

A POSTAL SURVEY OF OBEs AND OTHER EXPERIENCES

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ABSTRACT

593 people were randomly selected from the Bristol Electoral Register and sent a questionnaire on dreams, hallucinations, body image distortions, psychic experiences and beliefs, mystical experiences, imagery and OBEs. 321 usable questionnaires were returned (55%). 12% reported OBEs. Most OBEs occurred when resting but not asleep and lasted 1–5 minutes. Many details of the OBEs were obtained. OBEs were more likely to report most of the other experiences.

47% of respondents reported lucid dreams and 28% flying dreams, the two being strongly associated. 19% claimed mystical experiences, usually only one in a lifetime. 45% claimed waking hallucinations and over half experiences like changing size, shaking or turning, floating sensations or seeming to see with eyes closed. 25% had experienced telepathy, 36% believed in ESP and 42% in survival.

The most important finding was the strong association between many of the experiences. The relevance of this for theories of the OBE is discussed.

INTRODUCTION

There have been several surveys including questions about out-of-the-body experiences (OBEs) which have provided very different incidence figures and different information about the experiences and respondents. For example in 1977 Haraldsson *et al* reported that only 8% of a randomly selected sample of Icelanders claimed to have had an OBE while Kohr (1980) sampled members of the Association for Research and Enlightenment and obtained 50% positive answers. Other surveys by Hart (1954), Green (1966, 1967), Palmer (1975), Tart (1971), Irwin (1980) and Blackmore (1982a,b) have provided figures between these two extremes.

Relevant factors affecting the variation include the wording of the question and the amount of information given, the context in which the question is asked and, most importantly, the population sampled. Only two surveys (Haraldsson *et al.* 1977 and Palmer 1975) have used random sampling techniques. Palmer sampled townspeople and students from Charlottesville, Virginia and found 14% and 25% respectively reported having had OBEs. Clearly these surveys provide more generalisable results and we can conclude with some confidence that the OBE is a fairly common experience, but many questions remain.

One of the most interesting questions raised by such surveys is what the respondents understood by the question and what the experiences they reported were like. It could be argued that widely different figures would be obtained by wording the question differently or by giving different information about what is meant by an OBE. In a survey of Australian students Irwin (1980) found fewer OBEs when he used a stricter criterion. However, I compared two matched groups of students in Amsterdam giving one detailed information about the OBE and the other no information other than that in Palmer's question (Blackmore 1982a). Both produced exactly the same number of OBEs. This is encouraging

because it implies that the response rate is likely to be fairly stable in spite of differences in the questionnaire. It seems likely that the major cause of the differences in incidence obtained is the sampling methods used. The survey reported here used a random sampling technique.

The next important question concerns the nature of the OBEs. Collections of cases have, of course, provided many descriptions (see e.g. Muldoon and Carrington 1951, Crookall 1961, Green 1968, Twemlow *et al.* 1980, 1982). However, they are necessarily biased in their selection methods, especially when cases are sought by advertisement as was done by Green, Twemlow *et al.* and by Osis (1979).

The only survey using random sampling to provide details of the OBE was Palmer's. He had over 100 people reporting one or more OBEs (OBEs). Over 80% of them claimed to have had more than one OBE and 20% had induced one at will. They were asked several questions about the experience. Nearly 60% of people (44% of experiences) reported seeing their own bodies from 'outside'. Less than 20% of experiences involved any travelling and still fewer involved acquisition of information by ESP (about 14% of people and 5% of experiences) or appearing as an apparition to someone else (less than 10% of OBEs).

Although he did not use a random sample Osis's (1979) survey is relevant. He gave a questionnaire about OBEs to parapsychology teachers and other interested people. Typically they reported rich and detailed visual experience. For 40% normal perspective broke down producing 360 degree vision and half the subjects saw objects glowing or transparent, or with auras around them. However, only 4% likened their experience to dream imagery and 86% stressed that OBEs and ESP were dissimilar. 36% had another body while others seemed to be a 'spaceless body' or a ball or point. Many claimed their fear of death was reduced and mental health improved. 95% said they would like another OBE.

Twemlow, Gabbard and Jones (1982) solicited letters from OBEs through a national periodical and sent respondents a questionnaire with 51 items about the OBE. They defined an OBE as 'an experience where you felt that your mind or awareness was separated from your physical body'. They received 339 replies reporting OBEs.

The great majority of these experiences (78%) occurred in a relaxed and calm state of mind. 93% seemed more real than a dream, 68% had a duplicate body and for 58% this body was in the same environment as the physical body. 52% felt a sense of energy and 38% vibrations. Only 25% experienced a tunnel and even less (20%) reported any connection to the physical body. Positive emotions were common and afterwards 78% became interested in psychic phenomena. Most (84%) wanted to do it again and 71% claimed it had a lasting benefit. Many other details were obtained as well.

