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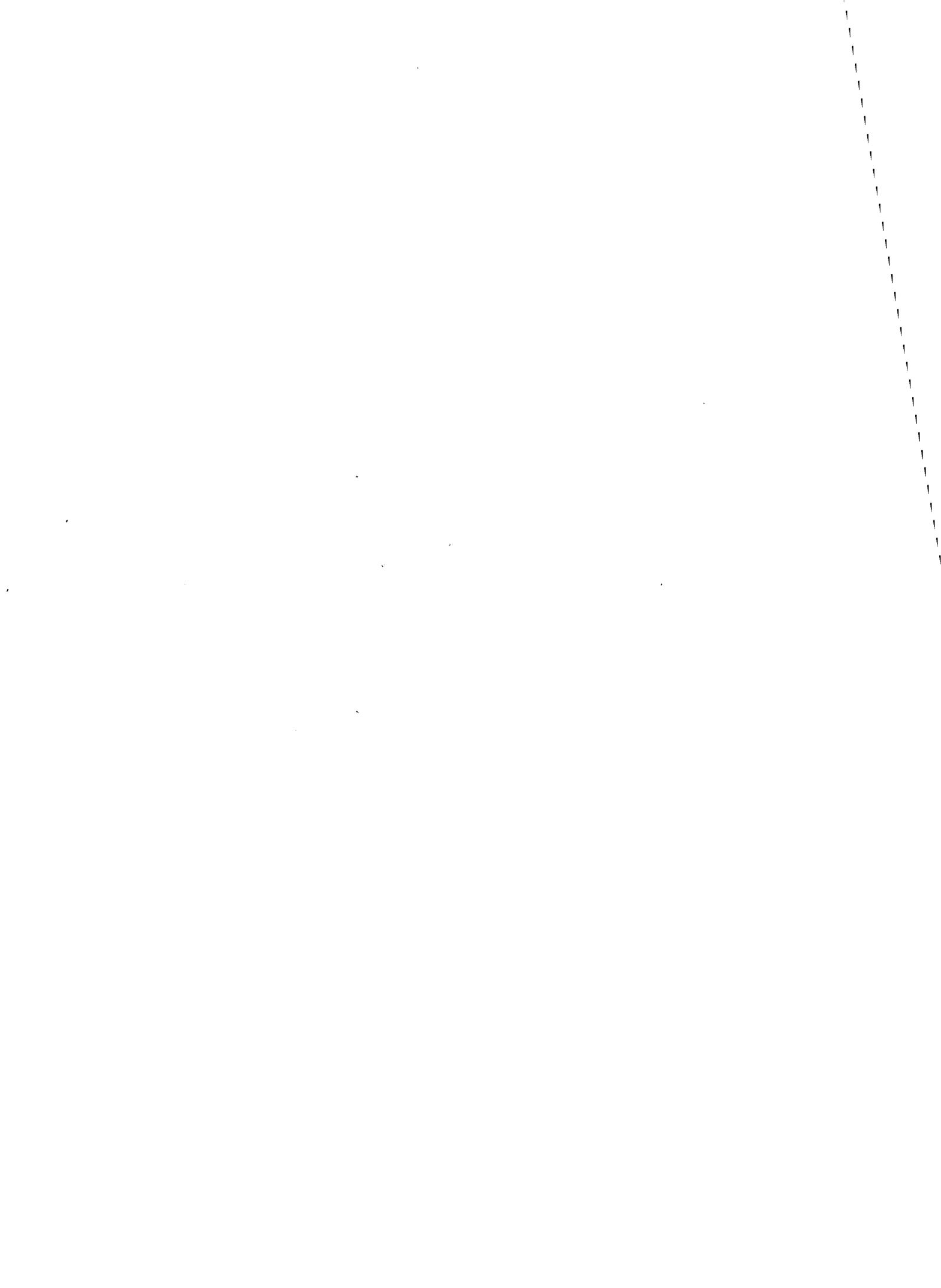
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THE EFFECTS OF AGE, INFORMATION, AND PROFESSIONAL
RECOMMENDATION ON INFORMED CONSENT

The University of Arizona

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THE EFFECTS OF AGE, INFORMATION, AND PROFESSIONAL
RECOMMENDATION ON INFORMED CONSENT

by

Madeline Jane Shinn

A Dissertation Submitted to the Faculty of the

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

In Partial Fulfillment of the Requirements
For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

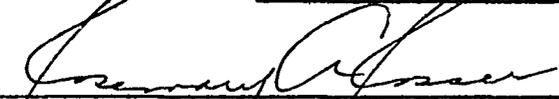
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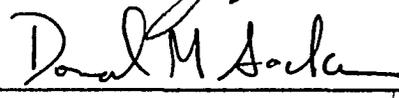
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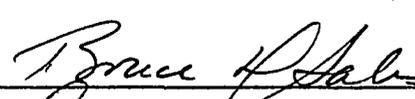
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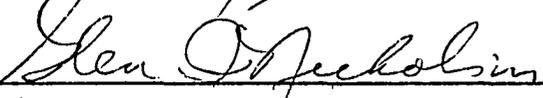
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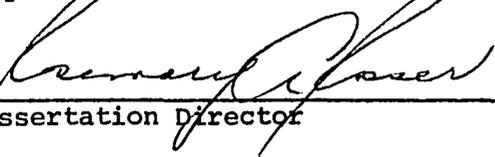
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ABSTRACT

The informed consent doctrine is based on the idea that an individual possesses the right of self-determination and therefore should retain control over his or her own body. For consent to be valid, the patient must have the capacity to consent, and give the consent knowingly, and voluntarily. In defining these terms and developing guidelines for the implementation of the informed consent doctrine, the law has made many assumptions regarding human behavior. Three of these assumptions became the foci of this study. First, the law assumes that minors lack the overall competence necessary to render legally valid consent. Second, it is assumed that the provision of all treatment information will interfere with the individual's ability to provide a valid consent. And finally, it is assumed that physicians disclose treatment information in a neutral fashion.

The purpose of this study was to examine the impact of the variables: age, information provided, and professional recommendation in the context of the first two components of the informed consent doctrine, capacity and knowledge. In addition, this study investigated the relationship between these variables and the treatment

ABSTRACT

The informed consent doctrine is based on the idea that an individual possesses the right of self-determination and therefore should retain control over his or her own body. For consent to be valid, the patient must have the capacity to consent, and give the consent knowingly, and voluntarily. In defining these terms and developing guidelines for the implementation of the informed consent doctrine, the law has made many assumptions regarding human behavior. Three of these assumptions became the foci of this study. First, the law assumes that minors lack the overall competence necessary to render legally valid consent. Second, it is assumed that the provision of all treatment information will interfere with the individual's ability to provide a valid consent. And finally, it is assumed that physicians disclose treatment information in a neutral fashion.

The purpose of this study was to examine the impact of the variables: age, information provided, and professional recommendation in the context of the first two components of the informed consent doctrine, capacity and knowledge. In addition, this study investigated the relationship between these variables and the treatment

decision made. Sixty junior high school students and sixty college students were randomly assigned to one of six treatment variations in which the amount of information provided and the professional recommendation varied. The groups in each variation listened to two treatment dilemmas. One involved the problem of depression while enuresis was the topic of the second. The dependent measures included (1) the Capacity Scale, (2) the Knowledge Scale, and (3) the Choice Scale.

It was found that adults scored significantly higher on the Capacity and Knowledge Scales than minors. Detailed information did not improve nor decrease subjects' Knowledge Scale scores. In addition, professional recommendation was found to significantly affect treatment choices made by subjects. The results were discussed in relation to the legal assumptions underlying the doctrine of informed consent as well as their implications for future research.

CHAPTER 1

INTRODUCTION AND REVIEW OF THE LITERATURE

The doctrine of informed consent is based on the notion that an individual possesses the right of self determination, with its implementation viewed as a method for ensuring that a patient, client, or research subject retains control over his or her own body. In the therapeutic context, the doctrine requires a service provider to disclose the nature of the disorder, the proposed treatment, the benefits and risks associated with the service, the probability of successful outcome, and the benefits and risks of available alternative treatments. For consent to be valid, the potential patient must have the capacity to consent, and give the consent knowingly and voluntarily. Clearly the conceptual emphasis is both on disclosure on the part of the provider and understanding on behalf of the patient (Annas, Glantz, & Katz, 1977).

Consent to treatment is required by both state and federal law and the codes of major professional organizations (American Psychological Association, 1981; American Medical Association, 1982). A lack of compliance with its requirements can lead to malpractice liability and has,

according to one source, led to a large increase in malpractice suits (Waltz & Scheuneman, 1969). Given its importance to the therapeutic relationship (Goldstein, 1962; Goldstein, Heller, & Sechrist, 1966), it is troubling that currently used consent procedures are typically ineffective in providing the consumer with sufficiently understandable information to obtain a valid consent (Boreham & Gibson, 1978; Korsch & Negrete, 1972).

Perhaps this finding is the result of a desire on the part of providers not to comply with the law because of their fear of widespread refusal to accept treatment if patients are provided with full explanations which include information on all possible complications of treatment. Yet, is there a real justification for these fears? For example, do patients understand the information that is conveyed to them during the consent process? And even if patients were fully informed, would they refuse to consent to treatment more frequently than is currently the case? These are but some of the questions that could be asked concerning informed consent law. There are other assumptions within this body of law that also require empirical assessment. Three are of relevance to this study.

First, the law assumes that age is a critical factor in determining a patient's competence to consent. Specifically, the law has assumed that minors lack this ability.

This has been challenged, both conceptually (Grisso & Vierling, 1978; Melton, 1981; Weithorn, 1982) and empirically (Grisso, 1981, Lewis, 1980; Weithorn & Campbell, 1982). The major result of these challenges has been the finding that individuals are able to meet the requirements of the capacity and knowledge components of the informed consent doctrine prior to reaching the age of 18. Second, the law assumes that it may not be in the best interest of patients in most cases, to provide substantial information regarding treatment plans. For instance, the law provides physicians with the "therapeutic privilege" which allows professionals to withhold treatment information if it is believed that the provision of such information will interfere with the patient's ability to make a rational decision. Consumers of health services, however, have indicated that they oppose such a privilege (President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, 1982). Third, and finally, the law assumes that service providers are presenting this information in both an informative and neutral way so that the patient can reach the decision whether to consent. Researchers conducting studies in vivo, however, have suggested that service providers view the informed consent procedure as a persuasion exercise in which their job is to persuade the patient to accept their treatment

recommendation, rather than one of preserving the patient's right to self determination (Lidz & Meisel, 1982).

Therefore the purpose of this study was to empirically examine the impact of the variables: age, information provided, and professional recommendation, in the context of the first two components of the informed consent doctrine, capacity and knowledge. Specifically, this study examined:

1. The relationship between the independent variables: age, amount of information provided, and professional recommendation, and the individual's capacity to provide informed consent.
2. The relationship between the independent variables: age, amount of information provided, and professional recommendation, and the individual's knowledge of consent information.

In addition, this study looked at the relationship between, and the predictive influence of these variables on the treatment decision made.

But before discussing this investigation further, it is important for the reader to understand both the law and the behavioral correlates as they relate to the components of informed consent.

The Components of Informed Consent

The Law and Behavioral Correlates of the Capacity to Consent

The Law. The law usually refers to capacity to consent in terms of mental capacity, with this latter phrase being defined as the ability to understand the nature and effect of the act in which a person is engaged and the business (s)he is transacting (Black's Law Dictionary, 1979). Methods are available for assessing understanding, but the law has chosen not to use them. Instead, it has made the assumption that the criteria of age and legal competency are the appropriate correlates upon which to base decisions regarding an individual's capacity to consent.

The use of the age correlate can be found in the law affecting minors. For example, this law does not recognize minors as having the capacity to consent to treatment unless they are "mature", "emancipated", or it is an emergency. The mature minor has been defined as a minor of "sufficient intelligence" to understand and appreciate the full significance of the proposed therapy (Mnookin, 1978). Criteria for determining "sufficient intelligence" have not been consistent, although the most often used standard has been the age of 15 (Pipel, 1972). An emancipated minor is one who is self-supporting and living separate and apart from parents (Annas, Glantz, & Katz, 1977). Regarding

emergencies, the determination as to whether such a situation exists is made by the physician. In addition to these exceptions, specific state statutes may allow minors of a certain age (varying across states) to consent to medical treatments related to pregnancy, venereal disease, contraception, and chemical dependency.

The use of the legal competency correlate can be found in the law affecting adults. This law presumes that an adult has the capacity to give consent unless (s)he has been judicially declared incompetent to act in such a manner. In doing so, one would assume that the court would look at whether the individual has been adjudicated in need of a guardianship and hence is legally incompetent. Yet, state law typically does not provide an operational definition that the court or mental health professional could use in assessing for competency (Sales, Powell, Van Duizend, & Associates, 1982). Thus, in most cases, it is not clear whether such a determination should affect decisions as to capacity since it is unclear whether the definition of competency is being related by the courts to "ability to understand" as the law seems to have required in defining capacity to consent.

This conclusion is supported by the fact that five categories of competency tests exist which are inferable from the literature and judicial commentary (Roth, Meisel, &

Lidz, 1977). They include: (1) evidencing a choice, which requires only that the individual make a decision for or against treatment, (2) "reasonable" outcome of choice, which would compare the individual's decision to that a "reasonable" person would make, (3) choice based on rational reasons, which examines whether the treatment decision was a result of rational or logical reasoning, (4) ability to understand, which involves the patient's ability to comprehend treatment facts, and (5) actual understanding, which is based on the individual's comprehension of disclosed treatment facts.

Even if we accept the legal definition of capacity to consent as the ability to understand and use the established criteria of age and legal competency to determine understanding, we are still left with two major problems. First, neither age nor legal competency are capable of serving as direct measures of the person's ability in this regard. Second, as will be discussed in more detail subsequently, the law has defined the knowledge component of informed consent as involving actual understanding. Since one of the tests noted above measures this behavior rather than ability to understand, there is a redundancy. Some authors have assumed that the law has not intended to be tautological, but instead has merely been conceptually confused in developing legal definitions for the components

of the informed consent doctrine (Grisso & Vierling, 1978). In order to sort out this conceptual muddle, it may be helpful to consider the way psychology has defined capacity.

Behavioral Correlates. Psychologically, capacity has been defined as the individual's ability to engage in a rational process of making decisions (Grisso & Vierling, 1978; Turnbull, 1977) and therefore involves both problem solving and decision-making activities. After reviewing problem solving theory and research, D'Zurilla and Goldfried (1971) concluded that the latter construct should be incorporated within the former, and identified five stages of problem solving: (a) general orientation or "set", (b) problem definition and formulation, (c) generation of alternatives, (d) decision making, and (e) verification.

The first two components (a and b) should be included under the knowledge component of informed consent because they involve understanding of the situation as presented by the service provider. The next two (c and d) are involved in logical reasoning and therefore fall under the capacity component. To be more precise, c and d should be further divided into four distinct behaviors: the ability to (1) generate alternative responses, (2) predict the consequences of the alternatives, (3) evaluate the desirability of the consequences, and (4) judge which is the best alternative.

The final step, verification (step e), comes into focus after the chosen treatment has been administered. If it solves the problem, verification is positive. If it does not, the entire process may start again, returning to step c. The validity of the perceived consequences becomes an issue under the "knowledge" component of the informed consent doctrine but is not of interest when considering capacity to consent. A hypothetical example may help to clarify this statement. If among the information disclosed by the service provider was the fact that the possibility of death in a proposed treatment was less than ten percent (10%) and the client misunderstood (knowledge component) that to mean that (s)he had only a ten percent (10%) chance of surviving the treatment, the decision to forego the treatment might be considered quite rational (capacity component) depending of course, on other factors such as risk of death without treatment. If on the other hand, we were to define capacity as understanding, the client in the example would be considered lacking the ability to consent and in need of a substitute decisionmaker. Moreover, if knowledge and capacity are defined as independent processes, it is possible that by altering the method of disclosure, the client could understand the facts (knowledge component) and then make a rational decision (capacity component) based

on valid information. In this latter case, the individual's right of self determination is preserved.

The Law and Behavioral Correlates of the Knowledge Component

According to Black's Law Dictionary (1979), knowledge cannot exist without understanding. The law has considered knowledge to be synonymous with information which involves both the imparting or communication of facts as well as the reception or understanding of those facts (Mitchell et al. v. Slye, 1920). In reference to the doctrine of informed consent, these two processes correspond to the information disclosure by the service provider and the patient's understanding of that information. Because these processes have been addressed separately by the law and independent psychological correlates can be identified for each, the disclosure and the understanding issues will be examined separately.

The Law of Disclosure. As already noted, the disclosure of information involves doctor-patient communications which must contain certain facts including the nature of the disorder, the proposed treatment, the benefits and risks associated with the service, the probability of successful outcome, and available alternative treatments with their concomitant benefits and risks. From case law, two standards have evolved to determine whether physicians

(and psychologists) have met this obligation. The oldest and most prevalent one is the "medical practice or average reasonable practitioner" standard which requires that a service provider disclose that information which the average, reasonable practitioner in the community would disclose under like circumstances. The second, the "reasonable patient" standard, requires that the service provider disclose that information which an average, reasonable individual would consider relevant in making an informed decision. A proposed third standard, which has not yet been adopted by any state, is the "particular patient" standard. If accepted, it would require the service provider to consider each patient's circumstances and to disclose the facts that the particular patient involved would consider relevant to the decision-making activity (President's Commission, 1932).

The law, however, does not make the disclosure obligation absolute. One exception to this requirement will occur if the patient chooses to waive the right to be informed. A second exception is the "therapeutic privilege" which providers may invoke at their discretion. This privilege allows the professional to withhold information from the patient if it is believed that disclosure would so upset the patient as to make it impossible for a rational decision to be made.

Behavioral Correlates. Given that the law has specified the types of information to be disclosed by service providers, the question then becomes one of determining whether professionals are disclosing this information as required by the two currently used standards of disclosure. Conducting content analysis of disclosures can verify whether the required information is being provided. This analysis should also answer three related questions. Has the service provider disclosed the proper amount of correct information? Has the information been communicated effectively, that is, in a manner which facilitates understanding on the part of the patient? Was the information understood by the patient? This latter question leads to the second element of the knowledge component and will be discussed in the section covering reception of information.

The amount of detail to be included in the information disclosure will be determined by the standard of disclosure being applied in the jurisdiction involved. Of the two standards currently in use, the reasonable practitioner standard and the reasonable patient standard, the latter would require more details. With the reasonable practitioner standard, the service provider will need to disclose those facts that (s)he and professional peers have agreed are necessary in order to allow the patient to make an informed and rational decision. In order to determine what

facts this includes, one needs to examine practitioner's beliefs about patient's needs for disclosure as well as their actual behaviors.

The reasonable patient standard, on the other hand, requires that the practitioner disclose that information that the average consumer would deem necessary in order to make an informed rational decision. Therefore, a content analysis of disclosure statements using this standard would most likely result in the finding that more details are being provided about the disorder, treatment, and alternative treatments than would be disclosed under the reasonable practitioner standard (President's Commission, 1982).

