1994

Do people experience physical pain in dreams?

Mary Ellen McCammon
San Jose State University

Follow this and additional works at: https://scholarworks.sjsu.edu/etd_theses

Recommended Citation

McCammon, Mary Ellen, "Do people experience physical pain in dreams?" (1994). *Master's Theses*. 777.
DOI: <https://doi.org/10.31979/etd.bxcg-zsn2>
https://scholarworks.sjsu.edu/etd_theses/777

This Thesis is brought to you for free and open access by the Master's Theses and Graduate Research at SJSU ScholarWorks. It has been accepted for inclusion in Master's Theses by an authorized administrator of SJSU ScholarWorks. For more information, please contact scholarworks@sjsu.edu.

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

U·M·I

University Microfilms International
A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
313/761-4700 800/521-0600

Order Number 1358201

Do people experience physical pain in dreams?

McCammon, Mary Ellen, M.A.

San Jose State University, 1994

U·M·I

300 N. Zeeb Rd.
Ann Arbor, MI 48106

DO PEOPLE EXPERIENCE PHYSICAL PAIN IN DREAMS?

A Thesis

Presented to

The Faculty of the Department of Psychology

San Jose State University

In Partial Fulfillment

of the Requirements for the Degree

Masters of Arts

by

Mary Ellen McCammon

May, 1994

© 1994

Mary Ellen MCammon

ALL RIGHTS RESERVED

APPROVED FOR THE DEPARTMENT OF PSYCHOLOGY

Dr. Robert A. Hicks

Dr. Robert J. Pellegrini

Dr. Frank Payne

APPROVED FOR THE UNIVERSITY

ABSTRACT

DO PEOPLE EXPERIENCE PHYSICAL PAIN IN DREAMS?

by Mary Ellen McCammon

In sharp contrast to early studies that argued that physical pain does not occur in dreams, a recent study by Nielsen, McGregor, Zadra, Ilnicki, and Oullet (1993) concluded that pain in dreams is fairly frequently experienced. This two-part study explored that possibility by first collecting responses of 272 undergraduate students regarding pain in dreams. Experience of pain in dreams was reported by 64% of the students. The second part of this study consisted of collecting data in the form of dream diaries and ratings that totaled 412 dream reports. Results indicate that physical pain was detectable in nearly one-third of the dreams reported. Other comparisons were made between self-proclaimed pain and non-pain dreamers. Differences between these groups were not significant.

ACKNOWLEDGEMENTS

I would like to acknowledge the support of my family and friends as well as the encouragement and guidance that I received from my instructor and advisor, Dr. Robert Hicks. Thank you all very much!

TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION	3
METHOD	6
Subjects	6
Variables	6
Procedure	7
RESULTS AND DISCUSSION	9
REFERENCES	16
APPENDICES	17
Appendix A. Sleep Questionnaire	17
Appendix B. Dream Diary Questionnaire	18
Appendix C. Letter(s) of Consent and Instructions.....	19

LIST OF TABLES

TABLE	PAGE
1. Frequency of Individuals Responding to each Response Option to the Question "I experience pain while I'm dreaming"	10
2. Distribution of Dream Response Rating for Physical Pain, i. e., to the Responses to the Graphic Scale "not physically painful (Score 0) ----- physically painful (Score 7)"	12
3. Frequency of Individuals in the Pain and Non-pain Groups who Reported Pain in One or More Dreams Collected during a 14-Day Period	13

Do People Experience Physical Pain in Dreams?

Mary Ellen McCammon

San Jose State University

Running head: PAIN IN DREAMS

Footnotes

Requests for reprints should be sent to Mary Ellen McCammon, Department of
Psychology, San Jose State University, San Jose, California 95192.

Abstract

In sharp contrast to early studies that argued that physical pain does not occur in dreams, a recent study by Nielsen, McGregor, Zadra, Ilnicki, and Oullet (1993) concluded that pain in dreams is fairly frequently experienced. This two-part study explored that possibility by first collecting responses of 272 undergraduate students regarding pain in dreams. Experience of pain in dreams was reported by 64% of the students. The second part of this study consisted of collecting data in the form of dream diaries and ratings that totaled 412 dream reports. Results indicate that physical pain was detectable in nearly one-third of the dreams reported. Other comparisons were made between self-proclaimed pain and non-pain dreamers. Differences between these groups were not significant.

