ATTITUDES AND TREATMENT KNOWLEDGE BY MEDICAL STUDENTS REGARDING RAPE VICTIMS

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

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By

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The purpose of this study was to investigate the attitudes and treatment knowledge of medical student professionals regarding rape victims. In addition to generating normative data for a population which, as a function of their vocation may come in contact with victims, comparisons were made between a sample of those beginning their medical education process and those at the end of training in order to measure change in treatment knowledge and attitudes towards rape victims which occur during medical school.

Also investigated were differences which exist in the attitude and treatment knowledge measures for rape victims compared to other emergency room patient populations, and the effect of gender of the physician upon those measures. A final element investigated the physicians' perceptions of a "real" rape as it relates to those measures.

Subjects were 228 volunteer male and female medical students at the Medical University of South Carolina. Samples of first and third year students were included. Subjects were presented three narratives describing (a) a "real" rape victim, (b) a "spurious" rape victim
(who fits the legal definition of rape but who does not fit
the typical, narrow, cultural definition of rape), and
(c) a nonsexual assault emergency room comparison patient.
Subjects completed attitude and treatment knowledge measures
on each of the patient types.

Results revealed a gender effect on the attitude
measure, with female medical students more favorable in their
attitudes toward patients than males. Both males and
females were more unfavorable in their attitudes toward the
spurious rape victim compared to the nonsexual assault or
the real rape victim. A class effect was found for the
treatment knowledge measure with the more advanced students,
predictably, more knowledgeable. However, there was a
significant difference in the scores depending on the type
of patient. Specifically, the scores for both types of
sexual assault victims were less than the scores for the
nonsexual assault victims.
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ATTITUDES AND TREATMENT KNOWLEDGE BY MEDICAL STUDENTS REGARDING RAPE VICTIMS

In 1980, the Federal Bureau of Investigation's Uniform Crime Reports revealed that there were 82,088 forcible rapes reported to police agencies in the United States. This figure represented an 8% increase in the rate over the previous year and greatly exceeded the 37,270 reported rapes for 1970 and the 16,860 reported rapes in 1960 (F.B.I. Uniform Crime Reports, 1980). Based on data from victimization studies, conservative estimates suggested that from two to four times as many rapes actually occurred as were reported (Chappell, 1976).

The F.B.I. Law Enforcement Bulletin (1975) cited negative societal attitudes toward victims as the key factor in the gross underreporting. The effect of public attitude toward the victim, however, has appeared to influence more than the decision to report or not report the crime. A review of the literature revealed a consensus that attitudes toward rape and rape victims may have figured significantly in other aspects of the victim's life such as feelings of self-esteem, general psychological adjustment following the rape, and immediate and long-term behavior patterns of the victims (Brownmiller, 1975; Holmstrom & Burgess, 1978; MacKeallar, 1975; Walker & Brodsky, 1976).
Although cognizant of the effect that negative societal attitudes had upon victims, only since the early 1970's have researchers attempted to study the nature and dimensions of those attitudes. Basically, the literature revealed the research to fall into one of two broad categories. The overwhelming majority of information regarding rape attitudes were found in case histories, anecdotal accounts, or personal opinions of various writers (Holmstrom & Burgess, 1978). However, the lack of scientific method was a sharp criticism leveled at these efforts (Field, 1978).

A second major category of research included those studies with a more empirically derived data base. An example of that body of work was Burt's (1980) study of 598 Minnesota adults which investigated the antecedents of rape-related attitudes. Results of the data suggested (1) society did hold negative attitudes about rape victims in which victims are, in effect, blamed for their own victimization and (2) that other strongly held attitudes, rather than personality, background, or experiential variables, directly contributed to negative attitudes directed toward victims.

Another researcher, Field (1978), investigated the dimensionality of rape attitudes. Analysis of the data for 1,056 adult citizens revealed eight factors, or dimensions,
of rape attitudes. Four of the eight factors had direct implications for attitudes held about victims. Those victim-specific attitudes were: (a) women's responsibility in preventing rape (high scores indicated a belief that women should be held responsible for preventing their own rape), (b) perceived role of women in precipitating rape (high scores indicated belief that women cause rape through appearance or behavior), (c) perceived attractiveness of women after the rape (high scores indicated those who would perceive women as unattractive after the rape), and (d) expected behavior of women during the rape (high scores indicated belief that women should resist during the rape attack). The results of these data prompted Field to conclude that "citizens seemed to attach a negative stigma to a rape victim" (p. 175).

Although the relationships between attitudes and behavior are complex (Green, 1968; Rokeach, 1968; Wrightsman, 1977), it is not unreasonable to assume that negative attitudes toward victims might impact upon one's behavioral interactions with victims. For example, an individual with favorable attitudes towards victims might be expected to treat victims better than someone with less favorable attitudes. Therefore, sexual assault researchers began to examine the attitudes of those who may come into contact with rape victims such as physicians.
Victims are dependent upon physicians to gather medical-legal evidence if the rape is to be reported and investigated. Moreover, whether they report or not, victims are dependent upon physicians for evaluation and treatment of medical problems which result from their attacks. Antirape activists (Brownmiller, 1975; Griffin, 1971) and professionals involved in the treatment of rape victims (Holmstrom & Burgess, 1978; Kilpatrick, Best, & Veronen, 1978) agreed that the physicians' attitudes toward and treatment of rape victims is an important factor in the victim's recovery.