Since the knowledge component is also concerned with the way in which the consent information is conveyed, the content analysis should address the communicative approaches which facilitate patient understanding. In this analysis, the reading level of written forms and the comprehension level of verbal explanations should be identified.

Finally, there is a need to identify the assumptions underlying the exceptions to the disclosure requirement (i.e., patient waiver of the right to be informed and the "therapeutic privilege"). The Supreme Court has defined a waiver as an intentional and voluntary relinquishment of a known right (*Miranda v. Arizona*, 1966). As applied to the informed consent doctrine, it has been suggested that if a

patient does not want information, does not want to decide, or both, the service provider should tell the patient that (s)he has a legal right to receive the information and/or make a treatment decision but also has a right to waive this right (Meisel, 1979). For other waivers to be valid, such as the waiver of Miranda rights, it must be determined that the individual is relinquishing the rights competently, knowingly, and voluntarily. Therefore, it would seem that the same criteria should be fulfilled by those choosing to waive their right to make an informed treatment decision.

While the waiver of the right to be informed rests on the patient's decision, the second exception to the disclosure obligation, the "therapeutic privilege" exception, is a matter of professional discretion (Meisel, 1979). As already noted, it allows service providers to withhold information from the patient if the provider believes that disclosure will interfere with the patient's ability to make a rational decision. Several assumptions which underlie this exception remain to be empirically tested in order to ascertain the law's validity. These include that: (1) additional information will upset the patient to a greater extent than the nondetailed disclosure will, (2) practitioners are able to determine which information will upset the patient and which facts will not, (3) additional information does interfere with the patient's ability to

reason rationally in making a treatment decision, and (4) patients will be so frightened as to forego treatment or delay treatment to their detriment if they are given all the facts.

Whatever information is disclosed by the service provider, it must be presented in a manner that facilitates patient understanding. This understanding is the main emphasis of the second element of the knowledge component.

The Law Relating to Information Reception. The reception of information disclosed by the service provider involves the understanding of that information by the client. Ironically, however, a legally specified standard for determining acceptable reception of disclosed treatment facts by the client has not been developed. In fact, there is some support for the proposition that the informed consent doctrine does not require either actual patient understanding or any efforts by the service provider to determine the level of client understanding (Meisel & Roth, 1983). On the other hand, there is strong support for requiring that the patient understand the disclosed information because consent legally implies a knowledge of the facts (People ex rel. Vestuto v. O'Conner, 1958) which involves the understanding of information (Mitchell et al. v. Slye, 1920).

Behavioral Correlates. Although the law has not provided an operational definition of knowledge, Grisso and

Vierling (1978) have suggested that knowledge be interpreted as one's understanding of the semantic content of the information disclosed by the service provider. Behaviorally, the reception element of the knowledge component can then be defined as the match between the factual information presented by the professional and the paraphrasing of that information by the patient. This paraphrasing could be assessed through structured or semi-structured interviews (Grisso, 1981; Weithorn & Campbell, 1982) or through written assessment instruments (Taub, Kline, & Baker, 1981).

Each method of assessment has its own advantages and disadvantages. While the interview may provide the opportunity to explore the client's responses to comprehension questions, it also requires a greater degree of subjectiveness in scoring responses and thus reliability may become a problem. In addition, an individual's comprehension as assessed through an interview may be affected by his or her verbal expressive abilities (Grisso, 1981). The written assessment instrument eliminates the effect of expressive language abilities, yet does not allow the freedom one may desire to explore the subject's answers in further depth. Therefore, it would seem that the appropriate method to be used in determining whether a client understood the semantic content of the disclosure would depend upon the reason for the assessment. If the primary purpose is to aid in the

development of a better disclosure method, the interview may be the method of choice. On the other hand, if the purpose is to determine whether or not the patient is able to meet the requirements of the knowledge component, the written assessment may be the best and most practical method.

The Law and Behavioral Correlates of Voluntariness in Reaching Informed Consent Decisions

The Law. The law requires that consent be voluntary which suggests a freedom of choice and a free expression of the will (*Bessey v. Salemme*, 1939). Compliance with this requirement is contingent upon the individual's ability to make a decision which is free from coercion and from unfair persuasions and inducements (*Relf v. Weinberger*, 1974). Coercion, in turn, has been defined as occurring when a wrongful act or threat puts an individual in such fear as to compel that person to act against his or her will and must be ascertained by examining the individual's state of mind at the time of giving consent. The external factors making up the situation and a determination as to whether they are threatening will be relevant in assessing this state (*Fox v. Piercey*, 1951). Unfair persuasions or inducements occur when a confidential or fiduciary relationship exists that results in the destruction of an individual's ability to weigh various influences (*Williston on Contracts*, 1979; *Undue influence*, 1968).

In general, as is the case in the legal determination of capacity, the law presumes that a person has acted voluntarily unless facts to the contrary have been established (Turnbull, 1977). There are exceptions to this general presumption, however, one of which relates to minors.

As has been noted, minors are presumed generally to lack the overall competency required to provide a legally valid consent for treatment or therapy. Therefore, the courts have not found it necessary to examine minors' abilities to fulfill the voluntary requirement of the informed consent doctrine as it relates to medical decision-making. However, the courts have examined a minor's ability to voluntarily incur risks in nonmedical situations under the doctrine of "assumption of risk" (Annas, et al., 1977). This doctrine is a defense in a negligence action which seeks to demonstrate that in addition to understanding the risks of a particular action, the individual made a voluntary choice to incur those risks (Prosser, 1971). Given this course of action, courts have generally determined that whether a minor is able to assume inherent risks is a question of fact and do not find that minors are never able to do so (*Aldes v. St. Paul Club*, 1958). It may be that this would be the position taken if a court were to examine a minor's competence to give voluntary consent to medical

treatment, but at this point, such an assumption would be conjectural.

Behavioral Correlates. It has been suggested that an individual's competence to provide voluntary consent be considered when developing a psychological definition for the legal construct of voluntariness (Grisso & Vierling, 1978). This competence has been behaviorally defined as the individual's ability to give consent which is not an acquiescent or deferent response to authority. This definition can be criticized on two counts.

First, the law is concerned only with the voluntariness of a patient's consent in a particular situation, not any general ability which the individual may or may not possess. Second, acquiescence and deference do not necessarily correspond to the legal terms of coercion and undue influence. A patient might make an acquiescent response because (s)he is unable to arrive at a treatment decision independently and/or does not have any objections to the treatment proposed by the service provider. In this case the acquiescent response would not be considered a result of coercion. In essence, it could be conceptualized as a voluntary decision to allow the provider to make the final treatment choice. This case must be distinguished from that in which the patient responds acquiescently because of coercion. Coercion will exist if the patient fears to voice a

final decision which may contradict the service provider's proposal because of the provider's authoritative power as perceived by the patient or because of overt threatening behaviors by the provider. The problem is how to assess whether the patient's consent is a result of coercion or undue influence.

The need for a direct assessment procedure for determining whether consent is voluntary has previously been identified but has yet to be supplied (Saks, 1983). Two possible areas upon which to base this assessment exist, however. It could focus on the external factors surrounding the patient's consent as the law seems to have suggested (Fox v. Piercey, 1951), and/or it could focus on the patient's affective state since coercion implies the presence of fear and undue influence implies a feeling of powerlessness.

Given the law and its correlates, let us now consider findings from the empirical literature regarding the informed consent doctrine.

Review of the Literature

Empirical Studies on the Capacity to Consent

Empirical investigations examining the correlation between age and capacity to consent have generally resulted

in the finding that by the early teenage years, minors appear to possess the problem-solving and decision-making abilities equivalent to the average adult. This conclusion is well supported by both developmental theory and empirical research. Several reviews of the developmental literature have been completed (Grisso & Vierling, 1978; Melton, 1981; Weithorn, 1982) with all authors concluding that the arbitrary standard of age 18 as the cut off for determining when an individual acquires the capacity to consent is unsubstantiated.

In reaching this decision, researchers have identified several cognitive abilities as being involved in the process of problem solving and decision making. These include attention to the task, ability to delay response in the process of reflecting on the issues, ability to think in a sufficiently differentiated manner to weigh more than one treatment alternative and set of risks simultaneously, ability to abstract or hypothesize as yet nonexistent risks and alternatives, and ability to employ inductive and deductive forms of reasoning. After reviewing several studies comparing reflective to impulsive children (Finch & Montgomery, 1973; Kagen, Pearson, & Welch, 1966; McKinney, 1975; Rohwer, 1970) and locus of control studies (Davis & Phares, 1967; Distefano, Pryer, & Smith, 1971; Lefcourt & Wine, 1969; Rotter & Mulry, 1965; Seeman & Evans, 1962), Grisso and

Vierling (1978) concluded that children below the ages 12-13 would not be prepared to deal with consent situations requiring these abilities.

Many of the abilities noted above begin to emerge as the child moves from Piaget's stage of concrete operations to the stage of formal operations at approximately age 11 (Inhelder & Piaget, 1958). The concrete operational child deals with concrete things and events in the immediate present and therefore cannot engage in hypothetico-deductive reasoning as can the adolescent. This special type of reasoning allows the adolescent to formulate hypotheses and deduce logical consequences from these hypotheses at a level of verbal abstraction as would be required in some consent situations (Gruber & Voneche, 1977). In addition, as the child moves from the stage of concrete operations to the stage of formal operations, (s)he becomes less bound by centration and is able to consider several treatment alternatives and risks simultaneously (Grisso & Vierling, 1978). The child's role-taking ability increases as his or her egocentrism decreases. This decrease in egocentrism occurs during concrete operations and therefore, when the stage of formal operations is obtained, the adolescent is fully able to entertain ideas or possibilities presented by another individual, and reason about propositions (s)he may not actually believe (Gruber & Voneche, 1977).

While these cognitive abilities emerge as the child enters the stage of formal operations, not all 11 year olds possess the same cognitive structures as the average adult. The age at which a particular stage, such as formal operations, is entered may vary and depends on several variables including intelligence, culture, and experiences (Flavell, 1966). Allowing for this variance, we could expect the majority of adolescents to have entered the stage of formal operations by age 13-14 and therefore, be able to perform the cognitive tasks necessary to engage in rational problem solving.

Three empirical studies designed to assess minors' capacities to consent have also reached similar conclusions. One examined juveniles' capacities to waive Miranda rights (Grisso, 1981); the second investigated children's and adolescents' capacities to consent to medical and psychological treatment (Weithorn & Campbell, 1982); and the third compared minors' and adults' capacities to consent to abortions (Lewis, 1980).

Grisso (1981) concluded that as a class, juveniles of ages 14 and below cannot meet the requirements of a valid waiver of rights. This finding may have actually been due to the lack of cognitive abilities on behalf of the younger juveniles, or it may have been due to the fact that the wording of the Miranda warnings was identified as being at

the eighth grade level and therefore, younger juveniles had difficulty formulating the problem which was to be solved.

In comparing the capacity to consent of subjects in three age groups (9 years, 14 years, & adults), Weithorn and Campbell (1982) found that on most dependent measures, the only significant difference obtained was between the 9 year olds and the other subjects. In general, the 14 year old subjects were found to be as competent as the adults. Therefore, it would seem that while minors below the age of 15 may not be able to render a valid waiver of Miranda rights, they may possess the cognitive capacities necessary to render a valid consent to treatment if they have entered the stage of formal operations.

Empirically and theoretically, the research suggests that individuals below the age of 18 possess the capacity required to render an informed treatment decision. The four behaviors involved in the capacity issue: the ability to (1) generate alternative responses, (2) predict the consequences of each alternative, (3) evaluate the desirability of the consequences, and (4) judge which is the best alternative have been touched on by only one study which was limited to one type of consent situation (i.e., to consent to waive one's rights in a criminal situation) (Grisso, 1981). Research needs to focus on other settings since the other empirical literature has primarily only focused on

steps (2) and (4) (Lewis, 1980; Weithorn & Campbell, 1982), while steps (1) and (3) remain uninvestigated.

Empirical Studies on the Knowledge of Consent Information

Research on Disclosure. The research on this part of the law presents four major findings. First, physicians appear to view the informed consent procedure as a method for persuading the patient to accept the physician's choice of treatment. Second, medical consumers are not generally satisfied with the information they are receiving from service providers. Third, there does not appear to be any significant difference in the amount or type of information disclosed by physicians under the "reasonable practitioner" versus the "reasonable patient" standard. And finally, the written consent forms being used, while disclosing all of the required information, are probably not any more effective than the physician's verbalizations in informing consumers.

The finding that physicians erroneously see the informed consent process as a persuasion exercise rather than a means of preserving patient self determination was noted by Lidz and Meisel (1982).

Quite early in the (decisionmaking)
process, the physician reaches a
diagnosis and a decision about a

preferable treatment. Seldom does the doctor see a series of alternative possible treatments. Rather, for each problem there typically exists a medically preferable treatment, not a series of alternatives from which the patient must choose. It does not seem to the doctor to be a decisionmaking process but simply a question of persuading the patient to accept proper treatment. The decision has been made--by the doctor. It is now, in the medical view, time to make a recommendation to the patient (p. 401-402).

What is the consumer viewpoint regarding the information being disclosed by service providers? According to a recent survey (President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, 1982), the public opposes provider discretion on this issue and believes that consumers have a right to be told everything they wish to know regarding their particular condition and proposed treatment. The dissatisfaction experienced by patients on the receiving end of these

persuasions was noted in two studies investigating doctor-patient communications (Korsch & Negrete, 1972; Boreham & Gibson, 1978). Despite studying different populations and using different assessment methods, both investigations yielded data which were interpreted as indicating that the majority of patients did not acquire desired information through verbal contact with the service provider.

The two standards of disclosure, that of the "reasonable patient" and the "reasonable practitioner", were the focus of one investigation (Faden, Lewis, Becker, Faden, & Freeman, 1981). Using questionnaires, physicians' interpretations of both the "reasonable practitioner" and "reasonable patient" standards were examined. In addition, patients and parents of minor patients completed a questionnaire in order to obtain data on what information they would want disclosed. It was found that regardless of which standard is applied, medical practitioners disclosed information which would meet the "reasonable practitioner" standard. In addition, even if the practitioner attempted to comply with the other standard, (s)he was unsuccessful. This is supported by the finding that there was a substantial difference between what the physicians thought the reasonable patient would want to know and the information the parent-patients indicated as desirable, with the

physicians greatly underestimating the amount desired by the patients.

Despite provider's adherence to their own views of what the patient should be told, the validity of the "therapeutic privilege", which allows the withholding of treatment facts from patients, seems questionable. Studies have not demonstrated increases in patients' anxiety or apprehension levels (Denney, Williamson, & Penn, 1975; Lankton, Batchelder, & Ominsky, 1977) or refusals to accept treatment (Alfidi, 1971; Lankton et al., 1977) as a result of physicians' disclosures. However, these studies did not directly assess the effects of detailed versus general treatment explanations on subjects' treatment choices.

Since the research findings indicate that service providers are not providing all the legally required information to the patients through verbal communications, how then are they guarding themselves against malpractice suits? A partial answer lies within the written consent forms which are frequently constructed by committees of lawyers and physicians (Grundner, 1980) and which patients are required to sign prior to receiving diagnostic measures or treatment. While the forms disclose the legally required treatment information, it is questionable whether they effectively communicate the facts in order to promote patient understanding. The validity of this question was

supported by Grundner (1980) when he analyzed forms from five major medical facilities and found that four of the five were written on a level equivalent to a scientific journal while the fifth was on the level of a specialized academic journal.

Regarding the disclosure aspect of the informed consent doctrine, it appears that physicians are generally assuming that they know what information is desired by and what is best for each patient. The assumption that providing patients with more treatment details will affect patient decisions in a negative fashion has not received empirical support. However, as was noted, this assumption has never been directly studied by assessing the effect of general versus detailed treatment disclosures.

Research on Information Reception. Although the law has not yet developed a standard for acceptable understanding of treatment facts, it seems imperative that some level of patient understanding be attained in order to preserve the individual's right of self determination. Numerous investigations have purportedly demonstrated the client's lack of understanding of information disclosed in the process of obtaining informed consent. Yet, those studies did not measure the construct of comprehension. What was actually measured was memory for information presented at an earlier point in time. This is true for studies

investigating adults' consents to research (Epstein & Lasagna, 1969; Hasser & Weintraub, 1976; Marini, Sheard, & Bridges, 1976; Schultz, Pardee, & Ensinck, 1975; Williams, Trenholme, Rieckmann, Frisher, & Carson, 1977), adults' consents to treatment (Barbour & Blumenkrantz, 1978; Bergler, Pennington, Metcalfe, & Freis, 1980; Freeman, Pichard, & Smith, 1981; Kaufer, Steinberg, & Toney, 1983; Morrow, Gootnick, & Schmale, 1978), and children's consents to treatment (Holmes & Urie, 1975). Comprehension refers to the subject's understanding of the consensual meanings of the words and phrases contained in the consent document or explanation (Grisso & Vierling, 1978), while memory refers to the process of recalling learned information. It is possible that one may understand the information contained in an informed consent document yet may not transfer that information to long term memory. The results of one recall study may serve to demonstrate why the assessment of recall ability may lead to erroneous assumptions regarding patients' understandings of disclosed information.

Bergler, et al., (1980) assessed clinically hypertensive patients' abilities to recall information contained in an informed consent document. The patients completed a nine question multiple choice questionnaire two hours after reading the consent document and again after 3 months. The mean percentage of correct answers after two

hours was 71.6% and after three months was 61.2%. When one considers that prior exposure to the questionnaire as well as having experienced many of the events described in the form may have considerably inflated the three month score, the notion that the passage of time acts to decrease the recall ability for treatment facts is suggested. Therefore, studies reporting recall scores may be providing the profession with an underestimation of patients' abilities to understand disclosed information at the time of disclosure.

The separation of comprehension and retention was successfully accomplished by Taub, Kline, and Baker (1981) in their study investigating elderly adults' comprehension and memory scores for an informed consent procedure. By allowing subjects to refer to the disclosure document as they completed an eight item multiple choice questionnaire, failure to remember disclosed facts was eliminated as a source of variance. In addition, these researchers were sensitive to the issue of the document's readability level and therefore developed it to be "fairly easy" to read, requiring a sixth or seventh grade reading level. Recall of the disclosed information was assessed two to three weeks later, at which time the obtained scores were significantly worse than the initial comprehension scores.

Although most research addressing the knowledge component has not been designed to permit the separation of

comprehension and retention, some interesting facts have emerged from these studies. One such finding concerns the effect of the length of the consent form on patient recall of information. Epstein and Lasagna (1969) presented consent information to research subjects in three forms of varying lengths. Results on a written questionnaire indicated that recall significantly increased as the length of the form decreased. Given this finding, the advisability of giving patients all the treatment facts may be questionable.