Do People Experience Physical Pain in Dreams?

When one considers the frequent frightening and precarious situations that occur during dreaming it is surprising that reports of physical pain in dreams are exceedingly rare. For example, in their study of dreaming, Arkin, Sanders, Ellman, Antrobus, Farber, and Nelson (1975) reported that only one of the 119 dream mentation reports that they collected contained a reference to pain and that that reference was categorized as "implied." Their results were consistent with those of an earlier study (Snyder, 1970) that had reported an absence of pain in a sample of dream reports and with those of a more recent study (Hobson, 1988) that found no mention of pain in a review of 337 dream reports.

To explain the lack of physical pain experienced during dreaming it has been hypothesized that sensory systems are inhibited or not functioning during dreaming (for example, Pompeiano, as cited in Nielsen, McGregor, Ouellet, and Zadra, 1993). Arkin and his colleagues (1975) suggested their data had validated this hypothesis by stating that "dreaming consciousness and pain sensation are relatively incompatible" (p. 179).

However, in these studies, as in the case in others, it is common for emotions such as anxiety, fear and surprise to be expressed in dreams; and, in the expression of such dreams, the visual and auditory senses are predominate as well as some tactile and movement sensations.

In contrast to the results of these earlier studies, Nielsen, McGregor,

Zadra, Innicki, and Ouellet, (1993) recently concluded in a study on somatosensory stimulation that the experience of physical pain does occur fairly frequently during dreaming. Specifically, they reported that thirteen dreams with pain were recorded by five subjects (who were also the authors of the paper) during 20 nights of observation. During each recording period each dreamer was subjected to stimulation in the form of pressure from a blood pressure cuff on their leg that was attached to test a hypothesis that was not related to dreaming. In drawing their conclusions, Nielsen and his colleagues rejected the idea that the pressure induced by this cuff was painful; however, it could indeed be considered uncomfortable as well as preoccupying the minds of the dreamers while they were reporting their dreams. Thus, it may be the case that the 'dreamed' pain sensations observed in this study were not the result of spontaneous dream reports but rather were the result of an uncomfortable reality that was experienced after each subject had been awakened to report dream mentation that was occurring during a given period of REM sleep. In this regard, it should be noted that DeKoninck and Brunette (1991) investigated presleep suggestions and concluded that such suggestions can indeed influence the affective dimension of dreams.

Thus, the purpose of this study is to further explore the possibility that the experience of physical pain occurs during dreaming. This was done in a manner that minimized the possible confounding that Nielsen's group introduced into their study by using the dream reports of the coauthors of the study while they were exposed to an uncomfortable (possibly painful) stimulus.

To do this, this study was conducted in two stages. First, a questionnaire was administered to a large group of individuals that permitted the development of norms for the frequency of pain dreams. Second, using a smaller group of frequent pain and non-pain dreamers, dream diary data were collected as a check on the validity of the stage one questionnaire data.

Method

Subjects

In the first phase of this study, the subjects were 272 undergraduate psychology students at San Jose State University. These students were asked to respond to a questionnaire which included the critical question "I experience pain while I'm dreaming." For the second phase of this study, from this group, a sample of 27 students who responded positively to the pain question were identified and matched as closely as possible on age, ethnicity, gender and average hours of sleep with a control group of 18 students who had responded negatively to the pain question. These subjects had all volunteered to keep dream diaries for a two-week period.

Variables

As was mentioned, the critical question "I experience pain while I'm dreaming" was embedded in a longer sleep questionnaire. (A copy of this questionnaire is included in Appendix A.) Like other items in this questionnaire, this item was responded to by marking one of the following response alternatives: never, rarely, sometimes, often, usually, or always.