By the very nature of the samples used by Osis and Twemlow *et al.* the results are bound to be biased, but in unpredictable directions. It would clearly be very helpful to have further details about the nature of the OBE reported by ordinary people randomly selected. The survey reported here attempts to do this.

A further important question concerns the kind of people who have OBEs. Different surveys provide different figures on the proportion of OBEs who have more than one experience but all tend to be high; between 50% (Blackmore 1982c) and 80% (Palmer 1975). They are all high enough to imply that a person

who has had one OBE is more likely to have another than someone who has not had one. It is not obvious why this is. Possibly there is something which predisposes certain kinds of people to have OBEs, or it may be that having one OBE teaches people something so that subsequent ones are easier. Surveys can be helpful here in finding out whether OBEs differ from others in any relevant ways.

On the whole simple variables such as sex, age, religious background and so on have not been found to predict who will or will not have an OBE. However, both Palmer and Kohr found that OBEs also tended to report other types of 'psychic' or 'psi related' experiences. The most strongly associated included mystical experiences, lucid dreams and dream recall. These are also included in the present survey.

There have also been suggestions that flying dreams are related to OBEs (Muldoon and Carrington 1929, Twemlow *et al.* 1980, Blackmore 1982b). This could be because both involve astral projection, as Muldoon and Carrington would argue, or because both involve similar imagery skills. A question on these was included in the survey.

Other studies have looked for psychological differences between OBEs and others. Irwin (1981) found that OBEs score higher on Tellegen's 'Absorption' scale. That is, they are better able to become immersed in a book, play or in nature, to the exclusion of everything else. However, Gabbard, Twemlow and Jones (1982) failed to find such a difference. They compared 339 OBEs with 81 interested people who had not had an OBE and found no distinctive psychological profile distinguishing the OBEs.

There has been much discussion over the relevance of imagery skills for the OBE. A major debate concerns whether OBEs are psychological phenomena, or a literal separation from the body (see Rogo 1982, Blackmore 1982c). It is arguable whether the psychological models predict the OBEs should have better imagery skills (see Irwin 1981, Blackmore 1982c). Nevertheless several studies have looked for and failed to find any difference between OBEs and others in terms of vividness of imagery and control of imagery (Blackmore 1982b, Irwin 1981). However, I found that OBEs were better able to switch viewpoints in imaginary scenes (Blackmore 1982d). Two questions on imagery were included in the survey. If the OB world is imagined then the ability to imagine scenes from above is important, so one question asked respondents to imagine looking down from the ceiling.

Hallucinations may in fact be more relevant to the OBE since what is distinctive about the experience is how convincingly real everything looks. There is already evidence that among a group of schizophrenics, those who suffer from more hallucinations also have more OBEs (Blackmore and Harris 1982). I have also found that students reporting body image distortions were more likely to report OBEs. Several questions on these were therefore included here.

METHOD

Sample

593 people were randomly selected from the Electoral Register for the City of Bristol. There are approximately 300,000 names on the register and, after choosing a random starting point, every 500th name was selected.

Procedure

In June 1981 a questionnaire was sent out by post with a letter explaining the purpose of the study and a stamped addressed envelope for the reply. After three weeks a reminder was sent to all those who had not replied. After a further three weeks those who still had not replied were sent another letter with a copy of the questionnaire and another return envelope.

Questionnaire

The questionnaire included 13 questions about dreams, hallucinations, mystical experiences, psychic experiences and beliefs and OBEs. For those who had had an OBE (OBErs) 22 additional questions asked about the nature of their experience(s). The complete questionnaire is shown in the Appendix.

For each question a number (between 2 and 8) of possible answers was provided. Some questions had more than one part to be answered by those who had had particular experiences.

Analysis

The answers for each numbered subject were filed in the University of Bristol computer. Statistical packages 'Minitab' and 'Isis' were used to produce percentages, histograms and cross tabulations. The major analysis was by contingency tables with associated chi squared values. Cells were pooled whenever necessary and because of missing values not all totals are the same. For the main analyses the maximum possible number of cells was used. For an additional analysis (see Table 11) all questions were compared using 2 by 2 contingency tables.

Palmer also used chi square analysis. Kohr argued that chi squares can be misleading with large samples because they can give significant results with very weak associations. He used Pearson product moment correlations. This was also done here and the results are shown in Table 12. A principle components analysis provided no clear structure and was not pursued.