The second finding concerns the factor of age. As part of their study on the competency of children and adolescents to make informed treatment decisions, Weithorn and Campbell (1982) obtained scores on what was called the Scale of Understanding. In comparing subjects of four age levels (9, 14, 18, and 21), no difference was found between 14 year olds' scores on this scale and those of the two adult groups. Because the subjects were unable to refer back to the provided information in this study, memory and comprehension were somewhat confounded. However, the findings may suggest that the law may have been overly conservative when it set the age of 18 as the criterion for determining when an individual understands consent information.

Summarizing the empirical research on both disclosure and reception of treatment facts, it appears that in many cases, consent givers are unable to comprehend or

recall information disclosed by service providers. The factors affecting this comprehension and recall failure have not been identified, although age does not appear to be responsible once the stage of formal operations has been entered. Those investigating disclosure practices seem to provide us with information that this process may be partly responsible for the problem because the information may not have been disclosed in a manner which facilitates understanding. Therefore, at this point there is a need to investigate patients' abilities to understand (not recall) the semantic content of the information disclosure when it is provided in a manner which facilitates understanding such as by assuring that the comprehension level of the disclosure is appropriate. In addition, the amount of information disclosed has emerged as a variable which could affect this facilitation and therefore should be investigated.

Empirical Research on Voluntariness in Reaching Informed Consent Decisions

Empirical research on this component of the informed consent doctrine is scarce and no studies exist which directly relate to the present investigation. Indirectly related is the finding that the standard procedures employed by many professionals may affect client compliance in a fashion that might approach coercion.

The notion the professionals may be subtly coercing patients or clients to comply was suggested by Rosen (1979). This was based on the results of a study which investigated clients' compliance with agency personnel's requests that a release of information form be signed. In this study, the rate of client compliance significantly decreased when the standard intake procedure was modified to educate the client as to the optional nature of this compliance. The implication was that not telling the client that signing the form was optional could be considered coercive.

In addition to withholding information from clients, requests for smaller acts of compliance may be a coercive practice. Based on social psychological research that attempted to study what he called the effect of induced action taking on subsequent compliance, Saks (1983) proposed that small acts of compliance prior to seeking consent tends to increase the probability of consent. For example, before being asked to sign a surgical consent form, a patient has very likely consented (either formally or informally) to be physically examined, hospitalized, and to undergo preoperative laboratory testing. While having the patient consent to these less serious procedures does not necessarily mean the resultant consent to surgery is involuntary, it is conceivable that such a process could develop into coercion. Because it has been demonstrated that compliance with

requests increases after a person has complied with an earlier request (Freedman & Fraser, 1966), the question arises as to the point at which a professional's requests for small acts of compliance from the patient will approach coercion. If these requests can affect a patient's decision regarding health care, might not there be other behaviors which could affect a patient's treatment choice? For example, physicians frequently recommend a particular treatment. Does this recommendation have any effect on the patient's final treatment decision? This question has never been examined empirically.

Statement of the Problem

It is clear from the review of the empirical literature that the relationships between the factors: age, amount of treatment information provided, and professional recommendation, and the dependent variables, capacity to consent, knowledge to consent, and treatment decision made have not yet been investigated. Therefore, these relationships became the foci of this study. The first question addressed in this study compared adolescents' and adults' problem solving and decision-making abilities in a health care situation as measured by the Capacity Scale. In addition, the relationship between this capacity and the

amount of treatment information provided and the professional's recommendation were examined.

The second question addressed in this study focused on the knowledge component of the informed consent doctrine. Specifically, the relationships between the independent variables: age, amount of information provided, and professional recommendation, and the dependent variable, the individual's Knowledge Scale score, were investigated.

In the third research question, the relationship between two independent variables: age and information provided, and the individual's choice of treatments was also investigated, as was the effect of the professional recommendation on the choice of treatment.

The fourth research question concerned the subjects' final treatment decisions. In addition to examining the relationships between the experimental variables and the decision made, as was the focus of the third question, this final research question added the subject's ability to meet the requirements of the informed consent doctrine in an attempt to predict the subject's final treatment choice. In other words, the predictive influence of age, information provided, professional recommendation, the subject's capacity to consent, and knowledge of consent information on the final treatment choice made was investigated.

CHAPTER 2

METHOD

Subjects

The subjects who participated in this study were junior high students (N = 60) from a public school district in Tucson, Arizona and college students (N = 60) in psychology classes at the University of Arizona and Pima Community College. The junior high students ranged in age from 13 years, 0 months to 14 years, 11 months. These subjects were recruited from six classes at the junior high after a visit to each classroom by the experimenter and a letter to the subjects' parents. This letter explained the research project and included a parental consent form. Candy bars were promised to those students returning the consent form whether parental consent was given or denied. The students were also provided with a consent form in order to obtain an independent assent to participate from the subjects.

The college students included in this study ranged in age from 18 years, 1 month to 40 years, 6 months (X = 23.4 years). These subjects were recruited through announcements in the psychology classes and/or on a bulletin

board in the psychology building. Students enrolled in psychology courses at the University of Arizona received five extra credit points for participating. Consent was sought only from the subjects themselves in this age group because they were of the age to be considered legal adults.

Subjects in each age group were randomly assigned to one of six dilemma groups. Three groups at each age level received general treatment information while three received detailed treatment information. At each information level, there were three recommendation variations: good recommendation, poor recommendation, and no recommendation. This latter condition served as the control condition for each information level. This resulted in ten subjects at each age level being randomly assigned to each group.

Experimental Setting

This study was conducted in the library classroom at the junior high school when data were collected from the 13-14 year olds. The auditorium in the Education Building at the University of Arizona was used to collect data from the University students and a classroom was used to collect data from the Community College students. Each room had six tape players. From each tape player, five subjects listened to the dilemmas through headphones. In this manner, data were collected from 30 subjects during each setting. One

adult was assigned to each group of five students to answer questions and to monitor the subjects.

Rater

An undergraduate university student was hired to serve as an independent rater for the Capacity Scale data collected. Training was provided during one two-hour session by the experimenter. Inter-rater reliability was assessed between the rater and the experimenter on randomly chosen and independently scored Capacity Scale protocols. Two assessments of agreement were made: (1) Pearson correlation coefficient and (2) percentage agreement statistic. The rater was uninformed as to the purpose of the study and the hypotheses under investigation.

Dependent Measures

The dependent measures in this study consisted of three scales adapted from "The Measure of Competency to Render Informed Treatment Decisions" (MOC)¹ (Weithorn, 1980). Weithorn reported Pearson reliability coefficients ranging from .38 to .95 on the portions of the MOC which

1. The Measure of Competency to Render Informed Treatment Decisions by Weithorn c 1980, Lois A. Weithorn, used with permission, with slight modifications by Shinn.

were modified for use in this study. The MOC was designed as an interview evaluation instrument but was transformed into written format with slight modifications for this study.

The first scale, which was titled the Capacity Scale, consisted of three open ended questions which were arranged in a chart form to facilitate ease of responding and scoring. This scale was designed to measure the subjects' problem-solving and decision-making abilities by assessing their abilities to engage in the four behaviors identified by D'Zurilla and Goldfried (1971) as crucial to this capacity: (1) generating alternative responses, (2) predicting the consequences of the alternatives, (3) evaluating the desirability of the consequences, and (4) judging which is the best alternative. The scale and scoring criteria may be found in Appendix D.

The second scale, the Knowledge Scale, was divided into two subscales: (1) Comprehension of Vocabulary, and (2) Comprehension of Situation and Side Effects. Both subscales consisted of 10 multiple-choice items each with three response options. In responding to the questions on the Knowledge Scale, the subjects were free to refer back to the written account of the dilemma in order to eliminate error due to memory failure. The subjects received one

point for each correct answer. The subscales and answer key may also be found in Appendix D.

The third dependent measure was the Choice Scale, which evaluated the subject's final treatment choice. The point value assigned to each treatment option was derived from the ratings of twelve psychologists, eleven of whom are currently engaged in private practice. The results of the rating process may be found in Table 1. When these ratings were used to develop the scoring criteria for the Choice Scale, the best choice was assigned a 3 point value and the worst choice was given a 0 point value. The second and third best choices received 2 and 1 point(s) respectively. The subjects indicated which treatment option they would choose by answering one multiple-choice question. As was the case on the Knowledge Scale, the subjects were allowed to refer to the written account of the dilemma as they made their choices. The multiple-choice question and scoring criteria may be found in Appendix D.

Procedure

Data Collection

Subjects in each age group were randomly assigned to one of six dilemma variations. Through headphones, the subjects in each group listened to a tape which began with a brief introduction and explanation of the study's purpose.

Table 1. Rank order frequencies by experts

Dilemma	Treatment Option	1st Choice		2nd Choice		3rd Choice		4th Choice	
		13 yr.	18 yr.						
Depression	Outpatient	11	10	0	1	0	0	0	0
	Inpatient	0	0	3	2	6	7	2	2
	Elavil	0	1	8	8	3	2	0	0
	No treatment	0	0	0	0	2	2	9	9
Enuresis	Outpatient	3	6	4	3	4	2	0	0
	Bell and pad	7	4	3	4	1	3	0	0
	Tofranil	1	1	4	4	3	6	3	0
	No treatment	0	0	0	0	3	0	8	11

The subjects were told that the purpose of the study was to gather information regarding the age at which individuals are capable of making decisions about their own health care. General instructions were given regarding the irrelevance of spelling errors in the subjects' responses and the importance of not talking or copying the responses of other students.

Following the general instructions, the students simultaneously listened to and read the appropriate variation of a treatment dilemma concerning depression or enuresis. Within each variation group, the subjects were presented with both the depression and enuresis dilemmas. The presentation of these dilemmas was counterbalanced within each group to control for an order effect. After the dilemma was presented, the three dependent measures were completed by the subjects. The Capacity Scale was completed first by all subjects so that information contained in the Choice Scale and Knowledge Scale would not affect the Capacity Scale score. This was followed by the Choice Scale and then the Knowledge Scale. These measures were completed as the subject heard a tape recorded reading of all items. Following the completion of these measures, the subjects repeated the process with the other dilemma. The entire process took approximately 45 minutes.

At the conclusion of the study, each subject was given a handout which explained the purpose of the study and emphasized the hypothetical nature of the dilemmas. This handout may be found in Appendix E.

Dilemma Variations

Ten subjects from each age group were randomly assigned to one of six variations of the dilemmas. These may be found in Appendix C. Each dilemma variation began with the same description of the hypothetical patient's problem. The dilemmas varied only in the amount of information (treatment details) provided to the subject and the recommendation made by the professional. The placement of the professional's recommendations at the end of the dilemma was chosen after informal observations of and interviews with practitioners in the community resulted in the finding that this was the practice followed by those who gave the patient treatment alternatives from which to choose.

Variation 1: General information with no professional recommendation. The subjects (n = 20) in this group received only general treatment information. For example, instead of being told specific side effects of a medication, they were told only that some physical side effects might occur. The service provider in these dilemmas did not offer any advice as to the treatment (s)he would

recommend. This served as a control measure against which to measure the effects of professional recommendation.

Variation 2: General information with a good recommendation. Subjects (n = 20) in this group received the same information as was provided in Variation 1. In addition, the professional in this dilemma condition did provide a recommendation that was determined to be a "good" recommendation based on the experts' ratings previously described.

Variation 3: General information with a poor recommendation. Subjects (n = 20) in this group received the same information as those in Variation 1. In addition, a poor recommendation was made by the professional. The determination as to which option was poor was based on the experts' ratings of the treatment options.

Variation 4: Detailed information with no recommendation. Subjects (n = 20) in this group received detailed treatment information. This included specific events that would happen with the application of each treatment option. For example, specific physical side effects were described as consequences of proposed medication. The service providers in these dilemmas did not offer any advice as to the treatment (s)he would recommend.

Variation 5: Detailed information with a good recommendation. Subjects (n = 20) in this group received

the same information as those in Variation 4. In addition, the professional in these dilemmas provided a recommendation that was rated as "good" by the expert raters.

Variation 6: Detailed information with a poor recommendation. Subjects (n = 20) in this group received the same information as those in Variation 4. In addition, a poor recommendation was made by the professional.

Planned Statistical Analysis

The first research question, which addressed the relationships between the independent variables: age, amount of information provided, and professional recommendation, and the dependent measure, the score obtained on the Capacity Scale, was analyzed using a 2 x 2 x 3 x 2 mixed design Analysis of Variance (age x information provided x recommendation x dilemma) with repeated measures on the last variable.

The second question addressed in this study examined the relationship between age and understanding of the treatment facts, as measured by the Knowledge Scale, as well as the effects of information provided and professional recommendation on the same understanding. The analysis used was a 2 x 2 x 3 x 2 x 2 (age x information provided x recommendation x dilemma x trial) mixed design ANOVA with repeated measures on the last two variables.

The relationship between the independent variables: age and information provided, and the subjects' treatment decisions as measured by the Choice Scale was a focus of the third research question. Also examined was the effect of professional recommendation on subjects' obtained Choice Scale scores. A 2 x 2 x 3 x 2 (age x information x recommendation x dilemma) mixed design ANOVA with repeated measures on the last variable was used.

Finally, the degree to which the experimental variables: age, information provided, and professional recommendation, as well as the Knowledge Scale score and Capacity Scale score predicted the subject's final treatment choice was analyzed by using discriminant analyses. This technique, which is an extension of multiple regression, allows the prediction of an outcome variable which is categorical. For this, each of the four treatment choices were assigned to one of three categories: (1) the good choice, (2) the poor choice, (3) other choices. The predictor variables were age, information provided, professional recommendation, Knowledge Scale score, and Capacity Scale score.

The research questions and the analysis designed to address them are summarized in Table 2.

Table 2. Objectives and methods of the research

Objectives of the Research	Method of Analysis	Research Hypothesis
To examine the relationship between age, information provided, and professional recommendation, and the subject's ability to engage in problem solving and decision making activities as they relate to the doctrine of informed consent (Capacity Component)	2 x 2 x 3 x 2 (age x information provided x recommendation x dilemma) mixed design ANOVA with repeated measures on the last variable.	The provision of detailed treatment information will be more effective than providing general treatment information at both age levels relative to scores on the Capacity Scale. Adults receiving general treatment information will obtain higher scores on the Capacity Scale than minors receiving general treatment information.
To examine the relationship between age, information provided, and professional recommendation, and the subject's understanding of the semantic content of the information disclosure (Knowledge Component)	2 x 2 x 3 x 2 x 2 (age x information provided x recommendation x dilemma x trial) mixed design ANOVA with repeated measures on the last two variables.	The provision of detailed treatment information will be more effective than providing general treatment information at both age levels relative to scores on the Knowledge Scale.

Table 2. Objectives and methods of the research (Continued)

Objectives of the research	Method of Analysis	Research Hypotheses
To examine the relationship between the independent variables, age and information provided, and the subject's choice of treatments. To determine the effect of professional recommendation on the subject's choice of treatments.	2 x 2 x 3 x 2 (age x information provided x recommendation x dilemma) ANOVA with repeated measures on the last variables.	Those subjects receiving good professional advice will score higher on the Choice Scale than those receiving poor or no advice. Those subjects receiving detailed treatment information will score higher on the Choice Scale than those receiving general information.
To examine the predictive effects of age, information provided, professional recommendation, subject's capacity score and subject's knowledge score on the final treatment choice made.	Discriminate Analysis	Professional recommendation will be the most powerful predictive variable. Age of the subjects will be the least powerful predictive variable.

CHAPTER 3

RESULTS

Capacity Scale

The assessment of inter-rater reliability for the Capacity Scale was completed through use of the Pearson product-moment correlation coefficient and a percentage agreement statistic. Both were calculated for data independently scored by the rater and the experimenter. On the Depression Capacity Scale, the Pearson correlation coefficient and percentage agreement were $r = .98$ and 97.7% respectively. Inter-rater reliability for the Enuresis Capacity Scale was measured at $r = .98$ (Pearson correlation coefficient) and 95.8% (percentage agreement).

The data obtained from the Capacity Scale were analyzed using a 2 x 2 x 3 x 2 (age x information provided x recommendation x dilemma) mixed design analysis of variance with repeated measures on the last factor. Descriptive statistics for the Capacity Scale are presented in Table 3; a summary of the analysis of variance is displayed in Table 4. The means presented in parentheses below were derived by collapsing scores across groups.

Table 3. Means and standard deviations of Capacity Scale

Group	Depression Dilemma		Enuresis Dilemma	
	\bar{X}	SD	\bar{X}	SD
Minors receiving General Information and No Recommendation	8.1	2.60	9.0	2.10
Minors receiving General Information and a Good Recommendation	9.0	2.66	8.9	1.96
Minors receiving General Information and a Poor Recommendation	9.8	2.34	8.4	2.91
Minors receiving Detailed Information and No Recommendation	10.5	2.36	9.3	1.87
Minors receiving Detailed Information and a Good Recommendation	8.2	2.85	8.5	2.27
Minors receiving Detailed Information and a Poor Recommendation	9.3	2.35	9.1	2.42
Adults receiving General Information and No Recommendation	11.6	2.50	11.7	1.70
Adults receiving General Information and a Good Recommendation	10.1	2.13	10.3	1.70
Adults receiving General Information and a Poor Recommendation	11.3	2.00	10.7	1.83

Table 3. Means and Standard Deviations of Capacity Scale
(Continued)

Group	Depression Dilemma		Enuresis Dilemma	
	\bar{X}	SD	\bar{X}	SD
Adults receiving Detailed Information and No Recommendation	11.1	1.66	10.9	1.72
Adults receiving Detailed Information and a Good Recommendation	12.4	2.59	10.4	1.34
Adults receiving Detailed Information and a Poor Recommendation	12.3	1.63	10.8	1.03

Table 4. Summary of analysis of variance on Capacity Scale

Source	df	MS	F	P
A (age)	1	258.34	39.96	<.001
I (Information)	1	8.44	1.31	ns
R (recommendation)	2	8.02	1.24	ns
D (dilemma)	1	10.84	3.72	ns
AI	1	.01	.00	ns
AR	2	.15	.02	ns
IR	2	.15	.02	ns
DA	2	3.50	1.20	ns
DI	1	4.54	1.56	ns
DR	1	4.55	1.56	ns
AIR	2	20.82	3.22	<.05
DAI	1	5.10	1.75	ns
DAR	2	1.22	.42	ns
DIR	2	1.85	.63	ns
DAIR	2	5.82	2.00	ns
S(AIR)	108	6.47	----	
S(AIR)D	108	2.91	----	

A significant main effect was found for age ($F 1, 108 = 39.96, p < .001$). An examination of the means indicated that adults ($X = 11.13$) performed significantly better than the minor subjects ($X = 9.05$) on the Capacity Scale.