Dream diaries are written accounts kept by the subjects describing their dreams each night. (A copy of the form used in this study is included in Appendix B.) The diary was in the form of 14 pages, i. e., one page for each day. Each page included blanks for the date, the time of day, the respondent's name, and his/her social security number. Each day, each respondent answered the following questions: "Did you dream last night?" and "How many

dreams can you remember?" Then, they were asked "Please describe your dream(s)." Following the description, a group of descriptors were listed and the individual marked an "x" on a graphic scale to indicate the degree that each of these descriptors described their dream(s). Descriptors included, for example, these pairs of polar adjectives: pleasant-unpleasant; frightening-not frightening; happy-unhappy; physically painful-not physically painful; emotionally painful-not emotionally painful; and others. Scores were tabulated by determining the location of the "x" on an equally-divided seven-point graphic scale. To further help disguise the intent of the study, the final question asked "Was the dream in English? If not, what language?"

Procedure

The stage one questionnaire was administered to a Psychology class. Before responding subjects were asked to read and sign a letter of consent (see Appendix C). The responses made by the 272 students who completed this questionnaire were inspected and the stage two groups were determined from their answers to the question regarding pain experienced while dreaming. The pain group was formed from those answering "sometimes, often, usually, or always" to the question "I experience pain while I'm dreaming." The non-pain group was chosen from those that answered "never" and contributed to a general match of the demographics of the pain group. For both groups, only students who agreed to participate in further research were considered. Each group (i. e., the pain and non-pain dreamers) were given a set of diary forms and were instructed to complete one in the morning on each day of the two-

week period of this stage of this study. Subjects were asked to record their dreams "as soon as you wake up." The completed diaries were collected at the end of the two-week period.

Results and Discussion

The overall purpose of this study was to further explore the recent conclusion reached by Nielsen and his colleagues that pain in dreams is fairly frequently experienced. As has been noted, this conclusion was in sharp contrast to those of earlier studies that argued that pain does not occur in dreams and it was based on data that may have been confounded by the procedure that they used. We first collected responses of 272 university students to the question "I experience pain while I'm dreaming." As has been noted, each student responded to this question by marking one of the following response alternatives: never, rarely, sometimes, often, usually, or always. The frequency of individuals selecting each of these response options is listed in Table 1.

As can be seen by inspecting Table 1, it is clearly evident that to some degree pain is experienced in the dreams of the majority of these students (64%). This is contrary to the conclusions of earlier studies (e. g., Snyder, 1970; Hobson, 1988) in that only 36% of these students reported that they never experienced pain in their dreams. Furthermore, the experience of pain was fairly frequent (responses of sometimes and greater) in dreams reported by 75 (28%) of these students.

Thus, the responses to the questionnaire item clearly provide support for Nielsen and his colleagues' conclusion that pain occurs fairly frequently during dreaming. However, since the critical question did not differentiate between physical and emotional pain, this conclusion required further elaboration.

Table 1

Frequency of Individuals Responding to each Response Option to the Question
"I experience pain while I'm dreaming"

Response option							
							Total
	Never	Rarely	Sometimes	Often	Usually	Always	
Frequency of respondents	97	100	57	7	10	1	272

Therefore, to further substantiate and clarify this conclusion, 45 students were selected from this group and were asked to participate by recording and rating their dream content for a period of 14 days. The resulting dream diaries were returned by 27 students who on the basis of their questionnaire responses were classified as pain dreamers and were compared to dream diary responses returned by 18 students who had expressed no previous experience of pain in their dreams. These diaries yielded a total of 412 dream reports and the distribution of ratings for each group was tabulated for the students' response to the adjective pair that measured the degree of physical pain in each dream. These distributions of responses are listed in Table 2.

As can be seen by inspecting Table 2, the majority of the dreams reported, 69%, did not involve physical pain. However, it is equally clear that physical pain was detectable in nearly one-third of the dreams reported. While this result clearly challenges the conclusion that pain does not occur in dreams, it requires further elaboration. Specifically, it is important to determine the number of students in each group that reported pain, i. e., a score of 2 or more, in any of their dreams that they reported during the 14-day stage two period of this study. These data were tabulated and are listed in Table 3. As can be seen by inspecting Table 3, the majority of the students in both the Pain and Non-pain groups experienced pain in at least one dream during the course of this study, i. e., 74% and 56%, respectively.