Unfortunately, medical schools often did not adequately train their students in rape examination procedures. Courses in obstetrics/gynecology during the third year of medical school teach general gynecology fundamentals but did not provide sufficient training regarding the specific care required for sexual assault patients. Additionally, the amount of training medical students receive for the treatment of the sexual assault patient in the emergency room situation was not as extensive as the training students receive for other emergency room patients with considerably less trauma or injury (Veronen, 1982).

The antirape activists literature (Brownmiller, 1975; Griffin, 1971) routinely was critical of the medical profession. Citing examples in which victims were treated unkindly by physicians, these writers suggested that the
medical establishment was structured so as to instill negative attitudes into its students. However, other researchers indicated that not all physicians' attitudes were negative and that physicians' attitudes were complex and required further investigation (Holmstrom & Burgess, 1978; Kilpatrick et al., 1978).

The literature revealed three studies which attempted to systematically investigate the attitudes of physicians. In general, the findings of LeBourdais (1976), the National Institute of Law Enforcement and Criminal Justice (1975), and Holmstrom and Burgess (1978) suggested a negative attitude toward rape victims on the part of health care providers.

LeBourdais (1976) reported that one-third of the victims seen in the Ottawa rape center felt intimidated by the behavior of medical personnel. Data were also obtained from interviews with physicians who routinely treated victims. A typical example from those interviewed included a statement by a gynecologist that "there would be one kind of woman I would have a hard time believing was raped: a woman between the ages of sixteen and twenty-five, on the pill, and no longer a virgin" (p. 12). Consequently, LeBourdais concluded that "the trial for the victim often starts in the hospital emergency room where health care workers reach their own verdict as to the realness of the rape" (p. 12).
In a report sponsored by the National Institute of Law Enforcement and Criminal Justice (1975), other researchers found medical facilities in this country, and the attitude of physicians on the whole, to be far from victim-supportive. In the national survey, which included on-site visits to 19 prominent medical facilities, medical interns were found "reluctant to perform exams because they did not consider that procedure to be a genuine part of the learning experiences" (p. 65). Physicians were considered the "weakest link" in the team of hospital personnel attending the rape victim because of lack of sensitivity to the victims in many of the communities surveyed.

In a third study, Holstrom and Burgess (1978) indirectly assessed the attitudes of physicians by observing interactions between victims and examining physicians. In their study of 65 victims who presented with the complaint of rape at the emergency ward of Boston City Hospital during a 1-year period, the researchers used the overt reactions of the doctors as a general indicator of attitudes. Results of the investigation yielded six general categories of responses. Nine responses were scored by observers as "positive reactions" defined as the physician having gone out of his or her way to provide extra help in some concrete way. Typically, child victims were involved, and adult cases in this category had two things in common: victims were attractive and articulate.
The second response category was most prevalent with 42 out of 65 responses classified as "professionally polite," defined as the physician not going out of his or her way to show a great deal of sympathy for victims, but neither indicating overtly negative feelings. Five responses were labeled "conscientious harassment" and were defined as those interactions in which the physician tried to persuade, coax, or pressure victims into some medical procedure that they believed the victim should have but to which the patient strongly objected. A fourth category of response was that labeled as "negative responses" in which moralistic or degrading comments were actually made to the victim. Six of the 65 responses were in this group. Two interactions were observed to be "indifferent" and constituted the fifth group. The final category consisted of one response style in which the physician displayed both negative and positive reactions to the victim.

While this study provided some useful data, it had a major methodological weakness. The observers were not unobtrusive during the medical exam and, in fact, were specifically identified as investigators in a rape research project and nicknamed "the rape ladies" by the hospital staff. Therefore, due to demand characteristics, physicians may have responded by (1) performing a more comprehensive examination than usual, (2) monitoring judgmental statements
made to the victims, or (3) providing more information to victims with regard to medical procedures performed - all of which could have significantly affected the results of the study.

In general, the literature revealed a paucity of empirical data regarding attitudes toward rape victims. Studies which directly targeted the attitudes of health care professionals were, indeed, few in number and plagued by methodological difficulties. Additionally, none of those studies examined differences between male and female physicians (Best, 1982). Particularly lacking in the literature were studies which measured specific, rather than global, attitudes. Physician's thoughts about the victim, the physician's perception of the responsibility of the victim in precipitating the rape, and whether the physician believed the woman was actually raped were specific attitudes which were of prime importance.

More specifically, physicians appear to make a basic judgment about each victim which may influence their overall attitude toward and treatment of the victim. Physicians often can be overheard distinguishing between cases which are real rapes and those which are not. Generally, those cases which are viewed as real rapes are described in more sympathetic terms than those not perceived as real rapes. As Veronen and Kilpatrick (1982) recently noted, what one
defines as a real rape is based on a general overlay of cultural beliefs that defines rape quite narrowly. These authors elaborate on this point in the following passage:

If the victim is of unquestioned virtue and if considerable physical force is used, the act is defined as "real" rape. The prototypic "real" rape occurs when a nun on her way to Mass is attacked, raped, and brutally beaten by a motorcycle gang. In contrast, a woman forced to have sex by a man she just met in a bar is not defined as a rape victim by many (p. 342).

