

NUCLEAR WAR ANXIETY AND EDUCATION: CAN
A NUCLEAR CURRICULUM DECREASE
NUCLEAR WAR ANXIETY?

by

ANNMARIE ALBERT

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APPROVED:

Mary Rothbart

Mary K. Rothbart

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Approved:

Mary Rothbart
Mary K. Rothbart

Junior high school students who had taken a class on nuclear war issues were tested to see whether they would differ from students who hadn't. Students were compared with regard to levels of optimism, active hope, pessimism, powerlessness, and repression. In general, the two groups did not differ from one another, although there was a trend for those who had taken the class to show less repression.

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The threat of nuclear war strikes fear in the hearts of everyone. In general, people from every part of the world tend to worry about the future but manifestations of the anxiety differ according to cultural and generational background (Tizard, 1985; Bower, 1985). Also, some people seem better equipped to handle their fears than others. There are probably many factors involved with the ability or inability to cope with fears about nuclear war, but some important ones to consider are personality characteristics, life circumstances and the quality and quantity of formal education on the subject.

Recent research has shown that in the past 15 years the degree of anxiety experienced for children and adolescents has tremendously increased (Bachman, 1983; Gray & Valentine, 1985; and Offer, 1982). In relation to this phenomenon, some researchers have found that nuclear war anxiety levels increase with age, reaching a peak at 11-13 years. After the peak, anxiety levels decrease for high school and college age adolescents (Raundalen, 1986; Doctor, Goldenring, and Powell, 1987; Chavez, Hamilton, and Keilin, 1986). It makes sense that as one matures and gains more experience in the world, one might become better at learning to cope with nuclear war anxiety, but it doesn't explain why the anxiety seems to be so high during early puberty (age 11-13). One possible reason is that at puberty many physical and psychological changes are happening which, combined with worrying about the future and a possible nuclear war,

increase the amount of fear experienced. Another possibility is that these adolescents are just beginning to gain a sense of the world around them and their scope of knowledge is broadening. During childhood and pre-adolescence, youngsters are unable to think about political and social issues in abstract terms (Bower, 1985). So when teenagers finally gain an adult concept of these issues, world issues undoubtedly have a profound effect on them.

Learning to cope

In a review of the literature on children and nuclear war, done by Stewart Reifel (1984), suggestions for ways to help children deal with their fear of nuclear war were given. 1) Adults should try to come to terms with their own fears before trying to help others. 2) Be aware of how children learn about nuclear war. Television, movies, books and newspapers are some of the most common forms. 3) Try to stay updated on the latest news, television programs, and movies which have nuclear themes. 4) Teach children non-combative skills to help resolve conflicts. Reifel has termed this last suggestion *coping strategies*. Teaching children coping strategies will help them understand that combative and retaliatory solutions are not an acceptable way of dealing with others, and may even help encourage them to take a stand against nuclear weapons in the future.

Talking

In addition to Reifel's suggestions about teaching children how to cope with nuclear war anxiety, I would like to add one more very important one: talking. Discussing a problem with children in an open and informal manner is one of the best ways to help them cope with their feelings and understand the problem more clearly (Matthews, 1984). Certainly, this is not as easy as it sounds.

Talking about nuclear war and the arms buildup in an everyday manner can be somewhat difficult for children and adolescents. Researchers have found that children of all ages experience a "wall of silence" when asking adults questions about nuclear war (Escalona, 1965; and Schwebel, 1982). Yet the problem seems to exist in reverse as well. That is, teenagers prefer not to discuss their anxiety about nuclear war openly in order to protect their parents from worrying too much (Bower, 1985). Although keeping silent may indeed reduce the parents' worry for their children, it does nothing for the children themselves.

In most cases of fear-related problems, talking or thinking about the problem has been found to be effective in reducing anxiety. Some of the earliest treatment involving talking as a way to treat anxiety was done by Freud (Lewinsohn & Zeiss, 1986). Freud used a technique called "free association" in which the patient was instructed to talk about whatever came to mind.