Overall, the percentage who experienced pain in at least one dream was 67%. The difference between the distributions of reported pain for these groups

Table 2

Distribution of Dream Response Rating for Physical Pain, i.e., to the Responses to the Graphic Scale "not physically painful (Score 0) ----- physically painful (Score 7)"

Group	Response rating				Total
	0-1	2-3	4-5	6-7	
Pain	164 (65%)	46 (18%)	26 (10%)	17 (7%)	253
Non-pain	122 (77%)	16 (10%)	13 (8%)	8 (5%)	159
Total	286	62	39	25	412

Table 3

Frequency of Individuals in the Pain and Non-Pain Groups who Reported Pain in One or More Dreams Collected During a 14-Day Period

Group	Dream ratings		Total
	Pain reported	No pain reported	
Pain	20	7	27
Non-pain	10	8	18
Total	30	15	45

was tested and was found to be not significant: $\chi^2 (1, N = 45) = 1.67$. Thus, it appears that self-classified pain and non-pain dreamers are roughly equivalent with respect to numbers in each group who actually experience pain in dreams when these individuals are asked to record and rate their dreams on a daily basis.

It is also apparent, when one inspects Table 2, that the Pain group is more likely to report more salient pain experiences in their dreams than the Non-pain group. To test for this possibility, a physical pain score was computed for each subject by summing their physical pain rating for each dream and then dividing that value by the total number of dreams that they reported. Using these scores, the mean pain score and the standard deviation for the Pain and the Non-pain groups were computed with the result that $M = .35 \pm .30$ and $M = .21 \pm .28$, respectively. The difference between these means was tested and it was not significant: $t(43) = 1.61$. Therefore, it was something of a surprise to find that both the frequency of students reporting pain in their dreams and the salience of their painful dream experiences were about the same for these groups.

To conclude, these data do not support findings from previous studies that claimed that pain does not occur in dreams. Further, the flaws which seemed apparent in the Nielsen et al. (1993) study should be discounted because the data of this study clearly validate their conclusion that people do experience pain in dreams. Specifically, in this study, pain, discomfort, or presleep suggestions were not inflicted on my subjects and the questionnaire

used was designed so that it did not draw attention to the purpose of the study, i.e., the occurrence of physical pain in dreams.

The relative absence of reports of pain in earlier research may be due to the fact that the question of pain has not been specifically addressed. In addition, self-proclaimed pain dreamers are not likely to experience significantly more pain in their dreams than non-pain dreamers. These results suggest that pain in dreams is not always remembered. Further research is recommended to explore this possibility. In addition, the distinction between dreaming about painful situations versus actually experiencing pain while dreaming needs to be addressed. Written accounts of dream content did not necessarily express painful situations, and, therefore, oral interviews may be required in order to differentiate these experiences of pain. The lack of research available in the area of pain in dreams invites additional and contributory investigation.

References

- Arkin, A. M., Sanders, K. I., Ellman, S. J., Antrobus, J. S., Farber, J., & Nelson, W. T. (1975). The rarity of pain sensation in sleep mentation reports. Sleep Research, 4, 179.
- DeKoninck, J. D., & Brunette, R. (1991). Presleep suggestion related to a phobic object: Successful manipulation of reported dream affect. The Journal of General Psychology, 118 (3), 185-199.
- Hobson, J. A. (1988). The dreaming brain. New York: Basic Books, Inc.
- Nielsen, T. A., McGregor, D. L., Ouellet, L., & Zadra, A. (1993). Pain in dreams. Sleep Research, 22, 137.
- Nielsen, T. A., McGregor, D. L., Zadra, A., Ilnicki, D., & Ouellet, L. (1993). Pain in dreams. Sleep, 16(5), 490-498.
- Snyder, F. (1970). The phenomenology of dreaming. In L. Madow & L. H. Snow (Eds.) The psychodynamic implications of the physiological studies of dreams. Springfield, Il.: C. C. Thomas.

APPENDIX A
SLEEP QUESTIONNAIRE

Please provide the following information. (Either check correct response or fill in the correct information.)

