

## **Lucid Dreams and Migraine: A Second Investigation.**

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In a previous study (Irwin, 1983) I established a moderately strong association between the occurrence of lucid dreams and a personal history of migraine. That is, migraine sufferers were found to be relatively prone to lucid dreaming.

That observation is of interest in our search for factors which precipitate the state of lucidity. It is possible, for example, that migraine sufferers and other people are subject on occasion to neurophysiological disturbances which are subclinical in the sense of not evoking an actual headache, but which nevertheless are sufficient for increasing cerebral activation to the relatively high level necessary to effect lucidity during a dream. An account of at least some lucid dreams in these terms would of course require the coincidence of the posited neurophysiological disturbances with a REM phase of sleep, but there is some support for this possibility in Dexter and Riley's (1975) report of a temporal association between REM periods and the onset of nocturnal migraine attacks.

The evidence in my earlier survey was founded on respondents' acquiescence with a question about past migraine headaches, and it is feasible that some people mistakenly believed they were migraine sufferers. For example, individuals having occasional tension headaches may self-diagnose these as migraine and thereby respond invalidly to a general questionnaire item on personal migraine history. To explore this possibility a further survey was undertaken, with a new migraine question distinguishing between headaches diagnosed as migraine by a medical practitioner and headaches believed by the respondent to be migraine but not professionally diagnosed as such.

One hundred and forty nine Introductory Psychology students at the University of New England were given copies of the survey questionnaire by their tutors (Julie Duck, Fiona MacBride, Karen Moorhouse, Michael Noy, and Michael Parle). These students who were studying off campus, were attending an on-campus Psychology block-teaching program. They were generally a few years older than typical university students, having had work experience, and coming from a broader section of the community. Usable data were returned by 120 people, a participation rate of 81 per cent. The observed cross-tabulation between migraine history and lucid dreaming with this second study was as follows:

	Lucid Dreamers	Nonlucid Dreamers
Professionally Diagnosed Migraine Suffers	23	4
Other Declared Migraine Suffers	12	2
Non-Migraine Suffers	61	18

In this sample it is clear that lucid dreaming did not vary between the two subgroups of migraine sufferers: both acknowledged lucidity at comparably high levels. This suggests that the previous observation (Irwin, 1983) was not a mere artifact of erroneous self-diagnosis of migraine headaches. On the other hand the association here between personal history of migraine and lucid dreams, although in the predicted (positive direction, does not reach significance [ $\chi^2(2) = 1.12$ ]

It is not immediately apparent why these results failed to confirm the relationship reported earlier. Certainly the present data are in the expected direction, and the combined results of the two studies still are significant [ $\chi^2(3) = 15.56, p < .01$ ] But given that the selection procedure for the present sample was more sound and the sample itself slightly larger and more representative of the general population than in the original study, the nonsignificance of the above data is a cause for concern.

The demonstration of a relationship between lucid dreams and migraine potentially has substantial implications for our understanding of the causes of lucidity, and it therefore is recommended that other researchers give some empirical scrutiny to the issue in order to assess the validity of the initial observation.

#### References

- Dexter, J.D., & Riley, T.L. 1975. Studies in nocturnal migraine. *Headache*, 15, 51-62.
- Irwin, H.J. 1983. Migraine, out-of-body experiences, and lucid dreams. *Lucidity Letter*, 2(2), 2-4.