If Veronen and Kilpatrick's analysis is correct, it is reasonable to assume that physicians probably go through the following procedure in determining whether a given case is a real rape. First, they gather information about the case. Second, they compare this information with the characteristics of their definition of a prototypic real rape. Third, on the basis of how well the information gathered fits the characteristics of a real rape, they classify the case as either a real rape or as a spurious rape. If the case is classified as a real rape, the physician's attitude might be expected to be sympathetic and favorable, while those cases classified as spurious rapes might generate less sympathetic favorable attitudes. Given the hypothesized importance of this real versus spurious rape dimension, it
is necessary to investigate the dimension carefully in studies of physicians' attitudes toward victims. To date, no study has compared attitudes towards real and spurious rape victims.

In addition to attitudes, knowledge is certainly a main factor in how a medical professional treats victims. First, physicians must be knowledgeable in general gynecological examination procedures. Furthermore, physicians must be knowledgeable in specific procedures associated with the rape exam. The manual exam, appropriate laboratory tests, pharmacological therapy, and evidence gathering duties are specific areas in which physicians must be well informed. If the physician is deficient in knowledge in any of these areas, the treatment provided to the rape victim would be less than optimal. If the physician lacks knowledge in more than one of these areas, his or her ability to render quality care is questionable.

The purpose of the present study was to examine the attitudes and treatment knowledge of the medical profession regarding rape victims. Three narratives describing (a) a "real" rape victim, (b) a "spurious" rape victim, (who fits the legal definition of rape but who does not fit the typical, narrow, cultural definition of rape), and (c) a nonsexual assault emergency room patient was used in this investigation. Attitudinal and treatment knowledge
measures were obtained from medical students for each of the three patients.

The following hypotheses were made:
1. Treatment knowledge/delivery scores on rape victims will be lower for first-year medical students compared to third-year students;
2. Attitude scores toward rape victims will be higher for first-year students compared to third-year students;
3. Scores on the treatment knowledge/delivery test for the nonsexual assault patient will be higher than scores on the treatment knowledge test for the sexual assault patients;
4. Scores on attitude and treatment knowledge measures will be lower for the spurious rape victim compared to the real rape victim;
5. Female medical students will score higher on the attitude measures for the sexual assault victims compared to male medical students.

Method

Subjects

Subjects were 215 medical students at the Medical University of South Carolina located in Charleston, South Carolina. The sample consisted of first-year and third-year medical students.
First-year students (N = 120) were enrolled in the Behavioral Sciences course required as part of their curriculum and conducted by the Department of Psychiatry and Behavioral Sciences of the Medical University. The only courses subjects had completed at the time of testing were biochemistry, embryology, and anatomy. The mean age for the first-year males (N = 101) was 24.3 years (SD = 3.2). The mean age for the first-year females (N = 19) was 25.8 years (SD = 4.3). Thirty of the 120 first-year subjects reported having emergency room experience prior to entering medical school. However, the experience consisted of employment as an orderly or technician in hometown hospitals and did not include experience in the treatment of sexual assault victims.

The third-year subjects (N = 95) were enrolled in their last core clinical rotation which was immediately prior to beginning their fourth year elective rotations. Subjects had completed, or would have completed in one month, all of the following clinical services: medicine, surgery, psychiatry, pediatrics, and obstetrics/gynecology. The mean age for the male third-year students (N = 76) was 26.5 years (SD = 3.1). Female third-year students (N = 19) had a mean age of 27.3 years (SD = 6.0). Of the 95 third-year subjects, 71 had emergency room experience. However, 50 of the 71 third-year subjects had received such experience as part of
their pediatrics rotation which did not involve treating sexual assault victims. Of the remaining 21 subjects, 4 were licensed emergency medical service (EMS) technicians and 19 had been employed as hospital orderlies. None had had experience with sexual assault victims.

Materials

The following instruments were utilized: (a) patient description narratives; (b) modified versions of Burt's Rape Myth Acceptance Scale (Burt, 1980) and Field's Attitude Toward Rape Scale (Field, 1978); (c) Patient Treatment Knowledge/Delivery Tests for sexual assault victims and comparison emergency room patients; and (d) Personal Information Data Sheet.

The patient description narratives were used to present clinical pictures of emergency room patients. Patients are described with similar personal attributes but differed in stated "presenting complaint" for seeking medical treatment and in terms of pretrauma behaviors. Patient narrative for the real rape victim (see Appendix A) described the prototypic rape victim who is labeled as a rape victim. Patient narrative for the nonsexual assault victim (see Appendix B) described a purse-snatching victim with no sexual assault trauma or injury. Patient narrative for the spurious rape victim (see Appendix C) described a victim who fits the legal definition of a rape victim but does not fit the
narrow, cultural definition and who was not labeled as a sexual assault victim.

The modified version of Burt's (1980) and Field's (1978) attitudinal scales (see Appendix D) was used to ascertain current attitudes held by the subjects regarding each of the three patient types described in the narratives.

The Patient Treatment Knowledge/Delivery Test (see Appendix E), an objective multiple-choice measure, was developed for this study. This measure was designed to tap information for patient treatment procedures recommended by the following sources: The South Carolina Hospital Association Guidelines for Sexual Assault (South Carolina Hospital Association, 1974), a medical text on gynecology (Kilpatrick et al., 1978), the American College of Obstetricians and Gynecologists' Technical Bulletin #14 (American College of Obstetricians and Gynecologists, 1970), the National Institute of Law Enforcement and Criminal Justice monograph (National Institute of Law Enforcement and Criminal Justice, 1975), and the emergency room protocol manual from the Medical University of South Carolina Trauma Center. The measure included questions in five areas: vital signs, historical data general, historical data specific, equipment necessary for the examination, and examination/treatment procedures. Items included were those which were indicated by the published sources to be necessary for
proper medical treatment and those which were required by law. Of the original 82 item pool, 72 items were included in the final form.