Female_____ Male_____ Height_____ Weight_____ Age_____

1. How long do you sleep on an average night? _____hours.
2. You have been averaging the number of hours of sleep per night given in response to Question 1 for _____years and/or _____months.
3. Are you generally satisfied with your sleep each night?
_____ Yes _____No.
4. Do you generally get all of the sleep that you need each night?
_____ Yes _____No.
5. If you have changed the number of hours that you usually sleep, how long did you sleep on an average night before you made this change? _____hours.
6. How long ago did you make this change? _____years and/or _____months.
7. Why did you decide to alter your sleep? (Fill in the major reason.)

8. Were you generally satisfied with your sleep before this change?
_____Yes _____No.
9. Did you generally get all of the sleep that you needed before this change? _____Yes _____No.
10. Do you take naps during the day? _____Yes _____No. If you answered yes, how often and how long? _____ number per month
_____ average minutes per nap.
11. On average, how many dreams do you have each night? _____0 _____1
_____2 _____3 _____more than 3 (give the number _____).
12. If you dream, are your dreams usually: _____pleasant, _____unpleasant, _____neutral?
13. Did you dream last night? _____Yes _____No. If you had a dream, was it _____pleasant, _____unpleasant, _____neutral?
14. Do you have trouble falling asleep? _____Yes _____No. If you answered yes, on average, how many nights per week do you experience this problem _____?
15. Do you have trouble staying asleep for the entire sleep period?
_____Yes _____No. If you answered yes, on average, how many nights per week do you experience this problem _____?

16. Have others told you that you snore while you are sleeping?
 _____ Yes _____ No.

17. Do you ever experience bruxism (teeth grinding)? _____ Yes _____ No

18. Do you experience TMJ problems? _____ Yes _____ No. If yes, does this usually occur at night _____, during the day _____, both _____.

These questions are designed to measure certain relationships between how people sleep and dream and their ethnic or cultural background. Please answer each question as best you can.

19. What is your ethnic or racial origin

American Indian _____	Asian _____
Afro-American _____	Pacific Islander _____
Mexican-American _____	Caucasian _____
Other Hispanic _____	Other (describe) _____

20. I was born in _____ (name the country).

21. My parents were born in _____ Mother _____ Father
 (name the countries).

22. My native language is _____.

23. If English is your second language, how many years have you spoken English? _____.

24. If English is your second language, please indicate the language you use when you engage in the following mental activities:

When I dream	_____
When I have a nightmare	_____
When I think about things	_____
When I do math problems in my head	_____
When I am thinking about a stressful situation	_____

25. What language do you speak at home? _____

26. What language do you speak with your friends? _____

27. I started to learn English when I was _____ years old.

28. In what language are you most fluent? _____

29. I remember my dreams _____ Never _____ Rarely _____ Sometimes
 _____ Often _____ Usually _____ Always.

30. My dreams are valuable experiences _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

31. I experience pain while I'm dreaming _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, when have you usually gone to bed at night?

USUAL BED TIME _____

2. During the past month, how long (in minutes) has it usually take you to fall asleep each night?

NUMBER OF MINUTES _____

3. During the past month, when have you usually gotten up in the morning?

USUAL GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spend in bed.)

HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you...

(a.) Cannot get to sleep within 30 minutes

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(b.) Wake up in the middle of the night or early morning

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(c.) Have to get up to use the bathroom

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(d.) Cannot breathe comfortably

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

APPENDIX B
DREAM DIARY QUESTIONNAIRE

Date:_____ Time:_____ SS#_____

Name:_____

Did you dream last night? _____Yes _____No

How many dreams can you remember? _____

Please describe your dream(s):

Please mark an "x" on the line that best describes your dream:

For example: not scary |-----| scary

unpleasant	-----	pleasant
not frightening	-----	frightening
unhappy	-----	happy
not humorous	-----	humorous
illogical	-----	logical
not physically painful	-----	physically painful
not emotionally painful	-----	emotionally painful
not boring	-----	boring
not weird	-----	weird
unclear	-----	clear
in black and white	-----	in color
not audible	-----	audible

Was the dream_____in English _____not in English?
(if not, what language?_____)

APPENDIX C

LETTER(S) OF CONSENT AND INSTRUCTIONS

You have been asked to participate in a research study that is investigating the sleep habits, sleep problems, and the sleep related knowledge of young adults of different gender and ethnic backgrounds.