RESULTS

Return Rates

14 people were excluded from the sample because they could not be traced or had died, reducing the sample to 579. There were 70 replies (12.2 per cent) which indicated that the person was unable or unwilling to complete the questionnaire. These included the old, the sick, those who could not read or write English and some who gave no reason. The total reply rate including these was 67.5 per cent. Altogether 321 usable questionnaires were received, giving a final return rate of 55.5 per cent. This compares with 51 per cent obtained by Palmer from his townspeople sample and is about the rate expected from this type of postal survey.

It is important to note that the incidence figures may be biased because of the numbers of people who did not reply. Those who have had the experiences may be more likely to reply than those who have not; so inflating the incidence. If this is so one would expect a trend towards fewer positive responses in the replies received after the later mailings. For each question the proportion of positive and negative answers in each mailing was compared. Significant effects were found

for OBEs (there were fewer OBEs in the third mailing) and for mystical experiences and the various experiences in question 10 (most positive replies were found in the second mailing). The incidence figures for these experiences must therefore be treated with some caution. There were no effects across mailings for the other questions.

There were 145 males (47.1 per cent) and 163 females (52.9 per cent). 13 did not give their sex. Ages ranged from 18 to 87 with a mean of 44.6. The answers to the questionnaire are discussed in detail under the various topics below.

OBEs

The results of the questions on OBEs are shown in Tables 1, 2 and 3 with correlations shown in Table 12. 39 respondents (12.2 per cent) out of 320 who replied claimed to have had an OBE. There were no significant age or sex differences between OBEs and non-OBEs (see Table 1).

Table 1. Age and Sex Differences

<i>Experience</i>		<i>N</i>	<i>Mean age</i>	<i>t</i>	<i>% male</i>	<i>chi sq. (idf)</i>
Dream recall	High	176	39.8	5.6	48%	0.2
	Low	129	50.9	***	45%	n.s.
Dream vividness	High	169	42.8	1.9	43%	1.6
	Low	134	46.7	n.s.	51%	n.s.
Flying dreams	Yes	89	38.6	3.9	54%	2.1
	No	231	47.0	***	44%	n.s.
Lucid dreams	Yes	147	40.1	4.2	50%	1.0
	No	167	48.5	***	44%	n.s.
Hallucinations	Yes	139	43.0	1.2	45%	0.2
	No	164	45.5	n.s.	48%	n.s.
Telepathy	Yes	73	44.4	0	50%	0.2
	No	230	44.3	n.s.	46%	n.s.
Imagery (total)	High	179	43.9	0.3	42%	2.8
	Low	118	44.6	n.s.	53%	n.s.
Mystical exp.	Yes	60	42.2	1.1	56%	1.9
	No	258	45.0	n.s.	45%	n.s.
Belief ESP	Yes	107	41.5	2.1	54%	2.9
	No	193	45.8	*	43%	n.s.
Belief survival	Yes	127	44.6	0.1	43%	1.2
	No	176	44.3	n.s.	50%	n.s.
Changing size	Yes	65	37.3	4.5	42%	0.5
	No	241	46.6	***	48%	n.s.
Shaking	Yes	29	35.2	3.3	38%	0.7
	No	277	45.6	**	48%	n.s.
Floating	Yes	75	39.3	3.3	63%	8.4
	No	231	46.4	**	42%	**
Seeing with eyes closed	Yes	84	42.7	1.2	50%	0.3
	No	222	45.4	n.s.	65%	n.s.

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table 2. Relationships between OBEs and other experiences and beliefs

	<i>Direction</i>	<i>Chi. Sq.</i>	<i>df</i>	<i>p</i>
Dream recall		5.2	3	n.s.
Dream vividness	+	9.8	4	0.014
Flying dreams	+	27.1	1	0.00000019
Lucid dreams	+	10.0	1	0.002
Hallucinations	+	15.7	1	0.000035
Used telepathy	+	20.2	1	0.0000027
Imagery 1.	+	5.2	1	0.023
Imagery 2.	+	5.2	1	0.022
Mystical experiences	+	29.7	1	0.000000015
Belief in ESP	+	15.4	2	0.00045
Belief in survival	+	8.8	1	0.003
Changing size	+	5.4	1	0.02
Shaking		0.1	1	0.83
Floating	+	26.9	1	0.00000021
Seeing with eyes closed	+	17.1	1	0.000035

OBEs and others were compared for their answers to the other questions and the results are shown in Table 2. The chi squared values do not give a direction of association. However, this is usually obvious from the contingency table and is therefore given in this table and Tables 5, 6 and 8.

