

**APPLICATION OF VIDEOS AND ROLE-PLAYS FOR THE  
ASSESSMENT OF SOCIAL PROBLEM SOLVING IN  
PARTICIPANTS OF A VIOLENCE REDUCTION  
TRAINING PROGRAM**

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the requirements for the degree of  
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This work is dedicated to the faculty of the Clinical Psychology Program, for providing me guidance and shaping my development as a practitioner and researcher in training. And to Ann and Tom at Partners in Change, for having confidence in me when I lacked it in myself and encouraging my passion in this field.

“When you come to the end of all the light you know,  
and it’s time to step into the darkness of the unknown,  
faith is knowing that one of two things shall happen:  
Either you will be given something solid to stand on  
or you will be taught to fly.”

--Edward Teller

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## ABSTRACT

### APPLICATION OF VIDEOS AND ROLE-PLAYS FOR THE ASSESSMENT OF SOCIAL PROBLEM SOLVING IN PARTICIPANTS OF A VIOLENCE REDUCTION TRAINING PROGRAM

by Christopher J. Udell

Deficits in social problem solving skills underlie many violent offenses. Violent offenders are commonly referred to treatment programs where they receive risk assessments. These risk assessments evaluate maladaptive beliefs and behaviors primarily through interview, actuarial, and self-report measures. However, dynamic risk factors such as heated thinking or impulsive reactions may not be accurately assessed in a laboratory setting free of the environmental context (e.g., frustrations at work, familiar individuals) that elicited the offender's violent conduct. A new approach is needed to evaluate offenders' behavior in a manner that makes the behavior more representative of real-world settings.

The current study examined the application of videos and role-plays in the assessment of social problem solving ability in a group of violent offenders court-ordered to treatment ( $N = 37$ ). No published study has addressed the use of videos or role-plays in evaluating social problem solving deficits and violence risk in offenders. Role-plays are considered a substitute for naturalistic observation. Role-play exercises permit the evaluation of an individual's problem solving skills in concrete situations with less

influence of socially desirable responding. However, results from role-plays have been found to demonstrate weak generalizability to real-world settings. Social cues that elicit aggressive or defective problem solving behavioral responses at home or in the bar are absent in the laboratory conditions under which role-plays are typically conducted. Video portrayals of conflict situations, on the other hand, might provide the social context and emotional activation to make role-plays more realistic and trigger ineffective social problem solving behavior.

The objectives of the current study were to evaluate 1) the use of video as a means of assessing social problem solving performance and 2) the extent to which videos contribute to more accurate prediction of problem solving behaviors in role-played situations. Results from an emotion self-rating form did not suggest a direct effect of videos on emotional arousal. Statistical procedures failed to identify consistent discrepancies between experimental and control groups on problem solving performance measures. However, qualitative analysis of problem solving performance demonstrated worse performance for video group participants. This finding may be attributable to the influence of emotional activation.

## TABLE OF CONTENTS

LIST OF TABLES .....	x
CHAPTER	
I. INTRODUCTION .....	1
Brief Overview .....	1
Albert Bandura's Social Learning Theory .....	3
The Role of Mass Media in Observational Learning .....	4
Influence of Violent Media on Aggressive Behavior.....	5
Cultivation of Attitudes and Judgments Through Media .....	7
Traditional Psychometric Assessment of Social Problem Solving .....	8
Drawbacks of Problem Solving Appraisal Measures.....	10
Assessing Social Problem Solving Beyond Appraisal .....	11
Limitations of Social Problem Solving Research.....	13
Appraisal vs. Performance .....	13
The Use of Video in Research.....	15
Video vs. Written Assessment.....	17
Video in the Assessment of Social Problem Solving .....	18
Behavioral Assessment Using Role-Plays .....	20
Contribution of Videos to Role-Playing.....	21
Social Problem Solving in Offenders.....	22
Need for Revised Violence Risk Assessment .....	23
Violence Reduction Training Program.....	25
Statement of Purpose .....	25
II. METHOD .....	30
Design.....	30
Descriptive Measures .....	31
Predictive Measures .....	33
Procedures .....	39
Scoring.....	44
III. RESULTS .....	50
Demographics and Descriptive Measures .....	50
Emotional Activation .....	52
The Influence of Social Desirability on Emotional Activation Ratings.....	55
Calculation of Performance Measures .....	58

Comparison of Groups on Performance Measures.....	59
Correlations Among Predictive Measures.....	59
Qualitative Analysis .....	61
 IV. DISCUSSION .....	68
Experimental Manipulation of Emotional Activation .....	68
Emotional Activation Not Tracked by the Rating Form .....	71
Three Measures of Social Problem Solving.....	72
Qualitative Assessment and Emotional Activation.....	75
Limitations.....	76
Contributions to the Social Problem Solving Research Field .....	80
 APPENDICES .....	83
 REFERENCES .....	135

## LIST OF TABLES

TABLE	PAGE
1. Ordering of Procedures and Time Sequence .....	41
2. Classification of Vignettes into Index Offense Categories.....	42
3. Means and Standard Deviations for Descriptive Measures .....	51
4. Emotional Activation Ratings.....	53
5. Pearson <i>r</i> Correlations Measuring the Relationship Between the Marlowe-Crowne Social Desirability Scale (MCSDS) and Each of the Emotional Activation Valence Terms at All Three Measurement Points .....	56
6. Results for the Problem Solving Vignette and Role-play Performance Measures .....	60
7. Pearson <i>r</i> Correlations for the Entire Sample on the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF), the Marlowe-Crowne Social Desirability Scale (MCSDS), Each of the Problem Solving Vignettes, and Positive and Negative Scores for Each of the Role-plays.....	62
8. Pearson <i>r</i> Correlations for the Video and Written Groups on the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF), the Marlowe-Crowne Social Desirability Scale (MCSDS), Each of the Problem Solving Vignettes, and Positive and Negative Scores for Each of the Role-plays .....	63
9. Percentages of Participants Surpassing the Quality Threshold on Social Problem Solving Appraisal and Performance Measures .....	66

## CHAPTER I

### INTRODUCTION

#### Brief Overview

Violent crime is a severe social problem in the United States. Unfortunately, current procedures for assessing an individual's level of dangerousness are inadequate. Actuarial measures focus predominately on an offender's demographic characteristics (e.g., age) and behavior history (e.g., past convictions). This approach may lead to overestimation of violence risk if the offender has a history of crime or underestimation of risk if the offender presents no criminal history. Moreover, actuarial measures fail to account for dynamic risk factors such as impulsivity, anger, antisocial attitudes, and interpersonal relationships that have been found to predict violence risk (Douglas & Skeem, 2005). Offenders court-ordered to treatment are commonly assessed for violence risk through a series of self-report measures. But if an offender is told to attend a treatment program so that he can avoid future punishment, how likely is he to openly acknowledge problematic thoughts and behaviors? Furthermore, he may not have sufficient awareness to provide an accurate response.

New procedures are needed to effectively evaluate an offender's risk for recidivating violently. Observing an offender in a natural setting where violent behavior is at the greatest probability of occurring is ideal, but ethically and practically challenging. The next best option is to try to elicit aggressive attitudes, thoughts, and behaviors in a laboratory setting. Role-playing is considered the alternative to naturalistic observation, since the researcher can recreate stimuli and settings similar to what the subject experienced in a real-world environment. However, research on role-playing has

uncovered inconclusive external validity (Bellack, Hersen, & Lamparski, 1979; Norton & Hope, 2001). Moreover, studies addressing the generalizability of role-play have not examined its use as a means of assessing violent offenders. Behaviors elicited in role-play exercises by court-referred offenders may be even less likely to generalize to real-world contexts.

Role-play appears to lack external validity because the subject is evaluated in a setting free from most environmental triggers. For instance, an offender with a previous conviction of domestic abuse is at risk for acting aggressively towards his wife if he is at home and she makes a comment to him that increases his anger and arousal. Except in cases of family/couples counseling, the researcher or clinician cannot typically rely on a marital partner or child to trigger an angry reaction from the offender. Hence, an alternative mechanism for emotionally activating the offender must be identified for the majority of circumstances under which violence risk assessment is conducted.

The current study explores the use of video as a means of producing conditions capable of arousing offenders being evaluated in role-play exercises. Research on social learning theory and social cognition indicates that people incorporate behaviors and attitudes reflected in media portrayals of real-life situations. Information one uses in making judgments about how to behave in a particular context may be partially based on interactions between characters seen in a TV show or movie. Media frequently portrays aggression as an acceptable approach to handling problems, whether in children's cartoons, family programming, or Hollywood blockbusters. Although controversial, a large body of research has revealed a strong relationship between aggressive behavior and exposure to violent media. However, the media portrayal may not have to be

explicitly violent to communicate a message to the audience that aggressive language and behavior are appropriate and healthy. If media plays a role in the formation of attitudes and judgments that facilitate violent behavior, then perhaps media can be used to trigger such attitudes and judgments in a laboratory setting for the purpose of drawing out aggressive behavior in a role-playing assessment.

Deficits in social problem solving represent one factor or a group of factors that contribute to violent behavior. Variables found to be associated with violence risk are encompassed within social problem solving, including impulsivity and anger. Ineffective and aggressive problem solving is a common phenomenon in media portrayals. The primary purpose of the current study was to examine whether video portrayals of interpersonal problem situations would lead violent offenders to become emotionally aroused and angry, and thus provoke problem solving behaviors in a role-play exercise that are more representative of behavior in equivalent real-world settings. The current study proposes that greater emotional activation through the triggering of cognitive scripts learned and/or reinforced by media portrayals will make possible more externally valid role-play assessment.

#### **Albert Bandura's Social Learning Theory**

Observational learning represents one of the most powerful processes through which learning occurs. By observing and imitating others, children develop a wide range of skills, including verbal and nonverbal communication and functional behaviors of walking, dressing, and playing. According to Bandura's social learning theory (1977), conditions for observational learning are met when the individual is attentive to the observed behavior, memory for the behavior is retained, the behavior is reproduced, and a

response from the environment influences motivation for subsequent engagement in the behavior. Parents are a primary source of behavioral modeling. Children spend most of their formative years at home and become first hand observers of their parents' interactions and problem solving behaviors. Children may therefore be exposed to aggressive behaviors modeled by their parents. Bandura and Emilio (1976) argued that aggression displayed by family members represents a particularly salient source of behavioral modeling. Children are prone to incorporate hostile attitudes and act out aggression witnessed in the home environment. However, Bandura posited that children learn from whoever they observe, whether parents, siblings, peers, or characters viewed in the media.

### **The Role of Mass Media in Observational Learning**

An individual's values, belief systems, behavioral tendencies, and personality characteristics are heavily determined by observational learning in one's environment. The proliferation of mass media has greatly magnified the number and types of models occupying a presence in that environment. Construction of one's social reality is a product not only of interactions with family members and peers, but also exposure to images of reality from television, movies, and the World Wide Web. Whereas learning through direct experience requires action and behavioral modification in response to the outcome, observational learning can impact the thoughts and behaviors of countless people without the individual's awareness that learning has occurred (Bandura, 2002). Mass media is thus a potent force for observational learning.

## Influence of Violent Media on Aggressive Behavior

According to the American Psychological Association (1993), 3 to 5 violent acts are depicted in an average hour of prime-time television and 20 to 25 violent acts are portrayed in an average hour of children's television. The causal role of violent media on aggressive behavior has been hotly debated for over four decades. Hundreds of studies (see reviews by Bushman & Huesmann, 2001; Felson, 1996; Geen, 1998; Wood, Wong, & Chachere, 1991) have reached near uniform consensus that violent media contributes to aggression, whether behaviors, thoughts or emotions. Christensen and Wood's (2007) meta-analysis of 13 independent studies uncovered a weighted effect size of .35 and an unweighted effect size of .48.

On the other hand, some research (Freedman, 1988; McGuire, 1986; Savage, 2004) has not found an empirically validated relationship between violent media and aggression. Certainly most people who view violent video content do not commit violent crimes or physically assault others. Christensen and Wood (2007) caution that although a single viewing of media violence may have minimal effect on any single behavior, accumulated exposure is likely to affect behavior over multiple social interactions. Likewise, Anderson et al. (2003) acknowledge that past aggressive behavior is the best predictor of future violent behavior, but factors that promote aggressive attitudes or behaviors from a young age may result in violent behavior many years later.

Anderson et al. (2003) appear to be correct in theorizing that exposure to models demonstrating aggressive interaction patterns increases the potential for later violent behavior by the observing child. Violence risk assessment identifies violent parental or sibling model as a primary static risk factor (Hall & Ebert, 2002). Parental disciplinary

methods and problem solving strategies influence the child's problem solving orientation and development of necessary skills (Gauvain, 2001). According to Anderson and Huesmann (as cited in Anderson et al., 2003), modeling facilitates in children the acquisition of "complex social scripts" or "sets of rules for how to interpret, understand, and deal with a variety of situations, including conflict" (p. 95). Repeatedly viewing violent models may lead children to believe that aggression is an acceptable and essential means of solving interpersonal conflict. Moreover, television shows and movies tend to portray aggression as a socially sanctioned approach to solving interpersonal problems (Bandura, 2002). The good guy is praised and idolized for beating up the bully. A father becomes a hero when he threatens to physically harm his son's overly strict and punitive teacher.

Research indicates that children who are at greatest risk to engage in future aggressive behavior tend to watch greater amounts of television violence (Dorr & Kovaric, 1980; Huesmann & Miller, 1994). Vandebosch's (2001) investigation of media use by inmates in five Belgian prisons revealed that inmates presenting higher degrees of criminal involvement watched more television and preferred violent and antisocial material. Physically aggressive behavior is associated with individuals who endorse beliefs that violence is acceptable, perceive others as hostile, and justify violence against women (as cited in Anderson et al., 2003). Such maladaptive beliefs are constantly reflected by characters in media dramatizations. Hostile attitudes and aggressive problem solving inclinations may be established and/or reinforced through media portrayals.

## Cultivation of Attitudes and Judgments Through Media

According to social cognition research, which focuses on the cognitive processes that mediate the relationship between social information and judgment (Wyer & Srull, 1989), people make judgments based on information that is readily accessible.

Accessibility of information used in judgments is determined by the frequency and recency of activated constructs, “vividness” (p. 73) of the stimulus, and associations with related constructs (Shrum, 2002). Media images are frequently observed and may be more vivid than real life experiences. Moreover, constructs of anger in violent media are typically connected with responses of aggressive behavior. Media thus plays a role in the information accessible in memory and influences individuals’ attitudes and judgments.

Repeated exposure to violent media may result in the priming of aggressive behaviors or hostile attitudes in social situations similar to what was depicted in media portrayals.

Media also cultivates beliefs about mistrust, sexist attitudes, and unhealthy perceptions of family life (Wober & Gunter, 1988). Through a heavy diet of media consumption, a complex set of thoughts, emotions, and behaviors are programmed and become readily accessible in real life social situations. The individual’s judgment and response are essentially automatized (Anderson et al., 2003).

Given that media contributes to the construction of judgments and attitudes that affect one’s behavior in interpersonal problem solving scenarios, perhaps media represents an ideal approach to assessing social problem solving ability. Problem solving skills are formed from observations of various models, especially parents. However, media portrayals might facilitate or strengthen problem solving patterns viewed at home. Moreover, parents often select which shows their children watch and children in turn

observe their parents' reactions to images on the screen. A parent may inadvertently or intentionally reinforce hostile or otherwise ineffective handling of problem situations depicted by media characters. Whether family members or mass media wield greater influence over the formation of problem solving skills sets, social cognition research indicates that cognitive scripts are triggered when viewing media dramatizations. Violent or hostile media portrayals may increase accessibility of cognitive processes developed and/or reinforced through regular exposure to violent media. Assessment of social problem solving ability using videos may enable identification of maladaptive cognitive scripts and skills deficits acquired through observational learning. Furthermore, application of videos in problem solving assessment may contribute to more accurate predictions of behavior in real world situations.

#### **Traditional Psychometric Assessment of Social Problem Solving**

Self-report inventories have historically comprised the bulk of social problem solving assessment research. The Social Problem-Solving Inventory (SPSI; D'Zurilla & Nezu, 1990) was developed to assess problem solving appraisal along each stage of D'Zurilla and Goldfried's (1971) five-stage model. The model addresses the cognitive, affective, and behavioral processes believed to be at work in the act of problem solving. The five stages are problem orientation, problem definition and formulation, solution generation, decision making, and solution implementation and verification. According to the model, problem solving is conceptualized as multidimensional and emphasizes the isolation of specific components that constitute problem solving ability. A given individual might be capable of generating a large number of solutions, but be less successful at selecting and implementing the optimal solution.

The SPSI consists of two scales, the Problem Orientation Scale and the Problem Solving Skills Scale. The Problem Orientation Scale contains the Cognition subscale, the Emotion subscale, and the Behavior subscale, which represent the cognitive, emotional, and behavioral response sets the individual has relied on in the past to deal with daily problems, or what is defined in the model as problem orientation. The Problem Solving Skills Scale is composed of four subscales (Problem Definition and Formulation subscale, Generation of Alternative Solutions subscale, Decision Making subscale, and Solution Implementation and Verification subscale) measuring the skills reflected by each of the four subsequent stages of the model. Although the inventory was intended to demonstrate a two-factor model, with two second-order components and seven first-order components (as indicated in the structure of the SPSI), further analysis provided greater evidence of a five-factor model (D'Zurilla, Nezu, & Olivares, 1996). The five factors consist of two problem-orientation dimensions (positive problem orientation and negative problem orientation) and three problem solving styles (rational problem solving, impulsivity/carelessness style, and avoidance style). These factors became the five major scales of the Social Problem-Solving Inventory-Revised (SPSI-R), along with four subscales encompassed within the rational problem solving dimension measuring the skills in stages 2-5 of the problem solving model.

The Problem Solving Inventory, developed by Heppner and Peterson (1982), also targets the five problem solving stages proposed by D'Zurilla and Goldfried. However, a factor analysis of the Problem Solving Inventory revealed not five factors but three factors designated as Problem-Solving Confidence, Approach-Avoidance Style, and Personal Control. Heppner, Witty, and Dixon (2004) reviewed 120 studies on problem

solving appraisal using the PSI, which apart from identifying the perception of one's problem solving ability also provides information "that can be used in the diagnosis, treatment, and evaluation of service delivery for clients with a range of psychological problems" (Suzuki & Ahluwalia, 2004, p. 429). Research on the PSI has involved a range of normal and clinical populations and has examined the relationship between problem solving appraisal and state-trait personality factors (Poston & Sachs, 1988), level of education (Haught, Hill, Nardi, & Walls, 2000), psychological adjustment (Wang, Heppner, & Berry, 1997), and alcoholism (Larson & Heppner, 1989), among other variables.

#### Drawbacks of Problem Solving Appraisal Measures

The Social Problem Solving Inventory-Revised and the Problem Solving Inventory, measures of problem solving appraisal, have contributed to our understanding of problem solving ability. Butler and Meichenbaum (1981) suggested that one's perception of his or her problem solving effectiveness will not only impact but also predict how one performs in the problem solving process. Concluding their review of the literature, Heppner et al. (2004) noted that "the PSI seems to be substantially associated with problem-solving performance..." (p. 352). However, one must question the extent to which problem solving performance can be inferred from a problem solving appraisal measure like the Problem Solving Inventory. Indeed, a common criticism of self-reports is that the researcher cannot know how accurately the results reflect the actual behavior of the reporter. Participants may be prone to exaggerate their problem solving skills to impress the researchers or to select the responses they think they are expected to choose. Another reason why the results may not be reliable is that problem solving is a complex

function and people may not be aware of their capabilities (McMurran, Fyffe, McCarthy, Duggan, & Latham, 2001). A third validity concern of problem solving appraisal inventories like the PSI and SPSI-R is that the items concentrate on general situations, not specific problem scenarios. Certainly everyone differs in their experience dealing with different types of problems. The participant will respond according to whatever problem scenario happens to come to mind when responding to the item, which could lead to very contrasting answers. Or, because the items are worded with no particular problem situation in mind, the participant might simply answer ambiguously.

#### Assessing Social Problem Solving Beyond Appraisal

Several studies within the everyday problem solving literature have introduced unique methodologies for studying problem solving performance. Patrick and Strough (2004) presented participants with two written vignettes describing characters faced with late-life relocation decisions. Participants recruited for the study (average age = 72 years) were requested to indicate whether they had experienced the problem before and to provide written responses advising the character in the vignette what to do. Strategies were coded into six types and adults with experience solving the problem were compared with adults without experience in total number of solutions generated and type of solution offered. This study highlighted the importance of the role that experience plays in influencing one's effectiveness at solving a specific problem.

Participants representing four separate age groups in a study conducted by Berg, Strough, Calderone, Sansone, and Weir (1998) were asked to think of a problem from any point in their lifetime and describe it in as much detail as possible. Next, they were asked to explain the strategy they used and their goal of solving the problem. Problem

definitions, goals, and strategies were coded and compared between participants in each group to examine differences in problem solving performance depending on age. In contrast to studies where the problem scenarios are decided on by the researchers, the participants in this study determined the problem themselves, which makes the results more relevant since the problem was actually confronted and the participant described how he or she went about resolving it.

Examining the influence of problem specificity on problem solving performance was the focus of a study conducted by Osmo and Rosen (1994). The authors reasoned that because individuals are preoccupied with defining the problem prior to figuring out a solution, the more information that is available concerning the problem, the faster the individual can go through the process of solving the problem. Participants, recruited from the administrative and clerical staff of a university to control for level of education and intellectual functioning, were randomly assigned to a high specificity or low specificity condition. Problems with high specificity contained more factual information, described the context, characters and problematic behavior in greater detail, and included consequences of the problems. Each participant was presented with two problems of daily living and asked to verbalize how he or she would attempt to solve the problem. Next, participants were asked about their experience encountering the problem in the past and the likelihood they estimate of facing the problem in the future, as the researchers contended that these factors impact problem solving performance. Participants' verbalized strategies for solving the problem were coded for six defined components: problem formulation, reformulation of the problem, generation of preferred solution, activities aimed at collecting new information about the problem, decisions to approach

the problem from a particular direction, and activities intent on evaluating progress toward resolution of the problem.

### Limitations of Social Problem Solving Research

Although these studies overcome some of the drawbacks of self-report inventories such as the PSI and SPSI-R, they are not without disadvantages. One complaint of self-reports is that researchers can not be certain that the problem solving ability scores are truly representative of the participant's behavior. The studies discussed here cannot claim to know whether the participant would or did actually use the solutions generated. Secondly, these studies require coding of the participants' responses. This is itself a complex task, time consuming, and not free of error. There are other weaknesses as well particular to each study. Patrick and Strough (2004) considered individuals experienced in dealing with the problem to evidence superior problem solving skills if they generated fewer strategies, given that repeated problem exposure suggests decreased cognitive demand in that particular problem scenario. However, one might also argue that individuals who are better problem solvers imagine all possible solutions or approaches to the problem. The Berg et al. (1998) study asked participants to think of any problem situation they have ever encountered. The problems may not have been comparable in terms of the skills necessary to solve the problems, nor did the participants necessarily recall accurately the strategies they used at that time.

