

WRESTLING WITH VIOLENCE: DESENSITIZATION TO VIOLENCE THROUGH
VIEWING PROFESSIONAL WRESTLING

by

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(Under the direction of Dr. Bruce Klopfenstein)

ABSTRACT

Several violent attacks have taken place recently where the defendant attacked the victim using wrestling-style maneuvers. This experiment tests if watching professional wrestling desensitizes college-aged subjects to acts of actual violence. Eighty-six subjects were divided into four conditions which included watching either wrestling, "Walker, Texas Ranger," boxing, or soccer. Subjects were then exposed to the same clip of an actual violent event caught on tape. Measures reflecting how violent the subjects judged the actual violence to be and reflecting personal aggression levels were taken. After a three-day period, subjects returned to view only the video of actual violence and to complete the same measures. An analysis showed no significant differences between conditions on any of the scales measured; however, trends did indicate that there may be a relation between both watching wrestling and higher aggression levels and watching wrestling and rating the video of actual violence as less violent.

INDEX WORDS: Television, Violence, Desensitization, Wrestling, Media, WWF, Media effects, Professional wrestling, "Walker, Texas Ranger", Aggression Questionnaire, Backyard Fighting, Thesis, Mass Communication, College

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DEDICATION

It is hard to dedicate this thesis to just one group of people being that I believe that all those who have touched my life have contributed to me getting to this point. Those who contributed to both my successes and failures have encouraged me to pursue a better life and thus a graduate education.

I would however like to thank a few who have made an overwhelming impact on my development. My wife and my parents are foremost on this list. My wife has encouraged me, cheered for me, praised me, and scolded me when I needed it. We have made sacrifices in order to continue my education and she has not wavered her support for me one ounce.

My parents are a constant amazement to me. I can only pray that my father's work ethic and humor and my mother's kindness and compassion have all been instilled in me. They have taught me love, respect, and responsibility. I have been blessed with them as parents.

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CHAPTER 1

INTRODUCTION

Impetus for Study

At the turn of the twenty-first century there was a rash of publicized cases where deaths resulted from attacks that imitated maneuvers in broadcasts of professional wrestling. These attacks brought to the forefront the debate concerning whether violence on television contributed to attacks taking place in real life. The current study was designed to investigate this phenomenon further.

On July 17th, 2001, Jason Crabb, age 16, was wrestling at home with Derek Garland, age 9. Crabb flipped Derek over his head, which injured Derek's head and neck and subsequently resulted in his death. Derek's mother, Julie Garland, said she thought the boys were imitating professional wrestling moves that they had seen on television (Wilkes County, 2001; Mother Blames Television, 2001). In Fort Worth, Texas, 17-year-old John Ray Gonzalez killed 3-year-old Dylan McGaughy, on July 14th, 2001. Gonzalez squeezed the boy, performed an elbow drop into the boy's midsection, and bodyslammed him (3-year old boy, 2001). On July 26th, 2001, William Thompson, age 30, bodyslammed Anthony Dale until Dale was unconscious. Dale was pronounced dead 3 days later having suffered from trauma to the spinal chord (Grand Jury to Review, 2001).

Perhaps the most notorious case of a wrestling imitation-style death is that involving Lionel Tate. On July 28, 1999, Lionel brutally beat 6-year-old Tiffany Eunick. When the act was over, Eunick sustained a fractured skull, lacerated liver, cracked ribs,

and more than 30 other injuries. Lionel's defense team argued that Tate was imitating professional wrestling moves; however, the defense fell short in the jury's eyes and Judge Joel Lazarus sentenced Tate, who was 14 at the time of trial, to life in an adult prison without parole (Teen Gets Mandatory, 2001; Teen Gets Life, 2001).

Although these cases were highly-publicized, the debate concerning television's contribution to violence is not a new debate topic. Certainly since the advent of "The Three Stooges," and probably before that, people have imitated violence that they have seen on television. One could come up with several arguments as to why these events seem to take place more often currently. Perhaps there is more reporting now of these violent acts. The type of acts imitated could now be more brutal. Perhaps we have seen violence increase in the media over time, and we have gradually become desensitized. One could argue that the level of accepted violence by viewers has increased; thus, violent acts are being aired on television today that would not have been allowed to be aired in the past. Indeed, one study suggests that the accepted level (by the Motion Picture Association of America's ratings guidelines) of violence has increased over time in G-rated animated films (Yokota & Thompson, 2000).

The aforementioned recent occurrence of deaths, which all seem to involve imitation of professional wrestling as the type of violence which resulted in deaths, has brought the topic of media effects back into focus. The Lionel Tate trial was covered heavily by CNN and most other news networks. Parenting groups, such as the Parents Television Council, focused their attention on wrestling and trying to get sponsors to withdraw their advertisements from professional wrestling broadcasts (Parents Television

Council, n. d.). The popularity of watching professional wrestling had already begun growing, however.

Wrestling is consistently rated one of the most watched programs on cable television. The World Wrestling Federation (WWF) has recently purchased its two top competitors in the televised wrestling market, making it the organization most recognized when someone mentions wrestling. The WWF's website (World Wrestling Federation Entertainment, Inc., 2001) boasts the following popularity:

- “WWF Raw is War” on cable station TNN is the highest rated regularly scheduled program on cable television.
- “WWF Smackdown!” is the top rated program among households on UPN (10-02-00 to 06-10-01) and consistently the number one rated program on network television among male teens on Thursday night.
- Since its premiere, “WWF Sunday Night Heat” has been the highest rated regularly scheduled program on MTV.
- 68 of the top 100 pay-per-view shows have been WWF events.
- WWF programming and pay-per-view events are distributed to over 130 countries in 11 different languages.

The defenses' arguments and the recent wrestling-imitation deaths call into question whether viewing wrestling actually affects a person to the extent that they act out aggressively towards another person. Violence in television has been a hot topic since the advent of the medium. Indeed, entire books have been written that merely list all the previous television violence studies (see Kelly, 1999).

Purpose of this Study

The purpose of this study is to examine the relationship between viewing wrestling and acting aggressively; however, allowing subjects to freely abuse another person after viewing television violence would of course create an ethical violation. Therefore, testing for a direct link between viewing wrestling and acting aggressively could not be carried out for this study. A study can be proposed that would measure subjects who had just viewed professional wrestling for characteristics that could lead to aggressive action. The literature review will point out a popular theory of desensitization to media violence that can be logically linked through research to acting out aggressively. Thus, the true purpose of this research is to study how prior exposure to wrestling programs might desensitize viewers to actual violence. Another reason for proposing this study is the obvious lack of current research being done in this field. As the literature review should reveal, the study of the desensitization theory was quite popular up through the 1980's. To this author's knowledge and as confirmed in a personal discourse with media research expert Dr. Joseph Dominick (personal communication, March 6, 2002), it appears that in the 1990's and beyond there has been a significant reduction in the amount of studies being published in this area.