Because this method has been so effective in treating clinical anxiety, it might seem logical to try it as a treatment for nuclear war anxiety. However, it is probably not the best way. This is due, in part, to the fact that nuclear war anxiety is very different from other types of anxiety. It is a very *rational* and *objective* fear, while other anxieties are based on *irrational* and *subjective* fears (Beardslee and Mack, 1982). They involve objects that are not normally fearful. An example of a rational, objective fear would be the feeling most people experience upon seeing a hungry tiger running toward them. An irrational, subjective fear includes all of the clinical anxieties and phobias, such as acrophobia (fear of heights), claustrophobia (fear of closed spaces) and agoraphobia (fear of open spaces).

Because nuclear war anxiety is a worldwide problem, probably felt by everyone familiar enough with the problem, existing techniques for treating anxiety and phobic disorders are not sufficient. However, there is one component in systematic desensitization that seems extremely helpful: exposure. The process of exposure forces the anxious patient to confront her/his fears on a direct and open level. By the same token, it may be helpful to encourage people to be open about their fear of nuclear war. Of course, this sort of openness would be the personal responsibility of every person and every institution in our society and one way to create it is through education.

Nuclear war education

Unfortunately, a majority of our society feels that education about controversial topics (ie. sexual reproduction, birth control, and drug abuse) should be left up to the family. In most American primary and secondary schools, sex education for instance, is not required and often banned (M. Widdoff, personal communication, May 4, 1989). Use of the common phrase: "What you don't know won't hurt you," shows support of this somewhat over-protective belief. However, as any teenager who has been pregnant, made someone pregnant or been addicted to drugs can tell you-- "What you don't know can hurt you!"

To some extent, this may apply to nuclear war education as well. In keeping with the suggestion that school-oriented education about serious subjects like sexual reproduction and drug abuse can only help a person (Widdoff, 1989), it makes sense to say that school-oriented education about nuclear war and the nuclear arms buildup can only help teenagers cope with their fears. Keeping in mind that there will be considerable controversy over this issue, it is necessary to provide factual information through scientific studies supporting the need for a nuclear curriculum. These studies should directly test the effectiveness of nuclear education in reducing students' anxiety and teaching them coping skills.

I have designed a survey study which will address the problem at hand. I expect to find that students who have

received education about nuclear war in a school setting will be better adept at coping with nuclear war anxiety and will show a more positive attitude toward the future than students who haven't received any school oriented education on nuclear issues.

METHODS

The measure used to test my hypothesis was a questionnaire. The measure was derived from a study carried out by Norwegian researchers, Magne Raundalen and Ole Johan Finney (1986). These researchers studied Norwegian children and adolescents aged 11-19. They developed a three part essay questionnaire which asked the subjects to: 1) rank a list of ten future problems from 1-10, 1 being the most serious, 10 being the least; 2) write in greater detail about the problem they ranked as most serious; 3) describe their thoughts and reactions when they heard about nuclear weapons (Raundalen & Finney, 1986). Listed below is the calculated average ranking for all ten future problems, with 1 being the problem of most concern, and thus given the highest possible ranking.

Table 1
Calculated Average Ranking for Ten Future Problems

<i>Item</i>	<i>Rank order of problem</i>
1. Nuclear weapons	2.31
2. Unemployment	3.84
3. Drugs	4.08
4. Pollution	4.87
5. Scarcity of food	4.88
6. USSR	5.48
7. World population growth	6.44
8. USA	6.71
9. Medical experiments	7.55
10. Bringing up children	8.81

From the results of their study, Raundalen and Finney discovered a pattern of reactions that could be divided into five distinct categories. They labeled these categories Optimism, Active Hope, Pessimism, Powerlessness, and Repression. Using these five definitive categories along with the brief definitions provided by Raundalen and Finney, I formulated a questionnaire for my study.

I divided my subjects into three groups, all of whom received the same questionnaire. Below is a description of each group.