### Appraisal vs. Performance

Despite the concern that problem solving appraisal instruments such as the PSI have been applied in studies that claim to be measuring problem solving ability, very

little research attention has been directed toward examining the difference in findings between problem solving appraisal instruments and methods designed to measure problem solving performance. Haught et al. (2000) did just that when they presented a sample of adults with the PSI, a concept identification task, and a list of real life problems. The concept identification task, a problem solving procedure traditionally employed in laboratory research, required participants to determine the characteristics of a concept using 3 x 4 inch cards indicating the shape, number, color and size of the stimulus. The practical problems procedure consisted of presenting participants with six everyday, real-life problems depicting scenarios of a broken appliance, child care, getting stuck in the middle of an inter-state highway during a blizzard, receiving a visitor at your door late at night, and getting robbed. Participants were then instructed to tell the researcher all the possible solutions for each of the problem scenarios. Scoring was based on the total number of solutions and the quality of the solution, implementing the quality scoring categories devised by Denney and Palmer (as cited by Haught et al., 2004). Scores on the PSI scales and the total score were cut at the median, separating participants into high or low confidence groups. Results showed that lower scores on the PSI Confidence scale (lower scores on the PSI mean greater confidence) were associated with better performance on the concept identification task. However, level of confidence as measured on the PSI Confidence scale was not significantly related to number of solutions or quality points on the practical problems procedure. Participants who rated themselves to be better at problem solving did not on average come up with more solutions or generate higher quality solutions than participants who were less confident.

## The Use of Video in Research

Video has gradually received increased attention in research literature over the past three decades. Following Bandura's writings on observational learning, video has been applied in the treatment of children with autism (Nikopoulos & Keenan, 2004), assertiveness skills training (Brenner, Head, Helms, Williams, & Williams, 2003), prevention of child sexual abuse (MacIntyre & Carr, 2000), prevention of post-rape psychopathology (Resnick, Acierno, Holmes, Kilpatrick, & Jager, 1999), improving parents' interactions with developmentally challenged children (Reamer, Brady, & Hawkins, 1998), treatment of panic disorder (Parry & Killick, 1998), and anger and aggression management (Larson, 1992; Steffen, 2000).

Several advantages of video application have been identified in treatment studies. One, video makes possible the construction of naturalistic settings (Thelen, Fry, Fehrenbach, and Frautschi, 1981). Two, video permits multiple models and repeated observation of the same model performing a behavior the same way every time (Bidwell & Rehfeldt, 2004). Multiple models, multiple situations, and repeated observations contribute to greater acquisition and generalization of the modeled behavior (Ayres & Langone, 2005). Three, video was found to produce heightened emotional arousal and greater expressed aggression (Coyne, Archer, & Elsea, 2004). Four, people are well acquainted with the video medium through years of exposure to television and movies. Instructional material presented in video is more entertaining and may be perceived as less foreign and more acceptable. Five, Solomon and DeJong's research (as cited in Clark & Lester, 2000) revealed that participants were more conducive to behavioral change if they became emotionally attached to the characters. The authors concluded that

videotape is a valuable approach for behavioral modeling if the material “acknowledges the beliefs and values of the audience” (p. 898).

Research indicates that visual media contributes to enhanced learning compared with traditional verbal or written instruction. Incarcerated youths in a study by Hodges and Evans (1983) were provided instruction of geography in verbal, visual, and combined modes. No significant differences in academic achievement were found between all three methods, but youths described as visual learners performed significantly better under visual instruction. According to studies by Kalyuga, Chandler, and Sweller (as cited in Fletcher & Tobias, 2005), individuals with less prior knowledge benefit the most from audiovisual presentation. Students hindered by reading disorders or who otherwise acquire and/or retain less information from written and verbal teaching may learn more from visual representation. Perhaps visual instruction facilitates increased concentration for individuals characterized as impulsive or who evidence attention deficits Elias and Tobias (1996) applied television and audiovisual media in social problem solving skills building of high risk youths “as a means of focusing attention and exercising a calming and relaxing effect” (p. 76). The attention focusing value of video in social problem solving training was similarly iterated by Harwood and Weissberg (1987).

Few studies have addressed video as an assessment tool. Strengths of video for treatment interventions described above are also relevant to video assessment. Videos are designed to replicate environmental conditions similar to what the examinees encounter in everyday life. The combination of verbal and nonverbal information permits a more authentic simulation of real life experiences (Channon & Crawford, 1999).

Moreover, everyone is exposed to media images on a regular basis. The audience is drawn into media dramatizations and connects with characters on the screen. If the scene is perceived to be sufficiently real, the individual may feel as though she is facing the conflict situation. Cognitive scripts formed through heavy media use appear to be triggered by the interplay of characters in video vignettes.

### **Video vs. Written Assessment**

Accuracy of judgments, awareness of contextual factors, and generalizability to real world experiences are all benefits of video over written assessment. Sleed, Durrheim, Kriel, Solomon, and Baxter (2002) compared written and video vignettes in eliciting responses about date rape. Participants either watched three vignettes of date rape scenarios or read transcriptions of the events. Results indicated that stimulus methodology influenced participants' responses. Participants who viewed the video were more likely to recognize the incident as a rape occurrence and less likely to blame the victim. According to the authors, individuals in the written story group may have relied on stereotypes or other preconceived beliefs given the abstract nature of the presentation format. Without a video depiction of the event, participants did not have as much information available (e.g., nonverbal cues) to make a more accurate judgment and tended not to empathize with the victim.

Differential effectiveness of video over written assessment was investigated on a problem solving task by Balsev, de Grave, Muijtjens, and Scherbier (2005). Participants were residents of a pediatric hospital in Denmark. All participants read a written vignette about an infant patient suffering from a rare disease and half of the participants also watched a video of the patient. Participants in each group were instructed to employ the

first five stages of the Maastricht PBL problem solving model in discussion about assessment and treatment of the infant. Results showed more extensive cognitive processing in the video group, evidenced by superior data exploration, theory building, and theory evaluation.

#### Video in the Assessment of Social Problem Solving

Video represents a departure from the more commonly implemented self-report measures of assessing social problem solving. Bedell, Lennox, Smith, and Rabinowicz (1998) used videos to examine problem solving skills of schizophrenic patients. Participants watched three vignettes featuring interpersonal problem situations. Each video was paused at particular moments and participants were asked about the scenario. At the conclusion of the video, participants were requested to determine whether a problem existed, identify information used to recognize the problem, define the problem, and finally offer solutions. Responses were coded and compared with a group of non-schizophrenic individuals.

Channon and Crawford (1999) presented videotaped problem situations to a group of participants who had suffered anterior brain lesions, a group with posterior lesions, and a healthy control group. After each problem situation was shown, the participant was asked to describe the situation. Presentation of the video was repeated if the participant did not sufficiently provide all the facts from the story, to ensure that all participants understood the problem situation. Then, participants were asked to generate as many solutions as possible within 2 minutes. Following this step the participant was requested to choose the optimal solution from the standpoint of the main character and to specify what he or she would do if faced with the same problem. Finally, the participant was

given a list of five solutions the main character could choose and asked to rank them from best to worst. The researchers in this study indicated that the use of videotapes as opposed to the presentation of problem scenarios in written form simulated the situations more effectively and hence improved the study's ecological validity.

One drawback of the previous study was that Channon and Crawford (1999) gave participants only two minutes to think of as many solutions as possible for each problem situation, but in real life problem scenarios people are not typically so limited by time.

Kendall, Shum, Halson, Bunning, and Teh (1997) administered the Social Problem-Solving Inventory (SPSI) and presented video vignettes to traumatic brain injury (TBI) patients. Like the SPSI, the video vignettes were also designed to assess each stage of D'Zurilla and Goldfried's (1971) model. Participants viewed 12 vignettes consisting of interpersonal conflict such as receiving criticism and rejecting requests. Questions were formulated so that each stage of the problem solving model was evaluated independently. Participants were given unlimited time to generate solutions. According to the results from the video measure, TBI patients scored significantly worse than matched controls on problem definition and formulation and on generation of alternatives. No significant differences were found between groups on the SPSI, though TBI patients tended to report higher levels of problem solving ability on three of the four skills components.

Correlations between the SPSI and the videos across all four skills stages were not significant for either TBI patients or matched controls. The authors concluded that the video vignettes were more sensitive than the SPSI to detection of problem solving deficits.

## Behavioral Assessment Using Role-Plays

Direct observation in natural settings represents the pinnacle of behavioral assessment. Examining an offender solving interpersonal problems at home with family members or at work with colleagues would facilitate vital information concerning his risk for re-offense. However, naturalistic observation is not practical due to time and financial constraints. Moreover, ethical standards prevent naturalistic observation without informed consent and the individual's awareness of the researcher's presence.

Role-playing is a promising substitute for naturalistic observation and offers several advantages. First, the researcher can control the stimuli to which the participant is exposed (Torgrud & Holborn, 1992) and evaluate specific behavioral responses. Second, role-playing is more objective than self-report. Role-play exercises feature unanticipated, emotionally arousing prompts that require immediate responses (Smiley, 2000). This characteristic makes role-playing ideal for assessing offenders, since they have less time to consider the ramifications of their responses or craft socially desirable responses. Third, the researcher can employ role-plays for situations not commonly faced in the natural environment (Gresham, 1986).

A challenge for assessing social problem solving behavior, however, is that the individual's responses are triggered by factors within the social context. Attempting to recreate conflict situations in a laboratory may result in a lack of generalization to real world environments. The individual's behavior in a role-play may not be representative of his actions in actual situations. External validity of role-playing has received considerable attention (Kern, 1991; St. Lawrence, Kirksey, & Moore, 1983; Torgrud & Holborn, 1992). According to Bellack, Hersen, and Lamparski (1979), less than 25% of

the variance in naturalistic behaviors was accounted for by role-played social skills assessments. Performance in role-playing exercise tends to be an overestimate of the individual's actual social functioning (Norton & Hope, 2001). Norton and Hope concluded in their review that external validity of role-play methods awaits further evidence.

### Contribution of Videos to Role-Playing

Smiley (2000) identified provision of instructions and prompting as two of the most important variables impacting the generalizability of role-playing exercises. Instructions and prompting facilitate emotional engagement in the role-play. Whether or not the individual's responses in the role-play are representative of behavior in actual problem solving situations depends on the extent to which he is involved in the role. The researcher must find a way to replicate features of the social context. External validity is increased by making the role-play more vivid, captivating, and realistic.

The addition of video to role-play exercises may facilitate social structure needed to draw the individual into the role-play. Wight and Abraham (2000) described challenges faced by teachers implementing role-plays in a sexual education program. The first pilot study of the program was plagued by a lack of participation from uncooperative youths who felt too embarrassed to act out the role plays, disputed masculine stereotypes and complained that they could not identify with characters presented in written vignettes. In an attempt to make the role-plays more concrete and affectively provoking, a trigger video was introduced in the subsequent pilot study. This video showed teenagers interacting in conversations about sexual intercourse, peer

pressure and condom use. Results from the second pilot study revealed significant improvement in participation and emotional activation.

Transfer of learning from videos to role-plays was investigated in parent-child interaction therapy (PCIT; Stille, 1999), assertiveness training for developmentally disabled women (Holberton, 2006), and a cognitive behavioral group therapy program for mentally retarded individuals (Daly, 1997). Fenstermacher, Olympia, and Sheridan (2006) assessed social problem solving skills of children with ADHD using video scenarios and analogue role-plays. The authors cited advantages of video content as a means of reproducing real world social interactions and eliciting participants' attention. However, they also acknowledged inconclusive findings concerning the generalizability of video interventions. Role-plays were administered to evaluate treatment progress and to determine if the videos were accurately assessing problem solving skills.

### Social Problem Solving in Offenders

One population that is believed to demonstrate clear deficits in problem solving ability is offenders. McGuire (2001) noted that the development of cognitive models of criminal offending during the 1980's revealed inadequate social problem-solving skills in persistent offenders, though further research was needed to determine which skills were lacking. Increasing attention devoted to the rehabilitation of offenders has resulted in the establishment of programs that provide social problem solving training. These programs have measured improvement in problem solving based on participants' scores of pre- and post- completed self-report inventories such as the SPSI-R (Fleck, Thompson, & Narroway, 2001; McMurran et al., 2001; McMurran, Egan, Richardson, & Ahmadi, 1999) and Clark's Problem Solving Inventory (Blud & Travers, 2001).

Research suggests that violent offenders may evidence worse problem solving skills than offenders with no violent history. Compared to non-aggressive individuals, aggressive individuals tend to search for less information about the problem, generate fewer solutions, choose aggressive solutions, and hold higher positive expectancies for these aggressive solutions (Akhtar & Bradley, 1991; Slaby & Guerra, 1988). McMurran et al. (1999) suggested that ineffective social problem solving may contribute to the development and maintenance of aggressive and violent behavior.

Problem solving differences in maritally violent versus nonviolent couples were the focus of a study conducted by Anglin and Holtzworth-Munroe (1997). Spouses' scores on the Conflict Tactics Scale (CTS; Straus, 1979) regarding their own behavior and their partner's behavior were used to assign couples to either the violent or nonviolent group. Problem solving performance was examined through the presentation of 22 vignettes, 13 of which were related to marital situations and 9 of which were nonmarital. Participants listened to an audiotaped recording of each problem situation and were then asked what they would do in response. Coding for competency (competent, slightly competent, slightly incompetent, or incompetent) indicated that violent couples offered significantly less competent responses than nonviolent couples.

#### Need for Revised Violence Risk Assessment

Violence is prevalent in the United States. According to the U.S. Department of Justice, approximately 1,390,695 violent crimes were reported across the country in 2005, a 2.3% increase from 2004 (Department of Justice, 2006). One historical response to this wave of violence is tighter sentencing laws and increased law enforcement efforts. Both of these strategies have resulted in stricter punishment for violent behavior, with an

untoward effect of raising the prison population. At the end of 2005, 1 out of every 32 adults in the United States was either in prison, on probation, or on parole. Prisons in many states are becoming overcrowded. County judges are forced to determine whether a given offender's conduct reflects sufficient risk of dangerousness to warrant imprisonment. Offenders are typically referred to a psychologist for assessment and/or treatment to provide information that will assist in the judge's decision.

The most common methods employed for collecting information to assess risk of future violence are self-report inventories and actuarial instruments. Self-reports, however, are plagued by impression management intended for gaining privileges or avoiding consequences, lack of awareness for the behaviors or thoughts assessed, and reading impediments that prevent accurate completion of the inventory. Actuarial instruments, such as the Violence Risk Appraisal Guide (VRAG; Harris, Rice, & Quinsey, 1993), are completed by the examiner and incorporate objectively measurable variables (e.g., criminal record, marital status) that have been shown to predict violent behavior. These instruments use algorithms or equations to combine factors and make decisions about violence risk. The VRAG is the most widely used actuarial instrument, but research on its effectiveness of estimating violence risk has been mixed (Harris, Rice, & Cormier, 2002; Quinsey, Harris, Rice, & Cormier, 1998; Kroner & Mills, 2001; Loza, Villeneuve, & Loza-Fanous, 2002). Moreover, violence risk estimated by the VRAG is based predominately on static risk factors (Quinsey, Harris, Rice, & Cormier, 2006). Actuarial instruments as a whole fail to adequately address dynamic risk factors by assessing violence risk relative to other individuals and ignoring intraindividual variability (Douglas & Skeem, 2005).

## Violence Reduction Training Program

The Violence Reduction Training Program (VRTP) is a 14-week program developed by Ronan and Date (1995). Most of the individuals in the program are court-referred to attend as a requirement of their probation. The program incorporates social problem solving training based on the five stages of D'Zurilla and Goldfried's (1971) model. Participants in the Violence Reduction Training Program are taught social problem solving skills as well as skills that supplement problem solving, such as anger monitoring, relaxation training, cognitive restructuring, and assertiveness training. Instructional material was historically presented in a didactic format until videos were developed in 2004. Characters in each video are faced with an interpersonal problem, but the conflict is not resolved. A video is shown at the start of each session and group leaders facilitate discussion upon the video's completion. The addition of videos was expected to improve comprehension and acquisition of skills. However, the videos also represent a means of assessing for problem solving deficits and violent tendencies.

### Statement of Purpose

Viermo's (1996) longitudinal study of 220 individuals from ages 7/9 to 25/27 identified previous aggressive behavior and viewing of violent television as the strongest predictors of the number of arrests in early adulthood. Violent offenders grow up on a heavy diet of media consumption and are prone to emulate what they observe in television shows or movies. Characters in media dramas tend to demonstrate ineffective problem solving attitudes and skills, which may reinforce defective handling of problem situations observed in family dynamics. The application of videos portraying typical interpersonal problem scenarios is believed to be more sensitive to cognitive and skills

deficits. Videos reflect real world situations and media portrayals of interpersonal conflict where aggressive behaviors and cognitive scripts were reinforced and/or acquired. Hence, video assessment enables examination of an individual's problem solving behavior under conditions similar to those under which the behaviors were learned.

To summarize, video assessment offers several advantages, including: 1) recreation of naturalistic settings, 2) heightened emotional arousal, 3) attention focusing effect, 4) a medium people are accustomed to, 5) triggering of learned scripts, 6) more conducive to people possessing less knowledge or education, and 7) combination of verbal and nonverbal information makes it more authentic. Video may represent a promising means of predicting behavior in real world situations.

Role-plays are considered a substitute for naturalistic observation. Role-play exercises permit the evaluation of an individual's problem solving skills in concrete situations with less influence of socially desirable responding. However, results from role-plays may not necessarily generalize to real-world settings (Bellack et al., 1979; Norton & Hope, 2001). Social cues that typically elicit aggressive or defective problem solving behavioral responses at home or in the bar are absent in the laboratory. Video portrayals of conflict situations, on the other hand, might provide the social context and emotional activation to make role-plays more realistic and trigger ineffective social problem solving behavior.

Violence continues to be a major epidemic in the United States. Hundreds of millions of dollars are spent assessing, prosecuting, and incarcerating violent offenders. So much attention is devoted to advancing treatment options for reducing violence risk and improving social problem solving skills, yet these same treatment providers evaluate

progress in their programs by having participants fill out self-reports. Even if the treatment in program A is better than in program B, one is not likely to discover the difference by simply relying on the offender's opinion of his or her improvement.

The present study investigated multiple approaches to assessing social problem solving deficits in violent offenders court ordered to the Violence Reduction Training Program. These methods were: 1) social problem solving appraisal using the Social Problem Solving Inventory-Revised, 2) vignettes of problem solving scenarios in video and written formats, and 3) role-plays of interpersonal problem situations. No published study has examined the use of videos or role-plays as a means of evaluating criminal risk or problem solving deficits in violent offenders. In order to evaluate whether video contributes to greater emotional activation and thus increased predictive validity of behaviors elicited in role-play exercises, participants were randomly assigned to either video or written conditions. Social problem solving scenarios were the same in both conditions, but presentation changed depending on the condition. To assess emotional arousal, participants were requested to estimate their level of arousal at three points: before the vignette presentation, between completion of the vignettes and the beginning of the role-play exercises, and after the role-play exercises. Several hypotheses were generated:

1) Participants presented vignettes in the video format were expected to be more emotionally aroused than participants in the written condition. It was hypothesized that verbal and non-verbal stimuli in the videos would be more likely to trigger cognitive scripts and aggressive emotional reactions than a description of the scenario presented in written form.

2) The relationship between the SPSI-R and problem solving performance on vignettes and role-plays would be stronger for participants in the written vignette group. Participants completed the SPSI-R prior to presentation of vignettes or role-plays. As such, participants in both groups were expected to demonstrate equivalent levels of emotional activation during completion of the SPSI-R. Neither group was expected to be emotionally aroused. Participants emotionally aroused by the videos, however, were expected to evidence problem solving attitudes and thinking comparable to their problem solving tendencies when emotionally aroused in real-world problem situations. On the other hand, participants were not expected to be emotionally aroused from written presentation of the vignettes, so their performance on the vignettes and the role-plays would correlate more strongly with their self-reported problem solving ability.

3) A stronger correlation was expected between vignette and role-play performance for participants in the video condition. The correlation between vignette performance and role-play performance is one means of examining whether video presentation predicts problem solving behavior more in line with real-world behavior. If participants were more emotionally activated in the video condition, then a stronger relationship between performance in the vignette and role-play conditions would be expected for participants in the video condition. A weaker correlation for the written condition suggested that because participants were not emotionally activated they did not evidence problem solving behavior typical of real-world behavior.

4) A stronger relationship between social desirability and performance in the vignette and role-play measures would be found for participants in the written condition. If participants in the video condition were emotionally aroused, then their behavior was

expected to reflect real-world problem solving skills and less likely to be feigned to project a favorable image. Hence, the relationship between a social desirability measure and performance on vignettes and role-plays was expected to be weaker for participants in the video condition.

5) If participants in the video condition evidence greater emotional activation and social desirability is more strongly correlated with performance for the written vignette group, then a comparison of scores on the vignette and role-play measures was expected to indicate significantly better problem solving for the written group. Since participants in the current study were all court-referred and committed at least one offense prompting their referral to the Violence Reduction Training Program, they were presumed to be poor at social problem solving. However, due to social desirability and low level of emotional arousal, they may be less likely to engage in behaviors that reflect poor problem solving. They may in fact understand what they should do in a given interpersonal situation, but fail to do so because they become aroused and act on their anger. If they were aroused by cueing of cognitive scripts and aggressive tendencies, then they were expected to demonstrate worse problem solving performance.

## CHAPTER II

### METHOD

#### Design

Assessment of social problem solving consisted of three components. Social problem solving appraisal was measured using the Social Problem Solving-Inventory (SPSI-R) and problem solving performance was assessed using vignettes and role-plays. Additionally, self-report measures of anger, aggression, readiness to change and violence history were included to supplement interpretation of findings on the problem solving measures.

There were two levels of vignette assessment: video and written. Participants were randomly assigned to either condition. Within each condition, selection of vignette presentation was dependent on the index offense. Vignettes were of three types: offense against a domestic partner, offense against a domestic child, and non-domestic offense. If a participant's offense had been against a spouse, then this participant would be presented vignettes entailing domestic partner offenses. Role-play selection was also determined by index offense. The assignment of vignettes and role-plays based on index offense was done to increase relevancy of the problem scenario and not to compare participants by index offense. Statistical analyses targeted the relationships between performance scores on the vignette and role-play measures as well as the relationships among performance scores, problem solving appraisal score, and social desirability score. Differences between groups were calculated for the arousal measure at each point

assessed and between performance scores on vignettes and role-plays. Performance scores were transformed into z-scores before computing differences by group.

### Descriptive Measures

#### Measure of Anger

*Trait Anger Scale* (TAS; Spielberger, 1988). A 15-item self-report questionnaire composed of two subscales: Anger Temperament and Anger reaction. Participants rate the frequency of angry feelings and behavioral expression of anger on a scale ranging from 1 ("almost never") to 4 ("almost always.") Sample items are "I have a fiery temper" and "When I get mad, I say nasty things." Internal consistency for the scale is .87 (Beasley & Stoltenberg, 1992).

#### Measures of Aggression

*Aggression Questionnaire* (AQ; Buss & Perry, 1992). The AQ measures aggression on four subscales: Physical Aggression, Verbal Aggression, Hostility, and Anger. The measure consists of 29 items with participants rating items on a scale from 1 ("least like me") to 5 ("extremely like me"). Sample items are "Once in a while I can't control the urge to strike another person" and "If somebody hits me, I hit back." Internal consistency (alpha coefficient) is .85 for Physical Aggression, .72 for Verbal Aggression, .83 for Anger, .77 for Hostility, and .89 for the total score.