Correct responses for appropriate treatment of non-sexual assault victims were determined by a 75% agreement rate of physicians who volunteered to serve as professional referral sources. Subjects' answers were scored against this criterion.

Correct responses for appropriate treatment for both sexual assault victims were determined by agreement of at least three of the published sources used to develop the test items, and responses obtained from the Staff Physician assigned to the Medical University of South Carolina Trauma Unit's sexual assault team. Subjects' answers were scored against this criterion. Responses which were considered correct for both the real rape and the spurious rape victim were identical as they both fit the legal definition of a sexual assault victim and, therefore, require similar treatment.

The Personal Information Data Sheet (see Appendix F) was used to collect demographic data on the subjects. It contains specific questions pertaining to clinical rotations subjects have completed as part of their medical school curriculum, specialized training the subjects may have received regarding treatment of sexual assault victims, and amount of subject's exposure to rape victims.
Procedure

Participants were assured of the anonymity of their responses to the questionnaires and signed a written informed consent statement (see Appendix G). All volunteers were asked to participate in a research project concerning procedures frequently utilized in an emergency room setting. Participants were asked to complete questionnaires on three patient types with regard to standard treatment delivery regimens and to complete an opinion questionnaire on each patient (see Appendix H).

Following a brief introduction of the general purpose of the study, subjects were given an envelope containing a narrative description, attitude measure, and patient treatment/delivery test for each of the three "patients." The order of presentation of the three hypothetical patients was counterbalanced. Subjects were requested to complete the enclosed questionnaires, in the order given, and return the envelope and its contents to the examiner.

Subjects with insufficient data were not included in the study. Of the 228 subjects tested, 13 were excluded for missing data on either the attitude or knowledge tests. Data for 215 subjects was used in the analyses.

Results

A series of 2 (gender) X 2 (year) X 3 (type of patient) analyses of variances with repeated measures on the last
factor was used to examine the effects of gender, year of medical training, and type of patient upon attitude and treatment knowledge/delivery variables. With respect to the attitude variable, there is a significant main effect for gender of the physician \[ F = 6.16 \ (1, 205); \ p < .05 \], and a significant interaction effect for trial (type of patient) by gender \( F = 4.65; \ p < .05 \). There is not a significant main effect for year of medical school with regard to the attitude variable. Table 1 presents the means and standard deviations obtained in this analysis. Tukey's hsd a posteriori test, as described by Kirk (1968), is employed to determine which differences contribute to the significant \( F \) ratios.

**Table 1**

<table>
<thead>
<tr>
<th>Group</th>
<th>1st yr.</th>
<th>1st yr.</th>
<th>3rd yr.</th>
<th>3rd yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>male</td>
<td>female</td>
<td>male</td>
<td>female</td>
</tr>
<tr>
<td>&quot;real&quot; rape</td>
<td>74.1</td>
<td>77.7</td>
<td>73.8</td>
<td>85.1</td>
</tr>
<tr>
<td></td>
<td>(10.8)</td>
<td>(11.1)</td>
<td>(12.2)</td>
<td>(10.4)</td>
</tr>
<tr>
<td>non-sexual</td>
<td>77.0</td>
<td>80.2</td>
<td>76.8</td>
<td>84.1</td>
</tr>
<tr>
<td>assault</td>
<td>(9.9)</td>
<td>(9.9)</td>
<td>(11.5)</td>
<td>(11.0)</td>
</tr>
<tr>
<td>&quot;spurious&quot; rape victim</td>
<td>63.0</td>
<td>62.0</td>
<td>63.8</td>
<td>68.1</td>
</tr>
<tr>
<td></td>
<td>(12.3)</td>
<td>(14.2)</td>
<td>(14.4)</td>
<td>(15.8)</td>
</tr>
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</table>
Figure 1 represents the mean attitude scores for both males and females collapsed across year. Inspection of the figure and Tukey's test reveals that, in general, female medical students have more favorable attitudes toward victims than their male counterparts. Specifically, female medical students score more favorable than males on the attitude measures for the real rape victims ($p < .01$) and for the nonsexual assault victim ($p < .01$). However, no
differences are found on the scores of the attitude measure for the spurious rape victim between males and females.

Several significant differences are found within each gender. Figure 1 presents these data. Females score more favorably on attitude measures for the nonsexual assault victim, followed by scores for the real rape victim, and then scores for the spurious rape victim. The difference is significant in attitude scores between the nonsexual assault and the spurious rape victims ($p < .01$), and also between the real rape and the spurious rape victims ($p < .01$).

Similarly, males score more favorably on the attitude measures for the nonsexual assault victim, followed by scores for the real rape victim, and then scores for the spurious rape victim. Significant differences on attitude scores were obtained between the nonsexual assault and the spurious rape victims ($p < .01$), and also between the real and spurious rape victims ($p < .01$).

