Near-death experiences: high-school students' knowledge and beliefs

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Abstract

A special questionnaire was constructed and used to discover high-school students' knowledge and beliefs about near-death experiences. Mystical beliefs prevail and persist. Main sources of their knowledge are rumours, TV, lessons and books. The knowledge differs according to the educational programme, but it is generally modest and should be improved, especially in nursing programmes.

1. Introduction

The NDE is an abbreviation for the near-death experience and the individual experienced one is usually called an NDEr. The NDE is usually triggered by a life-threatening traumatic event [1] but it may occur also without being close to death [2]. NDEs are profound psycho-spiritual events [3], so various and complex that cannot be defined shortly. No two NDEs are identical, but there is a general pattern of NDE content and after-effects [2, 4], which seems to be unaffected by a person's culture, belief system, religion, race, education, or any other known variable. Among elements that define the NDE are: a sense of being dead, peace and painlessness, out-of-body experience (OBE), tunnel experience, being(s) of light, life review, reluctance to return, personality transformation [5], powerful emotions, the message "it is not yet your time", meeting deceased loved ones, having a sense of understanding everything, reaching a boundary between two "worlds", etc. [2].

Since pioneering work of Elisabeth Kübler-Ross [6], Raymond Moody [7, 8], and George Ritchie [9] many researches and new findings have followed. Current researchers [10, 11, 12] talk even about different types of NDEs. The most controversial are of course explanations of NDEs. Many people believe that NDEs prove life after death or suggest that some aspect of human consciousness may survive physical death [2]. Different theories suggest that NDEs are: (1) hallucinations caused by the brain states triggered by cardiac arrest, anoxia, anaesthesia or drug treatments during resuscitation [13], (2) caused psychologically, by the fear of death, (3) false memories [14], (4) biological brain reaction on intense physical trauma [1]. Current Dutch study [15] casts a doubt on all those theories and shows that medical factors cannot explain the occurrence of NDE. Contrary to the current medical concept, the study allows the possibility of consciousness existing outside the brain, when the brain itself appears to be dead. There are also many unscientific paranormal and religious interpretations by which NDEs are: the NDErs telepathic communication with doctors and nurses, recollections of subconsciously recorded data, evidence of heaven and hell, the work of Satan, etc. [16].

Our knowledge and beliefs affect our behaviour, therefore for every person related with NDErs is important to have as much knowledge as possible about NDEs without false beliefs. This knowledge should help alleviate worry and confusion for NDErs themselves, their relatives and friends, as well as for health-care professionals and the community at-large. With some assistance from health-care professionals, relatives and friends NDErs would adjust more easily. Especially those working in health-care professions should not be without the NDE knowledge.

2. Problem and hypotheses

The main research goal was to assess high-school students' knowledge about NDEs and to discover beliefs related to the concept of NDE. Additionally we wanted to find out (1) what the sources of their knowledge and beliefs are, (2) if there are any differences between older and younger students, and (3) if there are any differences between students of different educational programmes.

We hypothesized that students' knowledge about NDEs is modest and partly wrong: they do not know much about the facts, they do not clearly differentiate between NDEs and related phenomena, and they frequently have mystical or even religious beliefs. Additionally, it was hypothesized that the main source of their knowledge are the prevailing traditional beliefs, influenced by TV programmes, books and classroom lessons. We assume that students' knowledge grows therefore students in higher classes should have more knowledge. Different educational programmes have different learning lessons therefore we expected that students of

nursing programme have significantly "better" knowledge about NDEs than students of other programmes.

3. The methodology

Sample. The whole sample included 482 students of High-school Jesenice (HSJ), aging between 15 and 22 years, from two educational programmes: nursing and secretarial. The sample structure by gender, age, educational programme, and year of education is shown in table 1.

Table 1: The sample structure by gender, educational programme, year of education with means (x) and standard deviations (SD) of age.

	Year of educ.	Number (N)			Age	
		Male	Female	Total	x	SD
nursing programme	1st	14	49	63	15,4	0,71
	2nd	12	47	59	16,3	0,65
	3rd	15	57	72	17,2	0,63
	4th	10	43	53	18,4	0,67
S		**51**	**196**	**247**	**16,8**	
secretarial programme	1st	22	40	62	15,6	0,77
	2nd	18	39	57	16,5	0,73
	3rd	19	33	52	17,4	0,76
	4th	9	17	26	18,6	0,69
	5th	16	32	48	20,1	0,65
S		**84**	**161**	**245**	**17,4**	
S total		**135**	**357**	**492**	**17,1**	