*Conflict Tactics Scale, Form N-1* (CTS; Straus, 1979). A 19-item inventory measuring the frequency of psychological and physical attacks against a spouse/partner when involved in a disagreement or dispute. Participants read each statement on the list and indicate on a scale from 0 ("never") to 6 ("more than 20 times") how often the

behavior was engaged in over the past year. The participant can also select "X" for "don't know." The factors underlying the scale are Reasoning, Verbal Aggression, and Violence. Items include "Threw something at the other one" and "Pushed, grabbed, or shoved her/him." Alpha coefficients on Form N are .83 (husband to wife) and .82 (wife to husband) for the Violence factor, .80 (husband to wife) and .79 (wife to husband) for Verbal Aggression, and .50 (husband to wife), .51 (wife to husband) for Reasoning.

*Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Axis II (SCID-II) Personality Questionnaire.* This screening tool was used to assess for personality disorders. The participant answers each of the 119 statements with a "yes" or "no" response. Support for diagnosis of a particular personality disorder is based on the number of positive responses to the set of questions corresponding to that personality disorder. The researcher then queries these positive responses. Only items assessing for Antisocial Personality Disorder that inquired about violent behavior and other items reflecting violent behavior were relevant to the present study. Examples of these 7 items are "Do you hit people or throw things when you get angry?" and "Before you were 15, would you start fights?"

*HCR-20 Violence Risk Assessment Scheme* (Webster et al., 1997). A structured interview that assesses the individual's past history (e.g., violent behavior, relationship instability, employment problems), risk factors (e.g., social support), and clinical assessment (e.g., lack of insight, negative attitudes). Items are coded by the examiner with a 0 ("no"), 1 ("maybe"), or 2 ("yes"). Only responses to 2 sets of questions from the participant's past history of violence were included in the present study. The first set of questions, titled History/Level of Previous Violence, consists of 4 questions "How many

times have you been violent in the past?", "What happened?", "Was there any injury to the other person(s)?", and "Were you injured by the other person(s)?" The second set of questions, titled Young Age at First Violent Incident, encompasses 2 questions "When was the first time you remember acting violent or aggressive?" and "What was the incident that you remember?"

#### Measure of Readiness to Change

*Stages of Change Questionnaire* (McConnaughy, DiClemente, Prochaska, & Velicer, 1989). Contains 32 items assessing an individual's willingness to change. Examinees indicate how accurately the statement reflects them by selecting a number ranging from 1 ("not at all true of me") to 5 ("extremely true of me"). This measure was used in the current study to evaluate how motivated participants are to change maladaptive problem solving behaviors. Sample items are "As far as I'm concerned, I don't have any problems that need changing" and "I have started working on my problems but I would like help."

#### Predictive Measures

#### Measure of Social Problem Solving Appraisal

*Social Problem-Solving Inventory-Revised-Short Form* (SPSI-R-SF; D'Zurilla et al., 1996). This 25-item self-report measures social problem solving along five dimensions: Positive Problem Orientation (PPO), Negative Problem Orientation (NPO), Rational Problem Solving (RPS), Impulsivity/Carelessness Style (ICS), and Avoidance Style (AS). High scores on the PPO and RPS and low scores on the NPO, ICS, and AS indicate good social problem solving ability. Test-retest reliabilities for the SPSI-R range

from .68 to .91 and alpha coefficients between .69 and .95. Items on this measure include “Whenever I have a problem, I believe that it can be solved” and “When I am trying to solve a problem, I go with the first good idea that comes to mind.”

#### Measure of Social Desirability

*Marlowe-Crowne Social Desirability Scale* (Crowne & Marlow, 1960). A 33-item self-report inventory designed to measure an individual’s attempt to present himself or herself in a positive light. Examinees respond to each item by selecting a true or false response. Sample items are “I always try to practice what I preach” and “I never hesitate to go out of my way to help someone in trouble.”

#### Measure of Emotional Activation

Emotional activation was measured through examinees’ responses to five valence terms on an Emotional Activation Rating Form. Selection of items was based on Russell & Mehrabian’s (1974) dimensional word pair approach to measuring anger and aggression. Participants were asked to rate how they felt on each of the five items (“relaxed,” “annoyed,” “excited,” “angry,” and “happy”) on a scale from 1 (“least”) to 10 (“most”). Ordering of the items was intermixed with positive and negative valence to correct for response bias.

#### Social Problem Solving Vignettes

Videos were developed by the Violence Reduction Training Program Lab at Central Michigan University. Each video portrayed an interpersonal conflict between characters. Characters in the videos demonstrated social problem solving deficits, ineffective interaction patterns, and aggressive tendencies. Information about the

problem was recognizable from thoughts, emotions, and behaviors expressed or implied by the characters. Resolution of the problem is not reached. The written vignettes were transcriptions of the video vignettes presented in a movie script format (written vignettes are included in Appendix K.)

Social problem solving skills were measured via a set of questions that were presented subsequent to the vignette. These questions appeared on a Problem Solving Performance Sheet (see Appendix L), on which participants wrote their answers. Participants were asked to: 1) identify whether there was a problem and, if so, to define the problem and the goal, 2) indicate what information was used to determine the existence of a problem, 3) write down as many solutions imaginable, and 4) select the best solution for solving the problem. No time limit was enforced. Responses on the Problem Solving Performance Sheets were typed up by the principle investigator with correct grammar and spelling to control for presentation. Vocabulary was not modified as much as possible and the meaning of responses was not changed.

#### Descriptions of Social Problem Solving Vignettes

1. Bill's car breaks down on the way home from work. He arrives home on foot and his wife Kate reminds him that he forgot to pick up chicken. She tells him they will be attending a party that evening hosted by her friends. Bill does not want to go. Scene shifts to the party, where Bill does not speak with anyone and there is no food. Meanwhile, Kate is socializing with friends. Scene shifts back to home, where the couple is getting ready for bed. Bill is very angry and refuses to speak with Kate. Next morning, Kate asks Bill why he is so upset. He complains that she did not speak with him at the party and that he was hungry because there was no food. Noticing that he is on the verge

of exploding, Kate requests that they discuss the issue later. Bill responds by aggressively pulling Kate back down to the couch to prevent her from leaving the room.

2. Mark wakes up later than usual this morning. As he scrambles to get ready, he spills coffee on himself and cannot find his keys. He arrives late to work and is confronted by his boss, Sheila. She reminds him that he was late on two previous occasions this month and informs him that she will write him up for disciplinary action. Mark reacts defensively and argues with Sheila. She then tells him that she is no longer going to put up with his angry outbursts and therefore will suggest a one-week suspension without pay. Mark continues his verbal attack before walking out and slamming the door.

3. Becky's mother is sitting at home, waiting for her teenage daughter to come home. Becky, who told her mother that she was going out with her friend, Janie, was supposed to be home at 11:00 pm; it is now 2:30 am. Mom picks up the telephone and calls Janie's house. Janie's mother answers the phone and tells Mom that Janie has been in all night, and that Becky has not been there. Shortly after that, Becky returns home. Mom confronts her, asking her if she knows what time it is and demanding to know whom she was with. Becky first tells her mother that she was with Janie, but when she hears that Mom called Janie's house, Becky admits that she was with her boyfriend. Mom and Becky continue to argue, and the situation ends with Mom slapping Becky.

4. DJ is opening the mail and discovers an overdraft notice, with a fee of \$25, as her husband, Steve, walks in the house with a new fishing pole. DJ immediately brings up the overdraft notice to Steve, and the two begin to fight about the overdraft notice. The argument quickly changes into other topics, such as finances, household chores, and

food consumption. The argument ends with Steve walking out the door, and DJ calling her friend, Kimmy. In her discussion with DJ, Kimmy suggests that DJ and Steve create a budget to help with their financial difficulties.

5. Sixteen-year old Rob has been planning for a month to go to his school's homecoming dance. After the dance, he plans to attend a party at his friend Dan's house. Rob's father, Tom, has never liked Dan, and the friendship has always been a source of argument between him and Rob. Tom gives Rob a curfew, but Rob tells his father that he plans on spending the night at Dan's. Rob and Tom argue about the party and Dan. Dan pulls into the driveway to pick up Rob. Rob opens the door and leaves, slamming it behind him. Tom, fuming, throws the TV remote at the door.

6. Phil recently moved into a new home with his wife and two toddlers. He has met the neighbors but has not gotten acquainted with them. One of the neighbors, Rick, has a Rottweiler that stays outside all night. Since moving in, Phil and his family have been awakened at all hours of the night by the dog's barking. Phil gets up at 5am to get ready for work. He has been late twice this week due to being over-tired and hitting "snooze" on his alarm clock too many times. Phil decides he has had enough and confronts Rick about the problem. Rick replies that he never hears his dogs barking. Phil is upset and warns Rick that if his dogs do not stop barking, Phil will shoot them.

#### Social Problem Solving Role-Plays

Role-plays were administered immediately following the vignette assessments in order to test the hypothesis that video facilitates greater realism and emotional activation in role-plays. As in the vignette assessment, selection of role-plays was also determined by the participant's index offense. Role-plays were designed to evaluate social problem

solving behaviors in situations similar to scenarios presented in the vignettes (see Appendix M for role-plays). Each participant was tested in two role-playing situations involving general conflicts with a spouse/intimate partner, child, or non-domestic related individual based on the categorization method used for vignette selection. Scenario descriptions and prompts for the role-plays were developed based on the categorical offense. In other words, all participants whose offenses were against children received the same role-play scenarios involving conflicts with children.

#### Sample Role-Play

Role-play for domestic spouse dispute:

Description: You're on the way back from work when suddenly your car breaks down. You've already sunk so much money into that car. You finally get home an hour later, exhausted and hungry. Your spouse/girlfriend/boyfriend greets you at the door and asks if you remembered to pick up take-out. At that moment you recall that you promised to bring dinner home tonight. Worn out, you crash down on the couch. You're so tired you could take a nap. Your spouse/girlfriend/boyfriend then reminds you about the party you promised to go to this evening. You're tired and would prefer to stay home, and your stomach is grumbling.

Prompt 1: "Get ready. We need to leave for the party in 20 minutes."

Prompt 2: "You always do this to me! You promised you would come to the party and now you're backing out."

Prompt 3: "I can't help it that the car broke down. My friends and I planned this party weeks ago."

- Prompt 4: "If you're so hungry, why don't you just make yourself a sandwich? Is it my job to cook for you?"
- Prompt 5: "I know you're tired and hungry. Maybe you can eat and relax at the party?"
- Prompt 6: "They're might be food at the party, but I can't promise, and I don't want you getting mad at me later if there isn't any."
- Prompt 7: <Turn around and walk away.> "I'm going to the party, with or without you I guess."
- Prompt 8: "Thanks for keeping your promise. It really means a lot to me that you come to the party with me."
- Prompt 9: "How does this sound? We'll go to the party and if there's no food, we can pick some up afterwards?"
- Prompt 10: "Yeah, let's just calm down and work this out. What are some things we can do to satisfy each of our concerns?"
- Prompt 11: <Step toward the partner with an angry look.> "Why can't you ever do anything for me?"
- Prompt 12: "I like that idea. We both get what we want this way."

### Procedures

People referred to the violence reduction program participated in this study after undergoing an initial screening interview. The screening interview included a structured interview incorporating the HCR-20 Violence Risk Assessment Scheme. In addition, participants completed the following assessment devices prior to the interview: Trait Anger Scale (TAS), Aggression Questionnaire (AQ), Conflict Tactics Scale (CTS),

Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Axis II (SCID-II), and Stages of Change Questionnaire. Table 1 presents a summary of the procedures and time sequence.

Participants were randomly assigned to either a video or written vignette group. Half of the participants were shown two video vignettes, the other half were presented written transcripts of the same videos. The index offense determined which two vignettes the participant was shown. Vignettes were categorized by the type of interpersonal conflict portrayed in the vignette. Two graduate level psychology students classified each video as involving a dispute between spouses or other intimate partners, between parent and child, or between people in a non-domestic context. Unanimous agreement was reached between both judges for the categorization of each video. Brief descriptions of the videos and categorization by index offense are presented in Table 2. Due to the limited number of vignettes portraying non-domestic disputes, vignettes of scenarios not involving family members were collapsed across a single non-domestic category.

Immediately following presentation of the vignettes, participants were assessed individually in role-play scenarios. A wife or child whose verbal and nonverbal behaviors precipitated outbursts in past encounters was not present to trigger anger and ineffective problem solving responses. Hence, scene setting through narration and multiple prompts, along with the hypothesized influence of videos, were intended to re-create environmental factors comparable to what the participant experienced in real-world conflict situations. Graduate student assistants instructed participants to pretend as though the assistant is the individual with whom the offense occurred. Participants were told to respond as if the situation were actually occurring. The assistant read a brief

**Table 1. Ordering of Procedures and Time Sequence**

- |    |   |
|----|---|
|    | <b>Beginning of Assessment</b>  |
| 1. | Participant turns in completed packet of descriptive measures   |
| 2. | HCR-20 structured interview is conducted  |
| 3. | Participant completes the SPSI-R-SF and MCSDS   |
| 4. | Participant fills out Emotional Activation Rating Form Time 1   |
| 5. | Video group: Participant shown two Social Problem Solving Vignette videos and completes Problem Solving Performance Sheets for each one<br><br>Written group: Participant reads two Social Problem Solving Vignette scripts and completes Problem Solving Performance Sheets for each one |
| 6. | Participant fills out Emotional Activation Rating Form Time 2   |
| 7. | Participant participates in two Social Problem Solving Role-Plays   |
| 8. | Participant fills out Emotional Activation Rating Form Time 3   |
|    | <b>End of Assessment</b>  |

*Note.* SPSI-R-SF = Social Problem-Solving Inventory-Revised-Short Form; MCSDS = Marlowe-Crowne Social Desirability Scale

**Table 2. Classification of Vignettes into Index Offense Categories**

Vignette Description	Domestic Spouse	Domestic Child	Non-Domestic
1. Bill and Kate get into a fight about a party	X		
2. Mark arrives late to work and verbally abuses his boss			X
3. Becky confronts Janie for staying out too late		X	
4. DJ and Steve argue about balancing the checkbook	X		
5. Tom and Rob have a disagreement over a curfew		X	
6. Phil asks Rick to keep his dogs quiet at night			X

*Note.* X indicates which offense category the vignette most closely matched.

description of the scene to provide a context for the participant. An interpersonal problem was addressed within the description (e.g., "Your wife complains that there is no money in your joint checking account."). The description was then followed by several prompts. A standardized introduction read by the assistant at the start of the role-play assessment is presented below:

"Now what we're going to do is see how you respond in some situations. Some of these situations will be similar to what you have experienced before. I want you to respond as if you are actually in that situation. If the situation occurs at home, try to imagine interacting with that person at home. If the situation occurs at work, try to imagine interacting with that person at work. I will start by briefly describing the situation. When I am finished, please take some time to imagine yourself in the situation, how you might feel and what you might say if the situation were really happening to you. In some cases, the situation may not be identical to what you have experienced before. If the situation is not something

you have faced before, try to imagine it as a situation that could happen in the future. I would like you to pretend as though I am that person you are interacting with. Imagine that I am your [wife/husband, girlfriend/boyfriend, child, co-worker/neighbor/friend.] Whatever feelings you typically experience around that person, I want you to have those feelings toward me. Shortly after I finish reading the description of the scene, I will ask if you are ready. Please let me know you are ready by nodding your head or saying, "Yes." I will then play the role of your [wife/husband, girlfriend/boyfriend, child, co-worker/neighbor/friend.]

As with the other parts of the experiment, everything that you tell me is confidential. The purpose of this study is to see how you behave in different situations and it is strictly research. Information collected today will remain in this building and nobody outside the lab will have access to it.

Do you have any questions? Then, let's begin. Remember, imagine that you are really in the situation I describe and imagine that I am your [husband/wife, girlfriend/boyfriend, child, co-worker/neighbor/friend.]"

The assistant read the problem scenario description and waited approximately 10 seconds for the participant to visualize the scene. Participants were neither advised nor encouraged to apply effective problem solving skills. They were simply guided to imagine actually being in the situation. Prompts consisted of emotionally charged statements designed to confront the participant and evaluate the participant's emotion regulation and social problem solving skills. Assistants were trained to deliver prompts in a standardized manner with an affective tone. After initiation of the first prompt, the

assistant waited for the participant's response before going on to the second prompt. If a response to the first prompt was not given after 10 seconds, the next prompt was delivered. The first prompt was always the same for each participant within a particular index offense category. Subsequent prompts varied somewhat depending on the participant's response. For each role-play, at least 10 prompts were developed. In order to compare across participants, however, only responses to the first 5 prompts were evaluated.

### Scoring

Experimental procedures in the current study were administered and scored by graduate level students and undergraduates in the psychology department. Student assistants were selected for their knowledge of and experience with treating and assessing violent offenders. Initial training included discussion to familiarize assistants with the project and to provide grounding in the assessment of social problem solving skills using vignettes and role-plays. Hypotheses of the study were not disclosed. Only graduate level students with training in the Violence Reduction Training Program were permitted to run participants through the assessment procedures. The predictive validity and generalizability of role-play is dependent to a considerable degree on the skill of the confederate-researcher facilitating the social interaction (Forrester, 2000). A single graduate student assistant administered the SPSI-R with modified instructions and the MCSDS, presented the videos, instructed participants to complete response sheets for each vignette, and coordinated role-plays for a single participant assessed individually. Graduate assistants were trained to code written responses to social problem solving vignettes and elicited behaviors in videotaped role-play exercises.

### Problem Solving Scoring for the Vignettes

Responses to each vignette were evaluated by two judges based on standardized scoring criteria. Prior to evaluating participant response data, student assistants met with the primary investigator to read written vignettes/view videos and practice coding sample Problem Solving Performance Sheets. Extensive training in the scoring criteria was provided and training review sessions were held throughout the course of the coding. Disagreement among raters was resolved through discussion to consensus. Standardized scoring criteria were developed based on Slezak's (2003) scoring protocol and from previous research (Bedell et al., 1998; Channon & Crawford, 1999; Channon, Crawford, Vakili, & Robertson, 2003; Kendall et al., 1997) applying videos to the assessment of social problem solving. Scoring criteria are outlined below:

1. Problem/goal definition: Items assessing 1) identification of a problem that follows from the story, 2) level of detail described, 3) cause of the problem, 4) degree of distorted beliefs and assumptions, 5) relationship between the problem and goal. A score between -1 and 16 points was possible on this dimension.
2. Information identifying the problem: Identification of at least one thought, emotion, and behavior relevant to each character in the vignette. A score between 0 and 4 points was possible on this dimension.
3. Solution generation: Calculated by totaling the number of solutions relevant to the goal and subtracting the number of solutions not relevant to the goal, with a maximum score of 6. A minimum of four relevant solutions was required to receive the maximum score.

4. Problem resolution: Participant's chosen solution is scored based on the following: 1) solution is relevant to the goal, 2) solution is socially acceptable, 3) solution satisfies the needs of both parties in the dispute, 4) benefits vs. costs of the solution, 5) extent to which the solution satisfies the problem in the short and long term and 6) adequacy of the chosen solution for resolving the problem. A score between 0 and 13 points was possible on this dimension.

The complete scoring system and scoring guidelines for a sample Problem

Solving Performance Sheet can be found in Appendix L. Interrater reliability was .80 for the first Problem Solving Performance problem and .82 for the second Problem Solving Performance problem.

#### Problem Solving Scoring for the Role-Plays

Role-play assessments were videotaped for evaluation at a later time. Videotaped role-plays were coded by four student assistants. Each assistant was required to receive three hours of training in coding sample videotaped role-plays before coding participant data. Assistants were provided with a Problem Solving Checklist for Role-Plays and were instructed to indicate the occurrence and frequency of positive and negative social problem solving behaviors. The scoring system was based on the Marital Interaction Coding System (MICS; Hops, Wills, Patterson, & Weiss, 1972) and on research applying or factor analyzing the MICS (Heyman, Eddy, Weiss, & Vivian, 1995; Ronan, Dreer, Dollard, & Ronan, 2004; Vincent, Friedman, Nugent, & Messerly, 1979). Interrater reliability was .86 for the first role play scenario and .88 for the second role play scenario. Operational definitions for positive and negative problem solving behaviors are provided

below and were also listed on the Problem Solving Checklist for Role-Plays (Appendix N.)

**Positive Behaviors**

Accept responsibility	Statement conveying that "I" or "we" are responsible for the problem.
Compromise	Statement indicating that a change in behavior by both sides is acceptable.
Problem description	Statement describing a problem, stated in a neutral or friendly tone of voice.
Paraphrase/reflection	Statement that mirrors or restates an immediately preceding statement of the other person.
Approval	Statement acknowledging approval or support of the other person's behavior or effort to solve the problem.
Past positive behavior	Describes a past positive behavior engaged in by one or both sides as if returning to such behavior would help.
Offer positive solution	Suggests a solution that is beneficial to the other person or to both persons.
Smile	Nonverbal behavior intended to make the situation less tense and demonstrate goodwill to the other person.

<b>Attention</b>	Nonverbal behavior reflecting that the participant is listening, indicated by eye contact and body posture
<b><u>Negative Behaviors</u></b>	
<b>Complain</b>	Whining or bitter expressions of one's suffering without explicitly blaming the other person.
<b>Deny responsibility</b>	Statement conveying that "I" or "we" are not responsible for the problem.
<b>Make excuses</b>	Statement suggesting an inappropriate reason for why one engaged in a problem behavior or why the problem behavior has not changed.
<b>Interrupt</b>	Jumps in while the student assistant is speaking, cutting the other person off.
<b>Ignore</b>	Nonverbal behaviors indicating that one is not paying attention, such as avoiding eye contact or not responding.
<b>Command</b>	Tells other person to do something to fix the problem without mutual agreement.
<b>Put down/criticize/sarcasm</b>	Statement intended to hurt, demean, or embarrass the other person, expresses dislike or disapproval of the other's behavior in a hostile or irritated tone of voice.
<b>Past negative behavior</b>	Brings up past negative behavior of the other person.
<b>Name calling</b>	Refers to other person with a derogatory term.

**Aggressive behavior**      Nonverbal behaviors communicating hostility, such as raising one's voice, angry facial expressions, and aggressive body (e.g., hand) movements.

## CHAPTER III

### RESULTS

#### Demographics and Descriptive Measures

Demographics and scores on descriptive measures were examined to determine whether participants randomly assigned to video and written vignette groups were comparable. In the video group, males ( $n = 9$ ) outnumbered females ( $n = 3$ ), average age was 32.9, 50% had obtained at least some college education, and most ( $n = 8$ ) were court-ordered for treatment. For the written group, there were more males ( $n = 12$ ) than females ( $n = 4$ ), average age was 31.8, 37.5% completed some college education, and most ( $n = 14$ ) were court-referred.

Table 3 presents the means and standard deviations for the descriptive measures. Independent samples  $t$  tests were used to evaluate whether differences existed between the video and written groups prior to experimental manipulation on measures of anger, aggression, and readiness to change. There was one statistically significant difference between groups on the first item of the HCR-20 Violence Risk Assessment Scheme ( $t(32) = -2.3, p = .03, d = .80$ ). The first item of the HCR-20 assesses history of violent behavior and is coded by the examiner as a 0 ("no previous violence"), 1 ("possible/less serious previous violence"), or 2 ("definite/serious previous violence"). Participants in both groups were rated on average to fall somewhere between possible and definite history of violence, but participants in the written group were more likely to be rated as having a definite history of violence.