CHAPTER 2

LITERATURE REVIEW

Media Effects and Violence

The study of media effects has been and continues to be a heavily researched field in the discipline of communication studies and in social psychology. Of particular interest to the current study is the question of how television violence affects aggression in viewers. Of course, the first question asked should be, “What counts as television violence?” Everyone seems to know it when they see it but how should it be defined? Gerbner defined television violence as “the overt expression of physical force (with or without a weapon) against self or other, compelling action against one’s will on pain of being hurt or killed, or actually hurting or killing” (Gerbner, Gross, Morgan and Signorielli, 1980). Using this definition, which is limited to overt acts, studies have shown that about five to six acts occur per hour of viewing (National Television Violence Study, 1997, p. 37). Williams, Zabrack, and Joy (1982) defined television violence as “behavior that inflicts harm, either physically or psychologically, including explicit or implicit threats and nonverbal behavior” (p. 366). This definition, which includes verbal and nonverbal threats, expands the count to around 18.5 acts per hour (National Television Violence Study, 1997, p. 37). Potter’s (1995) definition of violence states: “any action that serves to diminish something in a physical, psychological, social, or emotional manner.” This would expand the definition to mean that the perpetrator or victim of the act could be human or non-human. For example a woman destroying her

husband's car could be deemed television violence. This brings the count to 36.6 acts per hour (National Television Violence Study, 1997, p. 37).

Studies such as those conducted by the Surgeon General's Office, the National Institute of Mental Health, and the American Psychological Association's Commission on Violence and Youth have concluded that viewing violence increases aggression (Mullin and Linz, 1995). Paik and Comstock (1994) performed a meta-analysis that reviewed 217 studies and found that exposure to violent television is significantly correlated to aggressiveness and antisocial behavior. Bushman and Anderson (2001) also found that "short- and long-term exposure to media violence causes significant increases in aggression" (p. 486). In fact, Bushman and Huesman's study (2001) showed that the link between viewership of media violence and aggression was second in effect size only to such links as the association between smoking and lung cancer, condom use and prevention of HIV, and exposure to lead and low intelligence in children.

Even though the majority of studies, such as these, provide evidence of this link; there are studies that also refute this evidence, expressing doubts about the link between aggression and violence viewing (Comstock, 1978; Freedman, 1984; Kaplan, 1972). It is argued that reactions to the exposure of media violence depend on two things: 1) the viewer's interpretations of the violence viewed and 2) the thoughts of the viewer triggered by watching (Rule and Ferguson, 1986). According to the authors, observers make attributions and form moral evaluations about what they are seeing. These two processes help to define the observer's reaction to the violence. This is to suggest that the viewer must think critically and form beliefs on how they perceive and judge the violence rather than just blankly accepting and being blindly influenced by the program.

Dominick and Greenberg (1972) found that poorly defined family attitudes and high exposure to violence were related to high personal approval of aggression and the willingness to become violent and accept violence as a solution to problems. However, the authors also found that family attitudes toward violence and social class were stronger determinants of using violence to solve problems than the amount of exposure to television.

Bidirectionality of Watching and Acting Aggressively

Another classic argument dealing with media violence is akin to the “chicken-before-the-egg” debate. As was previously noted, a majority of the studies that focus on television violence and its relation to aggression prove that there is some type of correlation. Directionality of this link, however, is debated. Does watching wrestling cause aggression in viewers or do hostile viewers prefer to watch wrestling? Various studies have been published which suggest that exposure to filmed violence increases the probability that young children will act aggressively towards both inanimate and animate victims (Bandura, Ross, and Ross, 1961, 1963; Hanratty, Liebert, Morris, and Fernandez, 1969; Hanratty, O’Neal, and Sulzer, 1972; Liebert and Baron, 1972). This would suggest that television is the initiator of the media violence-aggression link. Goldstein (1998) argues just the opposite: finding that violent, hostile people are drawn and more apt to view violent programming.

Black and Bevan (1992) believe that perhaps it is the combination of both theories. Their findings state that the relationship between watching media violence and having a hostile, aggressive nature is bidirectional. In their experiment moviegoers were given a hostility inventory to fill out before watching a movie of their choosing. Male

and female viewers who had chosen a violent movie were initially more hostile than moviegoers who had chosen a nonviolent film. It was also found that levels of hostility increased after viewing the violent film but remained at the same low levels for those who viewed the nonviolent film. By this interpretation it seems that aggressive people are drawn to violent programming that only serves to make the viewers even more aggressive.

Is Desensitization a Cause?

Once enough studies have provided evidence that there is a causal link between violence in the media and aggression, the obvious next step for social scientists is to find the causal mechanism. One of the several theories forwarded deals with desensitization. This theory's basis rests on the study of systematic desensitization as researched by Wolpe (1958). In a psychological setting, exposure to a fear or anxiety-inducing stimulus is gradually increased with the hope of the patient gradually habituating to the stimulus, resulting in diminished fear or anxiety. Indeed, studies such as Kazdin and Wilcoxin (1976) have found this treatment to be effective. Outside of a pure clinical setting, it has been proven that simple exposure, regardless of the mode in which the stimulus is presented, will significantly decrease the adverse affects that the stimulus once caused (Foa and Kozak, 1986; Ullman and Krasner, 1969). Applying this to the current study would mean that as a viewer witnesses violence in professional wrestling or other violent shows, the arousal caused by that violence would diminish. Over time, viewers would gradually habituate to violence on wrestling programs, thus meaning that higher levels of violence would be needed to produce the original level of arousal and excitement.

In an early attempt to examine the desensitization theory; Lazarus, Spiesman, Mordkoff, and Davidson (1962) measured arousal via skin conductance (an autonomic measure of arousal) in 70 subjects who were watching a 17-minute film of an Australian tribe performing ritualistic mutilations on male genitalia. The researchers found a progressive drop in conductance of the mutilation film watchers as compared to a control group. In a frequently cited study Cline, Croft, and Courier (1973), classified subjects as either having a high exposure or low exposure to television viewing. One at a time each subject viewed a 14-minute clip that contained both nonviolent and violent clips; thus, each subject served as their own control. Measuring via galvanic skin response at certain key points in the movie, it was found that high-exposure children were less aroused autonomically than low-exposure children. This would suggest as has been expressed by Griffiths and Shuckford (1989) that high exposure to overt violence leads to “psychological blunting of the normal emotional responses to violent events” (p. 85).

In Bjorkqvst and Didriksson’s (1985) study, boys were rated by their peers as either aggressive or non-aggressive. The subjects watched a short violent film and then were shown either a long violent film or a long nonviolent film. The final step in the experiment was to show the subjects the original short violent film again. The boys who watched the long violent film presented a significant decrease in the autonomic measures of skin potential and vasoconstriction when shown the final short violent stimulus. The effect of this decrease was even larger for boys rated as non-aggressive, thus showing that desensitization not only occurred for all boys but seemingly with a greater impact on boys rated as non-aggressive. In short, this study implied that boys were desensitized to the violence in a short violent film when first shown a long violent film.

Perhaps one of the most similar studies to that one proposed here was conducted by Thomas, Horton, Lippincott, and Drabman (1977). In the first experiment of this study, 8- to 10-years old children were shown an excerpt from either a violent police drama (experimental group) or an exciting but nonviolent volleyball match (control group). Both groups of children were then shown an altercation (real-life aggression) between two preschool children. Measuring arousal via galvanic skin response it was found that the experimental group of children were less aroused by the clip of real-life aggression than the control group. The second experiment in this study closely resembled the first except for the age of the subjects. College undergraduates were either shown the violent police drama or the volleyball film after which each group was shown violent excerpts from the televised riot coverage of the Democratic National Convention of 1968. Results of this experiment were similar to that of the first: the experimental group was less-aroused during watching the riot coverage than the control group. In brief, this study implied that college-aged subjects were desensitized to violence in a clip of a real-life violent event when prior exposed to a fictional violent event.