Please read the following and if you have any questions feel free to ask.

I understand that:

- 1) I will be asked to fill out a questionnaire.
- 2) I willingly give my consent for the use by the investigator of any pertinent information available on my questionnaire for the purpose of the study.
- 3) No anticipated risks to myself are expected as a result of participation in the study.
- 4) The possible benefits of this study to me are an increased awareness about better sleep habits and knowledge about sleep.
- 5) The most advantageous and efficient procedure is being employed by the author for the study.
- 6) The results for the study may be published, but any information from this study that can be identified with me will remain confidential and will be disclosed only with my permission.
- 7) Any questions about my participation in this will be answered by Kristy Gorman (investigator) @ . Complaints about the procedures may be presented to Dr. Robert Hicks (graduate student advisor) @ (408) 924-5659; or to Dr. Ken Nishita (Psychology Department Chair) @ (408) 924-5600. For questions or complaints about research subject's rights, or in the event of research-related injury, contact Serena Stanford, Ph.D. (Associate Academic Vice President for Graduate Studies & Research) @ (408) 924-2480.
- 8) My consent is given voluntarily without being coerced; I may refuse to participate in this study or in any part of this study, and I may withdraw at any time, without prejudice to my relations with San Jose State University.

I HAVE MADE A DECISION WHETHER OR NOT TO PARTICIPATE. MY SIGNATURE INDICATES THAT I HAVE READ THE INFORMATION PROVIDED ABOVE AND THAT I HAVE DECIDED TO PARTICIPATE.

DATE

SIGNATURE

If you would like to participate in further research please print your name and phone number below:

Name

Phone number

College of Social Sciences • Department of Psychology
One Washington Square • San José, California 95192-0120 • 408/924-5600 • FAX 408/924-5605

November 10, 1993

Dear _____ :

Thank you very much for your participation in the Psychology Sleep Research questionnaire. Your input is appreciated in the field of Sleep Research. Thank you for agreeing to participate further in this project.

Enclosed you will find a form to fill out with regard to your dreams. Please answer the questions and describe your dreams as soon as you wake up. (You will be able to remember more.) You should start the day after you receive this package and record your dreams for two weeks. At the end of the two-week period, please mail them back to me in the enclosed envelope or drop them off at the Psychology Office (Room 157, DMH) in the graduate student mailboxes under "M". Please return them to me no later than December 1, 1993. You will receive 2 1/2 hours research credit for your participation which I will record after I have received your dream diaries.

If you have any questions, please contact me at
call Dr. Robert Hicks, my advisor, at 408-924-5659.

Or, you may

Again, thank you for your help.

Sincerely,

Mary Ellen McCammon
Graduate Student, San Jose State University

Please provide the following information. (Either check correct response or fill in the correct information.)

Female _____ Male _____ Height _____ Weight _____ Age _____

1. How long do you sleep on an average night? _____ hours.

2. You have been averaging the number of hours of sleep per night given in response to Question 1 for _____ years and/or _____ months.

3. Are you generally satisfied with your sleep each night?
_____ Yes _____ No.

4. Do you generally get all of the sleep that you need each night?
_____ Yes _____ No.

5. If you have changed the number of hours that you usually sleep, how long did you sleep on an average night before you made this change? _____ hours.

6. How long ago did you make this change? _____ years and/or _____ months.

7. Why did you decide to alter your sleep? (Fill in the major reason.)

8. Were you generally satisfied with your sleep before this change?
_____ Yes _____ No.

9. Did you generally get all of the sleep that you needed before this change? _____ Yes _____ No.

10. Do you take naps during the day? _____ Yes _____ No. If you answered yes, how often and how long? _____ number per month
_____ average minutes per nap.

11. On average, how many dreams do you have each night? _____ 0 _____ 1
_____ 2 _____ 3 _____ more than 3 (give the number _____).

