

A Distributive Model of Treatment Acceptability

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Abstract: A model of treatment acceptability is proposed that distributes overall treatment acceptability into three separate categories of influence. The categories are comprised of societal influences, consultant influences, and influences associated with consumers of treatments. Each of these categories are defined and their interrelationships within the proposed model of treatment acceptability are described. The potential benefits of a distributive model of treatment acceptability are discussed.

Treatment acceptability has been viewed as both a limited (Cross-Calvert & Johnston, 1990) and a highly comprehensive (Lennox & Miltenberger, 1990) concept in the evaluation of behavioral interventions. Wolf (1978) first stressed the importance of the concept of treatment acceptability as a component of social validity, which he described as a necessary element for maintaining and expanding the use of behavioral procedures by society. Kazdin (1980) defined treatment acceptability as judgments of treatments by actual or potential consumers of the treatments, such as nonprofessionals, clients, laypersons, and others. This definition is most in line with the limited conceptualization of treatment acceptability described by Cross-Calvert and Johnston, which only focuses on the evaluation of treatments by the consumers of treatments. The more comprehensive conceptualization of treatment acceptability described by Lennox and Miltenberger incorporates factors influencing treatment acceptability that may only be available to the practitioner designing or recommending the treatment. This comprehensive view of treatment acceptability extends the more traditional view of treatment acceptability as defined by Kazdin by incorporating factors such as the ethical guidelines of a profession, the influence of meta-analyses and literature reviews, the expertise of the practitioner, practitioner history with a treatment, and practitioner bias.

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Recent developments such as legislation, research on functional analysis of problem behaviors, and the influence of Positive Behavior Support (PBS) models of service delivery appear to have increased the need for research on treatment acceptability. While the consumers of treatment may have access to and be influenced by these recent developments, it appears that practitioners would be more likely influenced by these factors since they may have more training in these areas and are required to remain informed of these types of developments in order to provide appropriate services. For example, most individuals who interact with computers even on a daily basis are not familiar with the most recent developments in computer technology. Alternatively, a person who works as a computer technician or computer salesperson may be required to be highly knowledgeable of the latest developments in computer technology in order to conduct their daily activities and thus they may be more influenced by these latest developments than those within other professions. The same may be true for practitioners, who regularly make recommendations regarding behavioral treatments, because in order for them to make appropriate and ethical recommendations, they need to stay informed of the latest developments in their field even more so than the consumers to whom they make recommendations. The latest developments in the field influence the recommendations made by the practitioner and in turn influence the decisions made by the consumers with whom they interact.

Considering the many factors that influence

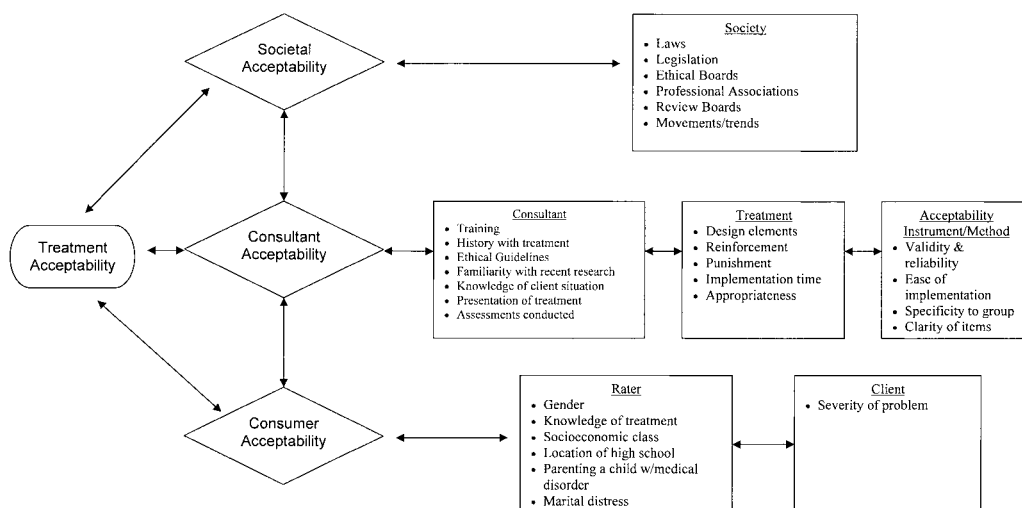


Figure 1. Distributive model of treatment acceptability.