Desensitization to Other Forms of Arousal

The desensitization theory would have a major shortcoming if studies only showed its effects through violence studies; however, other forms of arousal have also been shown to diminish from the desensitization effect of the media. Other heavily studied inducers of arousal are sex, eroticism, and the mix of sex and violence. In one of the only nonlaboratory studies, exposure to movies that depicted sexual violence against women as appropriate, or having positive consequences, increased men's acceptance of violence against women (Malamuth and Check, 1981). Stating that most desensitization

studies focused on short-term exposure to television violence; Linz, Donnerstein, and Penrod (1988) studied prolonged exposure to X- and R-rated, nonviolent, sexually-explicit films. This work was based on the findings of Zillman and Bryant (1982, 1984) which discovered that long-term exposure to nonviolent but degrading pornography that depicted women in sexually submissive roles caused both males and females to 1) become more tolerant of bizarre forms of pornography, 2) become less supportive about sexual equality, and 3) become more lenient in assigning punishment to a rapist whose crime was described in a newspaper report. Linz et. al found that sexually violent material which originally provoked anxiety and depression did less so with more exposure. Subjects exposed to sexually degrading (as defined by Linz et. al) R- and X-rated movies reported seeing less violence with continued exposure. Subjects reported that films once deemed degrading to women were judged to be less so after continued exposure. When shown a video of a condensed reenactment of a rape trial, subjects who were exposed to R-rated film violence beforehand were less sympathetic to the victim of the rape. This study is also significant because it showed that the desensitization effect takes effect rapidly but subsequently increases slowly. It was discovered that the desensitization caused by two films (3 hours) is similar to that after five films. Also interesting was the fact that subsequent beliefs and attitudes about women were not affected by long-term exposure to degrading images of women in either X-rated, nonviolent sexually explicit films or R-rated sexually non-explicit films. This would suggest that the effects of desensitization are not permanent influences on long-term beliefs.

In addition to less sympathy for rape victims, Linz, Donnerstein, and Adams (1989) also found a decrease in sympathy for victims of domestic violence and a decrease in physiological responsiveness after repeated exposure to sex violence. Critics may argue that a major flaw with these studies is the fact that the violence seen in the stimulus (entertainment) film is not comparable or similar to that seen in the film representing real-life. With regard to the current study, one could argue that it is not logical to compare the fantasy violence involved in professional wrestling with violence that occurs in real-life such as in riots, domestic abuse, police beatings, or rapes. Various studies have shown, however, that the generalization of film-induced desensitization does not depend on a close similarity between the violence in the entertainment film and the real-life film (Linz, Donnerstein, and Adams, 1989; Linz, Donnerstein, and Penrod, 1984; Linz, Donnerstein, and Penrod, 1988).

Mullin and Linz (1995) used a popular classification of teen horror movie that is filled with sexualized violence, the slasher film, as the stimulus movie in a study of desensitization. Male college-aged students watched three slasher films distributed over a week's period of time. After varying the times after which the last movie was shown (3, 5, or 7 days) subjects were shown four different videos that dealt with a victim of domestic abuse. Using a mood assessment instrument, researchers found that subjects exposed to the slasher film showed less sympathy for the victim of the domestic abuse and viewed the victim as less injured than did those in a control group. This effect was only significant when measures were taken 3 days after viewing the last film; thus, the 5- and 7-day conditions were non-significant. Emotional responses, self-reported physiological arousal, and ratings of the extent to which the movie was sexually violent

also diminished among students. When classifying subjects with regard to prior slasher film exposure, subjects in the low-exposure group reported a greater increase in enjoyment of the films over the course of the week's viewing than did the high-exposure group. This study implies that prior exposure to fictional violence on television desensitizes subjects to acts of violence that take place in real-life.

(Re)Acting Out

Of interest to this study is the relation between desensitization and acting aggressively. One of Bandura's early studies suggested that after anxiety has been reduced or eliminated, the likelihood of a subject to act aggressively under certain conditions increases (Bandura, 1973). Rule and Ferguson (1986) argue that not many studies have directly assessed the link between emotional desensitization and aggressive behavior. Unfortunately, not many new studies have been conducted to further test the relationship. There are, however, early studies which suggest that after arousal to an anxiety-provoking behavior (such as acting violently in our current study) is reduced or diminished, the subject is much more likely to engage in that behavior (Bandura, Blanchard, and Ritter, 1969; Bandura and Menlove, 1968). When applied to the current study, this would imply that as the viewer habituates to greater and greater amounts of wrestling related violence, the likelihood for that viewer to partake in that type of violence would increase.

Studies have been conducted examining the role between desensitization to media violence and children's responsivity to aggression. Drabman and Thomas (1974) proposed that viewing violence under the guise of entertainment may increase one's tolerance of aggression that happens in the real world. Children from elementary school

were shown a violent Western and were then led to believe that they were watching two preschoolers on a live monitor. The experimenter made up an excuse and exited the room leaving the subject all alone. The preschoolers on the monitor began to verbally and physically abuse each other. The dependent measure of this study was to find out how long it would take for the subject to seek the help of an adult. Results stated that as compared to a no-film control group children who had viewed the Western took longer to seek the help of an adult. The authors argue that this provides support that children's responsivity to real-life aggression can be influenced by previous media exposure to fictional violence. Similar results were found in a study conducted in 1994 (Molitor and Hirsh). Furthermore, this finding suggests that young viewers exposed to violence will tolerate and accept violence more openly after viewing such violence.

A Perfect (Wrestling) Match

Before closing, it is also helpful to discuss briefly how wrestling's fantasy violence has unique characteristics that also have been shown to further contribute to aggressive behavior. Of course, one of the main focuses in professional wrestling is the actual violence. Wrestling is not unlike most other television programs that downplay the harm and after-effects of a violent encounter. The National Television Violence Study (1996, 1997, 1998) has gathered data showing 1) approximately 60% of programs overall contained violence, 2) television frequently minimizes the risks of violence, 3) 1/3 of the violent interactions show unrealistically low levels of harm, 4) 3/4 of violent scenes show no criticism, penalty, or remorse when the violence is committed, and 5) in 1/3 of the programs, the violent villain is never punished. This last finding is important because it

has been shown that punishment and depicted pain and suffering lower the tendency to imitate aggression (Bandura, 1965; Baron, 1971).

This finding is relevant to professional wrestling where athletes are hit over the head or back with chairs, slammed through tables, and beaten until bloody, yet still walk away. These sorts of action do occur frequently in wrestling programming. Woo and Kim (2001) performed a content analysis on 107 hours of wrestling programming and found that the World Wrestling Federation's (WWF) programming averaged a violent physical act once every 1 minute 49 seconds. It should be noted that this study constructed physical violent behaviors as "conflicts between two or more players with any object like sticks, bats, chairs, tables, and others" (p. 10). After suffering through this punishment on a Monday night, a wrestler may be beaten bloody or knocked unconscious but returns to fight seemingly unharmed on the following Thursday night. With such blatant violent overtones, large number of violent acts per show, huge fan following, and such a fantastic representation of how little harm is being done; professional wrestling certainly appears to be an excellent triggering method in the desensitization theory.