Table 2 presents the data for the treatment knowledge measures. For the treatment knowledge variable, there is a significant main effect for year in medical school ($F = 9.04(1,211); p < .01$). A trial (type of patient) by year in school interaction effect occurs ($F = 3.63; p < .05$). No main effects for gender on treatment knowledge measures are found. Tukey's hsd test is used to reveal differences which contribute to the significant $F$ ratios.
Table 2

Mean Scores and Standard Deviations for Treatment Knowledge Measures

<table>
<thead>
<tr>
<th>Group</th>
<th>1st yr.</th>
<th>1st yr.</th>
<th>3rd yr.</th>
<th>3rd yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>male</td>
<td>female</td>
<td>male</td>
<td>female</td>
</tr>
<tr>
<td>&quot;real&quot; rape</td>
<td>68.3</td>
<td>71.0</td>
<td>73.5</td>
<td>76.3</td>
</tr>
<tr>
<td></td>
<td>(10.2)</td>
<td>(11.5)</td>
<td>(8.9)</td>
<td>(6.7)</td>
</tr>
<tr>
<td>nonsexual assault</td>
<td>86.4</td>
<td>87.6</td>
<td>86.1</td>
<td>87.9</td>
</tr>
<tr>
<td></td>
<td>(8.6)</td>
<td>(8.6)</td>
<td>(8.5)</td>
<td>(8.9)</td>
</tr>
<tr>
<td>&quot;spurious&quot; rape victim</td>
<td>67.0</td>
<td>69.0</td>
<td>72.1</td>
<td>73.9</td>
</tr>
<tr>
<td></td>
<td>(10.3)</td>
<td>(12.3)</td>
<td>(9.7)</td>
<td>(9.2)</td>
</tr>
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</table>

Figure 2 also represents the within year differences on the knowledge scores. Several differences are found. For the third-year students, scores obtained on the nonsexual assault victim are significantly higher than either of the scores for the real rape victim (p < .01) or the spurious rape victim (p < .01). No differences in scores between the real and spurious rape victims are revealed.

First-year students also score significantly higher on knowledge measures for the nonsexual assault victims compared to either the real rape victim (p < .01) or the spurious rape victim (p < .01). Differences between the scores for the real rape victim and the spurious rape victim are nonsignificant, however.
Figure 2. Difference in mean scores on treatment knowledge measures for first and third-year students collapsed across gender where \( * = p < .01 \) difference between first and third-year and \( ** = p < .01 \) difference within a year.

Discussion

The results of the study support the majority of the hypotheses. The first hypothesis is supported that treatment knowledge/delivery scores for the first-year students will be lower compared to scores for third-year students. The third hypothesis is supported that for both first and third year students, scores on the patient treatment knowledge/
delivery measures for the comparison emergency room patient (nonsexual assault victim) will be significantly higher than scores for the real rape victim or for the spurious rape victim. The fourth hypothesis, that there will be gender differences on the attitude measures for the two sexual victims, is partially supported in that gender differences are found for the real rape victim. The fifth hypothesis is also partially supported, as attitude scores for the spurious rape victim are significantly less favorable than attitude scores for the real rape victim, but there is not a significant difference on the treatment knowledge measures between the two victims.

The second hypothesis is not supported by the data. Attitudes of the first-year students toward rape victims are not significantly more favorable compared to attitudes of the third-year students toward rape victims.

First, it appears that third-year medical students are more knowledgeable than first-year students regarding the appropriate medical treatment of sexual assault victims. This finding is not totally unexpected as the third-year students have the benefit of two additional years of medical training. In particular, third-year students have completed the obstetrics/gynecology clinical rotation in which the fundamentals of gynecological exams are presented in formal lecture. As a part of this rotation, the third-year
students assist attending physicians who perform such examinations. Therefore, these experiences would likely increase their knowledge of a variety of gynecologically related procedures, and would appear to account for the increased knowledge when third and first-year students are compared. Since male and female students have similar classroom lecture requirements and similar clinical exposure, the effect of gender of the student professional upon knowledge would not appear to be a key factor. The data are consistent with this supposition.

Secondly, while it appears that by the third year of medical school the level of appropriate treatment knowledge for sexual assault victims is significantly greater than during the first year, nevertheless, at both these levels of medical training the student professional is significantly less knowledgeable regarding treatment of sexual assault victims than he or she is for nonsexual assault victims. Given that third-year students have completed the basic clinical requirements and will be enrolled only in elective courses for their final year, there is little basis to predict an increase in the level of knowledge by the time the student professional completed training and he or she assumes full responsibilities of a physician. Therefore, if the student professional or practicing physician lacks knowledge of the appropriate medical procedures, lab tests,
or pharmacotherapy associated with sexual assault examinations, it is reasonable to assume that the lack of knowledge may consequently interfere with his or her ability to render appropriate care. With the greater numbers of sexual assault victims seeking services from medical personnel, the need for professionals to possess adequate treatment knowledge is of paramount importance.

Thirdly, it appears that gender of the medical student professional does affect the attitude he or she has toward sexual assault victims. However, this effect is not completely straightforward. Female student professionals are more favorable than males in their attitudes toward real rape victims, but this does not appear to hold true of their attitudes toward spurious rape victims. This is to say that, for the female medical student professional, if the patient arrives in the emergency room reporting having been assaulted by a stranger and appears to be visibly distressed by the event, the patient would be viewed in a more favorable light than she would be by a male medical student professional who may treat her. The females would be less likely than males to feel the patient should have been responsible for preventing the rape, or that she was "asking for it."

On the other hand, if a patient arrives at the emergency room reporting an assault by someone that was not
a total stranger and the patient did not visibly appear to be distressed, and yet experienced the same assaultive behaviors including the use of physical force, female medical professionals are no longer more favorable than males in their attitudes toward the victim. In other words, in this situation females are just as likely as males to attribute responsibility for the attack to the victim and to hold the attitude that the victim was "asking for it" if the victim does not fit the cultural stereotype of a rape victim.