the acceptability of treatments and the various individuals or organizations that inhibit or enhance these influences, a new model of treatment acceptability was proposed. Previous models of treatment acceptability (see Witt & Elliott, 1985 and Reimers, Wacker, & Koepl, 1987) appear to be predictive and focus more on clear understanding of treatments and how treatment acceptability may lead to increases or decreases in factors such as use of treatment, integrity of treatment, and effectiveness of treatment. The model of treatment acceptability proposed in this paper distributes treatment acceptability along the areas of society, consultant, and consumer, each of which are considered to be major influences on overall treatment acceptability. This model extends Kazdin's (1980) definition of treatment acceptability by incorporating Lennox and Miltenberger's (1990) conceptualization of factors influencing treatment acceptability which go beyond those factors immediately available to most consumers. In addition, this model attempts to incorporate the recommendations made by Schwartz and Baer (1991) which suggests that treatment acceptability should go beyond just the consumers of treatment and include input from a larger segment of society. Specifically, this model (see Figure 1) focuses on broad segments of society, consultants who develop treatments, and consumers of treatments that may directly

and indirectly influence treatment acceptability. This model does not replace previous models of acceptability but attempts to build on Reimers et al. model by extending their concept of the need for a good understanding of treatment in order to rate the acceptability of treatment by promoting an awareness of how personal judgments of acceptability are developed. Each of the components proposed within this model are described along with their corresponding interaction with other components of the model.

Societal Acceptability

Schwartz and Baer (1991) proposed several recommendations for improving social validity assessment such as expanding the definition of consumers to represent more individuals from the community and beyond who may influence the use of treatments. By examining how overall treatment acceptability may be distributed across several influential factors such as large segments of society which may influence the development and use of treatments, the concept of societal acceptability was developed.

Societal acceptability incorporates the influences that arise from a broader segment of society rather than just those who are typically involved in the development and implementation of specific treatments used for individ-

uals. These influences are generally developed through the evaluation of opinions, arguments, and actions of large groups of people. Laws and legislation such as the Individuals with Disabilities Education Act (2004) have promoted the use of empirically based treatments in the least restrictive environment. This in turn appears to designate treatments without an empirical basis as less acceptable as well as treatments that are not implemented in the least restrictive environment. Other large segments of society which influence the acceptability of treatments are professional associations, parent organizations, treatment review committees, and university affiliated training/treatment programs. Each of these may design new treatments, develop ethical obligations, and promote movements that encourage or discourage the use of specific treatments.

An example of how research in the assessment and design of treatments has resulted in changes in the acceptability of treatments can be seen by examining the influence of functional assessment technology on the use of particular treatments. Research by Carr and Durand (1985) and Iwata, Dorsey, Slifer, Bauman, and Richman (1982/1994) has had a profound influence on educational legislation, assessment of behavior, and use of treatments that incorporate specific reinforcement techniques rather than punishment. Hanley, Iwata, and McCord (2003) described how prior to the development of functional analysis methodologies, treatments typically involved arbitrary reinforcement or punishment to overpower unknown sources of reinforcement. With the introduction of functional analysis approaches the source of reinforcement for behaviors could be determined and treatments could be designed to exploit specific reinforcement contingencies. Mccausland, Grey, Wester, and McClean (2004) found that treatments based on functional assessment information for aggressive behavior were more acceptable than treatments which were not derived from functional assessments. These procedures have influenced legislation such as IDEA (2004) which now mandates functional behavior assessments under certain circumstances and have potentially influenced the acceptability of treatments by making those treatments developed without the assis-

tance of a functional assessment potentially less acceptable due to these legislative mandates.

One movement that has been highly influential with regard to educational legislation has been the ideology of positive behavior supports (PBS). This movement has promoted the incorporation of lifestyle considerations and person-centered values in the development of treatments as well as less use of consequence-based decelerative techniques (Anderson & Freeman, 2000). This movement has been highly influential within society and has been shown to have a direct influence on the acceptability of treatments by individuals responsible for the development and implementation of treatments. Michaels, Brown, and Mirabella (2005) described a possible paradigm shift based on the PBS movement. They surveyed experts in positive behavior supports and found a decrease in the acceptability of consequence-based decelerative techniques and a decrease in the use of such procedures although many had used these types of procedures in the past. The experts indicated that ethical reasons were most influential in altering their acceptability of specific treatments along with the development of more effective treatment alternatives. Their findings revealed that treatment acceptability can change over time especially in the face of large scale movements such as PBS, changing ethical guidelines, and the development of new treatment methodologies.