**Table 3. Means and Standard Deviations for Descriptive Measures**

Measure	Video			No Video		
	M	SD	n	M	SD	n
Trait Anger Scale Total Score	26.0	9.4	12	27.3	8.4	16
Conflict Tactics Scale Reasoning Score	7.1	5.7	12	7.3	4.6	16
Conflict Tactics Scale Verbal Aggression Score	7.6	8.5	12	11.4	11.4	16
Conflict Tactics Scale Violence Score	0.9	2.6	12	2.9	3.9	16
Aggression Questionnaire Total Score	67.3	25.5	12	69.3	21.4	15
Aggression Questionnaire Physical Aggression Score	19.3	9.0	12	22.5	8.1	15
Stage of Change Questionnaire Classification	2.3	0.6	12	2.1	0.8	16
HCR-20 Violence Item 1	1.5	0.5	17	1.9	0.7	17
HCR-20 Violence Item 2	1.5	0.8	17	1.7	1.0	17
SCID-II Personality Questionnaire (ASPD items)	0.3	0.5	14	0.5	1.1	13

*Note.* Scores on the Trait Anger Scale range from 15 to 60, with higher scores indicating higher reported levels of anger. The Conflict Tactics Scale scores range from 0 to 18 (Reasoning), 0 to 36 (Verbal Aggression), and 0 to 42 (Violence), with higher scores representing more frequently endorsed use of effective or ineffective behaviors. Scores on the Aggression Questionnaire range from 9 to 45 (Physical Aggression) and 29 to 145 (Total), with higher scores indicating greater severity or frequency of aggressive thoughts, emotions, and behaviors. There are four stages identified on the Stage of Change Questionnaire, with higher stage classifications representing greater reported motivation to change. Each of the HCR-20 violence items is rated on a scale of 0 to 2, with a higher number indicating clearer history of violence. Seven items from the SCID-II were included in this study, each one answered 'yes' or 'no,' so the range was 0 to 7.

Participants in both groups endorsed comparable levels of aggression. Self-reported aggression scores on the Aggression Questionnaire were slightly lower than mean total scores identified in previous studies for similar populations. A total score of 72.8 for men and 68.4 for women was found in a sample of 200 jailed offenders (Williams, Boyd, Cascardi, & Poythress, 1996). Index offense, whether violent or non-violent, was not specified. Studies using the Aggression Questionnaire with incarcerated

violent offenders have ranged from 80.7 on the total score and 26.8 on the Physical Aggression subscale (Palmer & Thakordas, 2005) to 86 on the total score and 27.3 on the Physical Aggression subscale (Smith & Waterman, 2004). Males accused of domestic abuse in one study endorsed a mean total score of 62.3, an unexpectedly low score that may have reflected positive impression management (Helfritz et al., 2006).

Participants in both groups tended to endorse readiness to change attitudes that placed them in the contemplative stage of change (2.1 for video group, 2.3 for written group). Individuals in the contemplative stage are aware of problematic behavior, but they either do not know what solutions to take or are not committed to making positive changes.

Results from seven items on the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Axis II (SCID-II) Personality Questionnaire assessing for history of antisocial behavior revealed a mean endorsement of less than one item for both video and written groups. In other words, participants in neither group on average reported a history of childhood antisocial behavior.

#### Emotional Activation

Emotional activation represented the primary experimental manipulation in the current study. Mean ratings on the Emotional Activation Rating Form for the total sample and for the video and written groups are presented in Table 4. Participants completed the first of three Emotional Activation Rating Forms after finishing the SPSI-R-SF and MCSDS self-report forms, and before the problem solving vignettes. Hence, at Time 1 the experimental manipulation was not yet implemented. All participants would be expected to report similar levels of emotional activation at Time 1. However, a

significant difference was found between participants in the video and written groups on the valence term 'annoyed,'  $t(31.1) = -2.2, p = .04, d = .71$ . Table 4 indicates that written group participants reported an average rating of 4.2, whereas video group participants rated themselves to be 2.4 on 'annoyed.' Written group participants rated a higher level of annoyance prior to the experimental manipulation. There were no other significant differences between groups at Time 1. The discrepancy between both groups on 'relaxed' approached significance,  $t(35) = 1.98, p = .06, d = .64$ .

At Time 2 (i.e., after the problem solving vignettes and before the role-plays) only one significant difference was found between groups. Participants in the written group reported a higher level of annoyance ( $M = 4.6$ ) than participants in the video group ( $M = 2.2$ ),  $t(27.1) = -2.9, p = .008, d = .96$ . A closer look at the within group differences revealed that the written group on average became more annoyed while the video group reported a decrease in annoyance after implementation of the experimental manipulation. This result was contradictory to the hypothesis that participants seeing video portrayals of problem solving situations would become more agitated. There were no significant differences between groups at Time 3 (i.e., after the role-plays).

Concerning the main effect of emotional activation across the three time periods, significant findings were obtained for the valence term 'relaxed.' A paired samples  $t$  test of the change in 'relaxed' from Time 1 to Time 2 for the entire sample was statistically significant with a small effect size change,  $t(34) = 2.0, p = .05, d = .34$ . No significant change was found between Time 2 and Time 3. Table 3 shows that the video group reported a decrease in relaxation across time, dropping from 7.4 to 6.5 to 6.4. The written group also reported a decrease in relaxation, though a smaller change from 5.9 to

5.4, then increasing to 6.4 at Time 3. Paired sample *t* tests from Time 1 to Time 2 by group on the valence term 'relaxed' were not significant for video ( $t[16] = 1.4, p = .17, d = .34$ ) or written ( $t[17] = 1.6, p = .12, d = .38$ ).

**Table 4. Emotional Activation Ratings**

		Time 1 (Before vignettes)		Time 2 (Between vignettes & role-plays)		Time 3 (After role-plays)	
	Valence term	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
	Relaxed	6.6	2.4	6.0	2.8	6.5	2.7
Total ( <i>N</i> = 35)	Annoyed	3.3	2.9	3.5	2.7	2.8	1.9
	Excited	4.1	2.7	3.7	2.5	4.5	2.5
	Angry	2.5	2.3	2.7	2.5	2.1	1.4
	Happy	6.0	2.5	5.7	2.4	6.0	2.2
	Relaxed	7.4	2.1	6.5	2.7	6.4	2.9
Video ( <i>n</i> = 17)	Annoyed	2.4	2.4	2.2	1.7	2.4	1.8
	Excited	4.3	2.7	3.9	2.4	4.1	2.3
	Angry	2.2	2.2	2.2	2.0	1.9	1.5
	Happy	6.2	2.7	5.5	2.8	5.7	2.2
	Relaxed	5.9	2.6	5.4	2.7	6.5	2.6
Written ( <i>n</i> = 18)	Annoyed	4.2	3.2	4.6	3.1	3.1	2.1
	Excited	3.9	2.8	3.5	2.6	4.9	2.7
	Angry	2.9	2.4	3.2	2.8	2.3	1.3
	Happy	5.8	2.3	5.9	2.1	6.3	2.2

*Note.* Ratings were on a scale ranging from 1 to 10.

Significant findings between Time 2 and Time 3 for the entire sample were also found on the valence terms ‘excited’ ( $t[34] = -2.69, p = .01, d = .46$ ) and ‘angry’ ( $t[34] = 2.15, p = .04, d = .37$ ). Table 4 indicates that participants in general reported an increase in excitement and a decrease in anger between Time 2 and Time 3. Group differences were significant only for the written group and only on ‘excited,’  $t(17) = -3.93, p = .00, d = .95$ ). The written group also demonstrated a significant change on the valence term ‘annoyed,’ becoming less annoyed from Time 2 to Time 3,  $t(17) = 2.89, p = .01, d = .70$ . Significant findings were not obtained for the entire sample or for the video group on ‘annoyed.’

#### The Influence of Social Desirability on Emotional Activation Ratings

The Emotional Activation Rating Form was used in the present study to measure emotional arousal as a function of vignette presentation in a video format. As this measure is a self-report, ratings may not necessarily reflect emotional arousal as it was actually experienced. Given that individuals were being evaluated in a forensic context, there is an increased risk for positive impression management. Although examinees were told that the results would remain confidential and undisclosed to probation officers, examinees may still have been motivated to appear unnerved by the problem solving scenarios.

Pearson  $r$  correlations were calculated to examine the impact of socially desirable responding on emotional activation ratings (see Table 5). Overall there tended to be an inverse relationship between social desirability scores and emotional activation ratings. Higher scores on the MCSDS reflect a greater level of socially desirable responding. A higher score on an emotional activation valence term demonstrates stronger agreement in

the examinee's experience of the emotion assessed. Increased socially desirable responding was generally associated with lower ratings on valence terms, though this finding was most commonly observed for the valence terms 'annoyed,' 'excited,' and 'angry.' Moreover, this effect was most pronounced for participants in the video group. Video group participants' ratings of these valence terms were more influenced by socially desirable responding. 'Annoyed' and 'angry' were likely construed as negative valence terms and 'excited' may also be viewed as a negative experience in the context of the current study, as though one is agitated or distressed by an event. Hence, examinees may have been less willing to endorse these terms.

Before presentation of the vignettes, socially desirable responding accounted for 8 – 10% of the variance in ratings on 'annoyed' ( $r = -.28$ ), 'excited' ( $r = -.32$ ), and 'angry' ( $r = -.27$ ) for the total sample. For the video group, social desirability accounted for 15% of 'annoyed,' 19% of 'excited,' and 12% of 'angry' emotional ratings. Comparatively, social desirability accounted for less than 1% of 'annoyed,' 7% of 'excited,' and 1% of 'angry.' However, these effect sizes for the video group were between small and medium in magnitude and over 80% of the variance is unexplained by social desirability as measured by the MCSDS. In any case, the experimental manipulation was not implemented until after Time 1, so socially desirable responding cannot be attributed motivation to appear less aroused by video presentation.

**Table 5. Pearson *r* Correlations Measuring the Relationship Between the Marlowe-Crowne Social Desirability Scale (MCSDS) and Each of the Emotional Activation Valence Terms at All Three Measurement Points**

Time 1 (Before vignettes)					
	Relaxed	Annoyed	Excited	Angry	Happy
MCSDS (T)	-.09	-.28*	-.32*	-.27	-.25
MCSDS (V)	-.30	-.38	-.44*	-.35	-.44*
MCSDS (W)	-.07	-.07	-.26	-.12	-.09
Time 2 (Between vignettes and role-plays)					
	Relaxed	Annoyed	Excited	Angry	Happy
MCSDS (T)	.10	-.38*	-.17	-.25	-.11
MCSDS (V)	.14	-.52*	-.10	-.29	-.16
MCSDS (W)	-.04	-.24	-.29	-.18	.01
Time 3 (After role-plays)					
	Relaxed	Annoyed	Excited	Angry	Happy
MCSDS (T)	.11	-.32*	-.40**	-.28*	-.11
MCSDS (V)	.15	-.38	-.32	-.14	-.21
MCSDS (W)	.08	-.20	-.44*	-.41*	.09

*Note.* (T) designates total sample ( $N = 37$ ), (V) designates video group ( $n = 19$ ), (W) designates written group ( $n = 18$ ). \*\* $p < .01$ , \* $p < .05$ .

At Time 2, 'annoyed' ( $r = -.38$ ) was significantly related to social desirability for the total sample, but group differences were obtained only for participants in the video condition ( $r = -.52$ ). Social desirability accounted for 27% of the variance in 'annoyed' and 8% in 'angry' ratings for the video group, whereas for the written group social desirability accounted for 6% and 3%, respectively. At Time 3, socially desirable responding contributed to 14% of the variance in 'annoyed' and 2% in angry. For the video group, social desirability accounted for 4% of 'annoyed' and 17% of 'angry.'

#### Calculation of Performance Measures

As discussed in the methods section, there were two performance measures in the current study. The first measure was performance on the problem solving vignettes. Participants completed a Problem Solving Performance Sheet after presentation of the vignette in video or written form. As there were two vignettes presentations, each examinee completed two Problem Solving Performance Sheets. Each sheet was coded by two graduate assistants using the Problem Solving Vignette Scoring System. Scores from each coder were averaged together to produce the examinee's vignette problem solving performance score. The maximum possible score on the vignette problem solving performance measure is 35. Means, standard deviations, and ranges for the vignette problem solving performance measure are shown in Table 6.

The second measure of problem solving performance used role-plays. Role-plays were video taped and coded for positive and negative behaviors on the Problem Solving Checklist for Role-Plays by two graduate assistants. Coded scores were averaged to form positive and negative scores for each of the two role-plays. Because scores are based on the frequency of observed behaviors, there is no maximum score. However, because

role-plays were scored for only five responses to prompts, the frequency of observed positive or negative responses was limited and did not reach double digits. Means, standard deviations, and ranges for the role-play performance measure are shown in Table 6.

#### Comparison of Groups on Performance Measures

None of the comparisons on either of the performance measures yielded significant results. However, moderate effect sizes were found for positive and negative behaviors on the second role-play. Video group participants tended to demonstrate more positive social problem solving behaviors ( $d = .54$ ) and fewer ineffective or aggressive problem solving behaviors ( $d = .44$ ) than written group participants.

#### Correlations Among Predictive Measures

Correlations were computed to examine the relationships among problem solving appraisal, social desirability, and social problem solving performance on the problem solving vignettes and role-plays. Pearson  $r$  correlations were computed among the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF), the Marlowe-Crowne

**Table 6. Results for the Problem Solving Vignette and Role-play Performance Measures**

	Total		Video		Written		<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
<b>Vignette 1</b>									
Vignette 1	17.6	6.1	18.0	6.3	17.1	6.0	.54	.59	.18
Vignette 2	17.3	6.0	17.3	6.1	17.4	6.0	-.06	.95	.02
<b>Role-play 1</b>									
Positive	1.0	.9	1.0	.8	.9	.8	.25	.80	.09
Negative	2.4	2.1	2.3	2.0	2.5	2.2	-.30	.77	.11
<b>Role-play 2</b>									
Positive	1.8	1.4	2.2	1.4	1.5	1.3	1.57	.13	.54
Negative	2.0	1.7	1.6	1.6	2.4	1.8	-1.30	.20	.44

*Note.* Vignette 1  $n = 37$  (total), 19 (video), 18 (written); Vignette 2  $n = 36$  (total), 19 (video), 17 (written); Role-play  $n = 35$  (total), 18 (video), 17 (written). The maximum score possible on a Social Problem Solving Vignette was 35. Positive and negative scores on the role-plays represent frequency measures; there was no maximum score.

Social Desirability Scale (MCSDS), and the raw scores for the problem solving vignettes and positive and negative responses on the role-plays. Results are presented in Tables 7 and 8. The MCSDS for the entire sample correlated significantly with the SPSI-R-SF ( $r = .41$ ) but with no other measures with the exception of the first problem solving vignette in the video group. Accordingly, social desirability accounted for 17% of the variance in problem solving appraisal, but did not markedly influence problem solving performance measures. Whereas MCSDS was significantly correlated with the SPSI-R-SF for the video group ( $r = .44$ ), it was not significant for the written group ( $r = .00$ ).

These self-report measures were completed by participants prior to presentation of the emotional activation manipulation.

The SPSI-R-SF was found to correlate significantly with each of the problem solving vignettes ( $r = .37$  and  $.42$ , respectively), but not with role-played performance for the entire sample. Hence, problem solving appraisal was a better predictor of problem solving vignette performance than of role-played performance. These results were consistent for each group separately. No significant relationships were found between problem solving vignette and role-play performance measures, either for the entire sample or for the video and written groups evaluated separately.

#### Qualitative Analysis

The principle hypothesis of the current study, that problem solving performance is influenced by emotional activation, was quantitatively tested through use of the Emotional Activation Rating Form. If presentation of vignettes in a video format elicits emotional arousal, then the rating form was expected to demonstrate significant change between groups and across measurement periods. However, there is also a possibility that the rating form failed to track the effects of the experimental manipulation.

Participants may not have been aware of any change in mood or they may have been aware but either avoided acknowledging the change in mood due to positive impression management or randomly circled ratings on the form due to lack of interest in the study.

**Table 7. Pearson *r* Correlations for the Entire Sample on the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF), the Marlowe-Crowne Social Desirability Scale (MCSDS), Each of the Problem Solving Vignettes, and Positive and Negative Scores for Each of the Role-plays**

	SPSI-R-SF	MCSDS	Vignette 1	Vignette 2	RP-Pos1	RP-Neg1	RP-Pos2	RP-Neg2
SPSI-R-SF	---	.41**	.37*	.42**	.15	-.05	-.05	.03
MCSDS	---	.25	.25	.09	.00	.10	.02	
Vignette 1	---	.67**	-.02		.13	.14	-.04	
Vignette 2			---	.13	.12	.13	.08	
RP-Pos1	62			---	-.52**	.14	-.17	
RP-Neg1					---		.37*	
RP-Pos2						---		-.50**
RP-Neg2						---		

*Note.* \*\*  $p < .01$ , \*  $p < .05$ . RP-Pos1 = positive score for the 1<sup>st</sup> role-play; RP-Neg1 = negative score for the 1<sup>st</sup> role-play; RP-Pos2 = positive score for the 2<sup>nd</sup> role-play; RP-Neg2 = negative score for the 2<sup>nd</sup> role-play.

**Table 8.** Pearson *r* Correlations for the Video and Written Groups on the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF), the Marlowe-Crowne Social Desirability Scale (MCSDS), Each of the Problem Solving Vignettes, and Positive and Negative Scores for Each of the Role-plays

	SPSI-R-SF	MCSDS	Vignette 1	Vignette 2	RP-Pos1	RP-Neg1	RP-Pos2	RP-Neg2
SPSI-R-SF	---	.60**	.44*	.44*	.04	.09	-.19	.10
MCSDS	.19	---	.41*	.36	.17	-.04	.14	-.07
Vignette 1	.31	.00	---	.52*	-.20	.07	.10	-.02
Vignette 2	.39	.12	.85**	---	.02	.06	.06	.22
RP-Pos1	.26	-.01	.13	.24	---	-.38*	.09	-.12
RP-Neg1	-.18	.09	.21	.19	-.63**	---	.06	.41*
RP-Pos2	.09	-.12	.10	.20	.18	-.10	---	-.37
RP-Neg2	-.01	.27	.03	-.04	-.19	.33	-.58	---

*Note.* Results for video group on upper right side, results for written group on lower left side. \*\*  $p < .01$ , \*  $p < .05$ . RP-Pos1 = positive score for the 1<sup>st</sup> role-play; RP-Neg1 = negative score for the 1<sup>st</sup> role-play; RP-Pos2 = positive score for the 2<sup>nd</sup> role-play; RP-Neg2 = negative score for the 2<sup>nd</sup> role-play.

The problem solving performance measures were reexamined from a qualitative approach. First, a qualitative threshold was determined for the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF). The SPSI-R-SF is a problem solving appraisal measure, so in this case the qualitative level reflects a ‘good enough’ standard based on one’s view of one’s social problem solving skills. A literature review search uncovered two studies that provided psychometric data for the SPSI-R-SF using large, diverse samples. The SPSI-R manual identified a mean SPRI-R-SF score of 45.2 in a college student sample ( $N = 601$ ; D’Zurilla, Nezu, & Maydeu-Olivares, 1997). Using 45.2 as a qualitative threshold for the current study, 31 out of 37 participants scored above the threshold on the SPSI-R-SF. A second study on 219 Australian university students produced a mean total score of 60.3 (Hawkins, Sofronoff, & Sheffield, 2008). Although the mean total score in the Hawkins et al. study was much larger than D’Zurilla et al.’s findings, 29 out of 37 participants were still above the threshold. Because the difference between the two mean scores was minimal in terms of participants reaching the qualitative standard, D’Zurilla et al.’s mean total score was chosen for the current study. Video and written groups were comparable, with over 80% of participants in each group endorsing perceived problem solving ability above the qualitative threshold (see Table 9).

For the problem solving vignettes, qualitative scoring thresholds were selected for each criteria of the Problem Solving Vignette Scoring System. The following qualitative scoring guideline was used:

- I. Problem/Goal Definition: 1) 1/2, 2) 1/2, 3) 2/2, 4) 1/2, 5) 2/4
- II. Information Identifying the Problem: 2/4

III. Solution Generation: 3/6

IV. Problem Resolution: 1) 1/2, 2) 1/2, 3) 2/2, 4) 2/2, 5) 2/3, 6) 3/4

Point levels for each criterion reflect performance one should achieve on a problem solving vignette to demonstrate good problem solving skills. The total score on a problem solving vignette was not incorporated into decisions on quality. Certainly someone who achieves a score of 27 is more likely to have exhibited good problem solving skills than someone who obtains a 14, but quality was assessed on an item by item basis as well as an overall performance on each of the four social problem solving domains of the scoring system. Judges discussed which participants demonstrated good problem solving skills based on the participants' Problem Solving Scoring Sheets and the judges' Problem Solving Performance Sheet Scoring Forms. Judges were required to reach agreement. Because performance for each vignette was evaluated independently, a participant could demonstrate good problem solving on the 1<sup>st</sup> vignette and not on the 2<sup>nd</sup>, and vice-versa. Judges were not informed of the participant's group status.

For the problem solving role-plays, performance in the analyses presented earlier was quantitatively measured by frequency of positive and negative behaviors displayed. In each role-play five prompts were given by the graduate assistant, and a participant's performance was evaluated on the responses to these five prompts. Qualitative levels for the role-plays were set at three positive behaviors and one negative behavior. Someone resolving a problem situation in a real life interpersonal context would be expected to exhibit about three positive responses or behaviors out of five interactions. An effective problem solver would be expected to demonstrate fewer negative responses or behaviors, estimated to be about one out of five interactions.

Results are presented in Table 9. Overall, there were more participants reaching the qualitative threshold in the written group than in the video group on both problem solving performance measures and at both assessments. Four out of 19 participants (21.1%) in the video group surpassed the quality threshold on the 1<sup>st</sup> vignette, increasing to 6 out of 19 (31.6%) on the 2<sup>nd</sup> vignette. For the written group, 8 out of 18 (44.4%) met the threshold on the 1<sup>st</sup> vignette, dropping to 6 out of 17 (35.5%) on the 2<sup>nd</sup> vignette. On the 1<sup>st</sup> vignette, twice as many written group participants as video group participants demonstrated quality level problem solving skills. The difference in quality between the two groups was smaller on the 2<sup>nd</sup> vignette.

On the role-play measures, video and written group participants performed poorly based on positive responses. In the first role-play, nobody from the video group and only two participants from the written group (11.8%) met the quality threshold. In the second role-play, four participants from each group demonstrated good problem solving skills. Participants did a better job on negative behaviors, with the written group doing better than the video group on each role-play.

A large discrepancy was noted between problem solving appraisal and both performance measures. Although most participants endorsed a quality level of problem solving skills, between ¼ and ½ of those individuals actually demonstrated quality level problem solving on the vignettes. Even fewer of these individuals were able to exhibit positive problem solving behaviors in role-played scenarios.

**Table 9. Percentages of Participants Surpassing the Quality Threshold on Social Problem Solving Appraisal and Performance Measures**

	SPSI-R-SF	1 <sup>st</sup> Vignette		2 <sup>nd</sup> Vignette		1 <sup>st</sup> Role-play		2 <sup>nd</sup> Role-play	
		Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Video	84.2%	21.1%	31.6%	0%	22.2%	11.8%	23.5%		
Written	83.3%	44.4%	35.5%	38.9%	50.0%	41.2%	35.3%		

*Note.* Percentages on the SPSI-R-SF reflect participants who reported problem solving ability above the mean score in a college sample from D'Zurilla, Nezu, & Maydeu-Olivares, 1997. Percentages for the vignette and role-play measures were based on qualitative scoring criteria.