12. If you dream, are your dreams usually: _____ pleasant, _____ unpleasant, _____ neutral?

13. Did you dream last night? _____ Yes _____ No. If you had a dream, was it _____ pleasant, _____ unpleasant, _____ neutral?

14. Do you have trouble falling asleep? _____ Yes _____ No. If you answered yes, on average, how many nights per week do you experience this problem _____?

15. Do you have trouble staying asleep for the entire sleep period?
_____ Yes _____ No. If you answered yes, on average, how many nights per week do you experience this problem _____?

16. Have others told you that you snore while you are sleeping?
 _____ Yes _____ No.

17. Do you ever experience bruxism (teeth grinding)? _____ Yes _____ No

18. Do you experience TMJ problems? _____ Yes _____ No. If yes, does this usually occur at night _____, during the day _____, both _____.

These questions are designed to measure certain relationships between how people sleep and dream and their ethnic or cultural background. Please answer each question as best you can.

19. What is your ethnic or racial origin

American Indian _____	Asian _____
Afro-American _____	Pacific Islander _____
Mexican-American _____	Caucasian _____
Other Hispanic _____	Other (describe) _____

20. I was born in _____ (name the country).

21. My parents were born in _____ Mother _____ Father
 (name the countries).

22. My native language is _____.

23. If English is your second language, how many years have you spoken English? _____.

24. If English is your second language, please indicate the language you use when you engage in the following mental activities:

When I dream _____

When I have a nightmare _____

When I think about things _____

When I do math problems in my head _____

When I am thinking about a stressful situation _____

25. What language do you speak at home? _____

26. What language do you speak with your friends? _____

27. I started to learn English when I was _____ years old.

28. In what language are you most fluent? _____

29. I remember my dreams _____ Never _____ Rarely _____ Sometimes
 _____ Often _____ Usually _____ Always.

30. My dreams are valuable experiences _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

31. I experience pain while I'm dreaming _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, when have you usually gone to bed at night?

USUAL BED TIME _____

2. During the past month, how long (in minutes) has it usually take you to fall asleep each night?

NUMBER OF MINUTES _____

3. During the past month, when have you usually gotten up in the morning?

USUAL GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spend in bed.)

HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you...

(a.) Cannot get to sleep within 30 minutes

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(b.) Wake up in the middle of the night or early morning

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(c.) Have to get up to use the bathroom

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(d.) Cannot breathe comfortably

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

Please provide the following information. (Either check correct response or fill in the correct information.)

Female_____ Male_____ Height_____ Weight_____ Age_____

1. How long do you sleep on an average night? _____hours.

2. You have been averaging the number of hours of sleep per night given in response to Question 1 for _____years and/or _____months.

3. Are you generally satisfied with your sleep each night?
_____ Yes _____ No.

4. Do you generally get all of the sleep that you need each night?
_____ Yes _____ No.

5. If you have changed the number of hours that you usually sleep, how long did you sleep on an average night before you made this change? _____hours.

6. How long ago did you make this change? _____years and/or _____months.

7. Why did you decide to alter your sleep? (Fill in the major reason.)

8. Were you generally satisfied with your sleep before this change?
_____ Yes _____ No.

9. Did you generally get all of the sleep that you needed before this change? _____ Yes _____ No.

10. Do you take naps during the day? _____ Yes _____ No. If you answered yes, how often and how long? _____ number per month
_____ average minutes per nap.

11. On average, how many dreams do you have each night? _____ 0 _____ 1
_____ 2 _____ 3 _____ more than 3 (give the number _____).

12. If you dream, are your dreams usually: _____ pleasant, _____ unpleasant, _____ neutral?

13. Did you dream last night? _____ Yes _____ No. If you had a dream, was it _____ pleasant, _____ unpleasant, _____ neutral?

14. Do you have trouble falling asleep? _____ Yes _____ No. If you answered yes, on average, how many nights per week do you experience this problem _____?

15. Do you have trouble staying asleep for the entire sleep period?
_____ Yes _____ No. If you answered yes, on average, how many nights per week do you experience this problem _____?

16. Have others told you that you snore while you are sleeping?
 _____ Yes _____ No.

17. Do you ever experience bruxism (teeth grinding)? _____ Yes _____ No

18. Do you experience TMJ problems? _____ Yes _____ No. If yes, does this usually occur at night _____, during the day _____, both _____.