All of these influences combine to form the construct of societal acceptability which is considered a part of overall treatment acceptability. Societal acceptability may influence overall treatment acceptability by limiting the possible types or numbers of interventions that may be considered, by pushing for the use of specific types of interventions, and by restricting the manner in which treatments may be implemented. In addition, societal acceptability may influence both consultants and consumers of treatments. The laws and regulations that are developed by larger segments of society have direct influence on consultants who must abide by ethical and legal guidelines when developing treatments. These laws and regulations may have both a direct and an indirect influence on the consumers of treatments. In many cases the asso-

ciations, boards, and committees responsible for developing ethical and legal guidelines are composed of or informed by consultants and consumers of treatments. While societal acceptability may directly influence consultants, it may also influence consumers of treatments indirectly through consultants who modify the treatments they develop to meet ethical and legal guidelines. Societal acceptability may also directly influence consumers of treatments since they may be members of associations, committees, etc. and they may be exposed to the research and rhetoric associated with movements such as PBS, Gentle Teaching (McGee, Menolascino, Hobbs, & Menousek, 1987), *Toughlove* (York, York, & Wachtel, 1982), etc.

The influence that societal acceptability has upon both consultants and consumers is reciprocal in that societal acceptability is both directly and indirectly influenced by both consultants and consumers. Consultants and consumers may directly influence societal acceptability by becoming members of the boards and committees that develop laws and ethical guidelines or through litigation such as class action lawsuits. They may also indirectly influence societal acceptability by developing new treatments or technologies related to treatments such as functional analysis approaches. Consultants and consumers of treatments may indirectly influence societal acceptability through movements or campaigns for certain rights associated with treatments. While societal acceptability appears to influence and be influenced by consultants and consumers, the most direct and obvious connection appears to be among societal acceptability and consultants which will be described next.

Consultant Acceptability

The designers of treatments are typically consultants who have training and experience necessary to develop, implement, and monitor treatments. Consultants can be highly influential in the overall acceptability of treatments and that influence is referred to as consultant acceptability within this model. Consultants may vary greatly with regards to their training, history with treatments, and competencies. Each of these factors can be highly prominent in the types of treatments

that they propose and develop. Consultants with training in PBS may propose and develop more treatments that fit with this orientation than consultants without this training just as those with training in cognitive behavioral therapies may propose and develop more treatments from this orientation. Ethical guidelines typically require that professionals practice only within those areas in which they are competent, and with the wealth of information available and the numerous areas of specialization, most consultants can only be competent in a limited number of areas. These limitations influence consultant acceptability by increasing or decreasing their experience and knowledge of certain treatments and may influence their judgments of the acceptability of certain treatments. Singh and Katz (1985) found that formal educational training could change acceptability ratings of college students and this implies that the formal training that consultants receive may be influential in how acceptable they find treatments. It seems reasonable that consultants would only recommend treatments that they consider acceptable themselves and this could be considered an ethical obligation within their profession. This demonstrates how societal acceptability may be influencing consultant acceptability.

A more obvious demonstration of how societal acceptability may combine with and influence consultant acceptability can be seen when examining the professional affiliations of consultants. Spreat and Walsh (1994) found treatment acceptability differences among members of different divisions of the American Association on Mental Retardation. They determined that members of the Psychology Division rated treatments slightly more acceptable than members of other divisions. Similarly, Fairbanks and Stinnett (1997) found differences in treatment acceptability among teachers, school psychologists, and social workers. Social workers rated punishment-based treatments as less acceptable than the other two professional groups. While membership in a professional organization has been shown to influence treatment acceptability, it does not clarify whether the differences among these groups were prevalent prior to membership within the group or whether membership in the group shaped their judg-

ments of treatment acceptability through training, experiences, ethical guidelines, etc.