OBEs were more likely to report many other experiences; lucid dreams, flying dreams, hallucinations, body image distortions and mystical experiences. They were also more likely to have experienced telepathy and to believe in both ESP and survival. The only questions to which the answers were unrelated to reporting OBEs were frequency of dream recall and the experience of seeming to shake. This latter was included because shaking and vibrations are often reported as part of the OBE.

As mentioned OBEs more often reported mystical experiences, but a further analysis showed no significant differences between OBEs and others in the type or circumstances of the mystical experience.

Table 3 shows the answers to the questions about the nature and circumstances of the OBE. In this table, as in Tables 4, 7, 9 and 10, the questions and answers are abbreviated. For the full wording see the Appendix. For most questions OBEs could tick more than one answer if they had had more than one experience. The percentages given refer to the percentage of people (out of 39) who ticked that answer. They do not, therefore, sum to 100%.

Most OBEs had had several experiences. 85% had had more than one, which is in line with previous findings. Just 5 per cent (2 people) claimed to be able to induce an OBE at will.

The most common of circumstances for the occurrence of an OBE was 'when resting but not asleep' (59 per cent). 31 per cent ticked 'other', several claiming OBEs during sleep or dreaming. 26 per cent noted operations or accidents and 18 per cent drugs and medicines.

Table 3. Features of the OBE.

	Number	Percentage	
Number of Experiences			
1	6	15%	
2	5	12%	
3	6	15%	
4	1	3%	
5	2	5%	
>5	17	44%	
At will	2	5%	% > Once 85%
Circumstances			
Waking activity	4	10%	
Resting	23	59%	
Praying, meditating	1	3%	
Deliberate effort	4	10%	
Accident, operation	10	26%	
Migraine, headache	6	15%	
Drugs, medicines	7	18%	
Other	12	31%	
Length of OBE			
A few seconds	7	18%	
< one minute	8	21%	
1-5 minutes	9	24%	
5-30 minutes	2	5%	
>30 minutes	0	0%	
Don't know	14	36%	
Sensations before OBE			
Shaking or vibrating	5	12%	
Strange noises	4	10%	
Vivid imagery	11	28%	
Disorientation	11	28%	
Other	15	38%	
Any of above	33	85%	
How got 'out'			
Just found 'out'	26	67%	
Helped 'out'	2	5%	
Tunnel or doorway	3	8%	
Other	7	18%	
State of Consciousness			
Like waking	17	44%	
Like dreaming	19	49%	
Like drug or alcohol	5	12%	
Other	1	3%	
OB World			
Normal	14	36%	
Like dream, fantasy	6	15%	
Normal but distorted	6	15%	
Normal but more vague	9	24%	
Another world	5	12%	
Other	2	5%	

Table 3. Features of the OBE.

	<i>Number</i>	<i>Percentage</i>
Travelling		
No	21	54%
Yes	17	44%
Saw own body		
Did not notice	18	46%
Tried and failed	3	8%
Looked normal	9	24%
Looked different	7	18%
Other	3	8%
'You'		
A complete body	27	69%
Different body	1	3%
Shape	1	3%
Point	5	12%
Other	6	15%
Connection to body		
No	20	51%
Not sure	10	26%
Yes	9	24%
Clarity of Vision		
Clearer than normal	8	21%
As usual	20	51%
Dimmer than usual	12	31%
Other	1	3%
Lighting		
Dark	11	28%
Daylight	20	51%
Artificial light	8	21%
Self luminance	3	8%
Other	5	12%
Lighting Correct		
No	7	18%
Not sure	12	31%
Yes	18	46%
ESP		
No	26	67%
Yes, did not check	7	18%
Checked—correct	4	10%
Checked—incorrect	0	0%
End of OBE		
Found self 'back'	23	59%
Merged gradually	4	10%
Rushed back	7	18%
Lost consciousness	3	8%
Dark space or tunnel	3	8%
Other	1	3%

Table 3. Features of the OBE.

	<i>Number</i>	<i>Percentage</i>
Enjoyed OBE		
No	12	31%
Not sure	17	44%
Yes	11	28%
OBE Frightening		
No	26	67%
Not sure	5	12%
Yes	11	28%
Like another OBE		
No	14	36%
Not sure	10	26%
Yes	15	38%
Changed life or beliefs		
No	28	72%
Not sure	8	21%
Yes	4	10%
Previous knowledge		
None	17	44%
A little	20	51%
A lot	1	3%

The most commonly reported length of an OBE was 1–5 minutes (24 per cent) but many gave less than one minute. Only 5 per cent claimed experiences longer than 5 minutes and none longer than 30 minutes.