Statement of Research Questions and Hypotheses

Working in the same vein as previous research involving the desensitization theory, an experiment was proposed for this study. The experiment proposed will most closely resemble that of Thomas, Horton, Lippincott, and Drabman (1977). The experiment will test if viewing wrestling desensitizes viewers to acts of real-life aggression. The experiment will also test for a time delay effect such as that found in Mullin and Linz (1995). In that experiment a desensitization effect was found 3 days

after exposure to the stimulus but not after 5 or 7 days. The research questions for this experiment are as follows:

RQ₁: Does previously viewing wrestling desensitize viewers to aggression when exposed later to actual televised violent acts?

RQ₂: Will a desensitization effect last over a 3-day period of time?

Using this research question and the majority of desensitization studies that support the theory, the following hypotheses are derived.

H₁: There will be a significant decrease, as compared to control groups, in the measure of arousal after watching a clip of a televised non-fictional violent event when the experimental subjects have been previously exposed to wrestling violence.

H₂: After a 3-day period, there will still be a significant decrease, as compared to control groups, in the measure of arousal after watching a clip of a televised non-fictional violent event when the experimental subjects have been previously exposed to wrestling violence.

In summary, it is believed that prior exposure to broadcasts of professional wrestling will desensitize subjects to acts of real violence caught on tape. The difference between the subjects who viewed wrestling and those who did not will achieve statistical significance. The effect will also continue over a 3-day period so that the significant difference found during the initial measurement will still be present.

CHAPTER 3

METHOD

Subjects

This experiment consisted of four conditions. Initially 96 students signed up for the experiment with the students divided equally among each condition. There was also an even split by design of male and females in each condition. However, some students did not elect to participate in the first phase of the experiment and four students who attended the first phase elected not to attend the second phase.

Eighty-six undergraduate college students participated in the first phase of the experiment for course research credit. In the “Walker” condition there were 9 males and 11 females. In the “Wrestling” condition there were 10 males and 11 females. In the “Boxing” condition there were 12 males and 12 females. In the “Soccer” condition there were 10 males and 11 females.

Due to mortality those numbers changed for phase two of the experiment. In the “Walker” condition there were 8 males and 11 females. In the “Wrestling” condition there were 10 males and 10 females. In the “Boxing” condition there were 10 males and 12 females. There was no change in “Soccer” condition participation.

Instead of randomizing each subject to a particular condition the experimenter decided to allow students to sign up for a blind hourly session (condition) of their choice. The subjects signed up for the experiment using a website designed specifically to recruit undergraduates to participate in psychology experiments. On the day of the experiment

the experimenter randomly chose which session would pertain to a particular condition.

All participants were given research participation credit points for their participation.

Justification for Using College Students

While most parenting groups and media critics will argue that this type of violence negatively influences children, there seems to be an absence of rhetoric on how this type of violence affects teenagers or post-adolescents. The literature review has also shown that most studies conducted on desensitization test children for effects. It is interesting to note that in the deaths mentioned in the introduction, all of the violators were either teenagers (or on the verge) or older. This suggests that it is actually pre-teens and teenagers who are acting out what they see. The study is designed to investigate whether or not this trend continues into post-adolescent college-age viewers. This question combined with the lack of literature on this age-group help justify the method selected for this study.

Materials

The key materials in this experiment consisted of each condition's videotaped material and a questionnaire booklet. Subjects in each condition watched two videotape excerpts, each excerpt was approximately 7 minutes in length. The first excerpt, known as the condition video, was dependant on the particular condition being tested at that time. Subjects in one condition watched a WWF (professional wrestling) match. Another condition's subjects watched edited fight clips from the television series "Walker, Texas Ranger". Another condition's subjects watched edited clips from boxing matches on ESPN's "Friday Night Fights." The final condition's subjects watched a televised soccer match. It is important to note that all of these shows can be seen on

broadcast cable. The second videotape excerpt, known as the test video, was shown to all subjects in each condition and was also approximately 7 minutes in length. This excerpt contained edited clips from a commercially available tape of real backyard wrestling clubs. Explained in further detail, backyard wrestling clubs consist mostly of teen-aged participants utilizing fighting maneuvers most commonly seen in broadcasts of professional wrestling. It is important to note that these participants are not trained wrestlers. The violence in this tape was real violence caught on videotape. The soccer film contained no violence at all; otherwise, all of the remaining videos contained a consistent style of violence. The violence was hand-to-hand combat without the use of weapons. This style of violence also contained actors or wrestlers being thrown into objects or thrown through objects.

The condition tapes were pretested with 101 subjects from another college sample population to see if the three tapes (Wrestling, Walker, Boxing) were ranked equally violent. The scale used to rank violence in this instance was the same scale, which is described later, used during the actual experiment. Using an ANOVA to test the violence rankings' means for each video, there was no significant difference between the three videos, $F(2,57)=1.97, p=.14$. All of the videos were shown in a classroom setting by overhead video projector onto a standard classroom projector screen.

A questionnaire booklet devised by the experimenter was given to each subject during the first phase of the experiment. This booklet consisted of a consent form (Appendix A) and demographic questionnaire (Appendix B) which asked the subject questions which indicated race, gender, exposure to television, and television viewing habits. At this point it is interesting to note that nearly 78% of the subjects responded

that they did not view wrestling at all. This fact may have proved to be a confound to this experiment and will be elaborated on in the discussion.

The next questionnaire, known as the desensitization questionnaire (Appendix C), asked subjects to rate a video based on violence, harm imposed to participants in the video, how comfortable the subject felt while viewing, and how excited the subject felt while viewing. The third questionnaire, known as the buffer questionnaire, asked subjects to recall certain visual stimuli in the video. Each condition had a different buffer questionnaire which pertained to the particular video they viewed, either wrestling (Appendix D), “Walker, Texas Ranger” (Appendix E), the boxing matches (Appendix F), or the soccer match (Appendix G). The style of this questionnaire was similar to that of any memory recall test. Subjects were asked to recall specific details seen in the videos and pick the correct answer in a multiple choice format. This questionnaire basically was of no significant analytical value to the experimenter. It was simply used to disguise from the subject, by asking for extraneous information, that the experimenter was interested in measuring aggression and violence. The final questionnaire, Buss and Warren’s Aggression Questionnaire (2000), measured different scales of aggression in the subject. The Aggression Questionnaire has been previously used in several studies measuring aggression and hostility in subjects and also in clinical settings (Buss and Warren, 2000). Upon arriving for the second phase of the experiment, subjects were again asked to complete the desensitization questionnaire, a buffer questionnaire similar to the first style but this time focused on the test video of backyard fighting (Appendix H), and the Aggression Questionnaire. The debriefing statement (Appendix I) followed the Aggression Questionnaire and was the last item in the questionnaire booklet.

Procedures

This experiment was a two-part study. The first part of the study shall be known as Time 1 (T1) and the second part shall be known as Time 2 (T2). Upon arriving for T1 subjects were given a questionnaire booklet. When all the participants had arrived, the experimenter read over the consent form and asked the subjects to sign and hand the form back to the experimenter. As the subjects did so, the experimenter took note of attendance. The subjects were told that they would be watching some video clips and would fill out the questionnaires based on what they had seen. The instructor also gave instructions to the subjects on where and when to arrive for the next phase of the experiment.