Group I consisted of students who had taken a class discussing issues such as nuclear armament and nuclear power (referred to as the "Nuclear Issues Course" from now on). Although the class did not address the subject of nuclear war directly, I am assuming that exposure to information about nuclear weapons and nuclear power proved to be indirectly therapeutic. All of the students in this group

were taught by the same teacher. The class was only offered as an elective. It was of an informative type, with lectures and assigned readings.

Groups II and III were designed as control groups.

(Note: A control group is a group that does not receive the treatment stated in the hypothesis and is used to compare whether the treatment group differs enough to support the hypothesis.) These groups were similar to Group I with respect to age, year in school, and sex distribution. Two main differences were that students in Groups II and III: 1) did not take the Nuclear Issues Course, and 2) were asked whether they would take the Nuclear Issues Course by choice as an elective, or only if they had to as a requirement (see Appendix B). Members of Group II said that they would take the class by choice, while members of Group III stated that they would take the class only if it were required.

The subjects

Originally, there were 60 subjects in my sample. However, several of the subjects had to be dropped for various reasons. Some of the subjects were too young, others gave ambiguous answers on the Personal Data Sheet (see Appendix B) and finally several subjects had been previously selected for a control group which later proved to be incompatible with other, pre-selected groups.

After the changes were made, I ended up with 36 subjects. They ranged in age from twelve to fourteen. The

majority of the subjects were 8th graders (27), while the rest were 7th graders (9). All subjects were enrolled at the same school. The school was an average sized junior high, located in Eugene, Oregon. There were 21 girls and 15 boys in the study.

Table 2
Sex Distribution and Grade Distribution of Subjects

	7th graders	8th graders	Total
Girls	7	14	21
Boys	2	13	15
Total	9	27	36

The questionnaire

Because of extenuating circumstances, I did not distribute the questionnaire personally. It was distributed by the teacher who taught the Nuclear Issues class.

The questionnaire consisted of 21 questions derived from a study done by Raundalen and Finney (1986). The answers were judged on a 5-point Likert scale ranging from "strongly agree" to "strongly disagree" (see Table 3). Each of the five scales had at least four or five questions which obtained from the corresponding definitions of each scale. For example, the Optimism scale had 4 questions that related to the definition of "Optimism".

Table 3
 Answer and Coding Scale for Questionnaire

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Listed below are the operational definitions I used for designing scale items:

Optimism: Items in this scale refer to optimistic ideas about the future and express the belief that the world will not be completely destroyed by nuclear war. Scale items include the idea that further escalation of the arms race may force solutions. An example item in this scale is: "I don't believe that there will be a completely destructive war in the future."

Active Hope: Items in this scale assess the belief that direct involvement is necessary to create peace. Items in this group measure the subjects' confidence that national, international, local and personal efforts to solve the problem. An example of an item in this scale is: "I believe that by working together, we can save the world from global annihilation."

Pessimism: These items express a general negative attitude about the world situation today. The items examine a reluctance to plan for the future and an intense desire to escape the horror of what is believed to be inevitable; a

nuclear holocaust. An example item for this scale is: "I don't want to plan for the future much because I don't think the world will last that long."

Powerlessness: Items in this scale express a feeling of hopelessness toward the world's problems and assess the belief that nuclear war is inevitable. Items in this scale express subjects' feelings of deprivation and resentment, owing to the fact that a nuclear war would take away their future. One of the items in this scale was: "There is nothing I can do about bad things that are happening in our world today."

Repression: Items for this group assess a reluctance to think about world problems such as the threat of nuclear war, starvation, and environmental issues. They also may express the proverbial "happy-go-lucky" attitude. This scale represents a preference for concentrating on every day life and positive events rather than dwell on thoughts of an uncertain future. An example of a repression scale item is: "I would rather think about things that are happening now rather than in the future."

From my results, I expected to find that Group I would have the highest means (overall averages) for the two positive measures (Optimism and Active Hope) as compared to Groups II and III. By the same token, I expected Groups II and III to have significantly higher means for the three negative measures (Pessimism, Powerlessness, and Repression) than Group I.