85 per cent noted some 'strange sensations before the experience began'. The most common of these were unusually vivid imagery and disorientation (28 per cent each). Shaking and vibrations (commonly noted by adepts such as Muldoon (Muldoon and Carrington 1929) and Monroe (1975)) were reported by only 5 people (12 per cent). The start of the experience only rarely involved tunnels or doorways (8 per cent) or helpers of some kind (5 per cent). Most people just found themselves 'out' (67 per cent). The same was so for the end of the OBE. Only 8 per cent temporarily lost consciousness (as described for example by Crookall 1961) and only 8 per cent experienced a tunnel or dark space. The majority just found themselves back again.

The state of consciousness during the experience was equally split between being 'like dreaming' (49 per cent) and like being normally awake (44 per cent). The world seen during the OBE was most often like the normal world (36 per cent) or like the normal world but more vague (24 per cent). Fewer (15 per cent) compared it to a dream or fantasy world. Travelling is often thought of as an intrinsic part of the OBE but less than half (44 per cent) claimed to have travelled away from their body.

Perhaps surprisingly over half (54 per cent) did not see their own physical body. Of those who did most found it looked normal. As for their other self, most (69 per cent) seemed to be a complete body as usual. Only 24 per cent claimed there was any connection between the OB self and the body.

Clarity of vision was as usual for 51 per cent, dimmer than usual for 31 per cent and clearer than normal for 21 per cent. The lighting varied but mostly (for 46 per cent) was correct for the actual situation at the time.

Asked whether they saw or heard anything they could not have known about beforehand only 28 per cent said 'yes'. Most of these (64 per cent) did not check the details. Of the 36 per cent who did, all claimed that they were correct. Of course no attempt was made to verify these claims.

Most respondents were not sure whether they enjoyed the experience, did not find it frightening and were about equally divided as to whether they would like another. Only 10 per cent claimed that it changed their life or beliefs in any way. Over half (51 per cent) admitted to having a little knowledge about OBEs before they had one. The age at which the experiences occurred varied between 3 and 70 years but many people were unable to give exact ages.

Dreams

The answers to the four questions on dreams are shown in Table 4. Of particular interest here are lucid dreams and flying dreams. 147 people out of 314 (47 per cent) reported lucid dreams. Of these the majority reported between 2 and 5 such dreams. 5 claimed to be able to have lucid dreams at will. There were

Table 4. Dreams

	<i>Number</i>	<i>Percentage</i>	
Dream recall			
Never	11	3%	
Rarely	128	40%	
1/month	55	17%	
1/week	79	25%	
Every night	47	15%	
Dream vividness			
Extremely vivid	85	27%	
Very vivid	88	28%	
Average	119	38%	
Not vivid	14	4%	
Hardly see anything	10	3%	
Flying dreams			
No	231	72%	
Once	11	3%	% Yes 28%
2-5 times	37	12%	% > Once 88%
>5 times	40	13%	
At will	1	0%	
Lucid dreams			
No	167	53%	
Once	11	4%	% Yes 47%
2-5 times	87	28%	% > Once 93%
>5 times	44	14%	
At will	5	2%	

no significant sex differences but experiencers did tend to be significantly younger than others.

Table 5 shows the relationships between lucid dreams and other experiences and beliefs by chi squared. Correlations are shown in Table 12. All these are found to be positive except for the second imagery question, mystical experiences and belief in survival. In other words those reporting lucid dreams also tended to report more frequent dream recall, more vivid dreams, more flying dreams, more hallucinations and body image distortions, and more OBEs. They had also more often experienced telepathy and believed more in ESP (though not in survival).

Table 5. Relationships between lucid dreams and other experiences

	<i>Direction</i>	<i>Chi Sq.</i>	<i>df</i>	<i>p</i>
Dream recall	+	30.8	3	0.00000094
Dream vividness	+	16.6	3	0.001
Flying dreams	+	15.9	1	0.000067
Hallucinations	+	12.7	3	0.0053
Used telepathy	+	13.9	3	0.003
Imagery 1.	+	11.4	4	0.0022
Imagery 2.		4.4	4	n.s.
Mystical experiences		1.7	1	n.s.
Belief in ESP	+	7.2	2	0.027
Belief in survival		0.2	2	n.s.
Changing size	+	6.4	1	0.011
Shaking	+	4.4	1	0.036
Floating	+	6.2	1	0.013
Seeing with eyes closed	+	14.8	1	0.00012
OBEs	+	10.0	1	0.0016

9 out of 32 respondents (28 per cent) reported having flying dreams. There were no sex differences but those reporting flying dreams were significantly younger (see Table 1). Tables 6 and 12 show the relationships to other questions. The picture is similar to that for lucid dreams; the only differences being that flying dreamers do not report more vivid dreams and there is no difference on either imagery question. It is interesting to note the very large chi squared value for experiences of floating which are very much more common in those reporting flying dreams.