The experimenter then told the subjects to please fill out the first questionnaire (demographic questionnaire) and when finished wait for the experimenter's next instructions. A page that contained the words, "*Please stop here. The conductor will tell you when to resume.*" was included between the demographic questionnaire and the desensitization questionnaire to discourage subjects from reading ahead in the booklet.

The experimenter dimmed the lights and the videos were shown on a standard classroom projector screen. For each group the condition video was shown first followed by a brief pause to cue the second tape, and then the test video was shown. After showing the second tape the experimenter turned the lights back on and told the subjects to complete the remainder of the questionnaire (desensitization, buffer, and aggression questionnaires). After handing in the booklet the subjects were dismissed until T2.

Figure 6.1 clarifies the layout of the experimental design at T1.

Three days later the subjects returned to the same location at the same time to partake in T2. After the subjects settled, the experimenter told them they would again be viewing video clips and filling out a questionnaire booklet regarding what they had seen. The experimenter then dimmed the lights and showed only the test video. This was the exact video the subjects had seen in T1. After turning the lights back on, the experimenter handed out questionnaire booklets and instructed the subjects to fill out all portions. This booklet contained the same desensitization measure as T1, a buffer questionnaire which referred only to the test video, and the Aggression Questionnaire. After completion of the questionnaire, subjects handed in their booklets and were given a written debriefing statement (Appendix I). Figure 6.2 clarifies the layout of the experimental design at T2.

CHAPTER 4

RESULTS

Key Questionnaire Items

According to the hypothesis of the experiment, the central items of analytical importance were contained within the desensitization instrument and within the Aggression Questionnaire. The first two questions of the desensitization instrument: “*How violent would you rate the clip (clip B) that you just watched?*” and “*How much harm do you think was inflicted on the participants in this film as a result of their actions?*” were constructed to see how violent and harmful the subjects would judge the clip of backyard fighting. According to desensitization theory one would expect that those subjects who viewed wrestling prior to seeing the clip of actual violence would be desensitized to the violence and would rate the violence as a lesser number on the differential scale (ranging 1 to 7 with 7 being extremely violent). One would expect the same findings in regards to the harm scale.

The Aggression Questionnaire was used to measure individual reactions to the content that the subjects viewed. This questionnaire broke down into five subscales and gave an overall measure as well. The five subscales were: physical aggression, verbal aggression, anger, indirect aggression, and hostility. The overall score, or AQ total, was the total sum of all responses on the questionnaire. Finding significant differences between groups on these separate subscales and/or on the AQ total would allow the experimenter to draw conclusions on how the content affected the viewer (i.e., did it

make them feel more or less aggressive). For all scales of the Aggression Questionnaire higher scores indicated more aggressive tendencies.

If the hypothesized significant differences during the first phase of the experiment (T1) existed, then ratings on the first two items of the desensitization instrument during the second phase of the experiment (T2) could be analyzed to see if the effect lasted over the 3-day period. Again one would expect to find lower scores on these two items for the wrestling condition as compared to the other conditions. Analyzing the overall and subscale measures of the Aggression Questionnaire at T2 could indicate if the findings from T1 remained or if new findings were present.

Desensitization Questionnaire Findings

The means of each condition in regards to the answer of the first question on the desensitization questionnaire (the rating of violence of the backyard fighting clip) were compiled (Table 6.1) and analyzed via a one-way ANOVA. A homogeneity of variance test was used to make sure all variances could be assumed equal. Using the Levene statistic, there were no significant differences in variances between the four groups $F(3, 82)=.974, p=.409$. The analysis of the means of these groups proved no significant differences, $F(3, 82)=.773, p=.512$.

The same analysis was applied to the means of the second question on the desensitization questionnaire (harm imposed to those in the backyard fighting clip, Table 6.1). A homogeneity of variance test was used to make sure all variances could be assumed equal. Using the Levene statistic, there were no significant differences in variances between the four groups $F(3, 82)=.592, p=.622$. The analysis of those means also revealed no significant differences between conditions, $F(3, 82)=.306, p=.821$.

Based on these two main findings, one cannot say that under this experiment's conditions viewing wrestling desensitized viewers to the clip of backyard fighting; therefore, this experiment fails to reject the null hypothesis of H_1 . Table 6.2 shows the results of both of the ANOVA's.

Because there were no effects found at T1 for either of the two main questions, there would also be no point in determining if effects lasted over the 3-day period into T2. However, means were compiled (Table 6.3) and analyzed for the same items at T2. As would be expected there were no significant differences on either the violence question, $F(3, 78)=.084, p=.969$, or the harm question, $F(3, 78)=.080, p=.970$. In other words, a previously unfounded desensitization effect was not generated on these two questions at T2. Table 6.4 shows the results of both of the ANOVA's.

Aggression Questionnaire T1 Findings

The means of the AQ total and each of the five subscales (Table 6.5) were analyzed between groups to find any significant differences. The questions are set up so that a higher score reflects more aggressive tendencies within the subjects. One item in the test is contrary to this fact and was reverse scored by the experimenter. Each scale is composed of several separate items on the questionnaire. Each item belongs to one of the scales exclusively. The AQ total is the sum of all items on the questionnaire.

The experimenter hypothesizes that the wrestling group would have been desensitized to the actual violence and afterwards would rate themselves lower on the questionnaire. The subjects would not have been as agitated or aroused by the video as other groups. This would translate into lower means across all scales on the Aggression

Questionnaire. According to H_2 , any significant differences would be expected to remain over the 3-day period and would present themselves again at T2.

A homogeneity of variance test was conducted to test the assumption that all variances between groups were equal on all the subscales and for the AQ total. There were no significant differences on any of the measures. Variance statistics for this test are listed in Table 6.6. After analyzing the means using a one-way ANOVA, the experimenter found no significant differences between conditions at T1 on any of the subscales or for the AQ total. Statistics for the means of all scales and AQ total of the Aggression Questionnaire at T1 are as follows.

- Physical Aggression, $F(3,82)=.702, p=.554$
- Anger, $F(3, 82)=.842, p=.475$
- Indirect Aggression, $F(3, 82)=1.195, p=.317$
- Verbal Aggression, $F(3, 82)=1.235, p=.302$
- Hostility, $F(3, 82)=.215, p=.886$
- AQ total, $F(3, 82)=.516, p=.673$

A detailed listing of these results can be found in Table 6.7.

Aggression Questionnaire T2 Findings

Since there were no significant differences at T1 for any of the measures of the Aggression Questionnaire, it would be illogical to look for any significant lasting effects into T2. However the means on the Aggression Questionnaire at T2 (Table 6.8) were analyzed because the experimenter was curious if any significant differences would present themselves and how they could be explained.

A homogeneity of variance test was again conducted on the responses at T2. All subscales proved to be non-significant across conditions except for the physical aggression scale, $F(3, 78)=3.835, p=.013$. The AQ total also proved to be non-significant. Variance statistics for T2 subscales and AQ total are listed in Table 6.9. No significant differences were found between conditions on any of the measures at T2. Statistics for the means of all scales and AQ total of the Aggression Questionnaire at T2 are as follows.