However, I did not expect to find a significant difference between Groups II and III, on any of the scales. I expected Groups II and III to be similar even though they didn't share a desire to take the Nuclear Issues class, with the only thing that would cause the groups to differ would be actually taking the course. All of the above predictions relate to the underlying assumption that taking the Nuclear Issues class would have therapeutic effects by increasing feelings of optimism and active hope and decreasing feelings of pessimism, powerlessness and repression.

If Group II differs from Group III in the same direction as Group I, it might indicate that a process of "self selection" had taken place. In other words, subjects in Group I may have chosen to take the class simply because they wanted more information about nuclear issues and were already low in nuclear war anxiety. If this were true, it would mean that data obtained from Group I would be insufficient to support the hypothesis that the Nuclear Issues Class was an effective means in changing students attitudes about nuclear issues.

Looking at the differences between the three groups will provide the pertinent information needed to test whether my hypothesis is correct. Since all groups were given the same questionnaire and are closely matched with respect to age, grade, and sex, a likely reason for differences would be taking or not taking the class. Thus, the first step in compiling my data will be to test whether

there exists a statistically significant difference among the groups on any of the scales. NOTE: a statistically significant difference is one that is greater than any difference which occurred by chance.

RESULTS

To obtain my results I made statistical comparisons between all groups using ANOVA (analysis of variance). This test should tell me whether the three groups differ significantly from each other on each of the five scales. Means and standard deviations for each group on all five scales are included in Tables 4 and 5.

Subjects who took the Nuclear Issues class (Group I) did not differ from controls (Groups II and III) for the scales of Optimism ($F = .91, n.s.$), Active Hope ($F = .41, n.s.$), Pessimism ($F = .67, n.s.$), Powerlessness ($F = .28, n.s.$), and Repression ($F = 2.57, p < .10$). Results of this analysis indicate that Groups I, II and III did not differ beyond chance on any of the scales.

Table 4
Means and Standard Deviations for Positive Scales

Group and sample size (N)	Optimism	Active Hope
NOTE: M = MEAN		
I (N = 9)	M = 2.83 SD = .65	M = 3.56 SD = .88
II (N = 14)	M = 3.23 SD = .86	M = 3.55 SD = .60
III (N = 13)	M = 2.96 SD = .53	M = 3.31 SD = .84

Table 5
Means and Standard Deviations for Negative Scales

Groups and sample size (N)	Pessimism	Powerlessness	Repression
NOTE: M = MEAN			
I (N = 9)	M = 2.72 SD = .93	M = 2.08 SD = .41	M = 2.62 SD = .61
II (N = 14)	M = 2.45 SD = .64	M = 2.28 SD = .81	M = 3.00 SD = .68
III (N = 13)	M = 2.36 SD = .55	M = 2.29 SD = .61	M = 3.29 SD = .63

The mean scores reported in the tables above relate directly to the five-point Likert used in the questionnaire. For instance, Group I had a mean of 2.62 for the Repressions scale. This number fits in between "Disagree" and "Neutral," meaning that Group I rated fairly low on the Repression scale, almost reaching neutral (neither repressive or non-repressive). Group III had a mean of 3.29 for the Repression scale which indicates an answer between "Neutral" and "Agree."

DISCUSSION

Although none of the results showed statistical significance, there was a trend in the predicted direction on the Repression scale. Group I reported a lower mean (2.62) than Groups II (3.00) and III (3.29). The trend on the Repression scale suggests that taking the Nuclear Issues class may be related to students being more open about their fears, but this relationship is very weak.

This trend suggests that the course helped reduce students' levels of repression. The students presumably became used to discussing the anxiety-inducing information in class, which in turn may have helped them repress thoughts and feelings about nuclear war to a lesser degree.