A significant second order interaction was found for age by information provided by recommendation ($F 2, 108 = 3.22, p < .05$). The Tukey post hoc analysis of this interaction depicted in Figure 1 revealed that adults receiving detailed information regardless of the recommendation (good recommendation $X = 22.8$, no recommendation $X = 22.0$, poor recommendation $X = 23.1$) and adults receiving general information with no recommendation ($X = 23.3$) scored significantly better on the Capacity Scale than the minors in all groups ($p < .01$) with the exception of those minors receiving detailed information with no treatment recommendation ($X = 20.3$). Adults receiving general information with a poor recommendation ($X = 22$) also obtained significantly higher Capacity Scale scores than minors receiving general information regardless of the recommendation (good recommendation $X = 17.9$, no recommendation $X = 17.1$, poor recommendation $X = 18.2$) ($p < .05$). No significant differences were found between the minor groups or between the various adult groups.

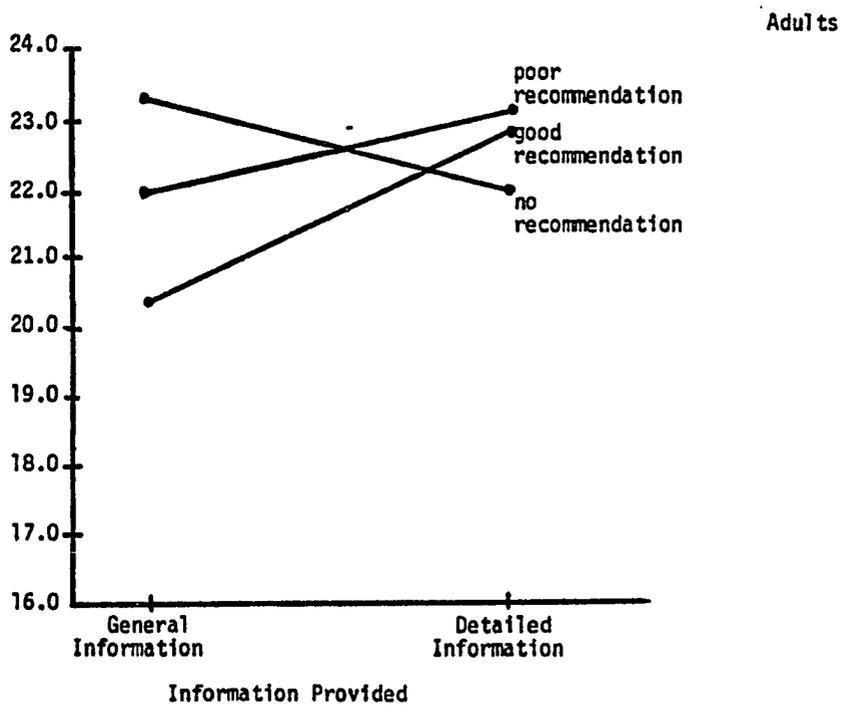
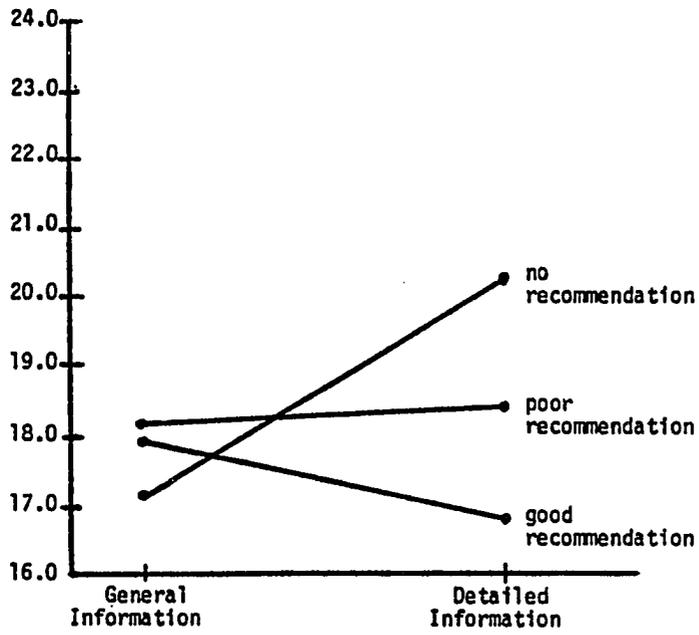


Figure 1: Mean score obtained on Capacity Scale as a function of age x information provided x recommendation

Knowledge Scale

The data obtained from the Knowledge Scales were analyzed using a 2 x 2 x 3 x 2 x 2 (age x information provided x recommendation x dilemma x test) mixed design analysis of variance with repeated measures on the last two variables. The descriptive statistics associated with this scale may be found in Tables 5 and 6; a summary of the analysis of variance is presented in Table 7. The means presented in parentheses below were derived by collapsing scores across groups. Significant main effects were found for age ($F_{1, 108} = 22.85, p < .0001$), and dilemma ($F_{1, 108} = 7.61, p < .01$). As was true for the Capacity Scale, adults ($X = 8.80$) obtained significantly higher scores on the Knowledge Scale than minors ($X = 8.20$). In general, subjects scored significantly better on the Enuresis Knowledge Scale ($X = 8.61$) than on the Depression Knowledge Scale ($X = 8.39$).

Significant first order interactions were found for information by recommendation ($F_{2, 108} = 7.20, p < .05$), test by age ($F_{1, 108} = 3.69, p < .01$), and test by information ($F_{1, 108} = 4.37, p < .05$). Tukey post hoc analysis of the information by recommendation interaction indicated that the groups receiving detailed information

Table 5. Means and standard deviations of Depression Knowledge Scale

Group	Depression		Side Effects	
	Vocabulary \bar{X}	SD	\bar{X}	SD
Minors receiving General Information and No Recommendation	8.4	1.58	7.6	1.26
Minors receiving General Information and a Good Recommendation	9.0	1.05	8.0	1.15
Minors receiving General Information and a Poor Recommendation	8.2	1.22	7.9	1.73
Minors receiving Detailed Information and No Recommendation	7.5	1.18	7.9	1.10
Minors receiving Detailed Information and a Good Recommendation	8.4	.70	6.9	1.29
Minors receiving Detailed Information and a Poor Recommendation	8.3	1.16	8.7	1.25
Adults receiving General Information and No Recommendation	9.0	.82	8.6	1.17

Table 5. Means and standard deviations of Depression Knowledge Scale (Continued)

Group	Depression			
	Vocabulary \bar{X}	SD	Side Effects \bar{X}	SD
Adults receiving General Information and a Good Recommendation	8.7	1.16	8.7	1.16
Adults receiving General Information and a Poor Recommendation	8.6	1.17	8.5	.85
Adults receiving Detailed Information and No Recommendation	8.2	1.69	9.2	.79
Adults receiving Detailed Information and a Good Recommendation	8.2	1.62	8.9	.88
Adults receiving Detailed Information and a Poor Recommendation	8.7	.67	9.3	.67

Table 6. Means and standard deviations of Enuresis Knowledge Scale

Group	Enuresis			
	Vocabulary \bar{X}	SD	Side Effects \bar{X}	SD
Minors receiving General Information and No Recommendation	8.8	1.14	8.4	.84
Minors receiving General Information and a Good Recommendation	8.5	.85	8.6	.97
Minors receiving General Information and a Poor Recommendation	8.5	1.03	7.7	.95
Minors receiving Detailed Information and No Recommendation	8.6	1.26	8.0	1.05
Minors receiving Detailed Information and a Good Recommendation	8.2	1.22	7.7	1.16
Minors receiving Detailed Information and a Poor Recommendation	8.8	.79	8.4	1.26
Adults receiving General Information and No Recommendation	9.2	.42	9.2	.79

Table 6. Means and standard deviations of Enuresis Knowledge Scale (Continued)

Group	Enuresis			
	Vocabulary \bar{X}	SD	Side Effects \bar{X}	SD
Adults receiving General Informa- tion and a Good Recommendation	9.6	.97	8.4	1.17
Adults receiving General Informa- tion and a Poor Recommendation	9.0	.94	8.2	.92
Adults receiving Detailed Informa- tion and No Recommendation	9.0	.67	9.1	.74
Adults receiving Detailed Informa- tion and a Good Recommendation	9.8	1.32	9.0	1.15
Adults receiving Detailed Informa- tion and a Poor Recommendation	9.2	.79	9.0	1.05

Table 7. Summary of analysis of variance on Knowledge Scale

Source	df	MS	F	P
A (age)	1	42.60	22.85	<.0001
I (Information)	1	.02	.01	ns
R (recommendation)	2	1.06	.57	ns
T (test)	1	4.22	3.69	ns
D (dilemma)	1	6.30	7.61	<.01
AI	1	3.50	1.88	ns
AR	2	1.10	.59	ns
IR	2	7.20	3.87	<.05
TA	1	8.27	7.23	<.01
TI	1	5.00	4.37	<.05
TR	2	.36	.31	ns
DA	1	.35	.43	ns
DI	1	.60	.73	ns
DR	2	2.02	2.45	ns
TD	1	1.30	1.37	ns
AIR	2	2.01	1.08	ns
TAI	1	1.75	1.53	ns
TAR	2	1.41	1.23	ns
TIR	2	1.25	1.09	ns
DAI	1	.05	.06	ns
DAR	2	.13	.15	ns
DIR	2	.51	.62	ns
TDA	1	1.75	1.84	ns
TDI	1	2.55	2.69	ns
TDR	2	2.79	2.94	ns
TAIR	2	.73	.64	ns
DAIR	2	.09	.11	ns
TDAI	1	.00	.00	ns
TDAR	2	1.59	1.67	ns
TDIR	2	1.10	1.16	ns
TDAIR	2	.03	.03	ns
S(AIR)	108	1.86	----	
S(AIR)T	108	1.14	----	
S(AIR)D	108	.83	----	
S(AIR)TD	108	.95	----	

with a poor recommendation ($X = 35.2$) and those receiving general information with no recommendation ($X = 34.6$) obtained significantly higher scores than those receiving detailed information with a good recommendation ($X = 33.05$) ($p < .01$) and those receiving general information with a poor recommendation ($X = 33.3$) ($p < .05$). This interaction is illustrated in Figure 2.

Figure 3 displays the subtest by age interaction. Post hoc analysis of this interaction indicated that minors obtained significantly lower scores on the Situation and Side Effects subscales ($X = 15.96$) than they did on the Vocabulary subscales ($X = 16.86$) ($p < .01$). In addition, the minors' obtained scores on both the Vocabulary subscales and the Situation and Side Effects subscales were significantly lower than those obtained by adults on the same scales (Vocabulary $X = 17.54$, Situation and Side Effects ($X = 17.68$) ($p < .01$). No significant difference between the subscale scores obtained by adults was noted.

The interaction effect of the test by information interaction is presented in Figure 4. The Tukey post hoc analysis of this interaction revealed that those subjects receiving general information scored significantly higher on the Vocabulary subscales ($X = 17.41$) than they did on the Situation and Side Effects subtests ($X = 16.63$) ($p < .01$). There was no significant differences between the obtained

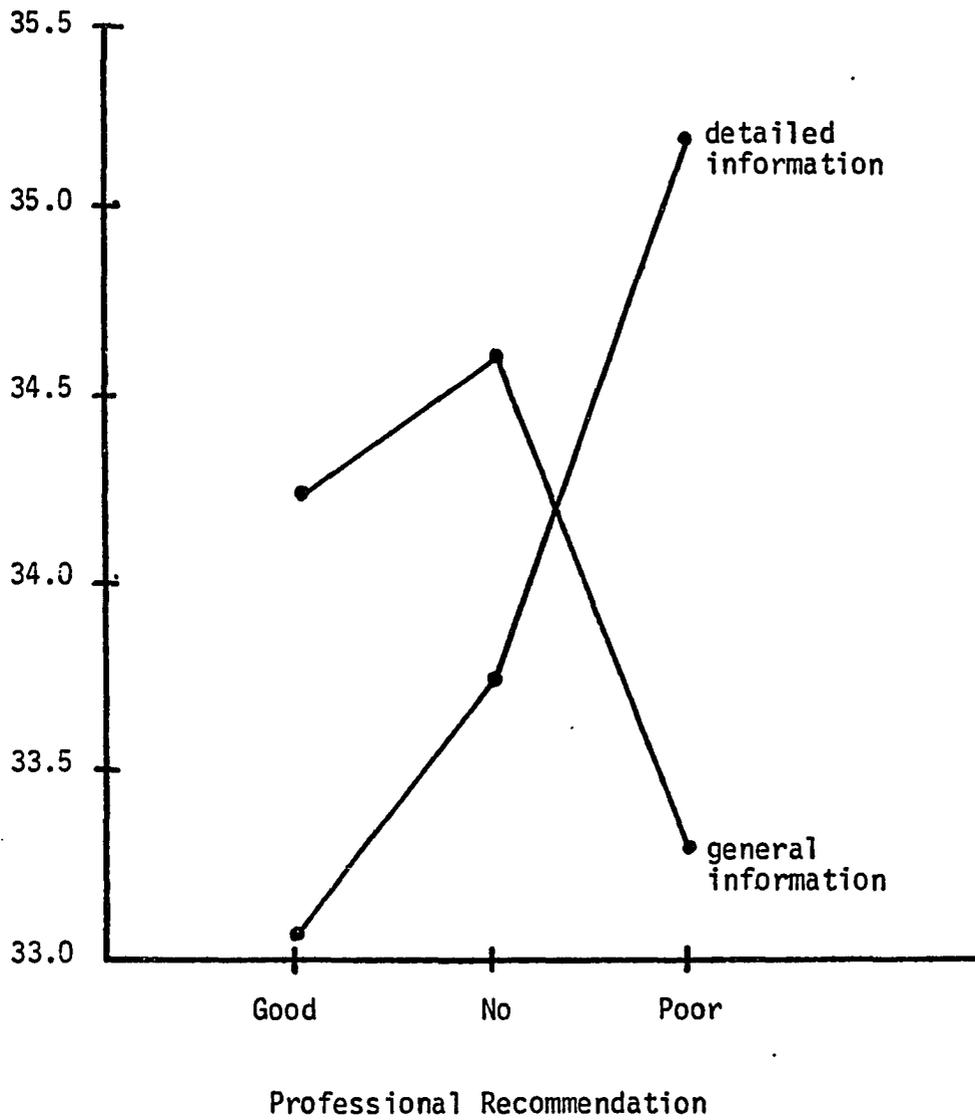


Figure 2: Mean score obtained on Knowledge Scale as a function of information provided x recommendation

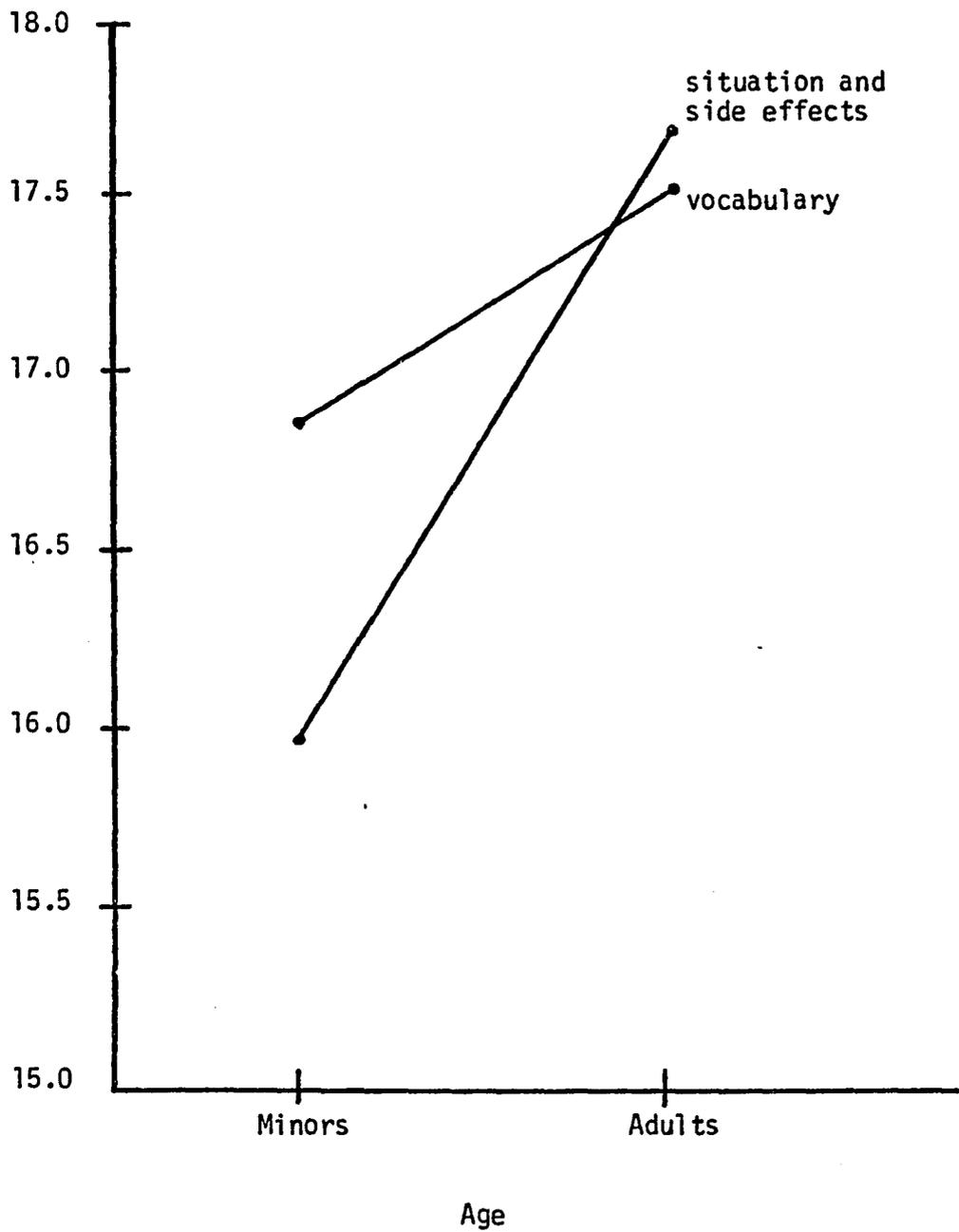


Figure 3: Mean score obtained on Knowledge Scale as a function of subtest x age

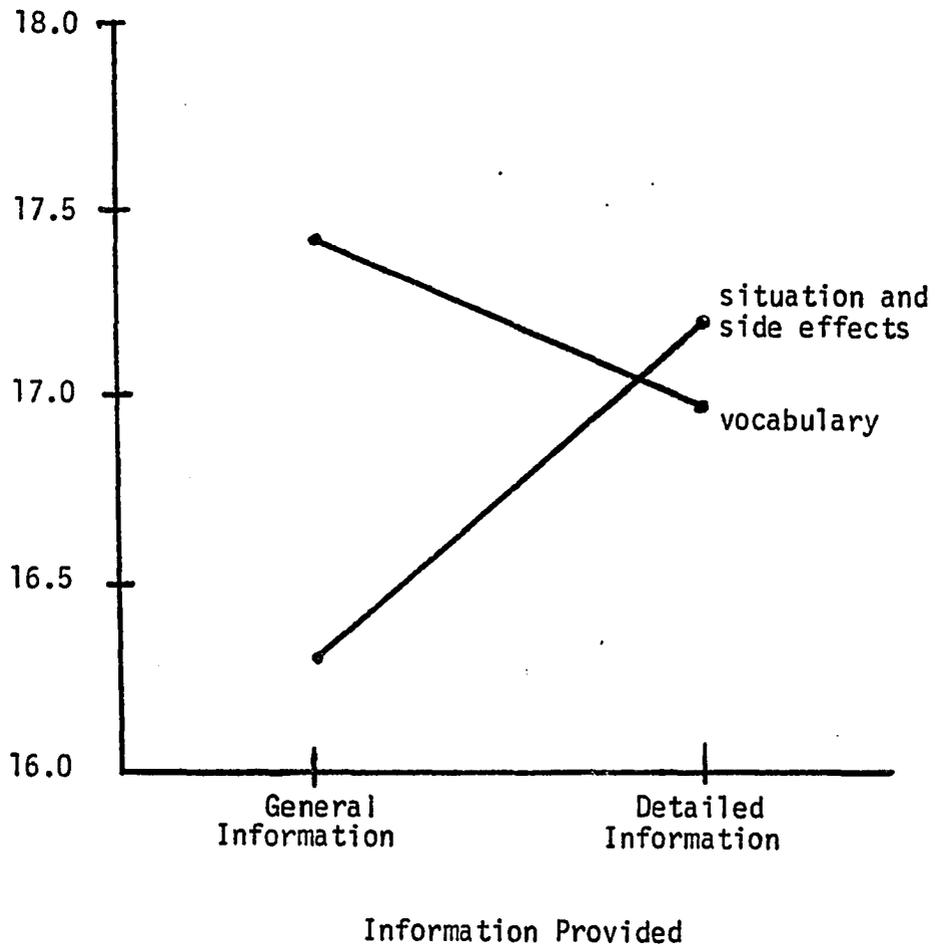


Figure 4: Mean score obtained on Knowledge Scale as a function of subtest x information provided

Vocabulary subscale scores and the Situation and Side
Effects subscale scores of those subjects receiving detailed
information.