Measuring instrument. For the purpose of the study special questionnaire was constructed. The questionnaire begins with general person's data (gender, age, educational program, year of education, religion). The second section of the questionnaire consists of 20 questions about known facts related to NDEs. A person answers by choosing the right one out of four answers. Every correct answer brings one point, the remaining three are obviously false and do not count. Therefore between 0 and 20 points can be obtained for knowledge. Results to 6 points were categorized as modest knowledge, result between 7 and 13 points were categorized as average and results above 13 points as very good knowledge. The third section of the questionnaire exploring beliefs includes 20 questions mostly concerned with explanations and interpretations of NDEs and their after-effects. A person answers by choosing one of three pre-given answers or optionally writes her/his own answer as the fourth. There is no right or wrong answer, because scientific answers to the majority of those questions are still not known. In every set of three answers, one answer is very religious, the other is very sceptical (materialistic, reductionistic) and the third one is somehow in between: mystical (parapsychological, paranormal) but not traditional religious explanation. Every answer brings one point to its category (religious, sceptical, mystical). Therefore a person's results are points in four categories, summarizing 20 points. In the fourth section a person must list the sources of her/his knowledge and beliefs. Different sources do not exclude each other. It also includes questions as: Have you ever had an NDE yourself? Have you ever had an experience similar to an NDE? Do you know any person who has had an NDE?

Procedure. Answering the questionnaire was voluntary and time unlimited. The psychologist had given general instructions for answering and was available all the time for additional instructions if needed. More detailed instructions for answering were written at the top of every questionnaire's section. Fulfilled questionnaires were evaluated by the "keys", computer data base was created and data were processed with SPSS 11.5.

4. Results with interpretation

4.1 Knowledge, beliefs and their sources

As expected, in general students' knowledge about NDEs is modest. On average they achieve 5.7 points for knowledge (N = 492). In other words, an average student answered correctly 29% questions or almost 6 out of 20 questions. With respect to the low level of questions' difficulty we believe that their knowledge deserves to be labelled as quite modest. The review of answers through individual questionnaires revealed that they hardly know what the NDE is, their concept of NDE is foggy, unclear and they confuse it with more or less similar phenomena (dreams about death, out of body experiences and travels, hypnotic and meditative states). The majority has no knowledge about the types of NDEs and their after-effects.

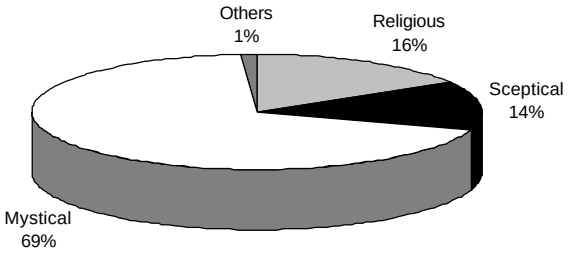

Figure 1: Proportions of different beliefs (N = 492).

Among different students' beliefs (figure 1) mystical explanations of NDEs strongly prevail (69%), less frequent are religious (16%) and sceptical (14%) interpretations. The rarest are "others" explanations (1%), supposedly due to the students' modest knowledge and mental laziness (optionally they can give their own explanation). The frequency of mystical explanations is not surprising, because the phenomenon itself is mystical and our entire knowledge about it is modest. By the census results 2002 [17] the majority of population in Slovenia is religious (60.9% Christians, 2.4% Muslims), therefore the share of religious explanations is unexpectedly low.

Our results show quite a different picture: 83% students declare themselves atheists, true believers are a minority (Christians 9% and Muslims 8%). The main cause for the discrepancy between the census and our data is probably the way of questioning, other reasons may be attributed to the specific local population. We asked specifically if they are members of any religion (i.e. truly believe its doctrine). By the census baptised persons are automatically regarded as Christians. Low share of sceptical explanations is quite understandable, because students are not scientists who feel obligated to prove anything and everything they claim. Ordinary people are more prone to using mystical explanations.

The most frequently listed sources of information about NDEs were: conversations with others (84%), television (55%), classroom lessons (35%) and books (12%). Rumours as the main source explain modesty of knowledge and frequent mystical beliefs. Different beliefs are learnt through socialization [18, 19]. By listening others talking about different subjects we unconsciously learn and uncritically accept many traditional beliefs. Although this is not explicit knowledge it affects our explanations of different phenomena. Information about NDEs is usually "second hand" (95%), rarely from an NDEr (7%). The rarest source of knowledge is student's own NDE (1%) or OBE (2 %), what is slightly low compared to the IANDS data [2] but could be explained with on average good physical health of the students. It is quite understandable that TV is a very frequent source of information. How much students hear about NDEs at classroom lessons depends on the educational programme and teachers themselves. There are many programmes in which there are no contents even related to NDEs. Probably the most of those contents are in nursing programme. We believe that our study classroom lessons are ranked quite high due to the sample structure.

4.2 Age differences

The students' knowledge about NDEs increases in time (table x). Generally, in the 1st, 2nd and 3rd year of education students' knowledge is modest, but it constantly grows and achieves average level in the 4th and 5th year of education. As no set norms for the adult population exist the terms "modest" and "average" refer only to the students. The terms are predefined according to the highest possible result. Results also reveal decrease in average knowledge from 4th to 5th year of education. We believe that this is caused by the fact that nursing programme takes only four years, therefore the 5th age group consists of students of secretarial programme, who are hypothesized to have less knowledge anyway.