The investigation by Holmstrom and Burgess (1978) which rated overt reactions of physicians did not specify gender of the physician. These data suggest that the gender of the physician may have been an influencing factor in the observed response style (positive, professionally polite, or negative).

Fourthly, it appears that attitudes of medical student professionals in general toward spurious rape victims are less favorable than their attitudes toward real rape victims. This difference in attitudes holds true for both male and female medical student professionals. In fact, even third-year female student professionals (the individuals who consistently hold the most favorable attitudes toward all types of patients) are also less favorable in their attitudes toward spurious rape victims when comparing both sexual assault victims. This means that the medical student
professional, both male and female, assigns more responsibility for the assault to the spurious rape victim than they do for the victim who fits the cultural stereotype of a rape victim. They perceive the spurious rape victim as less innocent, and believe that she should try harder to resist the attack. The finding would appear to suggest that medical student professionals have personal belief systems regarding what constitutes a "real rape" and what does not. The amount to which this unfavorable attitude toward the patients who do not meet the "real rape" criterion is translated into the physician's behavior cannot be specified. However, it is conceivable to believe that the type and amount of care provided to these patients may be affected if the physician is confusing his or her role as a health care provider with a judicial one. This finding is consistent with LeBourdais (1978) who reported on the judicial atmosphere in the emergency room, and also supports Veronen and Kilpatrick's (1982) speculations about the impact of differing definitions of rape on attitude and behavior.

Lastly, as hypothesized, attitudes toward rape victims do not appear to become less favorable during medical school as was implied by early antirape activists (Brownmiller, 1975; Griffin, 1971). A third-year medical student professional is not more unfavorable in his or her attitudes toward a rape victim than a first-year student. While this
finding is encouraging to victims who seek treatment from the medical profession, it does not necessarily guarantee that attitudes toward these patients are initially favorable. Medical student professionals are but a subset of society in general, a society which has been well documented (Burt, 1980; Field, 1978) to have unfavorable attitudes toward rape victims. Therefore, it is not unreasonable to assume that some members of the medical profession may also hold unfavorable attitudes. What early writers may have witnessed with regards to physicians' behaviors to prompt criticisms of the medical education process, may have been physicians who had unfavorable attitudes upon entering medical school and who remained with unfavorable attitudes throughout the medical education process.

Summarizing all the data, several factors emerge as important and bear repeating. In terms of attitudes toward sexual assault victims, medical student professionals, as a whole, do not appear to have as highly unfavorable attitudes as might be inferred from the writings of other researchers. However, the attitudes toward sexual assault victims are not as favorable as the attitudes toward other types of emergency room patients. Additionally, gender of the medical student professional appears to make a difference, with females being generally more favorable toward the sexual assault victims than their male counterparts.
Finally, there appears to be a group of sexual assault victims, the spurious rape victims, who are viewed quite differently and quite unfavorably by the medical student professional regardless of the year of training or gender of the student professional.

In terms of treatment knowledge, although there appears to be an increase in the level of knowledge medical student professionals possess from their first-year to their third-year with regard to sexual assault patients, the level of knowledge is not equivalent to that with regards to other types of emergency room patients. For both types of sexual assault victims, the more "acceptable" rape victim and the "spurious" rape victim, the medical student professional appears to be relatively unknowledgeable regarding medical and medical legal treatment procedures.

One of the merits of this study is the acquisition of normative data on a group of individuals who, as a function of their vocation, may hold particular salience to victims of sexual assault. Such information heretofore has been available via case histories, methodologically weak research designs, or ratings from fairly obtrusive observers, leaving one to make guesses as to the attitudes of the medical profession.

This study also examined a second dimension--that of treatment knowledge. Both, the level of treatment knowledge
and the attitude of the medical professional, are essential components which may greatly impact upon the care afforded to sexual assault patients. Another merit of this study is the finding regarding the effect of gender of the medical student professional upon attitudes. Until this study, other research did not attempt to investigate what is revealed to be an important variable in rape attitudinal research.

Perhaps one of the most important merits of this research is the data revealed on the spurious rape victim. These findings had not previously been demonstrated.

One of the limitations of this study is that the study is cross-sectional, rather than longitudinal, in nature. Also, the finding may not generalize to all medical universities. For those hypotheses regarding change in attitude or treatment knowledge, a cross-sectional study is an indirect method of investigation. The issue of construct validity is important as with all assessments of attitude. However, at the present time, Burt's (1980) Rape Myth Acceptance Scale and Field's (1978) Attitude Toward Rape Scale appear to represent two of the more valid measures in the field of psychology that is newly emerging.

The results reported here have two major implications. First, for that portion of sexual assault victims who fit the narrow, cultural definition of rape, medical professionals
do not appear to hold unfavorable attitudes. Therefore, those victims no longer need avoid seeking essential medical attention for fear of encountering unsympathetic, insensitive, or unfavorable attitudes from physicians. However, due to the likelihood that the physician in the emergency room may be unknowledgeable in various aspects of the rape examination, victims may option for a facility (private or public) which is known to have an established sexual assault treatment program and which is staffed by physicians who have specialized training.