Choice Scale

The Choice Scale data were examined through a 2 x 2 x 3 x 2 (age x information provided x recommendation x dilemma) mixed design analysis of variance with repeated measures on the last factor. Descriptive statistics for this scale are presented in Table 8; a summary of the analysis of variance is presented in Table 9. The means presented in parentheses below were derived by collapsing scores across groups. Significant main effects were found for recommendation ($F_{2, 108} = 3.25, p < .05$) and dilemma ($F_{1, 108} = 6.60, p < .01$). The Tukey post hoc analysis of the effects of recommendation indicated that those subjects receiving a poor treatment recommendation scored significantly lower on the Choice Scale ($M = 4.4$) than those receiving no recommendation ($M = 4.9$) ($p < .05$) or those receiving a good recommendation ($M = 5.08$) ($p < .01$). This is illustrated in Figure 5. The subjects made better treatment choices for the depression dilemma ($M = 2.54$) than for the enuresis dilemma ($M = 2.25$) ($p < .01$).

Table 10 presents the percentage of subjects choosing the good treatment choice despite being presented with a poor recommendation or no recommendation. For the enuresis dilemma, 35% of the adults and 30% of the minors

Table 3. Means and standard deviations of Choice Scale

Group	Depression		Enuresis	
	\bar{X}	SD	\bar{X}	SD
Minors receiving General Informa- tion and No Recommendation	1.6	1.34	2.5	.71
Minors receiving General Informa- tion and a Good Recommendation	2.7	.95	2.3	.95
Minors receiving General Informa- and a Poor Recommendation	2.4	1.07	1.4	.70
Minors receiving Detailed Informa- tion and No Recommendation	2.3	.63	2.7	.48
Minors receiving Detailed Informa- tion and a Good Recommendation	3.0	.90	2.0	.94
Minors receiving Detailed Informa- tion and a Poor Recommendation	2.5	.35	2.3	.82
Adults receiving General Informa- tion and No Recommendation	2.6	.84	2.4	.70
Adults receiving General Informa- tion and a Good Recommendation	2.8	.63	2.6	.52

Table 3. Means and standard deviations of Choice Scale
(Continued)

Group	Depression		Enuresis	
	\bar{X}	SD	\bar{X}	SD
Adults receiving General Informa- tion and a Poor Recommendation	2.6	.84	2.2	.63
Adults receiving Detailed Informa- tion and No Recommendation	2.7	.95	2.3	1.25
Adults receiving Detailed Informa- tion and a Good Recommendation	2.5	1.03	2.4	.34
Adults receiving Detailed Informa- tion and a Poor Recommendation	2.3	.95	1.9	1.19

Table 9. Summary of analysis of variance on Choice Scale

Source	df	MS	F	P
A (age)	1	.50	.67	ns
I (Information)	1	.70	.93	ns
R (recommendation)	2	2.45	3.25	<.05
D (dilemma)	1	5.10	6.60	<.01
AI	1	5.10	6.76	<.01
AR	2	.00	.01	ns
IR	2	1.13	1.50	ns
DA	1	.00	.01	ns
DI	1	.34	.44	ns
DR	2	1.78	2.30	ns
AIR	2	.43	1.50	ns
CAI	1	.20	.26	ns
CAR	2	2.08	2.69	ns
CIR	2	1.29	1.66	ns
CAIR	2	1.00	1.30	ns
S(AIR)	2	.76		
S(AIR)D	2	.77		

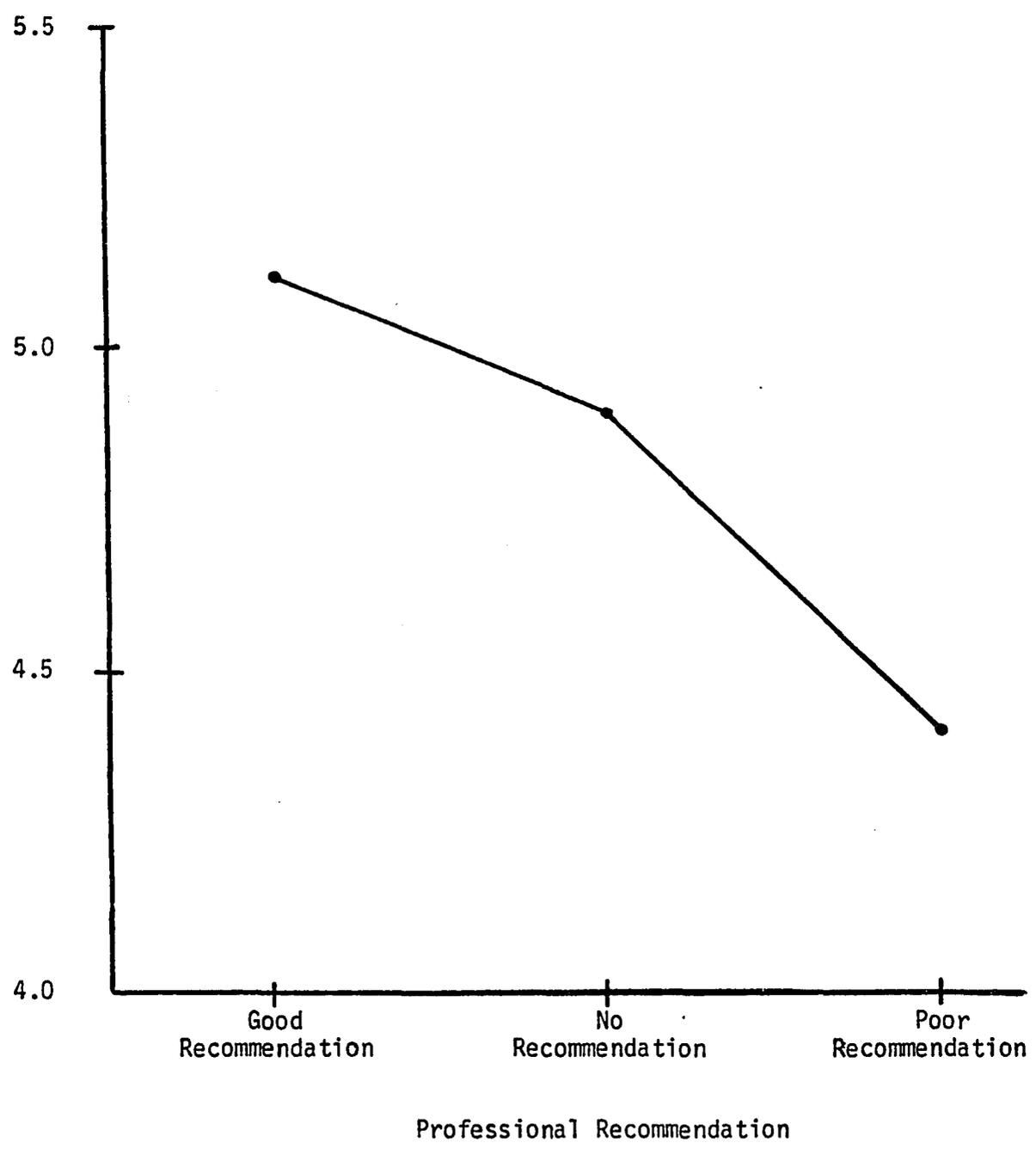


Figure 5: Mean Choice Scale score as a function of professional recommendation

Table 10. Percentage of subjects choosing the best treatment option

Group	Depression Dilemma	Enuresis Dilemma
Minors receiving a Good Recommendation	95	50
Minors receiving No Recommendation	65	65
Minors receiving a Poor Recommendation	70	30
Adults receiving a Good Recommendation	85	60
Adults receiving No Recommendation	85	60
Adults receiving a Poor Recommendation	70	35

receiving the poor recommendation chose the good option (bell and pad) while 60% of the adults and 65% of the minors in the no recommendation group chose the bell and pad. The good treatment choice (outpatient psychotherapy) was chosen by 70% of the minors and adults receiving the poor recommendation in the depression dilemma. Of those subjects receiving no treatment recommendation in the depression dilemma, 65% of the minors and 85% of the adults chose outpatient psychotherapy.

A significant first order interaction was found for age by information. Analysis of this interaction, which is depicted in Figure 6, revealed that minors receiving detailed information ($X = 5.1$) and adults receiving general information ($X = 5.07$) obtained significantly higher scores on the Choice Scale than minors receiving general information ($X = 4.3$) ($p < .01$). While both of these former groups scored higher than adults receiving detailed information ($X = 4.7$), the differences were not statistically significant.

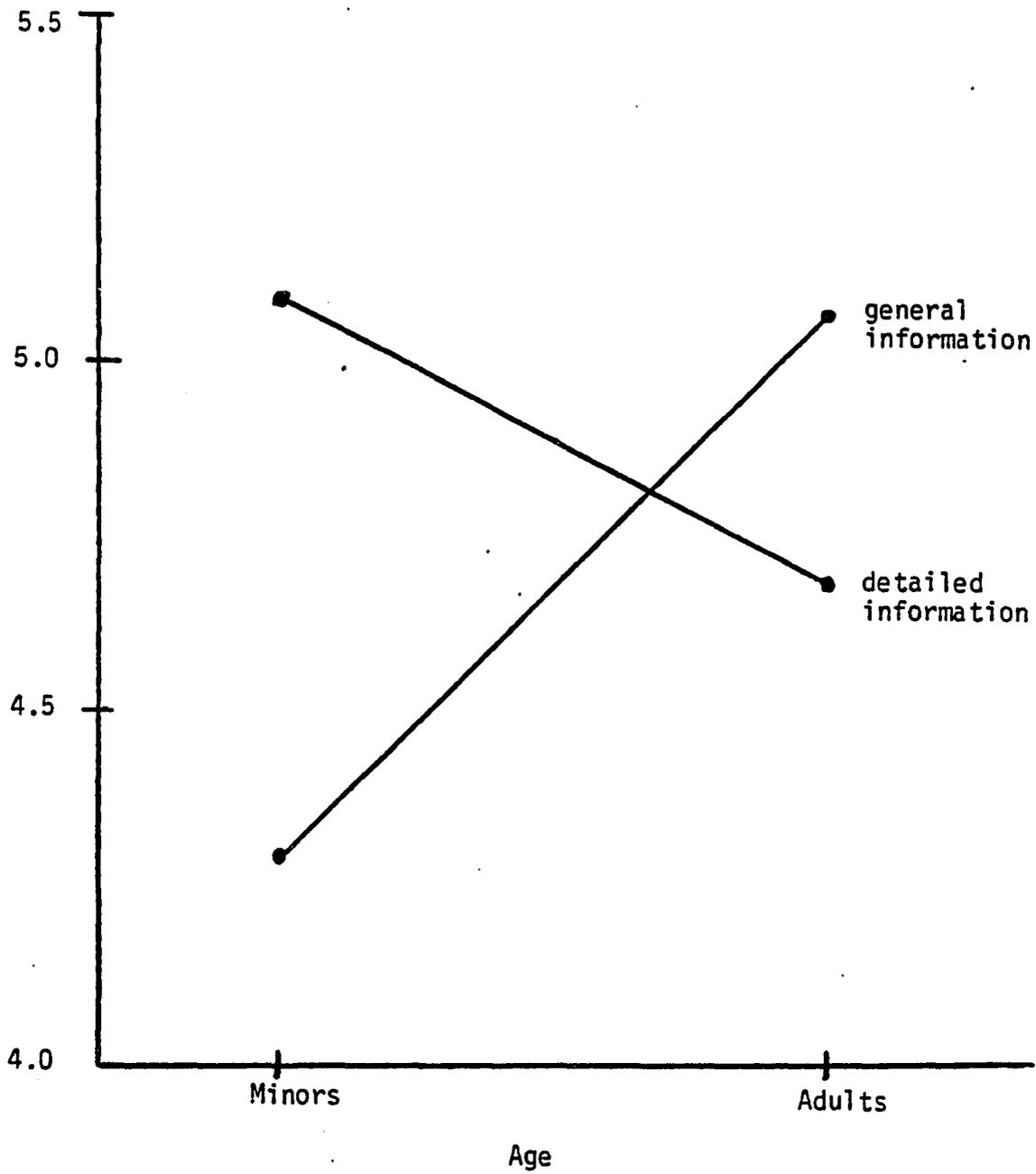


Figure 6: Mean Choice Scale score as a function of age x information provided

Final Treatment Choice

A discriminate analysis was conducted to determine the predictive power of six variables on the subject's final treatment choice. The final treatment choices were each assigned to one of three criterion groups: good, neutral, or poor. To predict group membership, six predictor variables were used: (1) age, (2) amount of information provided, (3) good recommendation versus no or poor recommendation, (4) no recommendation versus good or poor recommendation, (5) Capacity Scale score, and (6) Knowledge Scale score.

For the enuresis dilemma, the discriminating power of the six predictor variables was determined by computation of Wilks' lambda. Wilks' lambda was calculated to be .7880623 on the first derived discrimination function; which was significant ($\chi^2 = 27.271, p < .01$). This function accounted for 73% of the predictable group variation and correctly classified 53.3% of the grouped cases. The second derived function was not significant. These data are presented in Table 11.

Table 12 contains the coefficients of the six variables in the significant discrimination equation. The normalized vectors are the coefficients of the variables in

Table 11. Summary of discriminant functions for enuresis dilemma

Function	Wilks' Lambda	χ^2	df	P
1	.7890623	27.271	12	< .01
2	.9359116	7.5338	5	ns

Table 12. Normalized and scaled vectors for enuresis dilemma discriminant function

Variables	Vectors	
	Normalized	Scaled
Age	-.1282	-.51
Information Provided	-.6362	-.27
Good Recommendation versus No or Poor Recommendation	2.003	.80
No Recommendation versus Good or Poor Recommendation	.3966	.43
Capacity Scale Score	-.1733	.26
Knowledge Scale Score	.4295	-.39

the discriminant equation. The scaled vectors represent the relative contribution of each variable to group discrimination. The largest weights were obtained by recommendation, age, and Knowledge Scale score. The lowest weights were assigned to Capacity Scale score and information provided.

For the depression dilemma, no derived discrimination equation was statistically significant. Summary data of this analysis are presented in Table 13.

Table 13. Summary of discriminant functions for depression dilemma

Function	Wilks' Lambda	χ^2	df	P
1	.9040	11.544	12	ns
2	.9604	4.6269	5	ns

Summary of Results

A significant main effect for age was found on the Capacity Scale ($p < .001$) and the Knowledge Scale ($p < .0001$) with adults performing better than minors on both measures. On the Capacity Scale, adults receiving general information with a good or poor recommendation scored higher than minors receiving the same information regardless of the recommendation ($p < .05$).

In addition to the main effect for age on the Knowledge Scale, a significant test by age interaction was found ($p < .01$). Minors scored significantly lower on the Situation and Side Effects subtests than on the Vocabulary subtest ($p < .01$). A significant test by information interaction was also obtained ($p < .05$). Subjects receiving general information scored significantly higher on the Vocabulary subtest than they did on Situation and Side Effects subtest.

On the Choice Scale, significant main effects were found for recommendation ($p < .05$) and dilemma ($p < .01$). Subjects obtained higher Choice Scale scores for the depression dilemma than for the enuresis dilemma. Subjects receiving a poor recommendation from the professional scored significantly lower on the Choice Scale than those receiving

significantly lower on the Choice Scale than those receiving no recommendation ($p < .05$) and those receiving a good recommendation ($p < .01$). In addition, minors made better treatment choices when they were provided with detailed information ($p < .01$). Adults receiving general information scored higher on the Choice Scale than minors receiving general information.

A significant discriminant function was obtained for the enuresis dilemma ($p < .01$), but not for the depression dilemma. The significant function accounted for 73% of the predictable group variation. The most power predictive variables in this function were recommendation, age, and Knowledge Scale score.

CHAPTER 4

DISCUSSION

The purpose of this study was to investigate the relationship between the variables: age, treatment information provided, and professional recommendation, and the capacity and knowledge components of the informed consent doctrine. The relationship between these variables and the treatments chosen by the subjects was also examined. The results obtained in this investigation provide some interesting data which suggest possible directions for future research in regard to the effect of professional recommendation on a subject's treatment choice.

Interpreting the data from the Capacity and Knowledge Scales is somewhat of an ambiguous task due to obtained effects which may have been due to true differences between groups or to experimental artifact. Both possibilities will be discussed as well as the corresponding implications and suggestions for future research.

In regard to the component of capacity, the performance of the minors was below that of the adults. This result was unexpected since results of previous studies (Grisso, 1981; Weithorn and Campbell, 1982) have not found

such a distinction. One difference between the previously conducted studies and this investigation was the method of assessment. This study represented the first attempt at assessing the problem solving and decision-making activities involved in the capacity component through use of a written instrument. Therefore, the obtained difference between minors and adults may indicate that minors are less able than adults to express their problem solving and decision-making abilities in writing as measured in this study. This does not necessarily negate the value of using written instruments to assess the capacity to give informed consent. It may indicate that if procedural modifications are made, such as allowing subjects a longer period of time to formulate answers and write them down, the problem solving and decision making abilities of minors could be measured in this fashion.