These questions are designed to measure certain relationships between how people sleep and dream and their ethnic or cultural background. Please answer each question as best you can.

19. What is your ethnic or racial origin

American Indian _____	Asian _____
Afro-American _____	Pacific Islander _____
Mexican-American _____	Caucasian _____
Other Hispanic _____	Other (describe) _____

20. I was born in _____ (name the country).

21. My parents were born in _____ Mother _____ Father
 (name the countries).

22. My native language is _____.

23. If English is your second language, how many years have you spoken English? _____.

24. If English is your second language, please indicate the language you use when you engage in the following mental activities:

When I dream _____

When I have a nightmare _____

When I think about things _____

When I do math problems in my head _____

When I am thinking about a stressful situation _____

25. What language do you speak at home? _____

26. What language do you speak with your friends? _____

27. I started to learn English when I was _____ years old.

28. In what language are you most fluent? _____

29. I remember my dreams _____ Never _____ Rarely _____ Sometimes
 _____ Often _____ Usually _____ Always.

30. My dreams are valuable experiences _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

31. I experience pain while I'm dreaming _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, when have you usually gone to bed at night?

USUAL BED TIME _____

2. During the past month, how long (in minutes) has it usually take you to fall asleep each night?

NUMBER OF MINUTES _____

3. During the past month, when have you usually gotten up in the morning?

USUAL GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spend in bed.)

HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you...

(a.) Cannot get to sleep within 30 minutes

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(b.) Wake up in the middle of the night or early morning

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(c.) Have to get up to use the bathroom

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(d.) Cannot breathe comfortably

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

Please provide the following information. (Either check correct response or fill in the correct information.)

Female_____ Male_____ Height_____ Weight_____ Age_____

1. How long do you sleep on an average night? _____hours.
2. You have been averaging the number of hours of sleep per night given in response to Question 1 for _____years and/or _____months.
3. Are you generally satisfied with your sleep each night?
_____ Yes _____No.
4. Do you generally get all of the sleep that you need each night?
_____ Yes _____No.
5. If you have changed the number of hours that you usually sleep, how long did you sleep on an average night before you made this change? _____hours.
6. How long ago did you make this change? _____years and/or _____months.
7. Why did you decide to alter your sleep? (Fill in the major reason.)

8. Were you generally satisfied with your sleep before this change?
_____Yes _____No.
9. Did you generally get all of the sleep that you needed before this change? _____Yes _____No.
10. Do you take naps during the day? _____Yes _____No. If you answered yes, how often and how long? _____ number per month
_____ average minutes per nap.
11. On average, how many dreams do you have each night? _____0 _____1
_____2 _____3 _____more than 3 (give the number _____).
12. If you dream, are your dreams usually: _____pleasant, _____unpleasant, _____neutral?
13. Did you dream last night? _____Yes _____No. If you had a dream, was it _____pleasant, _____unpleasant, _____neutral?
14. Do you have trouble falling asleep? _____Yes _____No. If you answered yes, on average, how many nights per week do you experience this problem _____?
15. Do you have trouble staying asleep for the entire sleep period?
_____Yes _____No. If you answered yes, on average, how many nights per week do you experience this problem _____?

30. My dreams are valuable experiences _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

31. I experience pain while I'm dreaming _____ Never _____ Rarely
 _____ Sometimes _____ Often _____ Usually _____ Always.

The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, when have you usually gone to bed at night?

USUAL BED TIME _____

2. During the past month, how long (in minutes) has it usually take you to fall asleep each night?

NUMBER OF MINUTES _____

3. During the past month, when have you usually gotten up in the morning?

USUAL GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spend in bed.)

HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you...

(a.) Cannot get to sleep within 30 minutes

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(b.) Wake up in the middle of the night or early morning

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(c.) Have to get up to use the bathroom

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------

(d.) Cannot breathe comfortably

Not during the past month _____	Less than once a week _____	Once or twice a week _____	Three or more times a week _____
------------------------------------	--------------------------------	-------------------------------	-------------------------------------