## CHAPTER IV

### DISCUSSION

#### Experimental Manipulation of Emotional Activation

Social cognition theory suggests that media contributes to the development of cognitive scripts readily accessible in memory. Social learning research recognizes the role of media in modeling aggressive problem solving behavior that becomes emulated in society. Videotaped problem solving scenarios in the current study were expected to increase emotional arousal and elicit defective or aggressive social problem solving thoughts and behaviors. The Emotional Activation Rating Form was developed for the current study to track changes in emotional activation.

Results from the Emotional Activation Rating Form were not consistent with hypothesized expectations. Ratings for the entire sample showed a decrease in relaxation, happiness, and excitement, and an increase in annoyance and anger after presentation of the problem-solving vignettes. Only the video group participants were expected to become less relaxed, more annoyed, and angrier. In fact, participants in the video group tended to be more relaxed, less annoyed, and less angry immediately after presentation of the vignettes in video format. Participant in the written group, on the other hand, reported a decrease in relaxation and an increase in annoyance and anger.

There is reason to be concerned that the groups differed prior to the vignette presentation, as written group participants endorsed higher ratings on relaxation and annoyance. But participants in the video group nevertheless reported less annoyance and no change in anger after the experimental manipulation, a finding which runs counter to

the hypothesized increase in emotional activation. Moreover, participants in the written group were not expected to report greater annoyance, and this finding is clear even if the groups differed on ratings of annoyance prior to the experimental manipulation.

There are several factors that may account for the unexpected results on the Emotional Activation Rating Form. First, the premise behind use of this form was that any changes in emotional activation would be tracked by the rating form. This premise may be flawed. Participants' ratings as indicated on the form may not necessarily reflect what they truly felt at the time of the rating. As discussed earlier in this paper, self-report measures are confounded by lack of awareness or social desirability.

Emotion is a process of construction (Neimeyer & Mahoney, as cited in Greenburg, 2008.) What we call emotion is an experience influenced by data gathering in the mind. Appraisals, interpretations, and attempts to decipher meaning are typically inseparable from the emotional experience. Emotion is not a constant, but constantly shifting. At times emotions are difficult to identify because of stimuli in the environment and mental activity competing for attention. Participants in the current study were asked to rate something that is entirely human and natural, and yet often unclear or misunderstood. Not only were they asked to reflect on a changing, elusive experience, but they were also asked to rate the intensity of it on a scale of 1 to 10. Without sufficient awareness, ratings may not represent underlying feeling triggered by the manipulation.

Participants may also have been hesitant to disclose what they felt given the forensic context in which the study was administered. The study was conducted in conjunction with a pre-treatment risk assessment. Although participants were told that all

information would be kept confidential, the temptation to appear favorable cannot be underestimated. Results from correlations between the emotional ratings and the Marlowe-Crowne Social Desirability Scale (MCSDS) indicated an inverse relationship, though especially for the valence terms measuring annoyance, excitement, and anger. Social desirability tended to account for more variance in video group participant ratings than in the written group. However, this trend was found before and after presentation of the problem solving vignettes, suggesting that video group participants were more influenced by social desirability for reasons not addressed by the experimental manipulation. Moreover, MCSDS scores generally did not account for more than 20% of the variance in valence term ratings. If socially desirable responding or positive impression management affected more than 20% of the variance in emotional rating, then the MCSDS was not sensitive enough to detect it.

Second, the Emotional Activation Rating Form was intended to assess differences between video and written group participant ratings attributed to presentation of videos. As highlighted above, however, there are many sources, internal and external, that influence feelings. The forensic context, interactions with the examiner, thoughts about the criminal event that precipitated referral, etc. could have impacted an individual's emotions at the very second he or she selected a rating for a valence term. The Emotional Activation Rating Form ratings cannot be directly connected to video presentation.

Third, participants in the written group may have reported higher levels of annoyance and anger and lower levels of relaxation because of the extra reading required of them. After completion of two self-report inventories, participants in the written group then had to read two vignettes and write down responses. As mentioned earlier in this

paper, individuals who attend the Violence Reduction Training Program tend to be less educated and may prefer video material over reading. Perhaps the additional reading presented an aversive experience for participants in the written group and influenced their ratings.

Fourth, the rating form was completed after a participant filled out a Problem Solving Performance Sheet. Chronologically speaking, participants either observed a video vignette or read a written vignette, completed a Problem Solving Performance Sheet, observed or read the second vignette, completed a second Problem Solving Performance Sheet, and then filled out an Emotional Activation Rating Form. This order was determined so that there would be no interference between presentation of a vignette and answering questions about it on the performance sheet. But given that participants spent a minimum of 5-10 minutes completing a performance sheet, immediate effects of the video on emotions may have dissipated by the time the ratings were collected.

#### **Emotional Activation Not Tracked by the Rating Form**

The first hypothesis of this study was that participants in the video group would be more emotionally activated and thus be more likely to evidence defective and aggressive problem solving behaviors similar to how they would act in real world situations. As discussed above, participants in the video group may still have been more emotionally activated than written group participants, but the activation may not have been effectively measured by the Emotional Activation Rating Form. This study proposed four hypotheses stemming from the first hypothesis: 2<sup>nd</sup>) Weaker relationship between the SPSI-R and problem solving performance for video group participants, since

administration of the SPSI-R preceded the experimental manipulation and emotional activation by the videos would lead to problem solving behaviors more consistent with real-world behavior and less consistent with self-reported ability, 3<sup>rd</sup>) Stronger relationship between vignettes and role-plays for video group participants, who were expected to demonstrate behaviors in the role-plays reflective of emotional arousal elicited in the video vignettes, 4<sup>th</sup>) Weaker relationship between social desirability and problem solving performance for video group participants, who were expected to be less vulnerable to positive impression management due to emotional arousal triggering habitual, almost automated responses, and 5<sup>th</sup>) Better problem solving performance scores for the written group, since they would be at greater risk for positive impression management and less affected by emotional arousal, allowing them to more carefully offer responses and behaviors indicative of effective problem solving. Examination of results from the social problem solving measures will reveal whether emotional activation can be inferred from these hypotheses.

### Three Measures of Social Problem Solving

Studies on problem solving appraisal represent the bulk of literature in the social problem solving field. Although very few studies have examined the relationship between problem solving appraisal and performance, researchers have been inclined to assume that one's perceived problem solving ability strongly predicts what one will do in a real social problem solving situation (Heppner et al., 2004.) The current study introduced two types of social problem solving performance measures: responses to problem solving vignettes and role-played performance of problem solving scenarios.

Problem solving appraisal as measured by the Social Problem-Solving Inventory-Revised-Short Form (SPSI-R-SF) did a much better job predicting performance in the vignettes than in the role-plays. This finding was true for the video and written groups. Thus, the 2<sup>nd</sup> hypothesis was not confirmed. The fact that the SPSI-R-SF was considerably less effective and predicting role-play performance should not be surprising. The vignette task was somewhat comparable to a self-report measure. Participants were not asked to select a response among four or more choices as in a self-report. But like a self-report, they were evaluated for what they reportedly would do if they were in a similar situation. They had time to reflect on possible responses and describe what they believed they would do or what they believed they should do. In the role-play scenarios, there was less time to think about responses and there was less structure. Initial prompts from the graduate assistant were emotionally charged. Participants responded more or less based on what they felt at that moment.

Regarding the role of social desirability, the MCSDS accounted for 17% of the variance in the SPSI-R-SF for the entire sample. Social desirability was significantly related to problem solving appraisal for the video group, accounting for 36% of the variance, but not for the written group, accounting for only 4% of the variance. This finding cannot be explained by the experimental manipulation of videos, since they had not been presented yet to the video group. The MCSDS was also significantly predictive of performance on the vignettes for the video group, accounting for 17% and 13% of the variance on each vignette. For the written group, less than 1% of the variance in vignette performance was accounted for by social desirability. This finding contradicted the 4<sup>th</sup> hypothesis, that social desirability would have a weaker relationship with problem

solving performance for the video group. The basis for this hypothesis, however, was that video group participants once emotionally activated would engage in habitual cognitive scripts and behavioral repertoires learned from observational experiences, with little or no motivation to appear favorable. An alternative explanation is that video group participants were emotionally activated, which led them to try to control how they presented themselves.

According to the third hypothesis, a stronger relationship was expected between problem solving vignettes and role-plays for the video group. If participants in the video group were emotionally aroused and upset, then they would be prone to provocation of defective and aggressive problem solving behaviors in the role-plays. Findings from correlational analyses did not support the third hypothesis. This does not necessarily mean that video group participants were not emotionally activated and that the activation had no effect on their performance in the role-play. But the results demonstrated that performance on the vignettes did not predict problem solving in role-play scenarios. Reasons for the limited relationship are not clear. Social desirability had a significantly greater impact on vignette than on role-play performance, suggesting that the role-plays may have been a more accurate or less tainted measure of an individual's problem solving skills in real-world situations.

Video and written group participants performed comparably on the vignettes and role-plays based on the scoring systems developed for the current study. The 5<sup>th</sup> hypothesis suggested that the written group would be more affected by social desirability and less affected by emotional arousal. In fact, social desirability accounted for 13-17% of the variance in vignette performance for the video group, and less than 1% for the

written group. One possible interpretation is that social desirability somewhat inflated the scores for the video group. But there were no consistent differences between video and written groups on the role-play performance, a measure that was much less impacted by social desirability.

#### Qualitative Assessment and Emotional Activation

The role of emotional activation was examined in the analyses addressed above through comparisons between video and written groups on measures of problem solving appraisal and performance. A different approach is to compare participants' scores with qualitative thresholds. The mean SPSI-R-SF score from the D'Zurilla et al. (1997) college student sample was used as a measure of quality level self-reported problem solving ability. Someone scoring at or above this point believes his or her social problem solving skills to be good. Over 80% of participants in the current study endorsed problem solving skills above the college score mean. These percentages were about the same for video and written groups. On performance measures, in contrast, between 0% and 50% of participants met the quality threshold on any single measure. The most interesting finding, however, was that video participants performed more poorly than written group participants on every performance measure. Marked and consistent discrepancies between the groups were not revealed through quantitative analyses using the scoring system. But when a quality threshold was introduced, the written group participants tended to do a better job in demonstrating quality skills.

Reasons for the difference in quality performance are not clear. Perhaps fewer participants randomly assigned to the video group were capable of quality level problem

solving skills. Cognitive ability and personality characteristics such as conscientiousness are variables that likely influence problem solving ability. These measures were not collected to determine possible distribution inequality in this sample. High school graduation rates were comparable for both groups. Cognitive ability or other confounding variables might have been more salient once quality of performance was taken into account.

Another interpretation is that the video group was more emotionally activated. This paper theorizes that emotional activation triggers cognitive scripts and behavioral reactions learned from observing and participating in previous problem solving situations. Moreover, because the participants in this study are violent offenders, they are believed to engage in defective and aggressive behaviors when confronted with interpersonal problems. If this theory is accurate, then emotionally aroused participants would be expected to demonstrate problem solving skills that fail to reach a good enough standard. Emotional activation could account for the finding that no member of the video group was able to exhibit a positive problem solving behavior on the first role-play. Written group participants also performed below the quality standard, but whereas 35.3% to 50% of written group participants met the standard, 0% to 31.6% of video group participants demonstrated quality level problem solving performance.

### Limitations

Problem solving performance has not yet received the attention it deserves in the literature field. Most papers in the field address the development and application of problem solving appraisal measures. These measures are often misinterpreted as

measures of one's problem solving ability. Problem solving performance is a difficult construct to assess. Studies that have attempted to measure it inevitably devise a scoring system according to a theory determined by the authors. There are no standardized approaches to problem solving behavioral assessment. Theories and associated coding protocols are vulnerable to bias and error. The current study introduced two measures of problem solving performance. Each measure required the participant to disclose thoughts and engage in behaviors requested by the task, which were then scored by graduate assistants based on a coding scheme. Participants may or may not have behaved as they would have in an actual real-world problem solving situation. The scoring systems may have failed to account for all variables that differentiate effective from ineffective social problem solving.

The primary purpose of the current study was to examine the role of emotional activation in interpersonal problem solving. Research from social learning and social cognition supported the use of videos as a means of triggering habitual, learned cognitive scripts and behavioral repertoires. Videos of problem solving situations similar to what the participants experienced in real-world encounters were expected to stimulate anger and aggression. Several limitations should be identified here. First, the scenarios illustrated in the videos may not have been relevant to participants. There were three categories of videos: domestic adult, domestic child, and nondomestic. An individual was presented with two videos depending on the nature of the index offense. So, if a person committed an offense against a child, that individual watched videos of interpersonal problems involving an adult and an adolescent. One scenario is about an adolescent who comes home late and the other scenario is of an adolescent who wants to

go to a party. If a participant's offense had been against a four year-old child making too much noise in the house, these two scenarios may not be relevant enough to elicit emotional arousal. Similarly, the nondomestic scenarios were of someone arriving late for work and someone not being able to sleep because of the neighbor's barking dog. A participant who has had no problems with being late for work and has not experienced frustration stemming from dogs or neighbors may not identify with characters in these vignettes.

Second, emotional activation in the current study was assumed to generate from the videos. Only the video participants were presented with videos, so presumably the video participants should show emotional arousal and the written participants should not. But in reality there were other sources of emotional activation that were not limited to the video participants. For instance, the problem solving exercises were administered within the context of a forensic risk assessment. Forensic evaluations are commonly associated with defensiveness and a range of emotions centered particularly around anger, shame, and sadness. Memories of one's criminal offense, thoughts of punishment for the offense, worries about getting off probation, and expectations about therapy may have been triggered during the course of the assessment and were an added source of emotional activation. The role-plays also added in a source of emotional arousal, as graduate assistants began each role-play with emotionally charged prompts and invoked subsequent charged prompts if the participant's response was a negative behavior. Role-play prompts potentially generated emotional arousal for written group participants, confounding comparisons between groups on role-play performance.

A third limitation relates to the proposed view that emotional activation stimulated by videos interfered with problem solving. The theory of video as a trigger for learned aggressive and defective problem solving behaviors was based on aggression research by Bandura and other social learning theorists. People observe aggressive reactions in problem solving situations depicted in movies or television. Individuals then mimic these reactions in their own interpersonal conflicts. The opposing argument, of course, is that video does not necessarily contribute to defective problem solving. Advantages of video assessment include its attention focusing effect, incorporation of verbal and nonverbal information, and research identifying video as an ideal means of educating individuals who are less knowledgeable or who struggled in school. These characteristics may have enabled participants in the video group to better understand the circumstances of the problem scenarios. Increased attention and access to more information may have elevated vignette performance scores for the video group. Given that social desirability played a more prominent role in video group performance, the emotional activating and learning facilitating qualities of video could conceivably minimize evidence of habitual aggressive or defective problem solving tendencies.

The theory of this paper concerning the experience of emotional activation was a final limitation. Emotional activation was expected to induce angry and aggressive responding. Presumably if an individual is presented with a video scene of a previously confronted interpersonal conflict, the individual may be reminded of past conflict situations, feel anger towards a character in the video, and feel urges to react in habitual, aggressive behaviors. But emotion, as discussed earlier in this discussion section, is a constantly changing, elusive experience. Some participants may have felt relief by the

realization that they are not presently in the depicted scenario. Other participants may have been drawn to thoughts about what the graduate student is expecting of him or her in the assessment, leading to a favorable presentation and blocking out emotions of anger.

#### Contributions to the Social Problem Solving Research Field

Further efforts at assessing problem solving performance or problem solving in real-world situations is needed. Many studies continue to rely on problem solving appraisal measures as indications of problem solving ability. When decisions regarding an offender's risk for future violent behavior are on the line, a self-report problem solving instrument will present an inflated judgment of the offender's problem solving abilities. In the current study, over 80% of participants endorsed social problem solving skills above the mean of a college sample.

This study offered two new forms of social problem solving behavioral assessment. These approaches were intended to be used in tandem, with emotional activation generated by videos impacting interpersonal problem solving behavior in role-play situations. There was minimal relationship between the results of these two assessment methods, however. The vignette method was moderately correlated with problem solving appraisal and social desirability, suggesting that the vignette functioned more as a self-report. Problem solving appraisal and social desirability did not predict performance in the role-plays. Role-plays may be an effective behavioral approach to evaluating social problem solving skills.

Both problem solving performance methods in this study were being used for the first time. The scoring systems for each were closely based on previously developed

scoring systems for vignettes and role-plays. But further studies on these two methods may be necessary to confirm that they are tapping the same social problem solving construct.

Although conclusions from this study about the role of emotional activation were unclear, risk assessment should make greater efforts to utilize emotional arousing stimuli. Violent offenders are commonly assessed in laboratory like surroundings barren of environmental factors that elicited aggressive and defective problem solving behaviors at the time of the offense. The evaluator may be able to induce emotional arousal through intentionally produced angry affect and communication style, as graduate assistants did with the emotionally charged prompts. But in some cases the offender may then refuse to open up to the evaluator, cutting off access to important historical and clinical information. Instead a manner of assessment is recommended in which emotional arousal is produced, but the evaluator is able to maintain a good collaborative relationship with the evaluated offender. Videos represent an intriguing means of recreating emotionally arousing interpersonal conflicts. One way of making videos more emotionally arousing in the current study would have been to select videos for the assessment dependent on information collected during a prior interview. This would, however, require a research program to develop many videos of problem solving scenarios to fit most types of interpersonal conflicts and a diversity of age and gender.

Tracking emotional activation presents many challenges. In the current study, rating forms were not successful in discriminating video and written groups. There may not have been differences in arousal between the groups, but findings on social desirability and quality discrepancies on problem solving performance measures

suggested that emotional arousal might have been playing a role. Rating forms would have been more sensitive in the current study if they had been administered immediately after observation of videos in the video group or reading the vignette in the written group. A break of 10 minutes or more between presentation of the videos and collection of the emotional ratings may have compromised accurate report of emotions. Rating forms, on the other hand, may not be necessary if a widely supported theory emerges concerning expected associations among social desirability, problem solving appraisal, and problem solving performance. Ideally, future studies on the impact of emotional activation in problem solving performance will incorporate cognitive ability and personality assessment to help interpret the role of emotional activation.

## **APPENDICES**

**APPENDIX A**  
**CONSENT FORM**  
**CENTRAL MICHIGAN UNIVERSITY**

**Consent Form**

I, \_\_\_\_\_, agree to participate in this study conducted by Christopher Udell, M.A. (Phone 989-621-2282) and George Ronan, Ph.D. (Phone 989- 774-2824). I understand that this participation is entirely voluntary and I can withdraw my consent at any time. My decision not to participate in this study will have no effect on my status in the Violence Reduction Training Program. Nor will the court or my probation officer be notified of my decision to participate or not participate in this study.

**Purpose:** This study is an extension of research conducted by the Violence Reduction Training Program (VRTP). The purpose of the study is to see how individuals court-mandated to the V RTP behave in problem situations similar to what you experience in every day life.

**Procedures:** You will first be asked to fill out an inventory. You will then be presented with stories of hypothetical problem situations. Some questions follow the stories and you will be asked to respond to the questions. Finally, a few problem situations will be described to you and you will be asked to respond to statements following each description. This portion of the study will be videotaped.

**Risks:** The scenarios that will be presented consist of problem situations you may have faced in the past. Some of these situations might lead you to feel angry or uncomfortable. Information regarding mental health services in the community will be provided after completion of the study in case you feel like speaking to someone.

**Benefits:** Your participation in this study will help us better understand how people deal with various problem situations. The findings will be used to improve evaluation and treatment in the V RTP.

**Confidentiality:** We appreciate your participation in this study and recognize your need for privacy. Results from this study will be reported as group statistics and your identity will be kept strictly confidential. Your responses will be signified by an ID number and your name will not appear on any materials. Only members of the V RTP lab will have access to any information obtained during the experiment. Videotaped material will be destroyed at the conclusion of the study. The only exception to confidentiality is if you report plans to hurt yourself or others. We are ethically bound to break confidentiality to try to keep you from coming to harm.

**Please initial here to indicate that you (1) consent to be videotaped and, (2) understand the conditions under which the interviewer may break confidentiality in the interests of your health: \_\_\_\_\_**

**Questions:** If you do have any concerns about the risks or benefits of participating in this study, you are encouraged to contact Christopher J. Udell or his advisor, Dr. George Ronan, in the Carls Center at 989-774-2824. A copy of this consent form will be given to you to keep in case you have questions later.

My signature below verifies that I am at least 18 years old and voluntarily agree to participate in this study. I have read, as well as understand, the information that has been provided.

---

Signature of Investigator

---

Investigator's printed name

---

Signature of Participant

---

Participant's printed name

---

Date

**APPENDIX B**  
**DEMOGRAPHIC INFORMATION**

**Page 1**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Home Address: \_\_\_\_\_  
\_\_\_\_\_

Age: \_\_\_\_\_

Home Phone: \_\_\_\_\_

Sex: \_\_\_\_\_

Work Phone: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

What is the name of your probation officer? \_\_\_\_\_

**Current Concerns**

How did you find out about our program? \_\_\_\_\_

What is the main reason why you are interested in this program?  
\_\_\_\_\_  
\_\_\_\_\_

How often are you troubled by this difficulty?

constantly       several times a week       once every month  
 several times a day       once a week       once every few months  
 once a day       several times a month       once a year

Please **check and rate** the statement that best describes your situation (**check only one**):

"I don't have a problem with aggression. In my situation, someone else was at fault."

"I may have a problem with aggression, but am unsure what to do about it."

"I have a definite aggression problem and am making a conscious effort to change."

**Employment**

What is the highest grade of school completed? \_\_\_\_\_

What is your occupation? \_\_\_\_\_

What was your approximate income last year? \_\_\_\_\_

Are you currently employed: yes no If yes, is it part time or full time?

If unemployed, when was the last time you worked full time for a complete year? \_\_\_\_\_

**History of Present Family**

How many times have you been married? \_\_\_\_\_ (0 = never)

Are you currently living with a spouse or mate? yes no

If yes, please complete the following:

Mate's first name: \_\_\_\_\_ Mate's age: \_\_\_\_\_ Mate's occupation: \_\_\_\_\_

Has your mate been previously married? yes no If yes, how many times? \_\_\_\_\_

How would you rate your relationship with your current spouse or mate?

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

Never            Rarely            Sometimes            Usually            Always  
get along        get along        get along        get along        get along

Comments \_\_\_\_\_

Are there children currently living with you? yes no

If yes, what are their ages? \_\_\_\_\_

Has your partner or child(ren) ever been treated for an emotional problem? yes no

Is yes, who and for what reasons \_\_\_\_\_

**Mental Health History**

Have you ever received help for an emotional problem? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, where did you receive this help? \_\_\_\_\_

When did you receive this help? \_\_\_\_\_

and what were you treated for? \_\_\_\_\_

Are you currently taking medication for an emotional problem? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, what are the names of the medication(s)? \_\_\_\_\_

Who prescribed the medication? \_\_\_\_\_

Did anyone in your biological family ever receive counseling? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, who \_\_\_\_\_ and for what reason \_\_\_\_\_

**Medical History**

Name of current doctor \_\_\_\_\_

Address \_\_\_\_\_

I would rate my physical health as (circle one):

Poor-----Fair-----Average-----Good-----Excellent

Have you ever been treated by a physician for a serious medical problem or injury?