A second implication is for those individuals who are involved in the development of medical education curriculum. If the goal of medical training is to increase the knowledge of the students in various areas of medical care, then changes in the curriculum regarding treatment of sexual assault victims appears to be in order. As importantly, consideration must be given to the nature and manner of the training provided so that the medical student professional does not begin to confuse his or her role as a health care provider with a judicial role.
Appendix A

Patient No. 1

A nineteen-year-old, attractive, white female presents to the emergency room stating that she has been raped. Patient is attired in slacks and a blouse with several tears in her clothing. Patient appears to be emotionally distressed. Her speech is articulate, coherent, but sometimes interrupted by episodes of crying. Patient states that she had stayed at work long enough for one drink at the yearly office party before heading home. As she walked, alone, to her car parked in an unlighted parking lot, she was approached by a man. Patient reports that the man said he was going to rape her and told her he would harm her if she screamed. Patient did not see a weapon, however. Patient reports that the man raped her, tore her blouse slightly in the process, and then walked away. He also forced her to have oral intercourse. She states that she came to the emergency room immediately. Patient is oriented X 3. Her intelligence appears to be average.
Appendix B

Patient No. 2

A twenty-year-old white female presents to the emergency room stating she has been a victim of a robbery. Patient is complaining of minor abrasions on her knee and forearm. She states that she received the injuries in the process of the robbery. Patient reports that she had stopped by a girl friend's house for a glass of wine after work and then left to go home. Patient reports being approached from behind by an unidentified male approximately 25-30 years old as she walked to her car. According to the patient, the assailant tried to grab her purse from her arm. The assailant was initially unsuccessful in the attempt to get the purse free, and the patient states that she then began to scream. Patient reports that she struggled with the man which resulted in a scrape to her arm. She also reports that she received an abrasion to her knee but isn't quite sure when that occurred. Patient is attired in a skirt and blouse. She appears moderately anxious. Her rate of speech is somewhat fast, but coherent. However, the patient is oriented X 3. She is of at least average intelligence.
Appendix C

Patient No. 3

A twenty-year-old, attractive, white female presents to the emergency room. She does not appear to be in acute emotional distress, as she sits quietly and looks out of the window waiting to be seen. She is neatly attired in what appears to be fresh clothing. Her hair is neatly combed. Rate of speech for this patient is slow, but logical in sequence. Patient states that earlier this evening she was made to have sexual relations with a man. Patient reports that she had met the man once before in a local bar. Patient states that this evening she was walking home from the same bar after having one beer when the man drove up beside her and offered her a ride home. Patient reports that she accepted the ride with the man, whom she said suggested that they have sexual relations. Patient states that she said she did not want to do so but the man restrained her arm and forced himself on her. Patient is oriented X 3. She is of average intelligence.
Appendix D

Attitudinal Scale

For each of the following, write in the blank beside the statement a number from 1 to 7 corresponding to the degree to which you agree or disagree with that statement.

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

1. This woman was responsible for preventing the incident.
2. This woman provoked the incident by her appearance.
3. This woman provoked the incident by her behavior.
4. This woman is an innocent victim.
5. Women who are out walking alone, at night, are asking for it.
6. This woman, to some extent, was asking for it.
7. This woman may have reported the incident for "attention."
8. The likelihood that this woman was fabricating the story to get back at someone is extremely low.
9. Some women have an unconscious wish to be the victim of forced sexual relations and may then unconsciously set up a situation in which they are likely to be attacked.
10. Assuming this woman was healthy before the incident, she could have been more successful in resisting the man if she had wanted to
11. The fact that this woman may not have been a virgin before the incident wouldn't figure into the believeability of her report.
12. The lack of signs of more serious physical trauma makes this woman's story slightly less credible.
13. This woman is less desirable than other women after the incident.
14. Had this woman been my neighbor, I would not feel any differently about the credibility of the story.
Appendix E

Patient Treatment Knowledge/
Delivery Test

For the following section, assume you are the physician for
the patient just described when she presents to the emergency
room. You are completely responsible for her care. Please
answer the questions as you would if you were actually
treating the patient, bearing in mind medical expertise and
good judgment with regards to cost-efficient health care
delivery.

Place a check mark only by those which you would obtain,
or have obtained, from this patient.

___ blood pressure ___ skull films
___ heart rate ___ CBC
___ respiration ___ urine sample
___ temperature ___ blood alcohol level
___ chest x-ray ___ blood type

Historical Data (general) (Circle yes or no)

Yes No 1. Patient's history should be obtained in a
private room.
Yes No 2. Another person should be allowed to be with the
patient during the history taking segment if the
patient desires.
Yes No 3. The history should be obtained and then put into
the physician's words to be more medically
precise and to avoid using slang terms of the
patient.
Yes No 4. Obtain signature on consent for treatment forms.
Yes No 5. Obtain signature on release of information forms.
Yes No 6. Obtain signature on release of clothing forms.
Yes No 7. Record patient's diagnosis on chart.

Historical Data (specific) (Which of the following should
you ask the patient? Place a check mark).

___ time of the incident
___ actual location of the incident
___ if she has any allergies
___ if she has ever had sexual intercourse before
___ if she has ever been pregnant
___ if she has ever had a child
___ if she has ever had an abortion
___ if she is currently pregnant
___ since the incident, has she urinated
since the incident, has she defecated
at the time of the incident, the reason why she wasn't walking with someone else
if she tried to scream
date of last menstrual period
since the incident, has she bathed
since the incident, has she douchd
if she has any physical illnesses
date of last sexual activity before the incident
if she uses a method of contraception
if she doesn't use a method of contraception, why not
for a very detailed description of the events, or acts, that occurred
if she has any scratches or bruises from the incident
if she resisted physically
if the assailant used a condom
if the assailant ejaculated

Equipment Required for Exam (Place check mark by those items required for this exam).