Mystical Experiences

Table 7 shows the answers to the questions on religious and mystical experiences. 19 per cent of respondents claimed to have had a 'profound or moving religious or mystical experience'. Most of them reported only one such experience. There were no significant age or sex differences between those reporting and not reporting mystical experiences. Most of the experiences took place during normal walking activity. The most commonly reported experiences were a sense of great humility and a oneness with God.

Table 6. Relationships between flying dreams and other experiences and beliefs

	<i>Direction</i>	<i>Chi Sq.</i>	<i>df</i>	<i>p</i>
Dream recall	+	29.7	3	0.0000016
Dream vividness		8.2	4	n.s.
Lucid dreams	+	15.9	1	0.000067
Hallucinations	+	17.6	3	0.00052
Used telepathy	+	9.5	1	0.002
Imagery 1.		0.9	1	n.s.
Imagery 2.		0.1	1	n.s.
Mystical experiences	+	4.8	1	0.028
Belief in ESP	+	13.2	2	0.0014
Belief in survival		1.5	2	n.s.
Changing size	+	8.0	1	0.0048
Shaking	+	6.2	1	0.013
Floating	+	33.1	1	0.0000000088
Seeing with eyes closed	+	3.9	1	0.05
OBEs	+	27.1	1	0.00000019

Table 7. Mystical and Religious Experiences

	<i>Number</i>	<i>Percentage</i>	
Experience			
No	258	81%	
Once	25	8%	% Yes 19%
2-5 times	21	7%	% > Once 58%
> 5 times	14	4%	
Circumstances			
Normal activity	32	53%	
Praying	15	25%	
Meditating	16	27%	
Drugs, medicines	9	15%	
Others	23	38%	
Types of Experience			
Oneness with God	17	28%	
Oneness with world	11	18%	
Vision	6	10%	
Sense of humility	20	33%	
Other	29	48%	

Table 8 and 12 show the relationships between reporting these and other experiences. In general the relationships are far less strong than those discussed above. Those people who reported mystical experiences had no more vivid or frequent dream recall. They reported flying dreams slightly more often but not lucid dreams. They more often reported waking hallucinations, 'seeing' with eyes closed and seeming to change size, but not floating or shaking sensations.

Table 8. Relationships between mystical and other experiences and beliefs

	<i>Direction</i>	<i>Chi Sq.</i>	<i>df</i>	<i>p</i>
Dream recall		4.2	4	n.s.
Dream vividness		1.8	4	n.s.
Flying dreams	+	4.8	1	0.028
Lucid dreams		1.7	1	n.s.
Hallucinations	+	16.7	3	0.000084
Used telepathy	+	7.2	1	0.007
Imagery 1.		3.6	3	n.s.
Imagery 2.		6.0	4	n.s.
Belief in ESP	+	13.0	2	0.0015
Belief in survival	+	22.2	2	0.000015
Changing size	+	4.6	1	0.033
Shaking		0.0	1	n.s.
Floating		2.5	1	n.s.
Seeing with eyes closed	+	5.2	1	0.02
OBEs	+	29.7	1	0.000000015

They did not claim more vivid imagery. They were more likely to have experienced telepathy and to believe in ESP and especially in survival. The strongest relationship is that with reporting OBEs.

Hallucinations and Imagery

Results of the questions on hallucinations and imagery are shown in Table 9. 45 per cent of respondents claimed to have had a waking hallucination at some time in their life and 80 per cent had had more than one. There were no age or sex differences for those reporting hallucinations (see Table 1).

56 per cent reported at least one of the miscellaneous experiences in question 10, that is, seeming to see with eyes closed and body image distortions of changing size, shaking or turning and floating. For age and sex differences see Table 1.

The results of the two imagery questions are also shown. The relationships between these and other questions have already been discussed. OBEs had slightly more vivid imagery on both imagery questions. However, when combined scores for both imagery questions were used the scores were no different for OBEs and non-OBEs. Lucid dreamers had more vivid imagery on only the first question, and associations with flying dreams and mystical experiences were not significant.

Psychic Experiences and Beliefs

Only one psychic experience was asked about, that is the common experience of seeming to communicate with someone else using telepathy. There were two questions about beliefs, in ESP and survival. These also asked for reasons for the belief (or disbelief). The results are shown in Table 10, with correlations shown in Table 12.