- Physical Aggression, $F(3, 78)=1.121, p=.346$
- Anger, $F(3, 78)=.475, p=.700$
- Indirect Aggression, $F(3, 78)=.589, p=.624$
- Verbal Aggression, $F(3, 78)=1.113, p=.349$
- Hostility, $F(3, 78)=.166, p=.919$
- AQ total, $F(3, 78)=.814, p=.490$

A detailed listing of these results can be found in Table 6.10. Charts comparing the means across conditions for both the desensitization measures and the Aggression Questionnaire measures at T1 and T2 can be found in Figures 6.3 through 6.10.

Descriptive Trends

Although no significant differences were found on the measures analyzed, it is important to note some consistent trends that surfaced. As hypothesized, one would expect that subjects at T1 who had viewed wrestling prior to the actual violence would be desensitized and would have lower answers on the first two items of the desensitization questionnaire (violence and harm) when compared to other conditions. This happens to be true; however, there was too insufficient a difference to be deemed significant. The

wrestling group shared the lowest mean, 6.0, on the violence question with the boxing condition, and they also had the lowest mean, 5.71, on the harm question. The same situation was not true for T2. The lowest means on the same two questions were not obtained from the wrestling condition.

On the Aggression Questionnaire, a consistent trend presented itself repeatedly over T1 and T2. Subjects in the wrestling condition consistently responded with higher means, indicating that they were rated as more aggressive. At T1 subjects in the wrestling condition had the highest means on the following scales: physical aggression, 14.14; anger, 13.29; verbal aggression, 13.00; and AQ total, 68.81. This trend was not found for either the indirect aggression or hostility scale. A listing of all means across conditions at T1 can be found in Table 6.11. At T2 subjects in the wrestling condition had the highest means on all scales which included: physical aggression, 14.70; anger, 12.90; indirect aggression, 13.25; verbal aggression, 12.60; hostility, 15.25; and AQ total, 68.70. A listing of all means across conditions at T2 can be found in Table 6.12.

CHAPTER 5

DISCUSSION

Discussion of Descriptive Trends

Although none of the analyses achieved significance it is important to note the descriptive trends that appear in the means across conditions. The frequency at which these trends appear is enough to make them a consideration in this experiment. First it is important to note that at T1 subjects in the wrestling condition responded with the lowest means of any condition on both the desensitization measures. This indicates that they rated the actual violence in the test film as less violent and less harmful than the subjects in other conditions; however, the discrepancy in means was not enough to make the findings significant. This is a trend that the desensitization theory would predict.

The Aggression Questionnaire descriptive findings suggest a relationship between watching wrestling and higher scores on the Aggression Questionnaire scales. This experiment bypasses the “chicken-before-the-egg” debate of whether watching wrestling makes one aggressive or if aggressive people watch wrestling since nearly 78% of the subjects responded that they did not view wrestling at all. The experimenter predicted that those in the wrestling condition would be emotionally numbed to the violence and would rate lower means on the Aggression Questionnaire scales; however, the trends indicate quite the contrary. It would be presumptuous to conclude that watching wrestling does in fact make viewers more aggressive. The current trends would merely indicate a relationship between the two: that watching professional wrestling

could make one more aggressive. This does not mean that there is a definite causal relationship. It is important to reiterate that the differences in means between conditions on the Aggression Questionnaire were not significant.

Discussion of Desensitization Findings

One should not confuse any of these descriptive findings with the actual result of the analyses of means which states that there is no significant difference in rating of violence and harm when a viewer watched wrestling as compared to those who watched the other conditions' programs. This experiment only states that under the current experiment's conditions and according to the method used to measure desensitization viewing wrestling did not desensitize viewers to violence when compared to the other three control conditions.

The question of why these findings differ from the majority of the literature review findings that reflect violent programming does desensitize viewers to violence arises next. There are several reasons that could account for the discrepancy. One could argue that while there are some studies that focus on college-aged subjects the majority of studies focus on violence's effect on children. Perhaps there are not enough valuable studies on the effects of violent programming on college-aged subjects. Operating on this assumption one might propose that as viewers get older their interpretation and internalizing of violent events in television change.

Another possible explanation could be that programming has become more violent over time and thus what used to be rated as highly violent programming is now considered tame by today's standards. Perhaps even though the three conditions of wrestling, "Walker", and boxing were all deemed as equally violent they are not

considered highly violent by today's standards. Perhaps using content that was even more graphic would elicit different responses from those gathered in this experiment.

One more possible confounder could be the popular viewer conception that all wrestling is fake, that the violence that takes place is not harmful to the participants. It could be possible that subjects in the wrestling condition saw the events as being interpreted as violent but did not actually result in any significant harm. This is to say that it might be true that there were as many violent acts in wrestling as there were in "Walker" but the interpretation of any actual harm caused by the acts was minimally equal in both shows. If this was to be true; however, one would expect the boxing condition to actually be desensitized to the violence of the backyard fighting video. This of course was not reflected in the findings. It is important to remember the findings of Drabman and Thomas (1974) that state that viewing violence disguised as entertainment increases one's tolerance to aggression in the real world.

It could be possible that the method of measuring how violent subjects rated the backyard fighting clip was not an accurate method of actually rating violence. The method employed here merely asked them to rate how violent or harmful they perceived the video to be on a 7-point semantic differential scale. Perhaps devising a more rigorous method of rating violence or measuring simple physiological arousal could be used to tease out the findings that the descriptive trends indicate and therefore achieve significant results. Some experiments have in fact measured arousal in desensitization studies using a galvanic skin response machine which tests arousal via electrical skin conductance rates. It is, however, believed that the current desensitization instrument used in this experiment would have measured desensitization correctly. Even though this instrument

is not a published and tested instrument, the results of the rankings should still be considered useful. Because all subjects used the same instrument, any difference in rankings could be attributable to desensitization.

Discussion of Aggression Questionnaire Findings

The experimenter believed that watching wrestling prior to viewing the clip of actual violence would help desensitize subjects to the actual violence and would result in lower scores on the Aggression Questionnaire. This would indicate that the prior exposure emotionally numbed the wrestling condition subjects; however, the analysis shows that the respondents in the wrestling condition did not answer the questions significantly differently than subjects in the other conditions. Although not significant, the overall trend did show that those watching wrestling beforehand did rate themselves as more aggressive than subjects in the other conditions. Also, when the students returned for T2 the same trend remained over the 3-day period.

This raises the same problems as were found for the desensitization questionnaire. There appears to be some agent at work that differentiates the wrestling condition from the other groups; however, that agent is not strong enough to make the differences between conditions significant. Since students were randomized and could not choose to watch wrestling, this trend seems to imply that watching wrestling could make one aggressive. This may help to explain why children such as Lionel Tate have acted aggressively toward others after viewing wrestling. It is extremely important to reiterate that because there were no significant findings one can not assume that watching wrestling definitely makes one more aggressive.

Another interesting point to note is that the video of backyard fighting contained many maneuvers commonly found in wrestling; therefore, one could argue that when basically combining the videos back to back the wrestling subjects, in fact, were exposed to a prolonged amount of wrestling-style violence. When taking the descriptive trends into account, one may argue that prolonged exposure to wrestling increases the likelihood of that person being aggressive. Still there is a major difference between being an aggressive person and acting out aggressively. Critics may claim that watching wrestling may increase the hostility or aggression felt by a person but does not necessarily mandate that a person would take action on those feelings.

