
Congenital Cases...	3·2
„ Epileptics	0·0
Epileptics Non-Congenital	0·0
General Paralysis...	0·0
Other forms of Brain Disease	24·0
Chronic Cases	2·0
Total	3·0
Including Admissions of Year	4·0

The only deduction seriously disturbed by this accidental aberration of the Worcester female mortality is that the female chronic patients have a greater mortality than the males, according to all the other, than the Worcester figures. With them the females have the less mortality. Of course, had the figures been drawn from a wider area, such accidental deviations from the normal would have been eliminated; but I believe the figures present only this one serious deviation, requiring such an allowance to be made for it.

The returns also showed the ages of the patients and the duration of residence. The numbers are, of course, too small for the tabulation of these facts to give very accurate results. They present, however, some points of interest, and I consequently allude to them in the following notes as to each class of patients.

The Recent Curable Cases—In both series the female mortality is more than double that of the males. Before attaching much importance to this it should be remembered that coarse cerebral disease is much commoner among males than among females, and that where it does occur among females it is of much obscurer type, and apt at first to be classified among the curable cases.

Such, at least, was the case with the one contribution to the mortality in this class made by Hereford. The patient classed at the beginning of the year as recent and curable died of brain disease, from which she unquestionably had all the time suffered. The mortality among curable cases is but little greater than that of chronic cases, and below the average mortality; so that it does not swell the mortality of the short residents.

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

The number (114) is too small to afford anything trustworthy as to mortality according to age, which is, however, as below :—

	Under 50.		Over 50.	
	M.	F.	M.	F.
Curable cases ...	29	57	16	12
Deaths ...	0	4	1	0
Percentages ...	0	7·0	6·0	0

The Congenital (non-epileptic) Cases show a larger mortality than in the Hereford series; the males a greater mortality than the females.

The mortality according to age is—

	Under 50.			Over 50.		
	M.	F.	Total.	M.	F.	Total.
Cases ...	92	64	156	21	27	48
Deaths ...	2	—	2	1	2	3
Percentage ...	2·2	—	1·3	4·8	7·4	6·1

Figures very little in excess of those of the general population. As to the duration of residence, the figures are :—

	Cases.			Deaths.		
	M.	F.	Total.	M.	F.	Total.
Under 5 years' residence	52	43	95	1	0	1
5 to 10 „ „	42	24	66	2	0	2
Over 10 „ „	19	26	45	0	2	2

As in the Hereford series, the epileptics show a comparatively high mortality, acquired epilepsy being much more fatal than the congenital form; and the remarkable circum-

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

stance is distinctly confirmed that epilepsy is much more fatal in males than females—twice as much so in the congenital form, and from three to four times in the acquired form.

Congenital Epilepsy.—Classified according to age. The figures are:—

	Under 50.			Over 50.		
	M.	F.	Total.	M.	F.	Total.
Cases ...	33	37	70	2	2	4
Deaths ...	2	—	2	—	1	1
Percentage ...	6·0	—	2·9	—	50·	25·

All the deaths occurred among residents of over three years' duration.

Acquired Epilepsy.—Classified according to age.

	Under 50.			Over 50.		
	M.	F.	Total.	M.	F.	Total.
Cases ...	108	91	199	24	11	35
Deaths ...	12	3	15	3	1	4
Percentage ...	11·1	3·3	7·5	12·5	9·0	11·3

According to duration of residence:—

	Cases.			Mortality per Cent.		
	M.	F.	Total.	M.	F.	Total.
Under 2 years	38	21	59	2·6	—	1·9
2 to 5 years	43	32	75	16·6	9·0	13·3
5 to 10 years	30	26	56	10·0	—	5·4
Over 10 years	21	23	44	19·0	4·8	11·4

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

The excess of male deaths is marked at all ages and at all durations of residence.

The non-viability of epileptics leads to one remarkable feature in these figures—namely, the very small proportion of cases at the higher ages. This is especially so among the congenital cases, only a fractional number exceeding fifty years of age; but it is also marked among the acquired epileptics, and is only less than it is, no doubt, because epilepsy is often acquired at an advanced age. As compared with other classes of cases, it appears that the percentages that exceed fifty years of age are as under:—

	Percentage of cases above 50 years of age.
Curable Cases	24·
Congenital Cases	23·
Brain Disease { G.P.	26·
Brain Disease { Other	57·
Chronic Insanity	48·
Acquired Epilepsy	15·
Congenital Epilepsy	5·3

The large proportion in the case of chronic insanity is, of course, due to their low mortality leaving many survivors to the higher ages. In the case of the miscellaneous brain diseases the large proportion of aged cases is due to the number of senile forms of disease.

The General Paralytics show, so far as the small number may be trusted, a much greater mortality among males than females, a mortality gradually less with increasing age, and also with increased duration of residence.