- self-developing camera (e.g. Polaroid)
- woods lamp
- microscope
- water-moistened speculum
- lubricated speculum
- white paper envelopes
- postage stamps
- diamond pencil or soft lead pencil

Exam (Place check mark by those activities you would perform as a part of this exam).

- photograph patient before having her disrobe
- examine for bruises, lacerations, or abrasions
- photograph any bruises, abrasions, or bite marks
- use saline-moistened swab to wipe any bite marks for saliva typing
- obtain fingernail scrapings
- inspect vulva, perineal body, anus, and hymenal ring for injury
- comb pubic hair
- obtain about ten pubic hairs with roots by plucking them out
- aspirate material from vaginal pool to examine for motile sperm
- aspirate material from vaginal pool to check for presence of acid phosphatase
- aspirate material from vaginal pool for use in ABO typing of semen
- collect clothing worn during incident from the patient
culture for gonococcus

tell patient to get VDRL in six weeks
make referral to local rape crisis center
make referral to victim services center in the community
give tetanus toxoid if puncture wound by foreign body and no immunization within ten years
make appointment for patient to get test for gonorrhea in seven days
assess for suicidal thoughts

prescribe 25 mg diethylstilbestrol BID X 5 days with antiemetic for patient who is not using oral contraception or IUD, pregnant, or menstruating

prescribe 1 gm of probenecid 30 minutes before injection of 4,800,000 units of penicillin if patient is not sensitive to penicillin

prescribe amoxapine X 2 weeks

do cultures for motile sperm in mouth
Appendix F

Biographical Sheet

Age: ___
Medical school class: 1 2 3 4
Sex: M F
Have you completed all basic science courses? Yes__ No__
Please circle current clinical rotation:
   Medicine; Surgery; Psychiatry; Pediatrics; OB-GYN; none
Please circle all clinical rotations you have completed:
   Medicine; Surgery; Psychiatry; Pediatrics; OB-GYN; none
Please list elective courses you have completed:
   __________________________; __________________________; ________;
   __________________________; __________________________; ________;
Have you had any experience working in the emergency room?
   Yes __ No __ If yes, was it: part of an elective
   rotation__ (Which one?) ________________________________
   part of a core clinical rotation__
   (Which one?) ________________________________
as a paid employee before medical school ___
as a paid employee while attending medical school ___
other ________________________________
Please describe specialized training and experience you may
have had in emergency room services. Indicate if training
or experience was for, or with, specific emergency room
patient populations such as cardiac patients; sexual
assault patients; respiratory failure patients, infectious
disease patients.
Appendix G

Informed Consent Agreement

I, __________________________, do hereby consent to participate in a study of possible treatment alternatives to emergency room patients. One of the project investigators, ________________________, has explained orally to me the details of this study, and I full understand the following:

1. I will be asked to complete a number of opinion questionnaires and treatment knowledge measures for three hypothetical emergency room patients described to me.

2. I understand that there is little, if any risk involved since I will only be filling out paper-and-pencil forms.

3. I understand that no record of my participation or discontinuance will be a part of my academic record of this institution. Also, my participation or discontinuance will not constitute an element of my academic performance.

4. I understand that the length of my participation in this project will be the time it takes to fill out the opinion questionnaires and answer the medical treatment alternative questionnaire.

_________________________ has agreed to answer any inquiries that I may have concerning the procedure(s) and has informed me that I might also contact the Medical University of South Carolina Institutional Review Board for Human Research (803-792-4148) directly. This Board administers the agreement with the United States Department of Health and Human Services covering the protection of human subjects.

I understand that in the event of physical injury resulting from the research procedures to the participant, reasonable medical treatment is available free through the Medical University of South Carolina; financial compensation is not available for medical treatment elsewhere, loss of work, or other expenses.

I understand that my records of participation in this study are not accessible to the general public and confidentiality will be maintained. Information that may be gained from this study will be used only for research and educational purposes. Information may be published with permission of
the principal investigator, but my identity will not be revealed. However, identifying information will be available to monitors from the MUSC I.R.B. for Human Research, and upon proper judicial order, the U.S. Food and Drug Administration.

I also understand that I am free to withdraw my consent and discontinue participation at any time. Discontinuation will in no way jeopardize my ability to receive treatment now or in the future at this Institution.

Witness

Signature of Participant

I concur:

Signature of Guardian
(If Applicable)

Witness

Date
Appendix H

Procedures Utilized in Emergency Rooms

Instructions

Enclosed in the packet you will find narrative descriptions of three hypothetical emergency room patients. Attached to each patient description will be 1) a questionnaire concerning medical treatment alternatives for that patient, and 2) a questionnaire concerning feelings or opinions you may have about that particular patient.

In the order in which "the patients" are presented to you in the packet, please: 1) read the patient's descriptive narrative, 2) answer the medical treatment alternative questionnaire, and 3) complete the opinion questionnaire. Do so for all three sets.

After you have finished the third set, please respond to the brief demographic data sheet. If you would like to make any comments, please feel free to do so on the back of this sheet.

When you have completely finished, place all the papers in the envelope, seal it, and return it to the examiner.

Thank you.
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