\_\_\_\_\_ yes \_\_\_\_\_ no

If yes, please explain \_\_\_\_\_

Are you currently taking medication(s) for physical problems? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, name of medication(s): \_\_\_\_\_

Who prescribed the medication(s)? \_\_\_\_\_

Do you drink alcohol? \_\_\_\_\_ yes \_\_\_\_\_ no

Has alcohol ever caused you any problems? \_\_\_\_\_ yes \_\_\_\_\_ no

How much alcohol do you drink in a week? \_\_\_\_\_

How much alcohol do you drink in a month? \_\_\_\_\_

### **Military History**

Did you serve in the U.S. Military? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, when did you serve? \_\_\_\_\_ to \_\_\_\_\_ What branch? \_\_\_\_\_

Did you serve in a combat zone while in the military? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, where did you serve? \_\_\_\_\_

and for how long? \_\_\_\_\_

### **Past Aggression History**

Have you ever been referred for, or have you previously attended, Violence Reduction

Training? \_\_\_\_\_ yes \_\_\_\_\_ no

If yes, when did the training occur? \_\_\_\_\_

and where did the training take place? \_\_\_\_\_

Did you complete the training? \_\_\_\_\_ yes \_\_\_\_\_ no Was the training helpful? \_\_\_\_\_ yes \_\_\_\_\_ no

In your opinion, please rate the likelihood that you will complete the current Violence

Reduction program?

0-----1-----2-----3-----4-----5-----6-----7-----8-----9-----10

I am 100% sure that  
I will not complete  
the program

There is a 50-50 chance  
that I will complete  
the program

I am 100% sure that  
I will complete  
the program

**Additional Concerns**

Please check any of the following that apply to you during the past month. Place an asterisk (\*) next to those items which are most distressing.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> headaches       | <input type="checkbox"/> feel panicky           | <input type="checkbox"/> can't make friends |
| <input type="checkbox"/> temper          | <input type="checkbox"/> alcohol                | <input type="checkbox"/> hate to be alone   |
| <input type="checkbox"/> cry easily      | <input type="checkbox"/> unable to relax        | <input type="checkbox"/> take drugs         |
| <input type="checkbox"/> no appetite     | <input type="checkbox"/> conflicted             | <input type="checkbox"/> feel depressed     |
| <input type="checkbox"/> lonely          | <input type="checkbox"/> suicidal               | <input type="checkbox"/> legal problems     |
| <input type="checkbox"/> fainting spells | <input type="checkbox"/> financial problems     | <input type="checkbox"/> sexual problems    |
| <input type="checkbox"/> anger           | <input type="checkbox"/> shy with people        | <input type="checkbox"/> sweating a lot     |
| <input type="checkbox"/> dizziness       | <input type="checkbox"/> memory problems        | <input type="checkbox"/> homicidal          |
| <input type="checkbox"/> can't get a job | <input type="checkbox"/> unable to enjoy self   | <input type="checkbox"/> work too much      |
| <input type="checkbox"/> nightmares      | <input type="checkbox"/> don't like weekends    | <input type="checkbox"/> can't concentrate  |
| <input type="checkbox"/> feeling tired   | <input type="checkbox"/> can't control feelings | <input type="checkbox"/> stomach trouble    |
| <input type="checkbox"/> feel tense      | <input type="checkbox"/> can't make decisions   | <input type="checkbox"/> take sedatives     |
| <input type="checkbox"/> tremors         | <input type="checkbox"/> home conditions bad    | <input type="checkbox"/> trouble sleeping   |
| <input type="checkbox"/> allergies       | <input type="checkbox"/> generally feel uneasy  | <input type="checkbox"/> religious faith    |

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

APPENDIX C  
SOCIAL PROBLEM-SOLVING INVENTORY-REVISED-  
SHORT FORM

Instructions

Below are some ways that you might think, feel, and act when faced with **PROBLEMS** in everyday living. We are **not** talking about the common hassles and pressures that you handle successfully everyday. In this questionnaire, a **problem** is something important to your life that bothers you a lot but you don't know immediately how to make it better or stop it from bothering you so much. The problem could be something about yourself (such as your thoughts, feelings, behavior, health or appearance), your relationships with other people (such as your family, friends, teachers, or boss), or your environment and the things that you own (such as your house, car, property, money). Please read each statement carefully and choose one of the numbers below that best shows how much the statement is true of you. See yourself as you **usually** think, feel, and act when you are faced with important problems in your life **these days**. Put the number that you choose on the line before the statement.

- 0 = Not at all true of me  
1 = Slightly true of me  
2 = Moderately true of me  
3 = Very true of me  
4 = Extremely true of me

1. \_\_\_\_\_ I feel threatened and afraid when I have an important problem to solve.
2. \_\_\_\_\_ When making decisions, I do **not** evaluate all my options carefully enough.
3. \_\_\_\_\_ I feel nervous and unsure of myself when I have an important decision to make.
4. \_\_\_\_\_ When my first efforts to solve a problem fail, I know if I persist and do not give up too easily, I will be able to eventually find a good solution.
5. \_\_\_\_\_ When I have a problem, I try to see it as a challenge, or opportunity to benefit in some positive way from having a problem.
6. \_\_\_\_\_ I wait to see if a problem will resolve itself first, before trying to solve it myself.
7. \_\_\_\_\_ When my first efforts to solve a problem fail, I get very frustrated.
8. \_\_\_\_\_ When I am faced with a difficult problem, I doubt that I will be able to solve it on my own no matter how hard I try.

9.     \_\_\_\_ Whenever I have a problem, I believe that it can be solved.
10.    \_\_\_\_ I go out of my way to avoid having to deal with problems in my life.

0 = Not at all true of me  
1 = Slightly true of me  
2 = Moderately true of me  
3 = Very true of me  
4 = Extremely true of me

11.    \_\_\_\_ Difficult problems make me very upset.
12.    \_\_\_\_ When I have a decision to make, I try to predict the positive and negative consequences of each option.
13.    \_\_\_\_ When problems occur in my life, I like to deal with them as soon as possible.
14.    \_\_\_\_ When I am trying to solve a problem, I go with the first good idea that comes to mind.
15.    \_\_\_\_ When I am faced with a difficult problem, I believe I will be able to solve it on my own if I try hard enough.
16.    \_\_\_\_ When I have a problem to solve, one of the first things I do is try to get as many facts about the problem as possible.
17.    \_\_\_\_ I put off solving problems until it is too late to do anything about them.
18.    \_\_\_\_ I spend more time avoiding my problems than solving them.
19.    \_\_\_\_ Before I try to solve a problem, I set a specific goal so that I know exactly what I want to accomplish.
20.    \_\_\_\_ When I have a decision to make, I do **not** take the time to consider the pros and cons of each option.
21.    \_\_\_\_ After carrying out a solution to a problem, I try to evaluate as carefully as possible how much the situation has changed for the better.
22.    \_\_\_\_ When a problem occurs in my life, I put off trying to solve it for as long as possible.
23.    \_\_\_\_ When I am trying to solve a problem, I think of as many options as possible until I cannot come up with any more ideas.

24.  When making decisions, I go with my “gut feeling” without thinking too much about the consequences of each option.
25.  I am too impulsive when it comes to making decisions.

## APPENDIX D

### TRAIT ANGER SCALE (TAS)

A number of statements that people have used to describe themselves are given below. Read the statements and indicate how you GENERALLY feel by placing the appropriate number next to each item.

1 = Almost never

2 = Sometimes

3 = Often

4 = Almost always

- 1. I have a fiery temper.
- 2. I am "quick tempered."
- 3. I am a hotheaded person.
- 4. I get annoyed when I am singled out for correction.
- 5. It makes me furious when I'm criticized in front of others.
- 6. I get angry when I'm slowed down by others' mistakes.
- 7. I feel infuriated when I do a good job and get a poor evaluation.
- 8. I fly off the handle.
- 9. I feel annoyed when I am not given recognition for doing good work.
- 10. People who think they are always right irritate me.
- 11. When I get mad, I say nasty things.
- 12. I feel irritated.
- 13. I feel angry.
- 14. When I get frustrated, I feel like hitting someone.
- 15. It makes my blood boil when I am pressured.

## APPENDIX E

### AGGRESSION QUESTIONNAIRE

\*Items in bold print represent items on the Physical Aggression subscale

A number of statements that people have used to describe themselves are listed below. Read these statements and indicate how they describe you by placing the appropriate number next to each item.

- 1 = Least like me
- 2 = Slightly like me
- 3 = Moderately like me
- 4 = Mostly like me
- 5 = Extremely like me

- 1. Once in a while I can't control the urge to strike another person.
- 2. I tell my friends openly when I disagree with them.
- 3. I flare up quickly but get over it quickly.
- 4. I am sometimes eaten up with jealousy.
- 5. Given enough provocation, I may hit another person.
- 6. I often find myself disagreeing with people.
- 7. When frustrated, I let my irritation show.
- 8. At times, I feel like I have gotten a raw deal out of life.
- 9. If somebody hits me, I hit back.
- 10. When people annoy me, I may tell them what I think of them.
- 11. I sometimes feel like a powder keg ready to explode.
- 12. Other people always seem to get the breaks.
- 13. I get into fights a little more than the average person.

14. I can't help getting into arguments when people disagree with me.

1 = Least like me

2 = Slightly like me

3 = Moderately like me

4 = Mostly like me

5 = Extremely like me

       15. I am an even tempered person.

       16. I wonder why sometimes I feel so bitter about things.

       17. If I have to resort to violence to protect myself, I will.

       18. My friends say that I'm somewhat argumentative.

       19. Some of my friends think I'm a hot head.

       20. I know that "friends" talk about me behind my back.

       21. There are people who pushed me so far that we came to blows.

       22. Sometimes I fly off the handle for no good reason.

       23. I am suspicious of overly friendly strangers.

       24. I can think of no good reason for ever hitting a person.

       25. I have trouble controlling my temper.

       26. I sometimes feel that people are laughing behind my back.

       27. I have threatened people I know.

       28. I have become so mad that I have broken things.

       29. When people are especially nice, I wonder what they want.

## APPENDIX F

### CONFLICT TACTICS SCALE-FORM N-1

\*Items in bold print represent items on the Violence subscale

No matter how well a couple gets along, there are times when they disagree on major decisions, get annoyed about something the other person does, or just have spats or fights because they're in a bad mood or tired or for some other reason. They also use many different ways of trying to settle their differences. Below is a list of some things that you and your spouse/partner might have done when you had a dispute, and we would like you to write a number in the space provided for each of the things listed below to show how often **YOU** did what it says this past year.

0 = Never  
1 = Once  
2 = Twice  
3 = 3-5 times  
4 = 6-10 times  
5 = 11-20 times  
6 = More than 20 times  
X = Don't know

- A. Discussed the issue calmly
- B. Got information to back up my side of things
- C. Brought in or tried to bring in someone to help settle things
- D. Insulted or swore at the other one
- E. Sulked and/or refused to talk about it
- F. Stomped out of the room or house (or yard)
- G. Cried
- H. Did or said something to spite the other one
- I. Threatened to hit or throw something at the other one
- J. Threw or smashed or hit or kicked something
- K. Threw something at the other one
- L. Pushed, grabbed, or shoved the other one
- M. Slapped the other one
- N. Kicked, bit, or hit with a fist
- O. Hit or tried to hit with something
- P. Beat up the other one
- Q. Threatened with a knife or gun
- R. Used a knife or gun
- S. Other (please specify):

**APPENDIX G**  
**STAGES OF CHANGE QUESTIONNAIRE**

**INSTRUCTIONS**

Please read each statement and select one of the numbers below that indicates the extent to which the statement is true for you.

- 1 = Not at all true of me
- 2 = Slightly true of me
- 3 = Moderately true of me
- 4 = Very true of me
- 5 = Extremely true of me

1. ( ) As far as I'm concerned, I don't have any problems that need changing.
2. ( ) I think I might be ready for some self-improvement.
3. ( ) I am doing something about the problems that had been bothering me.
4. ( ) It might be worthwhile to work on my problem.
5. ( ) I'm not the problem one. It doesn't make sense for me to be here.
6. ( ) It worries me that I might slip back on a problem I have already changed, so I am here to seek help.
7. ( ) I am finally doing some work on my problems.
8. ( ) I've been thinking that I might want to change something about myself.
9. ( ) I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.
10. ( ) At times my problem is difficult, but I'm working on it.
11. ( ) Being here is pretty much of a waste of time for me because the problem doesn't have to do with me.
12. ( ) I'm hoping this place will help me to better understand myself.
13. ( ) I guess I have faults, but there's nothing that I really need to change.
14. ( ) I am really working hard to change.
15. ( ) I have a problem and I really think I should work on it.

16. ( ) I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.

- 1 = Not at all true of me
- 2 = Slightly true of me
- 3 = Moderately true of me
- 4 = Very true of me
- 5 = Extremely true of me

17. ( ) Even though I'm not always successful in changing, I am at least working on my problem.

18. ( ) I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it.

19. ( ) I wish I had more ideas on how to solve my problem.

20. ( ) I have started working on my problems but I would like help.

21. ( ) Maybe this place will be able to help me.

22. ( ) I may need a boost right now to help me maintain the changes I've already made.

23. ( ) I may be part of the problem, but I don't really think I am.

24. ( ) I hope that someone here will have some good advice for me.

25. ( ) Anyone can talk about changing; I'm actually doing something about it.

26. ( ) All this talk about psychology is boring. Why can't people just forget about their problems?

27. ( ) I'm here to prevent myself from having a relapse of my problem.

28. ( ) It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved.

29. ( ) I have worries but so does the next person. Why spend time thinking about them?

30. ( ) I am actively working on my problem.

31. ( ) I would rather cope with my faults than try to change them.

32. ( ) After all I had done to try to change my problem, every now and again it comes back to haunt me.

## APPENDIX H

### MARLOW-CROWNE SOCIAL DESIRABILITY SCALE

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you.

- |   |   |  |
|---|---|--|
| T | F | 1. Before voting I thoroughly investigate the qualifications of all candidates.                                      |
| T | F | 2. I never hesitate to go out of my way to help someone in trouble.  |
| T | F | 3. It is sometimes hard for me to go on with my work if I am not encouraged.   |
| T | F | 4. I have never intensely disliked anyone.   |
| T | F | 5. On occasion I have had doubts about my ability to succeed in life.  |
| T | F | 6. I sometimes feel resentful when I don't get my way.   |
| T | F | 7. I am always careful about my manner of dress.   |
| T | F | 8. My table manners at home are as good as when I eat out in a restaurant.   |
| T | F | 9. If I could get into a movie without paying and be sure I was not seen, I would probably do it.                    |
| T | F | 10. On a few occasions, I have given up doing something because I thought too little of my abilities.                |
| T | F | 11. I like to gossip at times.   |
| T | F | 12. There have been times when I felt like rebelling against people in authority even though I knew they were right. |
| T | F | 13. No matter who I'm talking to I'm always a good listener.   |
| T | F | 14. I can remember "playing sick" to get out of something.   |
| T | F | 15. There have been occasions when I took advantage of someone.  |
| T | F | 16. I'm always willing to admit it when I make a mistake.  |
| T | F | 17. I always try to practice what I preach.  |

- T F 18. I don't find it particularly difficult to get along with loudmouth, obnoxious people.
- T F 19. I sometimes try to get even, rather than forgive and forget.
- T F 20. When I don't know something I don't at all mind admitting it.
- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to return a favor.
- T F 26. I have never felt annoyed when people expressed ideas very different from my own.
- T F 27. I never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.
- T F 30. I am sometimes irritated by people who ask favors of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.

## APPENDIX I

### STRUCTURED CLINICAL INTERVIEW FOR THE DIAGNOSTIC AND STATISTICAL MANUAL OF MENTAL DISORDERS, AXIS II (SCID-II) PERSONALITY QUESTIONNAIRE

\*Only items assessing violent behavior selected for inclusion in the current study are presented here.

- |   |    |     |
|---|----|-----|
| 102. Do you hit people or throw things when you get angry?  | No | Yes |
| 105. Before you were 15, would you bully or threaten other kids?  | No | Yes |
| 106. Before you were 15, would you start fights?  | No | Yes |
| 107. Before you were 15, did you hurt or threaten someone with a weapon, like a bat, brick, broken bottle, knife or gun?      | No | Yes |
| 108. Before you were 15, did you deliberately torture someone or cause someone physical pain and suffering?                   | No | Yes |
| 110. Before you were 15, did you rob, mug, or forcibly take something from someone by threatening him or her?                 | No | Yes |
| 111. Before you were 15, did you force someone to have sex with you, to get undressed in front of you, or touch you sexually? | No | Yes |

## APPENDIX J

### HCR-20 VIOLENCE RISK ASSESSMENT SCHEME

\*Only the first two sets of questions assessing violent behavior selected for inclusion in the study are presented here.

1. History/Level of Previous Violence: 0      1      2

CODING INSTRUCTIONS:

Code "0" for No Previous Violence.

Code "1" for Possible/less serious previous violence (one or two acts of moderately severe violence).

Code "2" for Definite/serious previous violence (three or more acts of violence or any acts of severe violence).

Q. How many times have you been violent in the past?

---

Q. What happened?

---

---

Q. Was there any injury to the other person(s)?

---

---

Q. Were you injured by the other person(s)?

---

---

2. Young Age at First Violent Incident: 0      1      2

CODING INSTRUCTIONS:

Code "0" for 40 years of age or older at first known violent act.

Code "1" for between 20 and 39 years of age at first known violent act.

Code "2" for under 20 years of age at first known violent act.

Q. When was the first time you remember acting violent or aggressive?

---

---

**Q. What was the incident that you remember?**

---

---

---

## APPENDIX K

### TRANSCRIBED TEXT FROM VIDEOS (WRITTEN VIGNETTES)

#### Vignette 1

(At home)

**Bill:** "That damn car broke down on the way home again. Now we're going to have to pay someone to fix it. This sucks. I'm starving, did you make dinner?"

**Kate:** "You were supposed to pick up KFC."

**Bill:** "Damn it. I forgot. Can you make something"

**Kate:** "I don't have time. Make a sandwich. We're going to Erica's party remember? I have to get ready."

**Bill:** "I don't want to go to a stupid party. I just want to eat and relax. Can't we stay home?"

**Kate:** "You always back out when I want to do something, you promised you would go. Besides, I'm sure there will be food at the party. You can eat there."

(At the party)

Bill is standing alone, mumbling to himself, as he watches Kate, who is standing on the other side of the room, socializing with her friends.

**Bill:** "First she makes me come to this stupid party when she knew I didn't want to go. Then she lies to me; there isn't any food at this party. And she spends all night with her friends and doesn't say a damn word to me. I don't want to be here. She doesn't even bother to see if I'm having a good time."

(At home)

**Kate:** "I had a lot of fun tonight. Didn't you? I'm glad I got to hang out with the girls. We haven't gotten together in so long."

Kate tries to kiss Bill goodnight, but Bill turns away and goes to bed. Kate makes a confused face as she turns out the light

(Next morning)

**Kate:** "What is wrong with you? You didn't say a word all night."

**Bill:** "Oh, so now you're talking to me."

**Kate:** "What are you talking about? When wasn't I talking to you?"

**Bill:** "You didn't say a word to me all night. All you did was talk to your stupid friends."

**Kate:** "I wasn't ignoring you. I thought you were with the guys. You could have come talk to me at any time."

**Bill:** "You made it clear you didn't want me around. Besides, that's not the only thing. I never got to eat dinner last night because you had to spend time getting ready for the party. You told me there would be food, and there wasn't."

**Kate:** "Oh my God enough about the food already. I'm sorry. I thought there would be food. Why are you being such a jerk about this? You make it sound as if I purposely tried to starve you and ignore you all night."

**Bill:** "That's because you did! And you've done it before. Whenever you get around your friends, it's like I don't exist. And you always have to hang out with your friends, even when I don't want to."

**Kate:** "Bill you need to relax. I'm going upstairs and we talk about this later."

Kate attempts to leave the room, but Bill, outraged, grabs her in an attempt to keep her from leaving.

## Vignette 2

(At home)

Mark is having a difficult morning. He woke up later than usual, spilled coffee on himself, and can't find his keys. As a result, he arrives to work late and is confronted by his boss.

**Sheila:** "Mark, this is your third time being late this month. Last time I warned you that if you were late again I would have to write you up."

**Mark:** "But I'm only 15 minutes late this time."

**Sheila:** "It doesn't matter, I have to write up a disciplinary report and place it in your file."

**Mark:** "Look I really need this job, it's not my fault. Why can't you just give me a break?"

**Sheila:** "I gave you a break the last two times and obviously it did not work."

**Mark:** "Damn it. I've been trying to get into work on time. You've had it in for me since I started this job three months ago."

**Sheila:** "Mark, this is a small shop and everyone works together. John can't start until you are here and others depend on his work. If you can't get here on time we will have to find someone who can."

**Mark:** "That bastard John never does his work anyway." Mark stomps his foot.  
"You're just being a bitch."

**Sheila:** "You know what, I have asked you before not to use that type of language. I am going to recommend to Mr. Plata that you receive a week suspension without pay."

Mark walks out and slams the door.

### **Vignette 3**

Mom is pacing around room, very tense and clenched up, chain smoking. She hears a car pull up and knows that it is Becky.

**Mom:** "Where the hell have you been? Do you know what time it is?"

**Becky:** "Shut up. I told you I was going to Janie's house."

**Mom:** "Well, how come when I called Janie's mom, she told me that Janie had been in bed since 11?"

**Becky:** "I don't know. Maybe she was lying."

**Mom:** "I don't think she was lying, I think that you are lying. And I don't like it one bit!"

**Becky:** "Why are you so pissed? Why don't you just go to bed instead of sitting around waiting to get in my business?"

**Mom:** "Do you realize that it's 2:30 in the morning, and I have to be at work at 5? And I have been up worrying about you all night. Where have you been?"

**Becky:** "Why do you care? I'm 16 years old; I think I know how to take care of myself."

**Mom:** "Oh, you think you're so responsible, and you can't even follow a simple rule and come home by your curfew. What, were you out with that piece of trash, Mark?"

**Becky:** "Don't talk about him like that! You're the piece of trash!"

**Mom:** "You WERE out with him! Damn it, Becky, this is the last time. You're grounded!"

**Becky:** "Fuck this! I'm outta here! If you don't like him, then I'm moving out. You are always in my business. You never leave me alone."

(Becky begins to leave room to pack her things.)

**Mom:** "Get back here; you're not going anywhere."

**Becky:** "I hate you. I never want to see you again."

(Becky walks past Mom with a bag, and Mom grabs her arm.)

**Becky:** "Don't touch me!"

(Mom slaps her across the face as she says...)

**Mom:** "Don't ever talk to me like that again. Now put down your bag, and get your ass in your room."

(Becky storms off crying, and Mom collapses, exhausted on the couch, and begins to sob.)

#### Vignette 4

DJ grabs the mail and walks into the house. She opens an envelope and reads a slip of paper, and discovers that it is an overdraft notice. At that moment, Steve walks in the house with a new fishing pole. DJ gets mad and starts yelling at him.

**DJ:** "Look at this! Another overdraft notice; this is the third one this month. We have got to stop this!"

**Steve:** "Well, it's nice to see you, too."

**DJ:** "Excuse me! This isn't exactly what I want to see when I get done working a 12 hour shift. And I find out that we owe the bank another \$25. I see you bought a new fishing pole."

**Steve:** "You just bought that \$20 hair dryer last week; you didn't need that. I needed this fishing pole. You busted my other one in half, remember?"

**DJ:** "My hairdryer blew up because we're too broke to hire an electrician to fix the plug. And god forbid you get up off your lazy ass and fix anything."

**Steve:** "Look at this place; it's a pig sty. You don't do a damn thing to clean up around here, either. Look at all those dirty dishes everywhere."

**DJ:** "I work 12 hours a day, so we can pay our bills, While you go buy stupid shit we don't need. I'm sick of this."

**Steve:** "I work too, and I'm sick of not having stuff, because every time I turn around you are bringing home stuff we don't need. Last week you spent \$200 on groceries, and we don't even have anything to eat around here."