The figures are as under:—

General paralytics classified as to age:—

	Under 30.		30-40.		40-50.		50-60.		Over 60.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Cases ...	4	—	16	4	17	4	11	3	2	—
Deaths ...	8	—	9	—	4	2	2	—	1	—

Classified as to duration of residence.

	Under 1 Year.		1-2 Years.		2-3 Years.		Over 3 Years.	
	M.	F.	M.	F.	M.	F.	M.	F.
Cases ...	20	4	12	1	4	2	14	4
Deaths ...	10	1	7	—	1	—	1	1

The other forms of Brain Disease, no doubt, contain very various forms of disease, and the total numbers are small. They resemble the general paralytics in having a greater mortality during the earlier years of residence, but are precisely the reverse in the mortality increasing with the age of the patients.

BRAIN DISEASES.

	Age under 50.		Over 50.	
	M.	F.	M.	F.
Cases ...	15	15	22	19
Deaths ...	8	2	9	10

	Under 2 Years' Residence.		Over 2 Years' Residence.	
	M.	F.	M.	F.
Cases ...	22	19	15	15
Deaths ...	10	8	2	4

Those aged over fifty, and less than two years' residence are—

	M.	F.
Cases	17	10
Deaths	8	7

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

Chronic Insanity.—We now come to the chronic cases, which are sufficiently numerous to render analysis more trustworthy. Though entered as chronic cases, they are simply the residue after the preceding classes have been eliminated, and, no doubt, present very varying mental conditions, and still more varying histories. They are not all, or even largely, acute cases of mania or melancholia become chronic, but include many cases of various forms of insidious mental decay that would be classified as mania for want of a better name, but that have really no close relationship to acute mania.

The females have a lower mortality than the males, but this is due, as already noted, to the low female mortality of the Worcester Asylum.

The mortality increases steadily with age, and diminishes with duration of residence. The first five years' residence, indeed, have so high a mortality as almost to force the conclusion that some cases of brain disease have been classified with them, chiefly, probably, cases of senile dementia. The tables, indeed, prove that the mortality during the early years of residence is derived from persons of the higher ages, who are, therefore, already aged on admission.

The high mortality among males of 3-5 years' residence is distributed among all the ages, and if it is not a deviation due to chance among small numbers, it must be due to slow and obscure forms of brain disease that must have been classified as chronic insanity, because their slowness appeared to eliminate the diagnosis of cerebral disease.

The one Hereford contribution to this figure favours this supposition, being a case of senile atrophy due to atheroma.

Chronic Insanity.—Classified according to age.

	Under 30.		30-40.		40-50.		50-60.		60-70.		Over 70.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Cases...	53	41	124	118	137	146	104	146	80	131	48	83
Deaths	1	—	3	1	4	6	3	2	9	6	6	14
Per ct.	1·06		1·65		3·53		2·0		7·15		15·27	

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press

Classified according to duration of residence.

	Under 1 Year.		1-2		2-3.		3-5.		5-10.		10-15.		15–20		Over 20.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.
Cases	49	63	53	62	74	61	85	85	140	191	81	100	25	55	39	48
Deaths	5	6	3	4	2	4	10	2	4	4	1	4	1	1	—	4
Per ct.	9·9		6·08		4·44		7·06		2·42		2·76		2·50		4·59	

Under sixty years of age and over five years' residence there are 443 cases with six deaths, a mortality of 1·35 per cent., which is about the mean mortality of the general population from 40-45 years of age. Under five years' residence and over sixty years of age the numbers are 127 with 22 deaths, a mortality of 17·3 per cent.

In the different asylums the mortality ranges for cases under sixty years of age from 0·79 to 2·57, and for cases over sixty from 6·44 to 15·00.

The Physiological Action of Alcohol in its Relationship to Animal Heat, and its influence upon the vaso-motor Nervous System. By W. Bevan Lewis, L.R.C.P., Lond., Senior Assist. Medical Officer, West Riding Asylum.

The physiological action of Alcohol upon thermogenesis has been the subject of much dispute, and its effects upon tissue metamorphosis is still a moot point with many authorities in Therapeutics.

As regards large doses of Alcohol, the general belief appears to tend in the direction pointed out by Wood.* When discussing the physiological effects of Alcohol, he makes the following statement:—

"That the antipyretic action of Alcohol is not exerted through the nervous system was proved by Binz, who found that the drug acted powerfully upon the fever of animals after cervical section of the spinal cord, and even prevented the *post-mortem* rise of temperature. It would appear to be a necessary corollary to this that *alcohol in very large doses lowers temperature by directly checking tissue metamorphosis.*"

According to this line of argument, Wood infers that the antipyretic effect of Alcohol is attended with an absolute

* "Treatise on Therapeutics," by H. C. Wood, M.D., 1st Edition, 1874.

https://doi.org/10.1192/bjp.26.113.11 Published online by Cambridge University Press