The treatments developed or recommended by consultants may depend upon several factors other than their past training, history with specific treatments, or professional association memberships. Consultants who continually hone their skills in efforts to maintain familiarity with the most recent research developments may be more likely to use treatments that have only recently been developed or shown to be highly effective. This can be seen with the advances made in functional analysis approaches which were described previously. A consultant who was familiar with these approaches or who was trained in these approaches would be more likely to incorporate these techniques than a consultant who was not familiar with these approaches. In addition, a consultant who was not familiar with these techniques may ethically be discouraged from using these techniques without proper training. Consultants who use functional analysis approaches may be more likely to recommend certain treatment procedures suggested by the findings of the assessment over other arbitrary techniques. This is an example of consultant acceptability where one treatment is considered more acceptable than another treatment because of the familiarity and use of certain assessment techniques. A consultant may also influence the acceptability of a potential treatment by simply not presenting it as an option to a consumer.

Consultants may influence the acceptability of a treatment through their interactions with a consumer. A consultant, while gathering knowledge about a consumer and the consumer's situation, may become more or less inclined to recommend certain treatments. The consultant may feel that a particular consumer may respond better to a certain treatment for a variety of reasons. Factors such as the level of functioning of a consumer, the availability of resources to the consumer, or the severity of the consumer's problems may all influence the treatment recommendations made by a consultant. Consultants may also influence acceptability by the amount of information that they provide to consumers and the presentation method that they use with consumers. Singh and Katz (1985) found that acceptability ratings changed after training

was provided on specific details of treatments, empirical data on the effectiveness of treatments, and potential side effects of treatments. This type of information would typically be provided to the consumer by a consultant who developed the treatment. Similarly, Kazdin and Cole (1981) and Witt, Moe, Gutkin, and Andrews (1984) found that the terminology or jargon used to describe a treatment such as humanistic or behavioral jargon influenced the acceptability of treatments. A consultant who uses a specific type of terminology to describe a treatment to a consumer may influence the acceptability of a treatment as rated by a consumer. While consultants would be obligated to provide informed consent to consumers, the amount of information they provide and the manner in which they present the information might vary depending on the complexity of the treatment, the restrictiveness of the treatment, the characteristics of the consumer, or numerous other variables. Each of the interactions described between consultants and consumers may be examples of how consultant acceptability influences overall treatment acceptability.

Another area in which consultants may influence overall acceptability is through the method used to assess treatment acceptability. Consultants are frequently the individuals who select the manner in which treatment acceptability will be measured. Consultants may choose to measure acceptability informally by asking a few questions or they may use a more formal instrument that has established validity and reliability. A consultant who chooses to use an informal procedure may ask questions that are not valid or reliable toward assessing treatment acceptability and thereby obtain measures that are not accurate. Conversely, some more formal treatment acceptability instruments do not provide specific cut-off points for distinguishing between acceptable and unacceptable treatments. Some of these formal instruments rely upon general rule of thumb such as using the midpoint of a scale for cut-off points to distinguishing acceptable and unacceptable treatments. Whether informal procedures or formal instruments are used, the consultant may still influence the acceptability of a treatment through the selection of individuals who

are allowed to complete the acceptability ratings. The consultant may choose to obtain acceptability ratings from one person or they may obtain ratings from numerous individuals involved with the treatment. In addition, consultants may choose to selectively obtain acceptability ratings, or they may obtain acceptability ratings on most or all treatments they develop. As recommended by Lennox and Miltenberger (1990) consultants may obtain several acceptability ratings on highly similar treatments which they may use to compile local, regional, or national measures of acceptability. These more global measures could be used to influence their use of specific treatments or could be used to influence the committees and associations comprising societal acceptability factors.

The design elements of treatments have been shown to consistently influence the overall acceptability of the treatments. Consultants construct specific treatments and are frequently responsible for training the components of treatments to individuals who implement the treatments. This makes the actual treatment elements highly dependent upon the consultant who develops them and are therefore included as part of consultant acceptability. While the actual components of treatment may independently influence acceptability, they cannot first be considered unless they are included and described by the consultant. Several treatment variables have been found to influence treatment acceptability and are incorporated into this distributive model as part of consultant acceptability since they are considered dependent upon the consultant to include them in the development of a treatment. Treatment variables that have been found to influence treatment acceptability include use of reinforcement and punishment techniques (Kazdin, 1980), amount of time required to implement treatment (Witt, Elliott, & Martens, 1984), and the apparent appropriateness of the treatment (Cavell, Frenzt, & Kelley, 1986). Each of these treatment variables would depend upon how the consultant chose to design the treatment and if they chose to include specific treatment variables such as reinforcement, punishment, reductions in implementation time, or components to increase the apparent appropriateness of treatments. Other treatment variables

found to influence acceptability that may be dependent on the consultant could include treatment efficacy (Brock & Elliott, 1987) and the mediator of the treatment (Kalfus & Burk, 1989). Each of these variables may be dependent on the consultant for selecting treatments considered highly effective and for training individuals to implement treatments. While each of these factors may be dependent upon the consultant, they may also independently influence acceptability when consumers have prior experience or knowledge of treatments. This type of influence on acceptability would not depend on the consultant to provide information on the treatment, but would rather be a direct influence on the consumer because of their history with the treatment. The factors that comprise consumer acceptability will now be described.