The non-significant differences on the Optimism, Active Hope, Pessimism, and Powerlessness scales suggests that taking the class was not sufficient to change students' existing attitudes about nuclear war. However, on the Optimism scale, there was a trend in the direction opposite

to that which I predicted earlier. This trend implies that taking the class may actually increase students' levels of nuclear war anxiety by causing them to feel less optimistic about the future and less confident about the world's ability to find solutions to prevent nuclear war. The students in Group I were exposed to new material about a subject which has serious implications on their future and the future of everyone around them. Thus, the effect may have been too overwhelming and depressing.

Because there were no significant differences on the positive scales for any of the group comparisons, it seems unlikely that the Nuclear Issues class helped students obtain coping skills. However this problem can be attributed to two important problems with the study: 1) The class was not structured as a self-help or therapeutic medium for students, 2) The sample size was too small after dropping several of the original participants. So, in order to provide more telling results, further studies should use an increased sample size, which might include subjects from several different schools, and inclusion of a class which combined important information about nuclear issues with effective ways to deal with the information, ie. coping skills. The increasing problem of nuclear war anxiety is an important issue which is in need of more attention from the psychological community. It has become clear to me from this study and others which I reviewed that there is an increasing need for the development of more effective

strategies which would teach children, adolescents and even adults how to cope with nuclear war anxiety.

Suggestions for further research

In order to decide whether education about nuclear war is an effective way to teach children coping skills and reduce their anxiety levels, more research is needed. Studies should be designed to discover whether nuclear issues classes that include coping skills are effective in reducing levels of pessimism and repression in children and adolescents. The studies should also measure for positive effects such as higher levels of optimism, active hope and increased feelings of power or control. These studies should also cover a wide range of ages and cultural backgrounds to create a more realistic and varied picture. It may be helpful to look for new ideas in studies that have measured the effectiveness of sex education in schools, since many of the potential problems have already been worked out.

REFERENCES

- Bachman, J. (1983). American high school seniors view the military: 1976-1982. *Armed Forces and Society*, 10, 86.
- Beardslee, W., & Mack, J. (1982). The impact on children and adolescents of nuclear developments. In R. Rogers (Ed.), *Psychosocial aspects of nuclear developments* (Task Force Report No. 20). Washington D.C.: American Psychiatric Association.
- Bower, B. (1985). Kids and the bomb: apocalyptic anxieties? *Science News*, 128, 106-107.
- Chavez, E.L., Hamilton, S.B., Keilin, W.G. (1986). The Day After: A preliminary report on its effects on children. *American Psychologist*, 41, 722-723.
- Doctor, R.M., Goldenring, J.M., & Powell, A. (1987). Adolescents attitudes about nuclear war. *Psychological Reports*, 60, 599-614.
- Escalona, S. (1965). Children and the threat of nuclear war. In M. Schwebel (Ed.), *Behavioral science and human survival*. Palo Alto, CA: Science and Behavior Books, Inc.
- Gray, B., & Valentine, J. (1985). Nuclear war: The knowledge and attitudes of New Zealand secondary school children. In T. Solantus, E. Chivian, M. Vartanyan, & S. Chivian (Eds.), *Impact of the threat of nuclear war on children and adolescents. Proceedings of an international research symposium*. Boston, MA: International Physicians for the Prevention of Nuclear War, 163-169.
- Lewinsohn, P. M., & Zeiss, A. (1986). *Abnormal Psychology*. Brooks/Cole Publishing Company.
- Matthews, G. B. (1984) *Dialogues with children*. Cambridge: Harvard University Press.
- Offer, D. (1982). Idols and self-image: Empirical studies and theoretical implications. Paper presented at the Cambridge Hospital symposium "Self-esteem: Development and substance." Boston.
- Raundalen, M., et al, (In Press). *Watching the news. How small children perceive the world*.
- Raundalen, M., & Finney, O.J. (1986). Children's and teenagers views of the future. *International Journal of Mental Health*, 5, 114-125.

Reifel, S. (1984). Children living with the nuclear threat. *Young Children*, 39, 74-80.