**DJ:** "Oh, I can't have anything, when you go out every other weekend on fishing trips with your friends. And I bought those groceries for the both of us. It's not my fault you ate all the food in 2 days."

**Steve:** "I don't need this shit. I'm outta here."

**DJ:** "If you walk out that door, that's it; I'm done with you."

(Steve slams the door.)

(DJ starts crying, and goes to call her friend, Kimmy.)

(On the phone)

**DJ:** "I can't take this anymore. We just fight all the time. And it always seems to revolve around money. I think I want to get a divorce. He just doesn't want to work with me."

**Kimmy:** "Oh, don't say that; things can't be that bad. You guys have only been married for 6 months."

**DJ:** "We have been miserable since the day we got married. He spends all of his time with his friends or on fishing trips. He just doesn't have time for me."

**Kimmy:** "Well, did you tell him any of this?"

**DJ:** "No, I can't talk to him. Like today, I tried to bring up our overdraft notice, and we got into a fight just like we always do, and he just left, like he always does."

**Kimmy:** "You got another overdraft notice? What are you guys doing? Maybe you guys need to work on a budget."

**DJ:** "I don't know anything about budgeting, and neither does Steve. Besides, he never wants to try to work things out. I just don't know what to do anymore."

(DJ hangs up the phone and puts her head on the table.)

### **Vignette 5**

Rob enters the living room dressed in a tux. His dad is sitting and watching television. Rob approaches his dad to let him know where he is going.

**Dad:** "What are you all dressed up for?"

**Rob:** "The dance I told you about last week."

**Dad:** "What dance? I don't remember you telling me about that!"

**Rob:** "The homecoming dance. (Looks at his watch.) Dan will be here in like 5 minutes to pick me up."

**Dad:** (sternly) "Alright, but you'd better be home by 11."

**Rob:** "Uh...I didn't plan on coming home tonight. I told you I was staying at Dan's."

**Dad:** "What?! You're not staying at his house! You know I don't approve of him."

**Rob:** "Everyone is going to be there. Besides, I know how to take care of myself. Lighten up!"

**Dad:** (sitting on the edge of his seat) "There's no way. Every time you hang out with that kid, I get a call from the police! He's trouble, and you're not staying with him! That's final!"

**Rob:** "What the hell?! The police got called once, not every time! I'm going, and you aren't stopping me! I saved for a month just to rent this stupid tux! It's not fair! You never let me do anything! You're just being an asshole!"

**Dad:** (stands up, gets in Rob's face, and grabs his arm): "What?! What did you call me?! You talk like that, and you won't be leaving the house for the next two weeks!"

**Rob:** "Mom would let me go, no problem."

**Dad:** "Well, I'm not your mother! Just because she drinks all weekend and doesn't give a damn what you are doing while you're there, does not mean I'm going to let you do whatever you want!"

**Rob:** "Dad, I told everyone I would be there! I have to go to this party!"

**Dad:** "Party?! You never said..."

The doorbell rings.

**Rob:** (pulling himself quickly from his dad's grip) "I'm outta here..."

Rob opens the door and leaves, slamming it behind him. Rob's dad, fuming, throws the TV remote at the door.

#### **Vignette 6**

Phil has been awoken multiple times by his neighbor's dog barking. The dog barks during the middle of the night, interfering with Phil's sleep. Phil decides to confront his neighbor, Rick, about the dog. He walks over to Rick's house and knocks on the door. Rick answers.

**Phil:** "Listen. You have got to shut that mangy dog of yours up at night! I've been late to work twice this week, and it's all your fault!"

**Rick** (automatically defensive): "Excuse me?! How is it MY fault you've been late? And did you say "MANGY"? I'll have you know, Mr. T is a purebred Rottweiler with papers! You've got no right marching over here..."

**Phil** (cutting Rick off): "I don't care what your dog is; a mutt's a mutt! That thing barks all night long, and you let him do it! It's got to stop! I have babies who need to sleep, too!"

**Rick:** "I never hear my dog barking. I don't know what you're talking about! You're delirious!"

**Phil** (getting in Rick's face): "Are you calling me crazy? Are you saying I'm a liar? If you don't do something about the barking, then I will!"

Phil turns and starts storming away.

**Rick** yells after him: "Is that a threat?"

**Phil**, not turning around, yells back: "It sure is! Ever hear of a 12-gauge?"

## APPENDIX L

### PROBLEM SOLVING VIGNETTE SCORING SYSTEM

#### I. Problem/goal definition

1) The first item evaluates the participant's identification of a problem that follows logically from the story. In any given vignette, multiple problems may be indicated. For instance, in vignette #1, defined problems could include that the husband's car stalled, wife did not try to spend time with husband at the party, and husband did not eat dinner before going to the party. A stated problem receives credit as long as it is relevant to the story. Scoring is as follows:

- 0      No problem identified or problem does not follow from the story
- 1      Single identified problem that follows from the story
- 2      Multiple identified problems that follow from the story

In the sample response sheet, participant identified problems of husband forgetting to bring food home and feeling like he was ignored at the party. Both responses follow from the story. A score of (2) was given in this case.

2) The second item examines the level of detail of the problem(s) defined by the participant. Problem(s) should be addressed in clear, specific terms, answering questions of who, what, where, and when. Problem should not be vague and overly general. Look at answers to questions 1 through 5 when scoring this item.

Scoring is as follows:

- 0      Poor level of detail
- 1      Adequate level of detail
- 2      Exceptional level of detail

Information provided by the participant picked up on several details of the story, but also left out some details. The score was (1) in this case.

3) The third item considers the perceived cause of the problem. Response should provide insight into the attributed cause. Information for evaluating this item will be found in responses to question 3, but may also be indicated in responses 1, 2, and 4. The maximum score is reserved for problem definitions that take into account both personal obstacles (e.g., husband did not try to fix himself something to eat) and environmental obstacles (e.g., car broke down, there was no food at the party).

Scoring is as follows:

- 0 Cause of problem is not identified
- 1 Cause of problem is attributed to personal or environmental obstacle
- 2 Cause of problem is attributed to personal and environmental obstacles

In the given example, the perceived cause was attributed to a personal obstacle (e.g., he forgot to bring food home) and an environmental obstacle (e.g., there was no food at the party), so a score of (2) was given.

4) The fourth item evaluates the extent to which the problem is reasonably interpreted. Specifically, one should look for distorted beliefs, appraisals, and assumptions.

Information can be found in the first 5 questions, though particularly in questions 2-4.

Scoring for this item is as follows:

- 1 High levels of distorted beliefs, appraisals, and assumptions
- 0 Not enough information to score
- 1 Some distorted beliefs, appraisals, and assumptions
- 2 Very few distorted beliefs, appraisals, and assumptions

In the sample response sheet, the participant accurately noted that the husband did not try to speak with anyone at the party. However, the participant suggested that the husband did not eat because his wife told him there would be food, even though she also encouraged him to make a sandwich before leaving for the party. The participant also implied that the husband didn't want to go to the party, but according to the story he had previously promised his wife he would go. Some distorted beliefs, but not an excessive amount, so the score was (1).

5) The fifth item examines the relationship between the problem and goal. The goal should be stated in specific, detailed terms, and should be relevant to the stated problem.

Scoring is as follows:

- 0      No stated goal or goal is not related to the problem
- 1      Goal is not related to the problem, but is described in limited detail
- 2      Goal is somewhat related to the problem and is described in some detail.
- 3      Goal is related to the problem and is described in adequate detail
- 4      Goal is related to the problem and is described in exceptional detail

Participant identified the goal of the husband and wife doing things they both enjoy. The goal is related to the problem, but the participant does not acknowledge that the husband had already agreed to go to the party. Thus, the problem is more than just engaging in mutually enjoyable activities. The score in this case was a (2).

## II. Information identifying the problem

This component of the scoring criteria focuses on information used to determine that a problem or problems exist. Participants may offer environmental indications of the problem, such as a car broken down or no food at the party. However, higher scores are

reserved for responses that acknowledge thoughts, behaviors, and emotions evidenced by both parties.

Scoring is as follows:

- 0      No indicators of the problem are listed
- 1      Identifies only environmental indicators of the problem
- 2      Identifies at least one thought, behavior, *or* emotion for *one or both* parties
- 3      Identifies some thoughts, behaviors, *or* emotions for *both* parties
- 4      Identifies several thoughts, behaviors, *and* emotions for *both* parties

Participant acknowledged evidence of environmental contributions to the problem, such as no food at the party. There was also identification of behaviors (e.g., husband physically restraining his wife), thoughts (e.g., thinking about not having food while at the party), and emotions (e.g., angry). However, there's no indication of thoughts, behaviors, and emotions expressed by the wife. A score of (2) was given.

### III. Solution generation

This component reflects the participant's ability to come up with relevant solutions. The score is determined by summing up the number of goal directed solutions and subtracting out solutions that were not directed at the goal. The maximum score possible is 6, so even if 10 solutions are all relevant to the goal, the score would still be 6. A minimum of four relevant solutions is required to receive the maximum score. In the sample response sheet, five solutions were offered, though one was not directly related to the goal.

Having the wife's friends come over does not appear to be something the husband would enjoy. The score was (5), since the total possible score is 6 and 1 solution was not goal directed.

#### **IV. Problem Resolution**

For each item, score the chosen solution.

1) The first item examines whether the solution is relevant to the goal. As long as the solution could be implemented to reach the goal, no matter how ineffective it may seem to be, the solution receives one point. Scoring is as follows:

0      Solution is not directed at reaching the goal

1      Solution is goal directed

In the example, the solution selected was relevant to the goal. So, the participant received a score of (1).

2) The second item evaluates whether the solution is socially acceptable. A solution that requires breaking the law or involve behavior that is harmful to others are considered socially unacceptable. Scoring is as follows:

0      Solution is not socially acceptable

1      Solution is socially acceptable

The solution selected does not break any laws, nor does it jeopardize the rights of others.

A score of (1) was given.

3) The third item evaluates whether the solution is sensitive to the needs of both parties.

Scoring is as follows:

0      Solution does not satisfy the needs of either party

1      Solution satisfies the needs of one party

2      Solution satisfies the needs of both parties

The chosen solution was mutually satisfactory to both sides, so this item was scored a (2).

4) The fourth item assesses the degree to which positive consequences outweigh negative consequences. Scoring is as follows:

- 0 Costs outweigh the benefits
- 1 Costs equal benefits
- 2 Benefits outweigh the costs

Making up a list of activities both sides enjoy doing presents more benefits than costs. A score of (2) was assigned to this item.

5) The fifth item assesses the degree to which the implemented solution resolves the problem in both the short and the long-term. Scoring is as follows:

- 0 The solution does not meet the goal in the short-term or the long-term.
- 1 The solution better meets the goal in the short-term
- 2 The solution better meets the goal in the long-term
- 3 The solution meets the goal in both the short and the long-term

In the example, the solution of making up a list of activities would appear to benefit both parties in the short and long-term.

the chosen solution ("work it out with teacher") addresses both the short-term goal (i.e., receiving credit for the paper) as well as the long-term goal (i.e., not receiving a lower grade due to loss of points on the paper). The individual would receive a score of (3).

6) The sixth item evaluates whether the chosen solution is enough to resolve the problem(s) portrayed in the story. The rater should consider the problems posed by both parties in the story and decide if the selected solution will be sufficient for addressing other important problems and improving the relationship between both parties. If the

participant's solution does not satisfy the goal identified in question 5, automatically score this item as (0). Scoring is as follows:

- 1 Chosen solution will have no effect
- 2 Chosen solution will have minimal beneficial effect
- 3 Chosen solution will have a moderate beneficial effect
- 4 Chosen solution will have a profound beneficial effect

### **Problem Solving Performance Sheet (Sample)**

1. How would you define the problem(s) in the story? There may be more than one problem. Try to be descriptive.

*Husband forgot to bring food home. He did not eat anything because his wife told him there would be food at the party. Husband did not try to talk with anyone at the party and then complained that he was ignored by his wife.*

2. How do you know there is a problem? What information did you use to identify the problem(s)?

*There wasn't any food at the party. Husband was sitting by himself and going on in his head about how much he didn't want to be at the party. He pulled his wife on to the bed and wouldn't let her leave the room.*

3. Why is there a problem? What caused the problem(s)?

*Husband forgot to bring food home and then didn't eat because he thought there would be food at the party. If he hadn't gone to the party, he could have eaten at home.*

4. Why is it a problem? What makes it a problem?

*If the husband would have eaten before he went to the party, he would have had a better time there. He was hungry and thought of that while he was at the party, which made him angry.*

5. Write down what you think is the most important problem in the story. What is the goal for this problem? How will you know when the problem is solved? Be descriptive about the goal.

*Husband and wife don't agree on things they both like to do. He went to the party even though he didn't want to. They should do things together that they both like.*

6. What are all the different ways that the problem could be handled? What solutions could be used to solve the problem you indicated in question 5? Think of as many solutions as you can. Please number them (e.g., 1, 2, 3).

1. *They could make a list of things they both like.*
2. *They could go to parties where they both have friends.*
3. *They could have dinner out together just the two of them.*
4. *They could invite her friends over to their home instead of going to a party.*
5. *They could communicate better about what they each like.*

7. Now, select what you think is the best solution from those you listed in question 6. Write that solution below.

*They could make a list of things they both like.*

## **Problem Solving Performance Sheet Scoring Form**

ID#: \_\_\_\_\_

Rater: \_\_\_\_\_

### **Vignette 1**

#### **I. Problem/Goal Definition**

1. \_\_\_\_\_ (0 to 2)
2. \_\_\_\_\_ (0 to 2)
3. \_\_\_\_\_ (0 to 2)
4. \_\_\_\_\_ (-1 to 2)
5. \_\_\_\_\_ (0 to 4)

#### **II. Information Identifying the Problem**

\_\_\_\_\_ (0 to 4)

#### **III. Solution Generation**

\_\_\_\_\_ (0 to 6)

#### **IV. Problem Resolution**

1. \_\_\_\_\_ (0 to 1)
2. \_\_\_\_\_ (0 to 1)
3. \_\_\_\_\_ (0 to 2)
4. \_\_\_\_\_ (0 to 2)
5. \_\_\_\_\_ (0 to 3)
6. \_\_\_\_\_ (0 to 4)

Total score: \_\_\_\_\_

### **Vignette 2**

#### **I. Problem/Goal Definition**

1. \_\_\_\_\_ (0 to 2)
2. \_\_\_\_\_ (0 to 2)
3. \_\_\_\_\_ (0 to 2)
4. \_\_\_\_\_ (-1 to 2)
5. \_\_\_\_\_ (0 to 4)

#### **II. Information Identifying the Problem**

\_\_\_\_\_ (0 to 4)

#### **III. Solution Generation**

\_\_\_\_\_ (0 to 6)

#### **IV. Problem Resolution**

1. \_\_\_\_\_ (0 to 1)
2. \_\_\_\_\_ (0 to 1)
3. \_\_\_\_\_ (0 to 2)
4. \_\_\_\_\_ (0 to 2)
5. \_\_\_\_\_ (0 to 3)
6. \_\_\_\_\_ (0 to 4)

Total score: \_\_\_\_\_

## APPENDIX M

### SOCIAL PROBLEM SOLVING ROLE-PLAYS

#### Role play #1 for domestic partner dispute

Description: You're on the way back from work when suddenly your car breaks down. You've already sunk so much money into that car. You finally get home an hour later, exhausted and hungry. Your spouse/girlfriend/boyfriend greets you at the door and asks if you remembered to pick up take-out. At that moment you recall that you promised to bring dinner home tonight. Worn out, you crash down on the couch. You're so tired you could take a nap. Your spouse/girlfriend/boyfriend then reminds you about the party you promised to go to this evening. You're tired and would prefer to stay home, and your stomach is grumbling.

Prompt 1: "Get ready. We need to leave for the party in 20 minutes."

Prompt 2: "You always do this to me! You promised you would come to the party and now you're backing out."

Prompt 3: "I can't help it that the car broke down. My friends and I planned this party weeks ago."

Prompt 4: "If you're so hungry, why don't you just make yourself a sandwich? Is it my job to cook for you?"

Prompt 5: "I know you're tired and hungry. Maybe you can eat and relax at the party?"

Prompt 6: "They're might be food at the party, but I can't promise, and I don't want you getting mad at me later if there isn't any."

- Prompt 7: <Turn around and walk away.> "I'm going to the party, with or without you I guess."
- Prompt 8: "Thanks for keeping your promise. It really means a lot to me that you come to the party with me."
- Prompt 9: "How does this sound? We'll go to the party and if there's no food, we can pick some up afterwards?"
- Prompt 10: "Yeah, let's just calm down and work this out. What are some things we can do to satisfy each of our concerns?"
- Prompt 11: <Step toward the partner with an angry look.> "Why can't you ever do anything for me?"
- Prompt 12: "I like that idea. We both get what we want this way."

### Role play #2 for domestic partner dispute

Description: You've been working a long day. It's Friday and you're looking forward to relaxing this weekend and maybe some tennis. You stop by a sports store on the way home and buy a tennis racket. You then drive to your home. As soon as you walk in the door, your spouse informs you that another check has bounced. You know money has been tight. But this is the third bounced check this month. You're aware that your spouse picked up new clothing earlier in the week. You and your spouse are both working, yet somehow you still end up with not enough money.

Prompt 1: "Did you really need a new tennis racket? We don't have enough money as it is, and now another bounced check."

Prompt 2: "Something was wrong with your first tennis racket? Do you think you're Andre Agassi?"

Prompt 3: "I can't take this. I never know what you're spending our money on."

Prompt 4: "Maybe you can find a job that pays more."

Prompt 5: "I'm working hard at my job. I also have to clean up for you here."

Prompt 6: <Throw hands up in the air.> "I guess you don't care what happens."

Prompt 7: "I know you're working hard, but we've got to find someway of managing our spending."

Prompt 8: Smile at partner. "I like that idea. Let's go ahead and talk to someone about this."

Prompt 9: "I'll call the police if you hit me!"

Prompt 10: "You're right. We need to watch what we spend and keep track of it in the checkbook."

Prompt 11: "It seems like we're always screaming at each other. Let's calm down and work this out."

Prompt 12: "I know you like playing sports and relaxing, but we need to figure out how to cut back on spending."

### Role play #1 for non-domestic dispute

Description: You've been exhausted this week from obligations at work and family issues. The alarm goes off this morning, but you sleep through it. You wake up 30 minutes before you need to be at work. This isn't the first time you've been late to work this month. You scramble to get ready and can't seem to find your keys. You arrive at work 15 minutes late. As you enter your workplace and head down a hallway, your boss appears from behind the corner.

Prompt 1: "You're late again, the third time this month. I'll have to write you up."

Prompt 2: "Look, you have to follow the rules here."

Prompt 3: "You were given warnings before. It's happening too often."

Prompt 4: "You're the laziest employee here. You're always late!"

Prompt 5: "I'm docking your pay!"

Prompt 6: "I'm sure you have a lot on your mind, but that doesn't give you an excuse to ignore job responsibilities."

Prompt 7: "Don't speak to me that way. I'm going to recommend that you be placed on leave without pay."

Prompt 8: "I appreciate your apology. But I must still write you up."

Prompt 9: "You're right. If you stop being late, you will be viewed more favorably here."

Prompt 10: "If you can prove to me that you will no longer be late, I will take into account your improvement."

Prompt 11: "I can see that you do feel bad and you do want to change."

Prompt 12: "Thank you for acknowledging the importance of being on time."

### Role play #2 for non-domestic dispute

Description: You wake up to the sound of dogs barking. You look over at the alarm clock on your stand, which reads 4:30 AM. This is the fifth night in a row you've woken up early because the neighbor's dogs were barking. The neighbor just moved in a week ago and hardly a night has gone by without his dogs waking you up. You notice that it's affected your job, as you feel drowsy and have a hard time staying awake. You've had enough. You're going to head over there and confront your neighbor in the morning.

Hours later, you wake up, take a shower, and head over to the neighbor's home and tell him/her that the dogs are ruining your sleep. He/she replies:

Prompt 1: "My dogs are keeping you up at night? Are you sure it's my dogs?"

Prompt 2: "I don't know what I can do. I can't keep them from barking. That's what dogs do."

Prompt 3: "Really? They don't wake me up and I live here?"

Prompt 4: "Maybe you could turn a fan on or something to drown out the noise."

Prompt 5: "I'll see what I can do, but I can't promise anything."

Prompt 6: "Come back over here again and I'll call the cops on you!"

Prompt 7: "I can see where you're coming from. I'll keep the dogs quiet."

Prompt 8: "Maybe I didn't realize how noisy they were."

Prompt 9: "My apologies for the noise and for keeping you from getting sleep."

Prompt 10: <Don't say anything and walk away.> "They're not that noisy."

### Role play #1 for domestic child dispute

Description: It's already 2 o'clock in the morning. Your son/daughter still hasn't arrived home. He/she should have been back a few hours ago. He/she told you that he/she would be over a friend's house watching a movie. You called over to that house and found out from the parents that your son/daughter didn't stop over there today. You're wondering what's going on. Your son/daughter is too young to be on her/his own this late at night. You're concerned because you know he/she has been dating someone you don't like, someone who could get your son/daughter into trouble. Finally, he/she arrives home and comes in the door. You ask where he/she has been. He/she replies:

- Prompt 1: "Why are you so concerned about where I go?"
- Prompt 2: "It's not like I was doing anything wrong. I can do what I want."
- Prompt 3: "Get off my back. I can make my own decisions."
- Prompt 4: "Even if I was out with him/her, what does it matter?"
- Prompt 5: "You don't know anything about him/her. You just get on him/her because he/she treats me better than you do."
- Prompt 6: "Whatever. You don't care about me anyway."
- Prompt 7: "Fine. We can talk about it."
- Prompt 8: <Slams fist down on a table.> "You don't tell me who to date!"
- Prompt 9: "I understand that you want what's best for me, but..."
- Prompt 10: "If you care about me, then why don't you let me do what makes me happy?"
- Prompt 11: "I'm not trying to worry you. It's just, I'm growing up and I need to make choices for myself."

**Prompt 12:** "I'll come back home earlier, as long as you let me hand out with  
him/her."

### Role play #2 for domestic child dispute

Description: During dinner, your son/daughter tells you he/she will be going to a party tonight and must leave in ten minutes. You don't recall hearing about the party until now. You let your son/daughter know that you were not aware of the party. He/she replies that he/she let you know about the party two weeks ago. You ask who will be at the party. He/she mentions the names of two kids you don't approve of. He/she gets up from the table and tells you he/she must leave to make it on time. You tell him/her that you do not want him/her to go to the party.

Prompt 1: "I'm going to the party. Decision is final!" <Turn around and walk away.>

Prompt 2: "I told you about the party weeks ago. You never listen to what I say!"

Prompt 3: "You don't know anything about my friends!"

Prompt 4: "You can't tell me what to do!"

Prompt 5: "I really looked forward to this party. I have to go."

Prompt 6: "If I don't go, my friends will think I don't care about them."

Prompt 7: "What's so bad about my friends? So, they got into a little trouble. I don't."

Prompt 8: "If you let me go, I promise I'll be back by my curfew."

Prompt 9: "I guess I should have mentioned it again. Maybe you were busy at the time I told you."

Prompt 10: "If my friends do something I don't want to do, I won't do it. I control my decisions."

## APPENDIX N

### PROBLEM SOLVING CHECKLIST FOR ROLE-PLAYS

ID#: \_\_\_\_\_

Rater: \_\_\_\_\_

Instructions: Place a check mark each time the participant demonstrates any of the behaviors listed. You may view the videotaped role-play multiple times as necessary to accurately evaluate the participant's responses.