The possibility also exists that minors' abilities to engage in the problem-solving and decision-making activities required by the capacity component were validly measured in this study. That is, perhaps the significant difference obtained between minors' and adults' scores on the Capacity Scale reflects a true cognitive difference between the two groups. As noted previously, four behaviors are involved in the capacity issue: the ability to (1) generate alternative responses, (2) predict the consequences

of each alternative, (3) evaluate the desirability of the consequences, and (4) judge which is the best alternative. Researchers examining minors' abilities to fulfill the requirements of the capacity component in health care situations have focused only on steps (2) and (4) (Lewis, 1980; Weithorn & Campbell, 1982) in concluding that by age 14, minors are equal to adults in this regard. Perhaps the difference obtained between minors and adults in the present study indicates that minors have greater difficulty generating the alternative responses (step 1) or evaluating the desirability of the consequences (step 3) since these steps were also measured by the Capacity Scale. The scoring criteria of the scale and method of analysis used in this study did not allow for the examination of these steps in isolation. Therefore, the extent to which minors successfully engage in each of the four behaviors involved in the capacity component should be a focus of future research.

The research hypothesis stating that adults receiving general information would obtain significantly higher scores on the Capacity Scale than minors receiving the same information was supported. This superiority of the adults may have been due to the assessment method employed or may indicate that because of a wide range of past experiences, adults are able to conceptualize more consequences corresponding to the various treatment options.

If the latter is true, then in those situations where minors are allowed to be their own consent givers (e.g., treatment for pregnancy, venereal disease, contraception, and chemical dependency), service providers need to disclose more treatment details to help the minors foresee the consequences of their decisions. The effect of prior knowledge on patients' abilities to successfully engage in the problem solving activities necessary to arrive at a treatment decision is an area future research should explore.

Concerning the knowledge component, it was hypothesized that subjects provided with detailed information would obtain higher Knowledge Scale scores than those given general information. While this hypothesis was not supported by the results of this study, neither was the validity of the "therapeutic privilege". That is, the provision of more information as contained in the detailed disclosure did not interfere with the subjects' understanding as measured by the Knowledge Scale. It appears that the disclosure of more treatment facts did not increase or decrease the subjects' understanding of important facts contained in the disclosure. Before passing definitive judgment on the validity of the therapeutic privilege, the effect of the amount of treatment information disclosed on patient's comprehension levels should be explored with real patients in real treatment situations. Subjects in laboratory settings may not

experience the same emotional effect from the information as would patients and therefore, the findings of this study may not generalize to "real" patients. The effect of increased anxiety level on patient comprehension of treatment information would be an interesting and valuable research question to address.

The obtained results on the Knowledge Scale also indicated that minors obtained significantly lower scores on the Situation and Side Effects subscale than on the Vocabulary subscale. Two explanations for this are feasible. First, it may be the minors truly did not sufficiently understand the nature of the presenting problem and what the various treatment options entailed. A second possible explanation is that the process of memory affected the obtained Situation and Side Effects subscale scores despite attempts in this study to eliminate such an occurrence. During the completion of the Knowledge Scale, subjects were permitted to return to the dilemma manuscripts to find answers to the questions on the scales. Very few subjects at either age level did this. Therefore, it may be that minors' memories for situation and side effect information were not as good as their comprehension of the vocabulary used. Future researchers should employ procedures to ensure that subjects are not relying on memory of facts to answer comprehension questions.

Although minors scored higher on the Vocabulary subscale than on the Situation and Side Effects subscale, they scored significantly lower on the Vocabulary subscale than did adults. In particular, the younger subjects had difficulty with the terms "choice" and "guarantee". Many of the minors did not understand that the term choice implies a freedom to select or reject. Most seem to understand that to have a choice means there must be more than one option available, but many chose the response option which indicated that a person must agree with the service provider's proposal. For the term "guarantee", many junior high subjects did not relate this to the outcome of the treatment. Instead, these subjects indicated that a doctor's guarantee means that the treatment is the best one, regardless of success probability.

The results of the Choice Scale are much less ambiguous than those of the previous two scales. As was predicted, a significant main effect for recommendation was obtained. This result provides support for the notion that professionals' behaviors can influence patients' treatment choices. Specifically, subjects appear to choose the option recommended by the professional. This does not necessarily imply that the decision is involuntary. Before that can be ascertained, the individuals' reasons for agreeing must be assessed, which was beyond the scope of this study. Future

research should focus on this issue. But first, methods for assessing whether a patient's consent is a result of coercion or undue influence must be identified. Then variables can be identified which may cause a person to be coerced or unduly influenced, such as the professional's behavior; verbalizations, or environmental factors. Because the results of this study suggest that a professional recommendation does influence the patient's decision, this recommendation should be one of the variables investigated for possible coercive effects.

Treatment choices made for the depression dilemma were more consistent with expert opinion than those made for the enuresis dilemma. This may indicate more familiarity with the problem of depression than that of enuresis or it may have been a function of the choices available. When the no treatment option is excluded, two of the three treatment choices for depression may be conceptualized as at least somewhat intrusive. That is, both medication, which involves physical side effects, and becoming a patient in a mental hospital involve very serious consequences. In the enuresis dilemma, only one treatment option (medication) approached this level of intrusiveness. Instead, two of the three options were associated with consequences which were less directly harmful to the individual. Therefore,

choosing the least harmful (i.e., best) alternative was a more difficult task in the enuresis dilemma.

Across both dilemmas, minors receiving detailed treatment information made significantly better treatment choices than minors receiving general information. This may indicate that the provision of more information affects minors' treatment decisions in a beneficial fashion. Adults receiving general information also made better treatment choices than minors receiving the same information. While statistically significant differences were not found between all four groups included in the age by information provided interaction, the rank order of the Mean scores for these groups is interesting. From highest to lowest Mean score, the groups were arranged as follows: (1) minors receiving detailed information, (2) adults receiving general information, (3) adults receiving detailed information, and (4) minors receiving general information. This rank order suggests a hypothesis that should be investigated. That is, perhaps while detailed information beneficially affects minors' decisions, the same information may interfere with adults' decisions as assumed by the "therapeutic privilege" accorded to physicians. Possible explanations for this might be that the past experiences and pre-disclosure notions that the adult brings to the situation may not coincide with the treatment details disclosed and this lack

of consistency acts to confuse the adults. This is only a hypothesis but it may point the direction for some extremely interesting research.

No predictive discrimination function was found to be significant for the depression dilemma. This may have been due to the fact that 90% of the subjects fell within the good choice criterion group. As noted previously, the nature of the available choices in this dilemma may have been primarily responsible for the high percentage of subjects choosing the best option.

For the enuresis dilemma, one significant discrimination function was identified. According to this function, the variable most responsible for predicting whether the subject chose the bell and pad, the medication, or outpatient therapy/no treatment was the professional's recommendation. The second most powerful predictor variable was age, followed by the obtained knowledge score. This function seems to re-emphasize the powerful effect of the professional's recommendation on the subject's final treatment choice.

Future research needs to focus on all three components of the informed consent doctrine as they relate to minors. First, research needs to empirically assess minors' abilities to perform the necessary problem solving and decision-making activities in treatment situations.

Because the results of this study implied that minors do not possess the capacity equivalent to adults as measured by a written instrument, this needs to be re-examined after making modifications in the assessment method and experimental design so that minor's abilities to engage in each of the problem solving behaviors can be studied in isolation.

Second, when measuring comprehension of treatment information, future research must develop methods to ensure the elimination of effects due to memory failure. In addition, researchers need to be sensitive to the comprehension level of disclosure procedures. Once these design modifications are made, greater attention needs to be given to procedural variations which could act to increase the patients' understanding of informed consent information. For example, the length of time the patient is given to study the consent form has been shown to affect the ability to recall the information contained in the form (Morrow, Gootnick, & Schmale, 1978). The effect of this procedural variable on patient comprehension of treatment facts should be studied.

Finally, the voluntary component of the informed consent doctrine needs an enormous amount of research attention. The present study resulted in data which indicated that professional recommendation does influence patients' treatment choices. Whether this influence is so

great as to make the resultant consent involuntary cannot be answered at this point in time. Before conclusions regarding the voluntariness of treatment consents can be drawn, measures need to be developed to directly assess whether the consent is a result of coercion or undue influence. Once these are available, variables such as professional recommendation and requests for compliance can be experimentally manipulated to identify the point (if one exists), at which they interfere with the voluntariness of the consent.

Too many studies in the past have been designed in an attempt to refute the usefulness of the informed consent doctrine. The results of this study, as well as the results of other empirical literature, have suggested that lay persons are able to understand treatment disclosures, engage in problem solving behaviors, and decide upon the best treatment choice for themselves if given the information with a minimum of medical and legal jargon. It appears that it is time for researchers to cease attempts at exposing the doctrine of informed consent as a meaningless procedure and to focus their energies on ways of improving its ultimate goal: preserving the patient's right of self determination.

APPENDIX A

EXPERTS' RATINGS OF TREATMENTS

Appendix A includes the Cover Letter sent to prospective "expert" raters requesting their assistance and the Rating Scale. This scale includes the problem description which was part of the depression and enuresis dilemmas and the available treatment options.

Dear Dr. :

I am writing to request your brief participation as an "expert" rater for a study which will serve as my doctoral dissertation at the University of Arizona. Your participation involves reading the two enclosed treatment dilemmas and answering two questions for each. Your assistance on this project will be greatly appreciated. The purpose of this project is to investigate the validity and effectiveness of the doctrine of informed consent.

If you agree to participate, please return the enclosed questionnaires to Dr. Anne J. Miller by Monday, March 12. You do not need to include your name on the completed questionnaire.

Thank you very much for your time in this matter.

Sincerely,

M. Jane Shinn, M.Ed.
Doctoral Candidate in
School Psychology

MJS:mam

DEPRESSION DILEMMA

General/Good Advice

Terry has been feeling sad and down much of the time for several weeks. Everybody feels this way every now and then, which is normal. But in Terry's case, it is more serious because she refuses to come out of her room to go to school or to talk to anyone in the family. She has lost her appetite and has had trouble sleeping at night. She doesn't feel like doing anything and has turned down all chances to go out. No one is sure what is going on with Terry.

Terry's doctor felt that Terry was seriously depressed. This can happen when there are things on a person's mind which are bothering her; and when she feels that there is nothing to look forward to in her life. Terry's doctor suggested that she talk to a psychotherapist. A psychotherapist is a professional who works with people who are having psychological problems to help them work out their problems and to help them get along better with those people who are important to them. The psychotherapist agreed with Terry's doctor that Terry was seriously depressed. The psychotherapist said to Terry that she had several choices of what she could do for the

depression. The are:

1. Set up regular appointments with the psychotherapist in his or her office.
2. Be admitted to a mental hospital.
3. Begin taking Elavil.
4. Wait and let the depression go away without treatment.

Assuming Terry is 13 years old, how would you rank these choices? Please list them in order of most to the least preferential?

- 1.
- 2.
- 3.
- 4.

Would your order be different if Terry were 18 years old?

If so, please list this new order.

- 1.
- 2.
- 3.
- 4.

ENURESIS DILEMMA

Detailed/Good

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer. He is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two other possibilities regarding what was causing the bedwetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem.

They are:

1. Set up regular appointments to see the psychologist at his or her office.
2. Learn to use the bell and pad.
3. Begin taking Tofranil.
4. Do nothing and wait until he outgrows the problem.

Assuming Sandy is 13 years old, how would you rank these choices? Please list them in order from most to least preferential.

- 1.
- 2.
- 3.
- 4.

Would your order be different if Sandy were 18 years old?

If so, please list this new order.

- 1.
- 2.
- 3.
- 4.

APPENDIX B

CONSENT PROCEDURES

Appendix B contains those documents used to obtain informed consent in this study. In addition to the consent forms themselves, the cover letter sent to the parents of the minor subjects is included.

March, 1984

Dear Student:

I will be conducting a study in April to gather information regarding the age at which individuals are capable of making decisions and giving consent about their own health care. This study will be my doctoral dissertation in the Department of Educational Psychology at the University of Arizona.

If you participate in the study, you will be asked to follow a written story while a tape recording reads the story aloud. The story describes a hypothetical person's health problem and treatment options that are available for that problem. The two problems involved are enuresis and depression. Following this, you will be asked to complete a written questionnaire that asks you to give an opinion about what the story characters should do. The second part of the questionnaire will measure comprehension of the story information. In all, the study will take approximately 45 minutes and will be conducted during school hours. You will be excused from your regular class during this time.

You will not be asked to put your name on the questionnaire, and the final results of the study will be translated into group summary and statistical data so that no individual participants can be identified.

If you would like to participate, please complete the attached consent form and return it to Mrs. Leach. If you wish to talk to me before making your decision, I will be happy to answer any questions you have.

Thank you for the time you have spent considering your participation in this study.

Sincerely,

M. Jane Shinn,
Doctoral Candidate in
Educational Psychology

CONSENT FORM

Please check one of the three blanks in the left hand column.

_____ I give my consent for my son/daughter

_____ (name of student)
to participate in the informed consent study.

_____ I would like to speak with you about the study
before making my decision. Please call me at

_____. The best hours to
(phone number)
reach me are _____.

_____ I do not want my son/daughter

_____ (name of student)
to participate in the informed consent study.

Parent's Signature

Parent's Name (please print)

CONSENT FORM

I hereby agree to participate in the study on informed consent. I understand that the purpose of the study is to gather information regarding the age at which individuals are able to make decisions about their own health care. I have been told that my participation involves listening to two tape recordings of hypothetical stories while I follow written copies of the stories. I understand that the stories will be about enuresis and depression. I will be told the options available to the characters in the stories. I understand that there will be a written questionnaire to complete that will ask my opinion about what the characters should do and test my understanding of the story.

I have been told that my name will not be put on the questionnaire. Any research assistants or colleagues of Mrs. Shinn's will see only code numbers and will not know any one participant's specific responses. When the results of the study are published, no participant will be identified.

I have also been told that, if for any reason, I find my participation in the study uncomfortable or disturbing, I may withdraw at any time. However, I am aware that this type of reaction is not expected.

Today's date

Date of birth

Participant's signature

Age

Participant's name (print)

Male

Female

APPENDIX C

DILEMMAS

Appendix C contains the six dilemma variations used in this study.

ENURESIS DILEMMA

General/No Recommendation

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer he is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two

other possibilities regarding what was causing the bed-wetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem. One choice is that he could set up regular appointments to see the psychologist at the psychologist's office once a week for an hour after school. He would need to go for several months before he could expect to see results.

A second choice is for Sandy to learn to use a little battery-operated machine called a bell and pad. It is hooked up to an alarm, so if Sandy began to wet the bed at night, it would ring like an alarm clock and wake up Sandy automatically. If he used the bell and pad for several months, there is a chance that it might stop the bedwetting for good.

A third choice is for Sandy's doctor to write a prescription for some medicine called Tofranil. In some cases, this medicine stops the bedwetting for good. In some cases, the bedwetting problem stops while the person is on the medicine, but then comes back as soon as the person stops the medicine. In other cases, the medicine

doesn't help at all. There are some physical side effects while the person takes the medicine.

So, Sandy has four choices: 1) he can decide to keep regular weekly appointments with the psychologist for a few months; 2) he can decide to try the bell and pad for a few months; 3) he can decide to try the medicine for two months; or 4) he can decide to do nothing for the bedwetting problem and wait until he just outgrows it.

If you were in Sandy's situation and had to decide among these four choices, what do you think you might decide to do?

ENURESIS DILEMMA

General/Good

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer he is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two

other possibilities regarding what was causing the bedwetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem. One choice is that he could set up regular appointments to see the psychologist at the psychologist's office once a week for an hour after school. He would need to go for several months before he could expect to see results.

A second choice is for Sandy to learn to use a little battery-operated machine called a bell and pad. It is hooked up to an alarm, so if Sandy began to wet the bed at night, it would ring like an alarm clock and wake up Sandy automatically. If he used the bell and pad for several months, there is a chance that it might stop the bedwetting for good.

A third choice is for Sandy's doctor to write a prescription for some medicine called Tofranil. In some cases, this medicine stops the bedwetting for good. In some cases, the bedwetting problem stops while the person is on the medicine, but then comes back as soon as the person stops the medicine. In other cases, the medicine

doesn't help at all. There are some physical side effects while the person takes the medicine.

So, Sandy has four choices: 1) he can decide to keep regular weekly appointments with the psychologist for a few months; 2) he can decide to try the bell and pad for a few months; 3) he can decide to try the medicine for two months; or 4) he can decide to do nothing for the bedwetting problem and wait until he just outgrows it.

Sandy asked the psychologist which treatment he would recommend. The psychologist recommended the bell and pad.

If you were in Sandy's situation and had to decide among these four choices, what do you think you might decide to do?

ENURESIS DILEMMA

General/Poor

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer. He is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two

other possibilities regarding what was causing the bed-wetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem. One choice is that he could set up regular appointments to see the psychologist at the psychologist's office once a week for an hour after school. He would need to go for several months before he could expect to see results.

A second choice is for Sandy to learn to use a little battery-operated machine called a bell and pad. It is hooked up to an alarm, so if Sandy began to wet the bed at night, it would ring like an alarm clock and wake up Sandy automatically. If he used the bell and pad for several months, there is a chance that it might stop the bedwetting for good.

A third choice is for Sandy's doctor to write a prescription for some medicine called Tofranil. In some cases, this medicine stops the bedwetting for good. In some cases, the bedwetting problem stops while the person is on the medicine, but then comes back as soon as the person stops the medicine. In other cases, the medicine

doesn't help at all. There are some physical side effects while the person takes the medicine.

So, Sandy has four choices: 1) he can decide to keep regular weekly appointments with the psychologist for a few months; 2) he can decide to try the bell and pad for a few months; 3) he can decide to try the medicine for two months; or 4) he can decide to do nothing for the bedwetting problem and wait until he just outgrows it.

Sandy asked the psychologist which treatment he would recommend. The psychologist recommended that Sandy try the medicine.

If you were in Sandy's situation and had to decide among these four choices, what do you think you might decide to do?

ENURESIS DILEMMA

Detailed/No Recommendation

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer. He is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two

other possibilities regarding what was causing the bed-wetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem. One choice is that he could set up regular appointments to see the psychologist at the psychologist's office once a week for an hour after school. There they would talk about whatever was on Sandy's mind. The psychologist would teach Sandy ways of relaxing and try to help him think of ways to solve his problems. If the reason for Sandy's problem is that there are things which are troubling him, then going to the psychologist could be very helpful. If the bedwetting is just a bad habit, the psychologist can teach him ways to break this habit. He would need to go for several months before he could expect to see results. Each session would cost approximately \$40.00, but many times, insurance will pay for it.