Consumer Acceptability

The actual or potential consumers of treatments have defined by Kazdin (1980) as non-professionals, clients, laypersons, and others. A number of variables related to the consumer have been found to influence treatment acceptability. Within the proposed distributive model, each of these variables are described as consumer acceptability which helps to comprise overall treatment acceptability. Consumer acceptability is described within this model as two sets of variables related to the actual clients who potentially receive treatments and those who may assist in the selection of treatments such as parents, guardians, mediators of treatments, etc. who rate the acceptability of treatments. Client variables that have been found to influence acceptability include the severity of client problem (Kazdin; Tingstrom, 1990). Reimers, Wacker, Cooper, and De Raad (1992) found increases in acceptability ratings when less intrusive treatments such as positive reinforcement were recommended for less severe behaviors and when more intrusive treatments, such as medication were recommended for more severe behavior problems. This indicated that selecting a treatment based on the severity of a client's problem behaviors may influence the acceptability of the treatment.

Several variables related to the characteristics of those who rate the acceptability of treat-

ments have been found to influence treatment acceptability. Some of these variables include the gender of raters (Kazdin, 1980; Miller & Kelley, 1992), the raters' knowledge of the treatment (Singh & Katz, 1985), raters' socioeconomic class (Heffer & Kelley, 1987), geographic location of raters' high school (Stinnett, Crawford, Gillespie, Cruce, & Langford, 2001), parenting a child with a medical disorder (Gage & Wilson, 2000; Miller, Manne, & Palevsky, 1998), and raters' experiencing marital distress (Miller & Kelley). Many of these variables such as gender and marital distress appear to be completely independent from influence by a consultant or from societal factors related to treatments. Some of the other rater variables such as knowledge of treatment may be dependent upon information provided by a consultant or possibly by societal influences such as professional training or affiliations with associations or movements such as PBS. In addition, parents, friends, or relatives of individuals with medical or psychiatric diagnoses may frequently become involved in associations, movements, or support groups to obtain information. This may make variables discussed within societal acceptability especially influential with these potential raters' of treatments.

Potential Benefits of a Distributive Model of Treatment Acceptability

It has been determined that numerous factors may influence the acceptability of treatments. The proposed distributive model delineates three primary subdivisions each consisting of multiple factors that may influence overall treatment acceptability. Some of these factors have been demonstrated to influence acceptability such as the PBS movement (Michaels et al., 2005), consultant membership in associations (Spreat & Walsh, 1994), and geographic location of raters' high school (Stinnett et al., 2001). Other factors discussed have not been demonstrated to influence overall treatment acceptability, but appear to have the potential to influence acceptability. With the proposed model, it may be possible to recognize and evaluate these other factors to determine if and how they may be influential toward treatment acceptability. The proposed model offers a method for arranging and potentially

evaluating factors in a more discrete manner than has been done previously. Research on treatment acceptability has predominantly manipulated variables on three levels which involved manipulations involving the actual treatment components, manipulations involving the characteristics of the client targeted for treatment, and manipulations involving differences among those rating the acceptability of treatments. While this research has produced a wealth of information regarding how treatment acceptability may be influenced, it appears to combine numerous factors together which might provide more information if examined separately. Examining treatment acceptability using the proposed distributive model may allow for comparisons to be made between the distinct subdivisions and provide information on the degree of influence related to each subdivision. Examining treatment acceptability along these subdivisions may also provide information on trends within organizations, among consultants, and for consumers with similar characteristics.