Limitations of Study

There are several limitations that may have affected the results of this experiment. Because the trends indicate some type of relationship present between watching wrestling and the measures analyzed, it may be the case that increasing the subject number would increase the power of the findings thus creating significant differences. This experiment was based on running 20 to 25 people per condition. Perhaps increasing that number would result in different findings.

An important limitation regarding the studied population could be based on the fact that nearly 78% of the subjects responded that they did not view wrestling at all. Perhaps the hypothesized results would have emerged if the distribution of the population was normal in regard to how much exposure one had to viewing wrestling.

Another limitation is the fact that this was a one-time exposure to wrestling. Perhaps repeated prolonged exposure to wrestling would contribute to significant findings. Most of the attackers mentioned in the introduction were considered to be

frequent viewers of wrestling programming. Many critics would argue that a short exposure (only a few minutes) is not significant enough to cause any major effects.

The researcher also feels that perhaps the video of actual violence was too similar to wrestling-style violence. As was mentioned earlier, it could be the case that the viewers believe nearly all instances of wrestling-like violence to be fake and not harmful to the actual participants. The belief is that if someone can be hit in the head by a chair and get up and fight 30 seconds later, truly the victim was not harmed. This causes a discrepancy in rating the severity of aggressive acts (how much damage could this do) versus the harm to the participant involved in the act.

Recommendations for Future Research

Based on the mentioned confounds of this experiment, various studies could be proposed to overcome these limitations. Adding more subjects to the group could result in different findings under the same experiment's conditions. Another option would be to repeatedly expose the groups to their respective conditions. One might propose to have the group meet once a week to view the actual broadcast shows in their condition. In that case one may choose to edit material so that there are the same number of violent events in each violent condition (during a typical hour's broadcast one could expect much more violence in wrestling than in "Walker, Texas Ranger"). The data could then be collected after the semester. If a researcher were to do this, it may be helpful to also record data over the length of the semester. A baseline measure of how aggressive one initially is would help when measuring changes throughout the semester.

Ideally, it would be most helpful in studying the effects of viewing professional wrestling if one could use pre-teen subjects. This is the age group connected with most

of the aforementioned recent deaths resulting from the imitation of professional wrestling moves. It could also be stipulated that college-educated subjects respond differently than non-college-educated subjects. One may propose a study using subjects without a college education or at least using subjects with a more diverse and distributed educational background.

Further research may also include a better method of rating violence. A more detailed scale could be proposed measuring specific aspects of violence or harm inflicted. This also leads to the opportunity of recording desensitization by other methods, such as physiological tests. An interesting study could be proposed studying differences in skin conductance, since that is a measure of arousal. Lessened arousal over time would indicate desensitization.

As previously mentioned a better test video of actual violence could also be used. It may be more interesting to use unexpected acts of violence caught on tape (from reality shows, for instance). There are several shows, such as “Maximum Exposure”, whose entire broadcast consists of unexpected acts caught on tape. The episodes typically broadcast fights or other forms of brutality taking place in public. Initial experiments in desensitization used clips of riots (Thomas, Horton, Lippincott, and Drabman, 1977); however, the researcher questions whether these acts would be considered severely violent by today’s standards.

In closing, it is important to add that while this experiment found no significant effects it should not be viewed as having no value to the current media violence debate. The question of whether or not watching violence, such as wrestling, makes viewers act aggressively is not a “yes/no” debate; however, “yes/no” results contribute to the

understanding of the debate and lead to conclusions that spur on the next phase of research. Studies that refute the claim should be held just as valuable as those that affirm the claim that watching violence leads to aggressive acts. It is because of the discrepancies in findings on this issue that more research is being done to find out exactly how viewing violence plays a part in people's reactions in everyday life.

CHAPTER 6

TABLES AND FIGURES

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Tables

Table 6.1. Time 1 Desensitization Questionnaire Means

	Condition	N	Mean	Std. Deviation	Std. Error
Time 1 Violence Measure	Wrestling	21	6	1	0.218
	Walker	20	6.35	0.745	0.167
	Boxing	24	6	0.885	0.181
	Soccer	21	6.190	0.873	0.190
	Total	86	6.128	0.878	0.095
Time 1 Harm Measure	Wrestling	21	5.714	1.101	0.240
	Walker	20	5.9	1.210	0.270
	Boxing	24	6	1.063	0.217
	Soccer	21	5.762	1.091	0.238
	Total	86	5.849	1.101	0.119

Table 6.2. ANOVA's of Desensitization Questionnaire Measures at T1

		Sum of Squares	df	Mean Square	F	Significance
Time 1 Violence Measure	Between Groups	1.805	3	0.602	0.773	0.512
	Within Groups	63.788	82	0.778		
	Total	65.593	85			
Time 1 Harm Measure	Between Groups	1.140	3	0.380	0.306	0.821
	Within Groups	101.895	82	1.243		
	Total	103.035	85			

Table 6.3. Time 2 Desensitization Questionnaire Means

	Condition	N	Mean	Std. Deviation	Std. Error
Time 2 Violence Measure	Wrestling	20	6.05	0.887	0.198
	Walker	19	6	1	0.229
	Boxing	22	5.909	1.065	0.227
	Soccer	21	5.952	0.865	0.189
	Total	82	5.976	0.942	0.104
Time 2 Harm Measure	Wrestling	20	5.7	0.923	0.206
	Walker	19	5.684	1.376	0.316
	Boxing	22	5.818	1.053	0.224
	Soccer	21	5.810	1.123	0.245
	Total	82	5.756	1.106	0.122

Table 6.4. ANOVA's of Desensitization Questionnaire Measures at T2

		Sum of Squares	df	Mean Square	F	Significance
Time 2 Violence Measure	Between Groups	0.231	3	0.077	0.084	0.969
	Within Groups	71.721	78	0.919		
	Total	71.951	81			
Time 2 Harm Measure	Between Groups	0.306	3	0.102	0.080	0.970
	Within Groups	98.816	78	1.267		
	Total	99.122	81			

Table 6.5. Aggression Questionnaire Means at T1

	Condition	N	Mean	Std. Deviation	Std. Error
Time 1 AQ physical aggression	Wrestling	21	14.143	7.001	1.530
	Walker	20	13.2	4.225	0.945
	Boxing	24	12.25	4.204	0.858
	Soccer	21	12.238	4.218	0.920
	Total	86	12.930	5.015	0.541
Time 1 AQ anger	Wrestling	21	13.286	5.283	1.153
	Walker	20	12.7	4.835	1.081
	Boxing	24	11.208	3.270	0.668
	Soccer	21	12.762	5.176	1.129
	Total	86	12.442	4.652	0.502
Time 1 AQ indirect aggression	Wrestling	21	12.952	3.788	0.827
	Walker	20	14.2	3.443	0.770
	Boxing	24	11.958	4.123	0.842
	Soccer	21	12.714	4.326	0.944
	Total	86	12.907	3.960	0.427
Time 1 AQ verbal aggression	Wrestling	21	13	4.461	0.973
	Walker	20	10.75	4.644	1.038
	Boxing	24	12.167	3.472	0.709
	Soccer	21	12.619	3.324	0.725
	Total	86	12.151	4.007	0.432
Time 1 AQ hostility	Wrestling	21	15.428	5.938	1.296
	Walker	20	15.45	5.717	1.278
	Boxing	24	14.583	4.791	0.978
	Soccer	21	15.857	5.659	1.235
	Total	86	15.302	5.439	0.586
Time 1 AQ total	Wrestling	21	68.81	21.755	4.747
	Walker	20	66.3	15.885	3.552
	Boxing	24	62.292	15.349	3.133
	Soccer	21	65.905	17.723	3.867
	Total	86	65.698	17.640	1.902