Table 9. Hallucinations and Imagery

	<i>Number</i>	<i>Percentage</i>	
Hallucinations			
No	175	55%	
Once	28	9%	% Yes 45%
2-5 times	82	26%	% > Once 80%
>5 times	33	10%	
Other experiences			
Changing size	66	21%	
Shaking	32	10%	
Floating	78	24%	
Seeing with eyes closed	88	27%	
Any of above	179	56%	
Imagery—Front Door			
Totally vivid	45	14%	
Very vivid	106	34%	
Average	84	27%	
Vague and dim	50	16%	
Cannot imagine	26	8%	
Imagery—From Ceiling			
Totally vivid	25	8%	
Very vivid	55	18%	
Average	83	27%	
Vague and dim	71	23%	
Cannot imagine	78	25%	

25 per cent of respondents claimed to have experienced telepathy, most (82 per cent) having done so more than once. 36 per cent believed that ESP is possible. The main reason given was their own experience. However, many respondents who said they did not believe did not give their reasons, in spite of specifically being asked to do so, so the reasons given largely reflect reasons for belief not disbelief. The same was so for survival. 42 per cent believed that ‘after the physical body dies some part of the person survives’. The main reason given was because of religious beliefs.

Other Associations

Further analyses were performed in which subjects were split into two groups on the basis of the answers to each question and 2 by 2 contingency tables drawn up with associated chi squared values (1 degree of freedom) for each question compared with every other question. This makes it possible to see which experiences and beliefs are most closely associated. The results are shown in simplified form in Table 11.

Using the same dichotomised groups a Pearson Product Moment Correlation was calculated for each pair of questions. The results are shown in Table 12.

Table 10. Psychic Experiences and Beliefs

	Number	Percentages	
Used Telepathy			
No	240	75%	
Once	14	4%	% Yes 25%
2-5 times	38	12%	% > Once 82%
>5 times	26	8%	
Belief in ESP			
No	102	32%	
Not sure	99	32%	
Yes	113	36%	
Reasons for belief			
Own experience	91	44%	
Others' experience	33	16%	
Read, T.V. etc	47	23%	
Other	34	17%	
Belief in survival			
No	88	28%	
Not sure	98	31%	
Yes	132	42%	
Reasons for belief			
Religion	63	31%	
Own experience	40	19%	
Others' experience	22	11%	
Read, T.V. etc	23	11%	
Other	58	28%	

DISCUSSION

The details of the OBE are, roughly speaking, comparable to Palmer's for the questions he asked. However, there are some interesting differences between these findings and those of Osiris and Twemlow *et al.* For example almost all of Twemlow's respondents said their OBEs were more real than a dream and only 4 per cent of Osiris' respondents likened their experience to dream imagery whereas almost 50 per cent did in this survey. However, the questions are not strictly comparable and OBEs may be like dreams in some respects but not others; a point requiring more research. Many of their subjects claimed that their mental health and social relationships were improved, their fear of death reduced or some lasting benefit gained, while here only 10 per cent said that the OBE had changed their life or beliefs. Finally 95 per cent of Osiris' respondents and 84 per cent of Twemlow's said they would like another OBE while in this survey only 38 per cent were so sure.

It seems that this random survey provided a less rosy and distinctive picture of the typical OBE. This could be because of differences in the sampling technique. Osiris sampled parapsychology teachers and other interested people and Twemlow *et al* solicited reports through the media. People who have had an

Table 11. Relationships between the experiences

1 Dream recall													
2 Dream vividness	**												
3 Flying dreams	**	*											
4 Lucid dreams	**	**	**										
5 Hallucinations	*	**	**	**									
6 Telepathy	**	*	**	**	**								
7 Imagery (total)		**					*						
8 Mystical exp.			*		**	**							
9 OBEs		*	**	**	**	**	**	**	**				
10 Changing size	**	**	**	*		**	**	*	*				
11 Shaking			*	*									
12 Floating	**		**	*	**	**	*	**	*	**	*		
13 Seeing with eyes closed	*		*	**	**	*		*	**	**	**		
	1	2	3	4	5	6	7	8	9	10	11	12	13

* p < 0.05 ** p < 0.01 *** p < 0.001 **** p < 0.0001
 Values of p are for chi squared with 2 df.

unpleasant or just undramatic experience may be less likely to fall into these groups, and those who know a lot about OBEs may distort their own reports. There is also the problem that these surveys may have used different (unspecified) criteria for the inclusion of an OBE. This survey included any who responded affirmatively to Palmer's OBE question.