The proposed distributive model provides a framework for examining factors influencing overall treatment acceptability in at least three distinct ways. First, the research on treatment acceptability has produced several contradictory findings. The proposed distributive model of treatment acceptability may assist in understanding some of these contradictory findings by recognizing the different subdivisions of treatment acceptability. For example, it may be valuable to determine how some very specific characteristics of consumers such as geographic location of their high schools or their level of marital distress influence their acceptability ratings, but it is not known if or to what extent this influences the development or selection of treatments by consultants. The proposed distributive model provides a means for understanding some of the variability that has been attributed to overall treatment acceptability. As described by Hawkins (1991), the degree to which a treatment is considered acceptable by a consultant may differ markedly from that of a consumer. Examining only overall treatment acceptability does not offer insight into how varied acceptability may be between consultants, consumers, and society in general.

Although numerous factors may influence

the acceptability ratings of members of each of the subdivisions of this distributive model, it appears that consumer acceptability would vary more than the other subdivisions because of the vast number of differences among potential consumers. While numerous differences may also exist among consultants, it is expected that they would have some similarities either in training, familiarity with certain treatments, or experience that would produce less variability in their acceptability ratings. In addition, societal acceptability would appear to produce very high or very low variability in acceptability depending on what segments of society are evaluated. Certain groups or organizations would appear to produce minimal variability in acceptability because these organizations may be formed from individuals who voluntarily joined the organization because it fit with their personal ideologies. Other segments of society may vary markedly in their acceptability of treatments because of extreme differences in the characteristics of these individuals. The proposed distributive model provides a means of explaining some of the variability with acceptability ratings and how this variability can be understood within overall treatment acceptability. The proposed distributive model should encourage research to examine interactions among the subdivisions of the model in order to understand some of the previously contradictory findings of treatment acceptability.

Another benefit of the proposed distributive model is that it provides specific subdivisions of treatment acceptability which may respond to change in different ways. Finney (1991) stated that treatment acceptability was not a static phenomenon and that it should be constantly reevaluated in order to provide accurate measures. By examining treatment acceptability along the subdivisions outlined within the proposed distributive model, it might be possible to gain an understanding of some of the interactions that may be occurring between large segments of society, consultants, and consumers. Simultaneously, obtaining measurements of societal acceptability, consultant acceptability, and consumer acceptability may show interactions among these components of treatments acceptability, but potentially more importantly, it may be able to predict trends associated with the ac-

ceptability of treatments. These trends may be difficult to identify using an overall measure of treatment acceptability, but by examining acceptability along the three subdivisions outlined within the current proposed model, it might be possible to demonstrate the rate in which acceptability may change within each of these subdivisions. Michaels et al. (2005) found a change in acceptability of treatments among PBS experts which occurred over a ten to twenty year period. This rate of change might be very different from changes in acceptability among consumers. Differences in acceptability ratings have been found among parents with and without children with health impairments, consumers with and without marital stress, and among consumers of different socioeconomic classes (Heffer & Kelley, 1987). Each of these factors appear to be highly erratic and could influence acceptability ratings to change very rapidly.

Summary

The proposed distributive model supports Schwartz and Baer's (1991) recommendations toward expanding the evaluation of treatment acceptability to more individuals who may influence the use of treatments. The model divides overall treatment acceptability into three subdivisions of societal acceptability, consultant acceptability, and consumer acceptability. Each of these subdivisions include factors that may independently influence overall treatment acceptability and factors which may be dependent on elements from other subdivisions such as consumers' opportunity to rate the acceptability being dependent upon the consultants' selection or design of specific treatments. While each of these subdivisions may influence overall treatment acceptability in different ways, it appears that consultant acceptability has more potential factors that could influence overall treatment acceptability. This appears consistent with the top-down social marketing framework proposed by Winnett, Moore, and Anderson (1991) for designing socially valid treatments. Their description of the steps necessary for developing a socially valid treatment included having "experts" decide the minimal guidelines for a treatment. Although consultant acceptability has more potential factors to influence overall treat-

ment acceptability these factors could be less influential than factors included in other subdivisions. For example, societal factors may include legislation which could make certain treatments illegal. This would most likely be more influential to overall treatment acceptability than factors such as consultants' training orientation or history with a treatment. While the degree to which each subdivision influences overall treatment acceptability is currently unknown, the recognition that each of these subdivisions may play a part in determining overall treatment acceptability appears advantageous. By recognizing the influence of each of these subdivisions it may be possible to gain a better understanding of how treatment acceptability judgments are developed and eventually assist in predicting how treatment acceptability may influence other outcomes such as treatment integrity and effectiveness.

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