A second choice is for Sandy to learn to use a little battery-operated machine called a bell and pad. This is a flat rubber pad which he would put under his sheets on the bed. It is hooked up to an alarm. Before

going to bed, he would turn on the machine. This means that if, while he was asleep, he began to wet the bed, the first drop of wetness which soaked through to the pad would set off the alarm. It would ring like an alarm clock and wake up Sandy, who would get up and turn it off, then would finish urinating in the bathroom. If he used the bell and pad for several months, there is a good chance that it might stop the bedwetting for good. The way that it works is that it helps a person break the habit of the bedwetting. It is very disturbing to be startled by this loud alarm in the middle of the night. Because it is disturbing, a person using the bell and pad often can learn how to sleep through the night without wetting the bed just to avoid setting off the alarm. People just seem to be able to do this, to almost automatically unlearn the habit in their sleep while using the bell and pad. This machine costs approximately \$25.00.

A third choice is for Sandy's doctor to write a prescription for some medicine called Tofranil. This is a pill which he would take every night before bed for at least two months. In some cases, this medicine stops the bedwetting for good. In other cases, the bedwetting problem stops while the person is on the medicine, but then comes back as soon as the person stops the medicine. In other cases, the medicine doesn't help at all. Sometimes a person taking the medicine feels a bit nervous or cranky

from it. It may also make the person's stomach feel upset or make the person feel tired.

The fourth choice for Sandy is simply to decide to wait until he outgrows the problem--since in a matter of time, he might outgrow it, although there is no way to know if he will outgrow it in time for his stay with his cousin.

So, he has four choices: 1) he can decide to keep regular weekly appointments with the psychologist for a few months; 2) he can decide to try the bell and pad for a few months; 3) he can decide to try the medicine for two months; or 4) he can decide to do nothing for the bedwetting problem and wait until he just outgrows it.

If you were in Sandy's situation and had to decide among these four choices, what do you think you might decide to do?

ENURESIS DILEMMA

Detailed/Good

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer. He is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two

other possibilities regarding what was causing the bed-wetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem. One choice is that he could set up regular appointments to see the psychologist at the psychologist's office once a week for an hour after school. There they would talk about whatever was on Sandy's mind. The psychologist would teach Sandy ways of relaxing and try to help him think of ways to solve his problems. If the reason for Sandy's problem is that there are things which are troubling him, then going to the psychologist could be very helpful. If the bedwetting is just a bad habit, the psychologist can teach him ways to break this habit. He would need to go for several months before he could expect to see results. Each session would cost approximately \$40.00, but many times, insurance will pay for it.

A second choice is for Sandy to learn to use a little battery-operated machine called a bell and pad. This is a flat rubber pad which he would put under his sheets on the bed. It is hooked up to an alarm. Before

going to bed, he would turn on the machine. This means that if, while he was asleep, he began to wet the bed, the first drop of wetness which soaked through to the pad would set off the alarm. It would ring like an alarm clock and wake up Sandy, who would get up and turn it off, then would finish urinating in the bathroom. If he used the bell and pad for several months, there is a good chance that it might stop the bedwetting for good. The way that it works is that it helps a person break the habit of the bedwetting. It is very disturbing to be startled by this loud alarm in the middle of the night. Because it is disturbing, a person using the bell and pad often can learn how to sleep through the night without wetting the bed just to avoid setting off the alarm. People just seem to be able to do this, to almost automatically unlearn the habit in their sleep while using the bell and pad. This machine costs approximately \$25.00.

A third choice is for Sandy's doctor to write a prescription for some medicine called Tofranil. This is a pill which he would take every night before bed for at least two months. In some cases, this medicine stops the bed wetting for good. In other cases, the bedwetting problem stops while the person is on the medicine, but then comes back as soon as the person stops the medicine. In other cases, the medicine doesn't help at all. Sometimes a person taking the medicine feels a bit nervous or cranky

from it. It may also make the person's stomach feel upset or make the person feel tired.

The fourth choice for Sandy is simply to decide to wait until he outgrows the problem--since in a matter of time, he might outgrow it, although there is no way to know if he will outgrow it in time for his stay with his cousin.

So, he has four choices: 1) he can decide to keep regular weekly appointments with the psychologist for a few months; 2) he can decide to try the bell and pad for a few months; 3) he can decide to try the medicine for two months; or 4) he can decide to do nothing for the bedwetting problem and wait until he just outgrows it.

Sandy asked the psychologist which treatment he would recommend. The psychologist recommended the bell and pad.

If you were in Sandy's situation and had to decide among these four choices, what do you think you might decide to do?

ENURESIS DILEMMA

Detailed/Poor

Sandy has a bedwetting problem. This means that he might urinate in his bed while asleep about once or twice a month. It started when he was much younger and used to occur much more often then. As Sandy has gotten older, he has wet the bed less and less often. But the problem has not disappeared completely yet. The problem for Sandy now is that he is planning to go to live with his cousin next summer. He is worried about how he would feel if he wet the bed while sleeping in the same room with his cousin. So, he decided to talk with his parents about the problem.

When he was much younger, they had brought him to the doctor about the bedwetting problem because they were concerned that perhaps there was something wrong with his health. The doctor had done a complete check-up at that time and had found that there was nothing wrong with Sandy's body. Sometimes when a person has a bedwetting problem, it is a physical problem, but this was not the case in Sandy's situation. At that time, the doctor had said that almost all of the time people with this problem outgrow it as they get older.

So, Sandy and his family decided to get the opinion of a psychologist. His parents knew that there were two

other possibilities regarding what was causing the bed-wetting. Sometimes a person might have something on his mind which is troubling him. A person might feel a bit nervous or upset, and this might cause him to wet the bed while asleep. Another possibility is that a person simply might have gotten into a habit of wetting the bed when younger and just doesn't know how to break the habit.

The psychologist said to Sandy that he had several choices of what he could do for the bedwetting problem. One choice is that he could set up regular appointments to see the psychologist at the psychologist's office once a week for an hour after school. There they would talk about whatever was on Sandy's mind. The psychologist would teach Sandy ways of relaxing and try to help him think of ways to solve his problems. If the reason for Sandy's problem is that there are things which are troubling him, then going to the psychologist could be very helpful. If the bedwetting is just a bad habit, the psychologist can teach him ways to break this habit. He would need to go for several months before he could expect to see results. Each session would cost approximately \$40.00, but many times, insurance will pay for it.

A second choice is for Sandy to learn to use a little battery-operated machine called a bell and pad. This is a flat rubber pad which he would put under his sheets on the bed. It is hooked up to an alarm. Before

going to bed, he would turn on the machine. This means that if, while he was asleep, he began to wet the bed, the first drop of wetness which soaked through to the pad would set off the alarm. It would ring like an alarm clock and wake up Sandy, who would get up and turn it off, then would finish urinating in the bathroom. If he used the bell and pad for several months, there is a good chance that it might stop the bedwetting for good. The way that it works is that it helps a person break the habit of the bedwetting. It is very disturbing to be startled by this loud alarm in the middle of the night. Because it is disturbing, a person using the bell and pad often can learn how to sleep through the night without wetting the bed just to avoid setting off the alarm. People just seem to be able to do this, to almost automatically unlearn the habit in their sleep while using the bell and pad. This machine costs approximately \$25.00.

A third choice is for Sandy's doctor to write a prescription for some medicine called Tofranil. This is a pill which he would take every night before bed for at least two months. In some cases, this medicine stops the bed wetting for good. In other cases, the bedwetting problem stops while the person is on the medicine, but then comes back as soon as the person stops the medicine. In other cases, the medicine doesn't help at all. Sometimes a person taking the medicine feels a bit nervous or cranky

from it. It may also make the person's stomach feel upset or make the person feel tired.

The fourth choice for Sandy is simply to decide to wait until he outgrows the problem--since in a matter of time, he might outgrow it, although there is no way to know if he will outgrow it in time for his stay with his cousin.

So, he has four choices: 1) he can decide to keep regular weekly appointments with the psychologist for a few months; 2) he can decide to try the bell and pad for a few months; 3) he can decide to try the medicine for two months; or 4) he can decide to do nothing for the bedwetting problem and wait until he just outgrows it.

Sandy asked the psychologist which treatment he would recommend. The psychologist recommended that Sandy try the medicine.

If you were in Sandy's situation and had to decide among these four choices, what do you think you might decide to do?

DEPRESSION DILEMMA

General/No Recommendation

Terry has been feeling sad and down much of the time for several weeks. Everybody feels this way every now and then, which is normal. But in Terry's case, it is more serious because she refuses to come out of her room to go to school or to talk to anyone in the family. She has lost her appetite and has had trouble sleeping at night. She doesn't feel like doing anything and has turned down all chances to go out. No one is sure what is going on with Terry.

Terry's doctor felt that Terry was seriously depressed. This can happen when there are things on a person's mind which are bothering her and when she feels that there is nothing to look forward to in her life. Terry's doctor suggested that she talk to a psychotherapist. A psychotherapist is a professional who works with people who are having psychological problems to help them work out their problems and to help them get along better with those people who are important to them. The psychotherapist agreed with Terry's doctor that Terry was seriously depressed. The psychotherapist said to Terry that she had several choices of what she could do for the depression.

One choice is that she could set up regular appointments to see the psychotherapist in the psychotherapist's office. Terry would see the psychotherapist regularly alone and regularly with her family. If Terry and the family kept their regular appointments for several months, it is possible that Terry would be able to get back to a normal routine, although there is no guarantee that the appointments will help the problem.

A second choice is for Terry to be admitted to a mental hospital, which is a special hospital for people with problems with their emotions. She would see the psychotherapist alone and with her entire family. She would also participate in group therapy. If Terry stayed in the hospital for several weeks or more, and then continued to see the psychotherapist for regular appointments afterwards, it is possible that Terry would be able to get back to a normal routine, although there is no guarantee that the hospital stay will help the problem.

A third choice is for Terry to take some medicine called Elavil. This pill may not make Terry feel better right away because it takes some time to work. There may be some physical side effects while Terry takes the medicine.

A fourth choice is for Terry to do nothing about the depression. It is possible that the depression will get better on its own. However, this only happens sometimes.

So, Terry has four choices: 1) She can decide to keep regular appointments with the psychotherapist in the psychotherapist's office; 2) She can decide to go to the mental hospital for a few weeks and then see the psychotherapist in his office; 3) She can decide to try the medicine; or 4) She can decide to do nothing for the depression.

If you were in Terry's situation and had to decide among these four choices, what do you think you might decide to do?

DEPRESSION DILEMMA

General/Good Advice

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Terry asked the psychotherapist what he would recommend. The psychotherapist recommended that Terry make regular appointments with the psychotherapist in the psychotherapist's office.

If you were in Terry's situation and had to decide among these four choices, what do you think you might decide to do?

DEPRESSION DILEMMA

General/Poor

Terry has been feeling sad and down much of the time for several weeks. Everybody feels this way every now and then, which is normal. But in Terry's case, it is more serious because she refuses to come out of her room to go to school or to talk to anyone in the family. She has lost her appetite and has had trouble sleeping at night. She doesn't feel like doing anything and has turned down all chances to go out. No one is sure what is going on with Terry.

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Terry asked the psychotherapist what he would recommend. The psychotherapist recommended that Terry enter the hospital.

If you were in Terry's situation and had to decide among these four choices, what do you think you might decide to do?

DEPRESSION DILEMMA

Detailed/No Recommendation

Terry has been feeling sad and down much of the time for several weeks. Everybody feels this way every now and then, which is normal. But in Terry's case, it is more serious because she refuses to come out of her room to go to school or to talk to anyone in the family. She has lost her appetite and has had trouble sleeping at night. She doesn't feel like doing anything and has turned down all chances to go out. No one is sure what is going on with Terry.

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One choice is that she could set up regular appointments to see the psychotherapist in the psychotherapist's office. Each appointment would last about an hour. Once a week, Terry would meet with the psychotherapist alone, and they would talk about whatever was on Terry's mind. They would discuss what Terry thought about things that happened in her life and try to decide if Terry's thoughts were true or if there is another way to think about the events. On another day during the week, the psychotherapist would meet with Terry and her entire family. During these meetings, they might all talk about things which were important to them as a family. If Terry and her family kept their regular appointments each week for several months, it is possible that Terry would be able to get back to a normal routine, although there is no guarantee that the appointments will help the problem.

A second choice for Terry is to be admitted to a mental hospital, which is a special hospital for people with problems with their emotions. Some patients there might be depressed, like Terry, whereas others might have different problems. While there, Terry would share a hospital room with another patient and would take part in certain daily activities, like art and music. She would meet with the psychotherapist at the hospital twice a week alone, and the entire family would come in for an

appointment with Terry and the psychotherapist once a week also. She would participate in group therapy with other patients, where they would all talk together with the psychotherapist about their problems.

While in the hospital, Terry would be away from her family, friends, and home. She would miss school, although she could arrange to have work brought to her so that she could try to keep up with her studies. She would need to obey certain regulations, such as when to go to bed, and she could not leave the hospital without permission. If Terry stayed in the hospital for several weeks or more, and then continued to see the psychotherapist for weekly appointments afterwards, it is possible that Terry would be able to get back to a normal routine, although there is no guarantee that the hospital stay will help the problem.

The third choice is for Terry to take some medicine called Elavil. Terry would take this pill three times each day for approximately three months. This pill usually takes 10 days to 3 weeks before it makes a person feel better, although it has side effects which may be felt in a few hours. While a person takes this medicine, he or she may have blurry vision, a dry mouth, and may feel tired for awhile. It may also cause the person's blood to have fewer white blood cells, which are the cells

which fight disease. The medicine may also cause a person's blood pressure to decrease so he or she feels dizzy. Sometimes, seizures occur.

A fourth choice is for Terry to do nothing about the depression. It is possible that the depression will get better on its own. However, this only happens sometimes, and there is always the danger of suicide.

So, Terry has four choices: 1) She can decide to keep regular appointments with the psychotherapist in the psychotherapist's office; 2) She can decide to go to the mental hospital for a few weeks; 3) She can decide to try the medicine; or 4) She can decide to do nothing for the depression.

If you were in Terry's situation and had to decide among these four choices, what do you think you might decide to do?

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Detailed/Good Advice

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which fight disease. The medicine may also cause a person's blood pressure to decrease so he or she feels dizzy. Sometimes, seizures occur.

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Terry asked the psychotherapist what he would recommend. The psychotherapist recommended that Terry make regular appointments with the psychotherapist in the psychotherapist's office.

If you were in Terry's situation and had to decide among these four choices, what do you think you might decide to do?

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Detailed/Poor

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which fight disease. The medicine may also cause a person's blood pressure to decrease so he or she feels dizzy. Sometimes, seizures occur.

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So, Terry has four choices: 1) She can decide to keep regular appointments with the psychotherapist in the psychotherapist's office; 2) She can decide to go to the mental hospital for a few weeks; 3) She can decide to try the medicine; or 4) She can decide to do nothing for the depression.

Terry asked the psychotherapist what he would recommend. The psychotherapist recommended that Terry enter the hospital.

If you were in Terry's situation and had to decide among these four choices, what do you think you might decide to do?

APPENDIX D

DEPENDENT MEASURES

Appendix D includes the dependent measures used in this study and the corresponding scoring criteria. The Capacity Scale, Knowledge Scale, and Choice Scale are contained within this appendix.

CAPACITY MEASURE

- DIRECTIONS:
1. In the first column, list the treatments from which Sandy must choose.
 2. In the second column, beside each treatment list as many good things about the treatment that you thought about.
 3. In the third column, beside each treatment list as many bad things about the treatment that you thought about.
 4. In the fourth column, write the treatment that you think is the best one for Sandy to choose.

TREATMENTS FROM WHICH SANDY MUST CHOOSE	GOOD THINGS	BAD THINGS	BEST CHOICE
Treatment:	Good:	Bad:	

TREATMENTS FROM WHICH TERRY MUST CHOOSE	GOOD THINGS	BAD THINGS	BEST CHOICE

If you were in Sandy's situation and had to decide among the four choices, what do you think you might decide to do? (Place an "X" beside the number of the one you would pick.)

1. Keep regular weekly appointments with the psychologist for a few months.
2. Try the bell and pad for a few months.
3. Try the medicine, Tofranil, for two months.
4. Do nothing and wait until the bedwetting problem is outgrown.

VOCABULARY SCALE-ENURESIS

- 1) What is a psychologist?
 - (a) Someone who helps people with emotional and behavioral problems.
 - (b) Someone who specializes in helping people with bedwetting problems.
 - (c) Someone who helps sick people.

- 2) Sandy and his parents wanted the psychologist's opinion. This means Sandy and his parents wanted the psychologist to
 - (a) tell them all the facts about bedwetting.
 - (b) tell them why their family doctor didn't cure the bedwetting.
 - (c) tell them what she thought was causing the bedwetting and what to do.

- 3) A habit is something
 - (a) a person is born with.
 - (b) a person learns.
 - (c) a person outgrows as they mature.

- 4) Why must Sandy's doctor write a prescription for Tofranil if he decides to take the medicine?
 - (a) Because it is a controlled substance and can only be obtained if a doctor orders it.
 - (b) Because it is a controlled substance and very expensive. A doctor's prescription helps to lower the cost.
 - (c) Because it is an illegal drug, and a doctor's prescription makes it legal.

- 5) When a person does something automatically, it is done:
 - (a) Without thinking about it.
 - (b) Immediately.
 - (c) Voluntarily.

- 6) If a person is given a choice of treatments, what does that imply?
 - (a) There is more than one treatment available which can cure the disease or disorder, but only one is good.
 - (b) There is more than one treatment available, and the person is free to select the one (s)he wants.
 - (c) There is more than one treatment available, and the person must agree with the doctor about which one is the best.

- 7) Many treatments for illnesses have side effects. This means that:
- (a) The treatment will effect a cure for the illness but when the treatment is stopped, the illness will return.
 - (b) The treatment may cure the illness, but paralyze the person on one side of the body.
 - (c) The treatment may cure the illness but cause other physical problems which may bother the patient.
- 8) The psychologist told Sandy that he would need to go to appointments for several months before he could expect results. What was the psychologist telling Sandy?
- (a) It would take several months before they discovered the cause of the bedwetting.
 - (b) It would take several months before Sandy quit wetting the bed.
 - (c) It would take several months before Sandy could see how well he did on some tests.
- 9) Many times people who wet their beds outgrow this problem. In other words:
- (a) They quit wetting the bed if they are given a larger bed.
 - (b) They quit wetting the bed as they get older.
 - (c) They quit wetting the bed as they become more intelligent.
- 10) Physical problems are problems having to do with
- (a) the spirit or soul.
 - (b) the mind.
 - (c) the body.