		Role-play 1	Role-play 2
	Accept Responsibility	_____	_____
	Compromise	_____	_____
	Problem Description	_____	_____
	Paraphrase/Reflection	_____	_____
P	Approval	_____	_____
	Past Positive Behavior	_____	_____
	Offer Positive Solution	_____	_____
	Smile	_____	_____
	Attention	_____	_____
	Complain	_____	_____
	Deny Responsibility	_____	_____
	Make Excuses	_____	_____
	Interrupt	_____	_____
N	Ignore	_____	_____
	Command	_____	_____
	Put down/Criticize/Sarcasm	_____	_____
	Past Negative Behavior	_____	_____
	Name Calling	_____	_____
	Aggressive Behavior	_____	_____

## **Operational Definitions of Positive and Negative Behaviors**

### Positive Behaviors

Accept Responsibility	Statement conveying that “I” or “we” are responsible for the problem.
Compromise	Statement indicating that a change in behavior by both sides is acceptable.
Problem Description	Statement describing a problem, stated in a neutral or friendly tone of voice.
Paraphrase/Reflection	Statement that mirrors or restates an immediately preceding statement of the other person.
Approval	Statement acknowledging approval or support of the other person’s behavior or effort to solve the problem.
Past Positive Behavior	Describes a past positive behavior engaged in by one or both sides as if returning to such behavior would help.
Offer Positive Solution	Suggests a solution that is beneficial to the other person or to both persons.
Smile	Nonverbal behavior intended to make the situation less tense and demonstrate goodwill to the other person.
Attention	Nonverbal behavior reflecting that the participant is listening, indicated by eye contact and body posture

### Negative Behaviors

Complain	Whining or bitter expressions of one's suffering without explicitly blaming the other person.
Deny Responsibility	Statement conveying that "I" or "we" are not responsible for the problem.
Make Excuses	Statement suggesting an inappropriate reason for why one engaged in a problem behavior or why the problem behavior has not changed.
Interrupt	Jumps in while the student assistant is speaking, cutting the other person off.
Ignore	Nonverbal behaviors indicating that one is not paying attention, such as avoiding eye contact or not responding.
Command	Tells other person to do something to fix the problem without mutual agreement.
Put down/Criticize/Sarcasm	Statement intended to hurt, demean, or embarrass the other person, expresses dislike or disapproval of the other's behavior in a hostile or irritated tone of voice.
Past Negative Behavior	Brings up past negative behavior of the other person.
Name Calling	Refers to other person with a derogatory term.
Aggressive Behavior	Nonverbal behaviors communicating hostility, such as raising one's voice, angry facial expressions, and aggressive body (e.g., hand) movements.

**APPENDIX O**  
**EMOTIONAL ACTIVATION RATING FORM**

How would you rate yourself on each of these emotions? Please circle the number that best represents how you feel right now.

**Relaxed**

Least    1    2    3    4    5    6    7    8    9    10    Most

**Annoyed**

Least    1    2    3    4    5    6    7    8    9    10    Most

**Excited**

Least    1    2    3    4    5    6    7    8    9    10    Most

**Angry**

Least    1    2    3    4    5    6    7    8    9    10    Most

**Happy**

Least    1    2    3    4    5    6    7    8    9    10    Most

## REFERENCES

- Akhtar, N., & Bradley, E. J. (1991). Social information processing deficits of aggressive children: Present findings and implications for social skills training. *Clinical Psychology Review*, 11(5), 621-644.
- American Psychological Association, Summary Report at the American Psychological Association Commission on Violence and Youth (American Psychological Association, Washington, DC, 1993).
- Anderson, C.A., Berkowitz, L., Donnerstein, E., Huesmann, L.R., Johnson, J.D., Linz, D. et al. (2003). The influence of media violence on youth. *Psychological Science in the Public Interest*, 4(3), 81-110.
- Anglin, K., & Holtzworth-Munroe, A. (1997). Comparing the responses of maritally violent and nonviolent spouses to problematic marital and nonmarital situations: Are the skill deficits of physically aggressive husbands and wives global? *Journal of Family Psychology*, 11(3), 301-313.
- Ayres, K.M., & Langone, J. (2005). Intervention and instruction with video for students with autism: A review of the literature. *Education and Training in Developmental Disabilities*, 40(2), 183-196.
- Baislev, T., De Grave, W.S., Muijtjens, A.M.M., & Scherpier, A.J.J.A. (2005). Comparison of text and video cases in a postgraduate problem-based learning format. *Medical Education*, 39, 1086-1092.
- Bandura, A. (1977). *Social learning theory*. New York: General Learning Press.
- Bandura, A. (2002). Social cognitive theory of mass communication. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 121-154). Mahwah, NJ: Lawrence Erlbaum Associates.
- Bandura, A., & Ribes-Inesta, Emilio. (1976). *Analysis of delinquency and aggression*. New Jersey: Lawrence Erlbaum Associates, INC.
- Beasley, R., & Stoltenberg, C.D. (1992). Personality characteristics of male spouse abusers. *Professional Psychology: Research and Practice*, 23(4), 310-317.
- Bedell, J., Lennox, S.S., Smith, A.D., & Rabinowicz, E.F. (1998). Evaluation of problem solving and communication skills of persons with schizophrenia. *Psychiatry Research*, 78, 197-206.
- Bellack, A.S., Hersen, M., & Lamparski, D. (1979). Role-play tests for assessing social skills: Are they valid? Are they useful? *Journal of Consulting and Clinical Psychology*, 47(2), 335-342.

- Berg, C. A., Strough, J., Calderone, K. S., Sansone, C., & Weir, C. (1998). The role of problem definitions in understanding age and context effects on strategies for solving everyday problems. *Psychology and Aging, 13*(1), 29-44.
- Bidwell, M.A., & Rehfeldt, R.A. (2004). Using video modeling to teach a domestic skill with an embedded social skill to adults with severe mental retardation. *Behavioral Interventions, 19*, 263-274.
- Blud, L., & Travers, R. (2001). Interpersonal problem-solving skills training: A comparison of R&R and ETS. *Criminal Behaviour and Mental Health, 11*, 251-261.
- Brenner, S.L., Head, S.B., Helms, M.J., Williams, R.B., & Williams, V.P. (2003). A videotape module to teach assertion skills. *Journal of Applied Social Psychology, 33*(6), 1140-1152.
- Bushman, B.J., & Anderson, C.A. (2001). Media violence and the American public: Scientific facts versus media misinformation. *American Psychologist, 56*, 477-489.
- Bushman, B.J., & Huesmann, L.R. (2001). Effects of televised violence on aggression. In D. Singer & J. Singer (Eds.), *Handbook of children and the media* (pp. 223-254). Thousand Oaks, CA: Sage Publications.
- Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology, 63*(3), 452-459.
- Butler, L., & Meichenbaum, D. (1981). The assessment of interpersonal problem-solving skills. In P. C. Kendall & S. D. Hollen (Eds.), *Assessment strategies for cognitive-behavioral interventions* (pp. 197-222). New York: Academic Press.
- Channon, S., & Crawford, S. (1999). Problem-solving in real-life type situations: The effects of anterior and posterior lesions on performance. *Neuropsychologia, 37*, 757-770.
- Channon, S., Crawford, S., Vakili, K., & Robertson, M. (2003). Real-life-type problem solving in Tourette syndrome. *Cognitive and Behavioral Neurology, 16*(1), 3-15.
- Christensen, P.N., & Wood, W. (2007). Effects of media violence on viewers' aggression in unconstrained social interaction. In R.W. Preiss, B.M. Gayle, N. Burrell, M. Allen, & J. Bryant (Eds.), *Mass media effects research: Advances through meta-analyses* (pp. 145-168). Mahwah, NJ: Lawrence Erlbaum Associates.
- Clark, M.C., & Lester, J. (2000). The effect of video-based interventions on self-care. *Western Journal of Nursing Research, 22*(8), 895-911.

- Coyne, S.M., Archer, J., & Eslea, M. (2004). Cruel intentions on television and in real life: Can viewing indirect aggression increase viewers' subsequent indirect aggression? *Journal of Experimental Child Psychology*, 88, 234-253.
- Crowne, D. P., & Marlow, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349-354.
- Daly, M.A. (1997). Group therapy to address inappropriate sexual behavior in a male population with developmental disabilities. *Dissertation Abstracts International*, 58, 5B (UMI No. 9732747).
- Department of Justice Federal Bureau of Investigation (2006). Crime in the United States 2005. Obtained on December 1, 2006 from  
[http://www.fbi.gov/ucr/05cius/offenses/violent\\_crime/](http://www.fbi.gov/ucr/05cius/offenses/violent_crime/)
- Dorr, A., & Kovaric, P. (1980). Some of the people some of the time—but which people? Televised violence and its effects. In E.L. Palmer & A. Dorr (Eds.), *Children and the faces of television* (pp. 183–199). New York: Academic Press.
- Douglas, K.S., & Skeem, J.L. (2005). Violence Risk Assessment: Getting Specific About Being Dynamic. *Psychology, Public Policy, and Law*, 11(3), 347-383.
- D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology*, 78(1), 107-126.
- D'Zurilla, T. J., & Nezu, A. M. (1990). Development and preliminary evaluation of the social problem-solving inventory. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 2(2), 156-163.
- D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (1997). Manual for the social problem-solving inventory-revised. North Tonawanda, NY: Multi-Health Systems.
- Elias, M.J., & Tobias, S.E. (1996). *Social problem solving: Interventions in the schools*. New York: The Guilford Press.
- Felson, R.B. (1996). Mass media effects on violent behavior. *Annual Review of Sociology*, 22, 103-128.
- Fenstermacher, K., Olympia, D., & Sheridan, S.M. (2006). Effectiveness of a computer-facilitated, interactive social skills training program for boys with attention deficit hyperactivity disorder. *School Psychology Quarterly*, 21(1), 197-224.
- Fleck, D., Thompson, C. L., & Narroway, L. (2001). Implementation of the problem solving skills training programme in a medium secure unit. *Criminal Behaviour and Mental Health*, 11, 262-272.

- Fletcher, J.D., & Tobias, S. (2005). The Multimedia Principle. In R.E. Mayer (Ed.), *The Cambridge Handbook of Multimedia Learning* (pp. 117-134). Cambridge, MA: Cambridge University Press.
- Forrester, A.M. (2000). Role-playing and dramatic improvisation as an assessment tool. *The Arts in Psychotherapy*, 27(4), 235-243.
- Freedman, J.L. (1988). Television violence and aggression: What the evidence shows. In S. Oskamp (Ed.), *Applied social psychology annual: Television as a social issue* (Vol. 8, pp. 144-162). Newbury Park, CA: Sage.
- Gauvain, M. (2001). *The social context of cognitive development*. New York: Guilford Press.
- Geen, R.G. (1998). Aggression and antisocial behavior. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4<sup>th</sup> ed., Vol. 2, pp. 317-356). Boston: McGraw Hill.
- Greenberg, L. (2008). Emotion and cognition in psychotherapy: The transforming power of affect. *Canadian Psychology*, 49(1), 49-59.
- Gresham, F. M. (1986). Conceptual and definitional issues in the assessment of children's social skills: Implications for classification and training. *Journal of Clinical Child Psychology*, 15, 3-15.
- Hall, H.V., & Ebert, R.S. (2002). *Violence prediction: Guidelines for the forensic practitioner* (2<sup>nd</sup> ed.). Springfield, IL: Charles C. Thomas Publisher Ltd.
- Harris, G.T., Rice, M.E., Cormier, C.A. (2002). Prospective replication of the Violence Risk Appraisal Guide in predicting violent recidivism among forensic patients. *Law and Human Behavior*, 26(4), 377-394.
- Harris, G.T., Rice, M.E., & Quinsey, V.L. (1993). Violent recidivism of mentally disordered offenders: The development of a statistical prediction instrument. *Criminal Justice and Behavior*, 20(4), 315-335.
- Harwood, R.L., Weissberg, R.P. (1987) The potential of video in the promotion of social competence in children and adolescents. *Journal of Early Adolescence* 7(3), 345-363.
- Haught, P. A., Hill, L. A., Nardi, A. H., & Walls, R. T. (2000). Perceived ability and level of education as predictors of traditional and practical adult problem solving. *Experimental Aging Research*, 26, 89-101.

- Hawkins, D., Sofronoff, K., & Sheffield, J. (2008). Psychometric properties of the social problem solving inventory-revised short-form: Is the short form a valid and reliable measure for young adults? *Cognitive Therapy and Research*. August 20, 2008. Obtained February 22, 2009.
- Helfritz, L.E., Stanford, M.S., Conklin, S.M., Greve, K.W., Villemarette-Pittman, N.R., & Houston, R.J., 2006. Usefulness of self-report instruments in assessing men accused of domestic violence. *The Psychological Record*, 56, 171-180.
- Heppner, P. P., & Petersen, C. H. (1982). The development and implications of a personal problem-solving inventory. *Journal of Counseling Psychology*, 29(1), 66-75.
- Heppner, P. P., Witty, T. E., & Dixon, W. A. (2004). Problem-solving appraisal and human adjustment: A review of 20 years of research using the problem solving inventory. *The Counseling Psychologist*, 32(3), 344-428.
- Heyman, R.E., Eddy, J.M., Weiss, R.L., & Vivian, D. (1995). Factor analysis of the Marital Interaction Coding System (MICS). *Journal of Family Psychology*, 9(2), 209-215.
- Hodges, R.B., & Evans, J.R. (1983). Effects of three instructional strategies with juvenile delinquents of different learning styles. *Journal of Offender Counseling*, 7(3-4), 57-65.
- Holberton, A. (2006). Teaching women with developmental disabilities to respond assertively to inappropriate sexual solicitations. *Dissertation Abstracts International*, 67, 1B (UMI No. 3205002).
- Hops, H. Wills, T.A., Patterson, G.R., & Weiss, R.L. (1972). Typologies of batterers: Three subtypes and the differences among them. *Psychological Bulletin*, 116, 476-497.
- Huesmann, L.R., & Miller, L.S. (1994). Long-term effects of repeated exposure to media violence in childhood. In L.R. Huesmann (Ed.), *Aggressive behavior: Current perspectives* (pp. 153-183). New York: Plenum Press.
- Kendall, E., Shum, D., Halson, D., Bunning, S., & Teh, M. (1997). The assessment of social problem-solving ability following traumatic brain injury. *Journal of Head Trauma Rehabilitation*, 12(3), 68-78.
- Kern, J.M. (1991). An evaluation of a novel role-play methodology: The standardized idiographic approach. *Behavior Therapy*, 22(1), 13-29.

- Kroner, D.G., & Mills, J.F. (2001). The accuracy of five risk appraisal instruments in predicting institutional misconduct and new convictions. *Criminal Justice and Behavior, 28*(4), 471-489.
- Larson, L. M., & Heppner, P. P. (1989). Problem-solving appraisal in an alcoholic population. *Journal of Counseling Psychology, 36*(1), 73-78.
- Loza, W., Villeneuve, D., & Loza-Fanous, A. (2002). Predictive validity of the Violence Risk Appraisal Guide: A tool for assessing violent offender's recidivism. *International Journal of Law and Psychiatry, 25*(1), 85-92.
- MacIntyre, D., & Carr, A., (2000). Prevention of child sexual abuse: Implications of programme evaluation research. *Child Abuse Review, 9*, 183-199.
- McConaughy, E. A., DiClemente, C. C., Prochaska, P. O., & Velicer, W. F. (1989). Stages of change in psychotherapy: A follow-up report. *Psychotherapy: Theory, Research, Practice, Training, 26*(4), 494-503.
- McGuire, J. (2001). What is problem solving? A review of theory, research and applications. *Criminal Behaviour and Mental Health, 11*, 210-235.
- McGuire, W.J. (1986). The myth of massive media impact: Savagings and salvagings. In G. Comstock (Ed.), *Public communication and behavior* (Vol. 1, pp. 173-257). San Diego, CA: Academic Press.
- McMurran, M., Egan, V., Richardson, C., & Ahmadi, S. (1999). Social problem solving in mentally disordered offenders: A brief report. *Criminal Behaviour and Mental Health, 9*, 315-322.
- McMurran, M., Fyffe, S., McCarthy, L., Duggan, C., & Latham, A. (2001). 'Stop & think': Social problem-solving therapy with personality-disordered offenders. *Criminal Behavior and Mental Health, 11*, 273-285.
- Nikopoulos, C.K., & Keenan, M. (2004). Effects of video modeling on social initiations by children with autism. *Journal of Applied Behavior Analysis, 37*, 93-96.
- Norton, P.J., & Hope, D.A. (2001). Analogue observational methods in the assessment of social functioning in adults. *Psychological Assessment, 13*(1), 59-72.
- Osmo, R., & Rosen, A. (1994). Problem specificity and use of problem-solving strategies. *Journal of Social Service Research, 20*(1/2), 121-139.
- Palmer, E.J., & Thakordas, V. (2005). Relationship between bullying and scores on the Buss-Perry Aggression Questionnaire among imprisoned male offenders. *Aggressive Behavior, 31*, 56-66.

- Parry, R., & Killick, S. (1998). An evaluation of the impact on individually administered video tape for people with panic disorder. *Behavioural and Cognitive Psychotherapy*, 26, 153-161.
- Patrick, J. H., & Strough, J. (2004). Everyday problem solving: Experience, strategies, and behavioral intentions. *Journal of Adult Development*, 11(1), 9-18.
- Poston, J. M., & Sachs, E. (1988). Problem-solving appraisal as it relates to state-trait personality factors. *Psychology: A Journal of Human Behavior*, 25(3/4), 73-76.
- Quinsey, V.L., Harris, G.T., Rice, M.E., & Cormier, C.A. (1998). *Violent offenders: Appraising and managing risk* (2<sup>nd</sup> ed.). Washington, DC: American Psychological Association
- Quinsey, V.L., Harris, G.T., Rice, M.E., & Cormier, C.A. (2006). *Violent offenders: Appraising and managing risk* (1<sup>st</sup> ed.). Washington, DC: American Psychological Association
- Reamer, R.B., Brady, M.P., & Hawkins, J. (1998). The effects of video self-modeling on parents' interactions with children with developmental disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, 33(2), 131-143.
- Resnick, H., Acierno, R., Holmes, M., Kilpatrick, D.G., & Jager, N., (1999). Prevention of post-rape psychopathology: Preliminary findings of a controlled acute treatment study. *Journal of Anxiety Disorders*, 13(4), 359-370.
- Ronan, G.F., Dreer, L.E., Dollard, K.M., & Ronan, D.W. (2004). Violent couples: Coping and communication skills. *Journal of Family Violence*, 19(2), 131-137.
- Russell, J.A. & Mehrabian, A. (1974). Distinguishing anger and anxiety in terms of emotional response factors. *Journal of Consulting and Clinical Psychology*, 42(1), 79-83.
- Savage (2004). Does viewing violent media really cause criminal violence? A methodological review. *Aggression and Violent Behavior*, 10, 99-128.
- Shrum, L.J. (2002). Media consumption and perceptions of social reality: Effects of underlying processes. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 69-98). Mahwah, NJ: Lawrence Erlbaum Associates.
- Slaby, R. G., & Guerra, N. G. (1988). Cognitive mediators of aggression in adolescent offenders: 1. Assessment. *Developmental Psychology*, 24(4), 580-588.

- Sleed, M., Durrheim, K., Kriel, A., Solomon, V., & Baxter, V. (2002). The effectiveness of the vignette methodology: A comparison of written and video vignettes in eliciting responses about date rape. *South African Journal of Psychology*, 32(3), 21-28.
- Slezak, J. (2003). *Scoring social problem solving training homework: An objective scoring system*. Unpublished master's thesis, Central Michigan University.
- Smiley, N. (2000). A behavioral-analytic model for assessing social competence in male batterers. *Dissertation Abstracts International*, 60, 12B (UMI No. 9955014).
- Smith, P., & Waterman, M. (2004). Role of experience in processing bias for aggressive words in forensic and non-forensic populations. *Aggressive Behavior*, 30, 105-122.
- Spielberger, C. D. (1988). *State-Trait Anger Expression Inventory*. Orlando, FL: Psychological Assessment Resources.
- Steffen, A.M. (2000). Anger management for dementia caregivers: A preliminary study using video and telephone interventions. *Behavior Therapy*, 31, 281-299.
- St. Lawrence, J.S., Kirksey, W.A., & Moore, T. (1983). External validity of role play assessment of assertive behavior. *Journal of Behavioral Assessment*, 5(1), 25-34.
- Stille, K.L. (1999). Parent-child interaction therapy: A training video for parents. *Dissertation Abstracts International*, 60, 5-B.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scales. *Journal of Marriage & the Family*, 41(1), 75-88.
- Suzuki, L. A., & Ahluwalia, M. K. (2004). Two decades of research on the problem solving inventory: A call for empirical clarity. *The Counseling Psychologist*, 32(3), 429-438.
- Thelen, M.H., Fry, R.A., Fehrenbach, P.A., & Frautschi, N.M. (1981). Developments in therapeutic videotape and film modeling. In J.L. Fryrear & B. Fleshman (Eds.), *Videotherapy in mental health* (pp. 47-78). Springfield, IL: Charles C. Thomas.
- Torgrud, L.J., & Holborn, S.W. (1992). Developing externally valid role-play for assessment of social skills: A behavior analytic perspective. *Behavioral Assessment*, 14, 245-277.
- Vandebosch, H. (2001). Criminal involvement and media use. *Deviant Behavior: An Interdisciplinary Journal*, 22, 541-570.
- Viermo, V. (1996). Factors in childhood that predict later criminal behavior. *Aggressive Behavior*, 22, 87-97.

- Vincent, J.P., Friedman, L.C., Nugent, J., Messerly, L. (1979). Demand characteristics in observations of marital interaction. *Journal of Consulting and Clinical Psychology*, 47(3), 557-566.
- Wang, L., Heppner, P. P., & Berry, T. R. (1997). Role of gender-related personality traits, problem-solving appraisal, and perceived social support in developing a mediational model of psychological adjustment. *Journal of Counseling Psychology*, 44(2), 245-255.
- Webster, C. D., Douglas, K. S., Eaves, D., & Hart, S. D. (1997). Assessing risk of violence to others. In C.D. Webster & M.A. Jackson (Eds.) *Impulsivity: Theory, assessment, and treatment* (pp. 251-277). New York: Guilford Press.
- Wight, D., & Abraham, C. (2000). From psycho-social theory to sustainable classroom practice: Developing a research-based teacher-delivered sex education programme. *Health Education Research: Theory & Practice*, 15(1), 25-38.
- Williams, T.Y., Boyd, J.C., Cascardi, M.S., & Poythress, N. (1996). Factor structure and convergent validity of the aggression questionnaire in an offender population. *Psychological Assessment*, 8(4), 398-403.
- Wober, M., & Gunter, B. (1988). *Television and social control*. New York: St. Martin's Press.
- Wood, W., Wong, F., & Chachere, J.G. (1991). Effects of media violence on viewers' aggression in unconstrained social interaction. *Psychological Bulletin*, 109, 371-383.
- Wyer, R.S., & Srull, T.K. (1980). The processing of social stimulus information: A conceptual integration. In R. Hastie, E.B. Ebbessen, T.M. Ostrom, R.S. Wyer, D.L. Hamilton, & D.E. Carlston (Eds.), *Person memory: The cognitive basis of social perception* (pp. 227-300). Hillsdale, NJ: Erlbaum.