Table 2: The students' knowledge by the year of education (N = 492)

Year of education	1st	2nd	3rd	4th	5th
N	125	116	124	79	48
Age (x)	15.5	16.4	17.3	18.5	20.1
Knowledge (x)	2.4	5.1	6.0	9.7	8.2
Knowledge (%)	12%	26%	30%	49%	41%

Despite growing knowledge students' beliefs do not significantly change in time (table 3). The most popular remain mystical beliefs, followed by significantly less frequent religious and sceptical beliefs. Mystical and religious beliefs tend to decrease in time on the account of increasing sceptical explanations. We could say that older students tend to more critical reasoning and scientific explanations. However, the changes in beliefs are not significant as already expected by theory [18, 19]. Different convictions and beliefs unconsciously adopted in our childhood are very persistent and do not change easily.

Table 3: Proportion of different beliefs by the year of education (N = 492)

		Religious	Sceptical	Mystical	Others
Year of education	1st	15%	9%	76%	0%
	2nd	17%	12%	70%	1%
	3rd	18%	15%	66%	1%
	4th	16%	21%	61%	2%
	5th	14%	17%	68%	1%

4.3 Educational programme differences

The differences between students of nursing and secretarial programme (hereafter referred to as nurses and secretaries) were tested with a *t-test*. Of course, as whole nurses differ significantly from secretaries. In average age (secretary programme takes one year more and therefore includes older students) and average knowledge ($p < .05$). Because students' knowledge about NDEs increases with years of education (or age), it seems meaningful to compare nurses and secretaries by the individual year of education. Age differences between nurses and secretaries inside of the individual year of education are not significant ($p > .05$) therefore age cannot be the reason for possible differences in knowledge. The results (figure 2) show that knowledge about NDEs increases by both students, but faster at nurses, what is the consequence of different lessons' contents. The difference in knowledge between nurses and secretaries is not significant in the 1st year of education, but it becomes significantly large in the 2nd and 3rd year ($p < .05$) and the largest in the 4th year of education ($p < .01$). The cause for visible increase in knowledge about NDEs in the 4th year of nursing programme is probably the subject of Psychology, which includes lessons about NDEs. Important fact is that contents related with NDEs are not a part of the national curriculum in any high-school

programme; therefore the amount of information about NDEs received depends on their teachers. We believe that there are substantial differences between individual teachers, educational programmes and high-schools. For that reason any generalisations of the results would not be justified. At HSJ secretaries have lessons about NDEs as well, only less of them than nurses. Although it might be possible that other high-school students' knowledge about NDEs might be even lower, we are not satisfied with the discovered level of knowledge. At least future nurses should know more about NDEs.

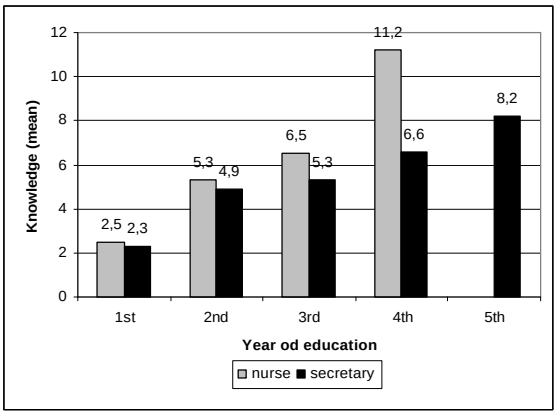

Figure 2: Increasing of knowledge about NDEs.

In the same way as knowledge, students' beliefs were compared, but we could not find any significant differences between nurses and secretaries, neither between groups as wholes, nor by individual year of education. It seems that nurses tend to have more sceptical beliefs than secretaries, but the difference is not statistically significant ($p < .10$). The result is not surprising with regard to the persistence of beliefs. There were no significant differences in the sources of knowledge and beliefs. The only exception are school lessons, which are more frequently listed as the source of knowledge by nurses than by secretaries, as already explained.

5. Conclusions

Almost all our hypotheses have been proved. The students' knowledge about NDEs is modest, but it slowly increases through years of education. Mystical beliefs related to NDEs are prevailing and persistent. They do not change through formal high-school education. Religious beliefs are rare, because the students generally declare themselves atheists. Sceptical beliefs are even rarer maybe due to the lack of critical mind, the lack of knowledge or attractiveness and persistence of mystical interpretations. The main sources of students' knowledge about NDEs are conversations with other people (rumours), followed by TV, classroom lessons and books, suggesting that students do not prefer reading books. Because of different learning lessons, nurses have significantly "better" knowledge about NDEs than secretaries, but they do not differ in beliefs. In general students' knowledge is modest and our future plan includes efforts for its improving, especially in the nursing programme. In our experiences students are most interested in those topics therefore it is recommended to incorporate them into learning lessons (curriculum).

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