SITUATION AND SIDE EFFECTS-ENURESIS

- 1) What is Sandy's problem?
 - (a) He sometimes wets the bed before he wakes up at night.
 - (b) He has to get up many times during the night to use the bathroom.
 - (c) He wakes up many times during the night to use the bathroom and then cannot urinate.
- 2) What treatment could Sandy choose in order to have the least amount of contact with the doctor or psychologist?
 - (a) Make appointments with the psychologist.
 - (b) Take the medicine, Tofranil.
 - (c) Use the bell and pad.
- 3) Why didn't the doctor treat Sandy when he was younger?
 - (a) The drugs (medicine) available were too strong for a young child.
 - (b) He thought Sandy would quit wetting the bed by himself as he got older.
 - (c) Sandy and his parents didn't want to see a psychologist then because the neighbors would talk about them.
- 4) What treatment would cause the fewest physical side effects?
 - (a) Seeing the psychologist.
 - (b) Bell and pad.
 - (c) Medicine.
- 5) Why did the psychologist say that Sandy's doctor could write a prescription for Tofranil instead of doing it herself?
 - (a) Since she is a psychologist, she doesn't really believe in drugs.
 - (b) Because doctors can write prescriptions for Tofranil only if a psychologist recommends it.
 - (c) Because only medical doctors can write prescriptions.

- 6) Which treatment is mostly directed at helping a person unlearn the bedwetting behavior?
- (a) Talking to the psychologist.
 - (b) The bell and pad.
 - (c) Tofranil.
- 7) Assume that Sandy chose to use the bell and pad. What would happen on the nights that Sandy didn't wet the bed?
- (a) The alarm would not ring.
 - (b) The alarm would ring very early so Sandy wouldn't have an accident.
 - (c) The alarm would ring about 2:00 a.m. so Sandy would wake up and use the bathroom.
- 8) Assume that Sandy took the medicine and the bedwetting problem stopped. What might Sandy be nervous about when he goes to live with his cousin?
- (a) The side effects of the medicine might be permanent.
 - (b) He might be addicted to the medicine.
 - (c) The bedwetting might start when he runs out of medicine.
- 9) If Sandy took the medicine and the bedwetting stopped even after he quit taking the medicine, what would probably happen at his cousin's house?
- (a) The bedwetting would start again.
 - (b) Nothing.
 - (c) The physical side effects would embarrass him.
- 10) Why did Sandy and his family talk to a psychologist?
- (a) Sandy did not outgrow the problem.
 - (b) They were afraid of the medicine's side effects.
 - (c) The doctor referred them to a psychologist.

Enuresis Dilemma: Scoring Criteria

Capacity Scale

Question 1: Score one point for each correct alternative listed (appointments with the psychologist, bell and pad, Tofranil, no treatment).

Question 2: Score one point for the listing of each of the following variables by the subject. The listing of the same item twice will receive only one point.

- 1) Outcome of untreated enuresis. Mention of outcome as a factor regardless of S's assessment of that outcome (e.g., "he's waited too long to out-grow it on his own"; "I probably could get over it on my own").
- 2) Discomforts/Disadvantages of untreated enuresis: Practical. Mention of any of the following practical concomitants to untreated enuresis: a) inconvenience (e.g., "it's a hassle to wash all those linens"; b) discomfort ("it's uncomfortable waking up in a wet bed"); c) hygiene ("it's unsanitary").
- 3) Discomforts/Disadvantages of enuresis: Psychosocial. Mention of any of the following psychosocial (e.g., "you would feel out of control"; "you feel like a baby"; "you worry about it all of the time"); b) social (e.g., "it's embarrassing"; "you wouldn't be able to sleep at anyone's house"; "it would interfere with relationships").
- 4) Potential benefits of psychotherapy. Mention of potential benefits of therapy, regardless of evaluation of such as positive or negative.
- 5) Advantages/Disadvantages of Psychotherapy. Mention of factors other than outcome related to psychotherapy, i.e., advantages or disadvantages (e.g., "it might feel good to talk over your problems"; "you might not want other people to know you are going").
- 6) Potential benefits of bell and pad. Mention that S has considered potential benefits of bell and pad regardless of evaluation of such as positive or negative (e.g., "it might work"; "I don't think it would be successful").
- 7) Advantages/Disadvantages of bell and pad. Mention of factors other than outcome related to bell and pad, i.e., advantages or disadvantages (e.g. "bell and pad might not get to the root of the problem"; "it might wake up others in the house"; "it could disturb your sleep"; "you have to remember to turn it on").

- 8) Potential benefits of Tofranil. Mention of potential benefits of Tofranil regardless of evaluation of such as positive or negative. (Examples: "The medication isn't a sure cure"; "it might lick the problem").
- 9) Potential for relapse with Tofranil. Mention that the effects of the medication on the outcome of enuresis may only be temporary, as there exists a potential for relapse. Also, score here for implication that use of the medication might lead to a dependency.
- 10) Side effects of Tofranil. Mention of side effects of medication, either in general, or through mention of a specific side effect. Also, score here for implication that excessive medications may be harmful (e.g., "I don't like putting chemicals in my body unless absolutely necessary"; "you never know how the medications will affect you in the long run").
- 11) Inconvenience/Convenience of medication. Mention that medication may be convenient (e.g., "it's the easiest choice"), or inconvenient (e.g., "you have to remember to take it").

Question 4: Score one point if the subject chooses one of the four options.

Knowledge Scale

Score one point for each correct response.

<u>Vocabulary subscale</u>		<u>Situation and Side Effects subscale</u>	
1. A	6. B	1. A	6. B
2. C	7. C	2. C	7. A
3. B	8. B	3. B	3. C
4. A	9. B	4. A	9. B
5. A	10. C	5. C	10. A

Choice Scale

Score 3,2,1, or 0 point(s) for the option chosen as specified below.

- 3 points: Option 2, bell and pad
- 2 points: Option 1, outpatient therapy
- 1 point: Option 3, Tofranil
- 0 points: Option 4, no treatment

CAPACITY MEASURE

- DIRECTIONS:**
1. In the first column, list the treatments from which Terry must choose.
 2. In the second column, beside each treatment list as many good things about the treatment that you thought about.
 3. In the third column, beside each treatment list as many bad things about the treatment that you thought about.
 4. In the fourth column, write the treatment that you think is the best one for Terry to choose.

TREATMENTS FROM WHICH TERRY

MUST CHOOSE	GOOD THINGS	BAD THINGS	BEST CHOICE
Treatment:	Good:	Bad:	

TREATMENTS FROM WHICH SANDY MUST CHOOSE	GOOD THINGS	BAD THINGS	BEST CHOICE

If you were in Terry's situation, which one of the following four choices would you pick. (Place an "X" beside the number.)

1. Set up regular appointments to see the psycho-therapist in his office.
2. Be admitted to the mental hospital.
3. Take the medicine, Elavil.
4. Wait and let the depression try to go away by itself.

VOCABULARY SCALE-DEPRESSION

- 1) What is a psychotherapist?
 - (a) An expert who specializes in depressive disorders.
 - (b) An expert who people go to when they're sick.
 - (c) An expert who helps people with emotional problems.
- 2) When a doctor gives a guarantee to a patient, that means:
 - (a) The doctor promises that his treatment will solve the patient's problem.
 - (b) The doctor promises that his treatment is the best available treatment.
 - (c) The doctor promises that if his treatment doesn't work the patient won't have to pay as much.
- 3) In this story, Terry lost her appetite. What does that mean?
 - (a) She lost the desire to eat.
 - (b) She lost the desire to go places.
 - (c) She lost the desire to be healthy.
- 4) What is depression (as used in this story)?
 - (a) A reduction or decrease in an individual's activity level.
 - (b) A mental disorder which causes a person to feel sad and down.
 - (c) A mental disorder which many people suffer from every now and then.
- 5) What are emotions?
 - (a) Feelings
 - (b) Nerves
 - (c) Reactions
- 6) Which of the following is most true about "therapy".
 - (a) It can only be used with groups of people.
 - (b) It refers to many kinds of treatments which experts use.
 - (c) It refers only to those treatments used by doctors which do not involve surgery or drugs.
- 7) Many treatments for illnesses have side effects. This means that:
 - (a) The treatment will effect a cure for the illness, but when the treatment is stopped, the illness will return.
 - (b) The treatment may cure the illness but paralyze the person on one side of the body.
 - (c) The treatment may cure the illness but cause other physical problems which may bother the patient.

- 8) If a person needs to have regular appointments, this means:
- (a) (S)he needs to see the doctor twice to get the full benefit of the treatment.
 - (b) (S)he needs to call the doctor whenever (s)he feels bad.
 - (c) (S)he needs to see the doctor once a week for several weeks.
- 9) If a person is given a choice of treatments, what does that imply?
- (a) There is more than one treatment available which can cure the disease or disorder, but only one is good.
 - (b) There is more than one treatment available, and the person is free to select the one (s)he wants.
 - (c) There is more than one treatment available, and the person must agree with the doctor about which one is the best.
- 10) Terry could choose to be admitted to the mental hospital. Admitted means:
- (a) She will go to the hospital each week for her appointments instead of the psychotherapist's office.
 - (b) She would go to the hospital for her appointment and spend the night if she wants.
 - (c) She would be a patient in the hospital.

SITUATION AND SIDE EFFECTS-DEPRESSION

- 1) What made the doctor and psychotherapist think Terry was depressed?
 - (a) She wasn't sleeping well.
 - (b) She didn't want to participate in any activities, and she wasn't trying to keep herself healthy.
 - (c) She didn't have any friends at school any more.
- 2) What could happen if Terry chose to wait for awhile and let the depression go away by itself?
 - (a) It might take longer, but it would probably go away.
 - (b) It would probably be as effective as any of the other choices.
 - (c) It is doubtful that the depression would get better.
- 3) If everybody feels sad and down sometimes, why is everyone worried about Terry?
 - (a) She is usually a very happy person.
 - (b) She is feeling sad and down more than she used to.
 - (c) She is feeling sad and down so much that she can't lead a normal life.
- 4) If Terry took the medicine and didn't feel better in a couple of days, what advice might you give her?
 - (a) Wait a little while because the medicine doesn't work immediately.
 - (b) Quit taking it before the side effects start.
 - (c) Ask the doctor for a stronger dose of the medicine so it will work faster.
- 5) If your best friend told you that (s)he felt sad and down, should you think (s)he was depressed?
 - (a) Yes, because that is the first symptom.
 - (b) No, because (s)he has been talking like that for a long time.
 - (c) No, because everyone has their ups and downs.
- 6) If Terry chooses to see the psychotherapist in his office or in the hospital, why does Terry's family need to see him too?
 - (a) Because Terry's problem may have to do with how she feels about them, and they may need to work on things so Terry can feel better about their relationship.
 - (b) Because the psychotherapist must think that Terry's family is the main reason for her problem.
 - (c) Because Terry's family will probably be paying the bill and so they have a right to know what is going on in the treatment.

- 7) With which treatment choice would Terry get the most professional attention?
- (a) Taking the medicine.
 - (b) Going to the mental hospital.
 - (c) Going to the psychotherapist's office.
- 8) With which treatment will the most people need to know about Terry's problem?
- (a) Seeing the psychotherapist in his office.
 - (b) Being admitted to the mental hospital.
 - (c) Taking the medicine.
- 9) In sessions with the psychotherapist, what might Terry talk about?
- (a) Her schoolwork that she's having trouble with.
 - (b) Feelings and future plans.
 - (c) Television programs which showed other depressed people.
- 10) Which treatment would probably interfere with her education the least amount?
- (a) Seeing the psychotherapist in his office.
 - (b) Being admitted to the mental hospital.
 - (c) Taking the medicine.

Depression Scoring CriteriaCapacity Scale

Question 1: Score one point for each correct alternative listed (appointments with the psychotherapist, inpatient therapy, Elavil, no treatment).

Question 2: Score one point for the listing of each and 3 of the following variables by the subject. The listing of the same item twice will receive only one point.

- 1) Outcome of untreated depression. Mention of outcome of untreated depression as factor to consider, regardless of what S predicts as potential outcome, or if S makes prediction at all (e.g., "the depression may only get worse if you leave it alone", or "I think he/she can get over the depression on his/her own" or "you have to think about whether the depression will get better or worse or stay the same without treatment").
- 2) Potential benefits of inpatient treatment. Mention of whether S feels inpatient treatment might be helpful for the problem. Appropriate responses might refer to following dimensions or terms: helpful/not helpful; alleviate or not alleviate problem; make problem better or worse; treat or not treat the problem; cure/not cure; benefit/not benefit; allow depression to continue or not; etc. To earn score here, S must link specifically imply or state that he/she is considering the results or consequences of pursuing the inpatient treatment for the depression. That is, do not score if S simply states that hospitalization might be "good" or "bad" or "seems like a good/bad" idea. These latter responses might refer to elements of hospitalization other than outcome or potential benefits.
- 3) Potential benefits of outpatient treatment. Mention of whether S feels outpatient treatment might be helpful for the problem. Use same criteria as specified for #2 above.

- 4) Contact with significant others. Mention that inpatient treatment implies less frequent contact with significant others (i.e., family and friends) than do other treatment alternatives, or that with outpatient treatment, frequency of such contact will not be altered. S receives credit for this item regardless of whether a positive or negative evaluation is placed upon lessened contact with these individuals (e.g., "his parents might be causing his problems, so it might be good to get away from them for awhile" or "if he went to the hospital, he would miss his family and that might make him more depressed").
- 5) Continuation of normal activities and routine. Mention that inpatient treatment implies a temporary cessation of normal activities and routine or that outpatient or no treatment allows continuation of such activities or routine. As noted for item #4 above, S's evaluation of this as positive or negative will not affect credit for this item. (Examples: "If he went to the psychologist, he could continue to go to school" or "If he went into the hospital, he could be away from all the pressures that have been troubling him").
- 6) Familiarity of environment. Mention that inpatient treatment implies removal from familiar environment, or that outpatient or no treatment allows one to remain in familiar surroundings. Again, positive versus negative evaluation is not relevant to scoring. (Examples: "I would miss my room and house in the hospital" or "everything would be new and different in the hospital").
- 7) Concomitants of "therapeutic community". Mention of fact that inpatient treatment implies contact with other individuals with psychological problems, or that some lack of privacy might be associated with such an option, or that "group" therapy is a modality unique to this choice. Again, positive or negative evaluation is not relevant to scoring. (Examples: "I think the hospital might be more depressing because you are around other depressed people" or "it might be helpful to discuss your problems with other people with similar problems").
- 8) Restrictiveness or lack of freedom of movement in hospital. Mention that hospitalization implies some loss of freedom of movement or restrictiveness or that outpatient treatment or no treatment do not have such concomitants. Again, positive or negative evaluation is not relevant to scoring. (Examples: "At home, you can come and go as you please" or "he shouldn't be allowed to roam around unsupervised, since he could try to hurt himself").

- 9) Regimented nature of hospitalization. Mention that hospitalization implies some loss of ability to do as one pleases, i.e., that one is confined to a schedule, rules and regulations, and must obey the instructions of others or mention that outpatient or no treatment do not imply such regimentation. Again, positive or negative evaluation are not relevant to scoring. (Examples: "in the hospital, you are treated like a baby, as though you can't make your own decisions" or "you might feel like others are controlling you in the hospital" or "part of her problem is that she isn't doing anything, at the hospital they would make her do things at specific times, and make sure she eats and sleeps right" or "you could get too dependent on the routine in the hospital and not learn how to do things for yourself").
- 10) Comprehensiveness of hospital program (Qualitative). Mention that hospital has "more" facilities, or wider range of treatment modalities than do other options.
- 11) Intensiveness of hospital program (Quantitative). Mention that hospital has more "intensive" treatment, i.e., round the clock treatment, or more frequent contact with professionals.
- 12) Elements of family therapy. Mention that family therapy is an element to certain options. Positive or negative evaluation of this element does not affect scoring. (Examples: "you might benefit from the family therapy" or "you might feel uncomfortable discussing things in front of your family" or "you could get family therapy with the hospital or seeing the psychologist").
- 13) Elements of contact with psychologist other than regarding outcome. Mention of some element of contact with the psychologist (in or out of the hospital) which indicates that S has considered what such contact might be like (e.g., "it might feel good to talk out your problems to someone who can understand, like a psychologist" or "it might be embarrassing to discuss your problems with a psychologist").
- 14) Concomitant elements to outpatient therapy (Practical). Mention of any factor demonstrating that S has considered "real world" concomitants to involvement in outpatient therapy (e.g., "it might be expensive" or "you would have to miss activities after school in order to go to the appointments" or "it takes time you could use for homework" or "you have to remember to go").
- 15) Social stigma. Mention of reality that certain social reactions or stigmas may be attached to hospitalization, outpatient therapy or continued depression (e.g., "I would feel like a crazy person if I went into the hospital" or "everyone would wonder where I went after school, and I wouldn't want to tell them" or "you might become more depressed after you left the hospital and everyone knew where you had been").

- 16) Potential benefits of Elavil. Mention potential benefits of Elavil regardless of evaluation of such as positive or negative (Examples: "The medication isn't a sure cure"; it might lick the problem").
- 17) Side effects of Elavil. Mention of side effects of medication, either in general, or through mention of a specific side effect. Also, score here for implication that excessive medications may be harmful (e.g., "I don't like putting chemicals in my body unless absolutely necessary"; "you never know how the medications will affect you in the long run").
- 18) Inconvenience/Convenience of medication. Mention that medication may be convenient (e.g., "It's the easiest choice") or inconvenient (e.g., "you have to remember to take it").

Question 4: Score one point if the subject chooses one of the four options.

Knowledge Scale

Score one point for each correct response.

<u>Vocabulary subscale</u>		<u>Situation and Side Effects subscale</u>	
1. C	6. B	1. B	6. A
2. A	7. C	2. C	7. B
3. A	8. C	3. C	8. B
4. B	9. B	4. A	9. B
5. A	10. C	5. C	10. A

Choice Scale

Score 3,2,1 or 0 point(s) for the option chosen as specified below.

- 3 points: Option 1, set up regular appointments to see the psychotherapist in his office.
- 2 points: Option 3, take the medicine, Elavil.
- 1 point: Option 2, be admitted to the mental hospital.
- 0 points: Option 4, no treatment.

APPENDIX E

DEBRIEFING AND INFORMATIONAL HANDOUT

DEBRIEFING AND INFORMATIONAL HANDOUT

The purpose of the study you just participated in was to gather information regarding the age at which individuals are capable of making decisions about their own health care. The information gathered in this study may help lawmakers, physicians, and psychologists determine the age at which minors are capable of giving informed consent for health care treatment. Currently, an individual must be 18 years of age to be able to give consent for health care in most cases.

The stories presented in this study were completely fictitious. The advice given by the professional in the stories was not always the best advice and in some cases was very poor advice given the circumstances in these stories. All treatment options explained in these stories are appropriate treatments in different situations. In a real situation, a patient should feel free to ask the psychologist or psychotherapist any questions (s)he may have. In most health care situations, there is more than one available treatment. While one may be better than the rest, adult patients and parents of minor patients do have the right to make their own treatment decisions.

Thank you very much for your participation in this study.

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Bessey v. Salemme, 19 N.E. 2d. 75 (1939)

Fox v. Piercey, 227 P. 2d. 763 (1951)

Miranda v. Arizona, 384 U.S. 436 (1966)

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