Schwebel, M. (1982). Effects of the Nuclear War Threat on Children and Teenagers: Implications for Professionals. *American Journal of Orthopsychiatry*, 52, 608-618.

Tizard, B. (1985) The impact of the nuclear threat on child development: Problematic issues. In T. Solantus, E. Chivian, M. Vartanyan, & S. Chivian (Eds.), *Impact of the threat of nuclear war on children and adolescents. Proceedings of an international research symposium*. Boston, MA: International Physicians for the Prevention of Nuclear War, 9-16.

APPENDIX A
QUESTIONNAIRE

This is a survey which contains questions designed to discover students' attitudes toward current world problems. Please take your time reading the questions and answer them as truthfully as possible. There are no right or wrong answers for this questionnaire. We are only interested in your opinion of the issues raised. Please circle the number which corresponds to the answer closest to your own opinion. For example, if you agree with an answer, circle number 4, for agree, if you disagree completely, circle #1 for strongly disagree, etc.

If you wish to know the results of this survey, please notify your teacher.

YOU MAY BEGIN AS SOON AS YOU ARE READY.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5
1. I have a positive outlook about the future.				
1	2	3	4	5
2. I don't believe that there will be a completely destructive war in the future.				
1	2	3	4	5
3. I believe that solutions will be found to the world's problems.				
1	2	3	4	5
4. I think that further escalation of the arms race will cause people to find solutions to it.				
1	2	3	4	5

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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1	2	3	4	5
---	---	---	---	---

5. I have confidence that national and international efforts to solve the problem of nuclear war will be successful.

1	2	3	4	5
---	---	---	---	---

6. I don't have much faith in peace movements as a way of solving the problem of nuclear war.

1	2	3	4	5
---	---	---	---	---

7. I believe that by working together, we can save the world from global annihilation.

1	2	3	4	5
---	---	---	---	---

8. It is important that citizens become involved in seeking peace.

1	2	3	4	5
---	---	---	---	---

9. I feel very pessimistic when I think about nuclear war.

1	2	3	4	5
---	---	---	---	---

10. I don't want to plan for the future much because I don't think the world will last that long.

1	2	3	4	5
---	---	---	---	---

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
----------------------	----------	---------	-------	-------------------

1	2	3	4	5
---	---	---	---	---

11. I often have negative feelings about the future.

1	2	3	4	5
---	---	---	---	---

12. I feel that nuclear war is inevitable.

1	2	3	4	5
---	---	---	---	---

13. There is nothing I can do about bad things that are happening in our world today.

1	2	3	4	5
---	---	---	---	---

14. Nuclear weapons are part of the way the world is and there is nothing any of us can do to change that.

1	2	3	4	5
---	---	---	---	---

15. I feel resentful about the state that our world is in.

1	2	3	4	5
---	---	---	---	---

16. I feel that there is nothing I can do about the state the world is in.

1	2	3	4	5
---	---	---	---	---

17. Nuclear war is a great subject of worry in my life, even more than other worries such as unemployment, drugs, pollution, and world hunger.

1	2	3	4	5
---	---	---	---	---

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
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1	2	3	4	5
---	---	---	---	---

18. I would rather not think about subjects like nuclear war.

1	2	3	4	5
---	---	---	---	---

19. I would rather think about things that are happening now rather than in the future.

1	2	3	4	5
---	---	---	---	---

20. I can't even think about what the destruction of the world would be like.

1	2	3	4	5
---	---	---	---	---

21. I try to avoid painful or frightening thoughts in order to preserve my sanity.

1	2	3	4	5
---	---	---	---	---

APPENDIX B

PERSONAL DATA INFORMATION

AGE: _____

SEX: _____

YEAR IN SCHOOL: _____

1. Have you ever considered taking a class on Nuclear Issues at your school?

YES

NO

2. Would you take the class by choice (as an elective), or would you only take it if you had to (as a requirement)?

GO TO THE NEXT PAGE.