Apart from the nature of the OBEs the most important finding is the degree of association between the various experiences included in the questionnaire. The same people report having OBEs, lucid and flying dreams, hallucinations and body image distortions and mystical and religious experiences. There are several possible interpretations of this finding. First there may be some non-specific factor which predisposes people to answer yes to all the questions. Age may be important here since it is likely to be more socially acceptable for a young person to admit to having many of these experiences. In fact in the case of lucid and flying dreams, OBEs and mystical experiences, those claiming the experience are younger than those not. However, the difference is only significant for the dream experiences and the associations we are trying to account for are very strong indeed.

It seems more likely that there is some genuine similarity underlying all these experiences. According to psychological models of the OBE all of these experiences involve the creation of an imaginary world which appears real to the person (Blackmore 1982c). These models predict the associations between the experiences and these results can at least be seen as compatible with them. Of course the findings could be fitted into other models of the OBE with greater or lesser ease. One could argue that some of the other experiences also involve astral projection, or something leaving the body. However I believe it is fair to interpret these associations as circumstantial support for a psychological approach to the OBE.

It has also been suggested that psychological models of the OBE predict that OBErs should report more vivid imagery. The results here show that OBErs report significantly more vivid imagery, but the difference is not large. In general vividness of imagery does not seem to be a good predictor of the people who have these experiences and this confirms the previous findings discussed above. It could be that what is important for having an OBE is the ability to become convinced of the reality of an imagined world instead of the normally perceived world, rather than the vividness of the imagery. This would fit with Irwin's findings on absorption (discussed above) and would make sense of the findings here. Further research along these lines is obviously called for.

CONCLUSION

The results of this survey provide further information about the incidence and nature of OBEs among a group of randomly selected people and provide new evidence concerning the associations between OBEs and other experiences. These fit well into a psychological model of the OBE but are not incompatible with other approaches.

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APPENDIX

ABBREVIATED FORM OF QUESTIONNAIRE

In the interests of space, the introduction and possible answers are omitted. The complete questionnaire can be obtained from the author.

Name Date of birth Male/Female

1. How often do you remember your dreams?
2. How vivid are the scenes you 'see' in your dreams?
3. Have you ever had a dream in which you were able to fly?
4. Have you ever had a dream in which you knew *during the dream* that it was a dream and seemed to have all your waking faculties?
5. Have you ever, when awake, thought you heard or felt or saw someone who was not actually there?
6. Have you ever thought that you communicated with someone using telepathy?
7. Close your eyes and try to imagine you are standing outside your own front door. How clear is the image that comes to mind?
8. Close your eyes and try to imagine you are floating near the ceiling and looking down at the room. How clear is the image that comes to mind?
9. Have you ever had a profound or moving religious or mystical experience?
 - 9a. If so, under what circumstances did it (they) occur?
 - 9b. If you have had such an experience which of the following best describes it?
10. Have you ever had any of the following experiences? (a) Seeming to grow very large or very small (b) Seeming to shake or turn when your body was not moving (c) Seeming to float (d) Seeming to see when your eyes were closed.
11. Do you believe it is possible to find out something or to communicate with someone without using the known senses (i.e. by using telepathy, clairvoyance or ESP)?

- 11a. Why do you believe this (or not believe it)?
12. Do you believe that after the physical body dies some part of the person survives?
- 12a. Why do you believe this (or not believe it)?
13. Have you ever had an experience in which you felt that 'you' were located 'outside of' or 'away from' your physical body; that is the feeling that your consciousness, mind or centre of awareness was in a different place from your physical body? If you have trouble answering this question then you probably have not had the experience so please answer 'No'.
If you answered 'Yes' to the last question then will you please carry on and answer the next set of questions. If not then you may stop here, and may I thank you once again for completing the questionnaire.
14. How many times have you had this experience?
15. Under what circumstances did your experience(s) occur?
16. How long did the experience(s) last?
17. Did you notice any strange sensations before the experience began?
18. How did you 'get out' of your body?
19. What was your state of consciousness like during the experience?
20. What did the world you saw look like?
21. Where did you go during the experience?
22. Did you see your own body from the outside?
23. Of what did 'you' consist during the experience?
24. Were you aware of anything connecting 'you' to your physical body?
25. How clear was your vision during the experience?
26. How were the things you saw lit?
27. Did the lighting correspond to the actual situation at the time (e.g. dark if it was night etc)?
28. Did you hear or see anything which you could not have known about at the time? (e.g. you might have seen objects you did not know were there or overheard conversations at a distance).
29. How did your experience end?
30. Did you enjoy the experience?
31. Was the experience frightening?
32. Would you like to have another similar experience?
33. Did this experience change your life or your beliefs in any way?
34. How much did you know about these experiences before you had one yourself?
35. How old were you when the experience(s) occurred?

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