Table 6.6. Test of Homogeneity of Variances for Aggression Questionnaire at T1

	Levene Statistic	df1	df2
Time 1 AQ physical aggression	2.043	3	82
Time 1 AQ anger	2.412	3	82
Time 1 AQ indirect aggression	0.272	3	82
Time 1 AQ verbal aggression	1.536	3	82
Time 1 AQ hostility	0.324	3	82
Time 1 AQ total	1.563	3	82

Table 6.7. ANOVA's of Aggression Questionnaire at T1

		Sum of Squares	df	Mean Square	F	Significance
Time 1 AQ physical aggression	Between Groups	53.500	3	17.833	0.702	0.554
	Within Groups	2084.081	82	25.416		
	Total	2137.581	85			
Time 1 AQ anger	Between Groups	54.956	3	18.319	0.842	0.475
	Within Groups	1784.254	82	21.759		
	Total	1839.209	85			
Time 1 AQ indirect aggression	Between Groups	55.859	3	18.62	1.195	0.317
	Within Groups	1277.396	82	15.578		
	Total	1333.256	85			
Time 1 AQ verbal aggression	Between Groups	58.999	3	19.666	1.235	0.302
	Within Groups	1306.036	82	15.927		
	Total	1365.035	85			
Time 1 AQ hostility	Between Groups	19.642	3	6.547	0.215	0.886
	Within Groups	2494.498	82	30.421		
	Total	2514.14	85			
Time 1 AQ total	Between Groups	489.934	3	163.311	0.516	0.673
	Within Groups	25960.206	82	316.588		
	Total	26450.14	85			

Table 6.8. Aggression Questionnaire Means at T2

	Condition	N	Mean	Std. Deviation	Std. Error
Time 2 AQ physical aggression	Wrestling	20	14.7	7.692	1.720
	Walker	19	12.684	3.400	0.780
	Boxing	22	12.091	4.597	0.980
	Soccer	21	12.095	4.437	0.968
	Total	82	12.866	5.286	0.584
Time 2 AQ anger	Wrestling	20	12.9	5.108	1.142
	Walker	19	11.579	5.470	1.255
	Boxing	22	11.5	3.596	0.767
	Soccer	21	11.381	4.33	0.945
	Total	82	11.829	4.597	0.508
Time 2 AQ indirect aggression	Wrestling	20	13.25	3.81	0.852
	Walker	19	12.737	3.856	0.885
	Boxing	22	11.545	4.768	1.017
	Soccer	21	12.714	4.724	1.031
	Total	82	12.537	4.304	0.475
Time 2 AQ verbal aggression	Wrestling	20	12.6	4.695	1.05
	Walker	19	10.368	4.4	1.009
	Boxing	22	10.864	4.167	0.888
	Soccer	21	10.714	3.58	0.781
	Total	82	11.134	4.227	0.467
Time 2 AQ hostility	Wrestling	20	15.25	6.463	1.445
	Walker	19	14.158	6.021	1.381
	Boxing	22	14.136	5.231	1.115
	Soccer	21	14.381	5.408	1.180
	Total	82	14.476	5.69	0.628
Time 2 AQ total	Wrestling	20	68.7	23.338	5.218
	Walker	19	61.526	18.130	4.159
	Boxing	22	60.136	18.676	3.982
	Soccer	21	61.286	17.553	3.830
	Total	82	62.841	19.463	2.149

Table 6.9. Test of Homogeneity of Variances for Aggression Questionnaire at T2

	Levene Statistic	df1	df2	Significance
Time 2 AQ physical aggression	3.835	3	78	0.013
Time 2 AQ anger	0.975	3	78	0.409
Time 2 AQ indirect aggression	0.495	3	78	0.687
Time 2 AQ verbal aggression	1.125	3	78	0.344
Time 2 AQ hostility	0.458	3	78	0.712
Time 2 AQ total	1.266	3	78	0.292

Table 6.10. ANOVA's of Aggression Questionnaire Measures at T2

		Sum of Squares	df	Mean Square	F	Significance
Time 2 AQ physical aggression	Between Groups	93.591	3	31.197	1.121	0.346
	Within Groups	2169.933	78	27.82		
	Total	2263.524	81			
Time 2 AQ anger	Between Groups	30.726	3	10.242	0.475	0.700
	Within Groups	1680.884	78	21.55		
	Total	1711.61	81			
Time 2 AQ indirect aggression	Between Groups	33.216	3	11.072	0.589	0.624
	Within Groups	1467.174	78	18.81		
	Total	1500.390	81			
Time 2 AQ verbal aggression	Between Groups	59.427	3	19.809	1.113	0.349
	Within Groups	1388.097	78	17.796		
	Total	1447.524	81			
Time 2 AQ hostility	Between Groups	16.632	3	5.544	0.166	0.919
	Within Groups	2605.82	78	33.408		
	Total	2622.451	81			
Time 2 AQ total	Between Groups	931.126	3	310.375	0.814	0.490
	Within Groups	29751.813	78	381.434		
	Total	30682.94	81			

Table 6.11. Means for all Measures at T1*

	Condition	N	Mean	Std. Deviation	Std. Error
Time 1 Desensitization measure of violence	Wrestling	21	6	1	0.218
	Walker	20	6.35	0.745	0.167
	Boxing	24	6	0.885	0.181
	Soccer	21	6.190	0.873	0.190
	Total	86	6.128	0.878	0.095
Time 1 Desensitization measure of harm imposed	Wrestling	21	5.714	1.102	0.240
	Walker	20	5.9	1.21	0.270
	Boxing	24	6	1.063	0.217
	Soccer	21	5.762	1.091	0.238
	Total	86	5.849	1.101	0.119
Time 1 AQ physical aggression	Wrestling	21	14.143	7.009	1.53
	Walker	20	13.2	4.225	0.945
	Boxing	24	12.25	4.204	0.858
	Soccer	21	12.238	4.218	0.920
	Total	86	12.930	5.015	0.541
Time 1 AQ anger	Wrestling	21	13.286	5.283	1.153
	Walker	20	12.7	4.835	1.081
	Boxing	24	11.208	3.270	0.668
	Soccer	21	12.762	5.176	1.129
	Total	86	12.442	4.652	0.502
Time 1 AQ indirect aggression	Wrestling	21	12.952	3.788	0.827
	Walker	20	14.2	3.443	0.77
	Boxing	24	11.958	4.123	0.842
	Soccer	21	12.714	4.326	0.944
	Total	86	12.907	3.960	0.427
Time 1 AQ verbal aggression	Wrestling	21	13	4.461	0.973
	Walker	20	10.75	4.644	1.038
	Boxing	24	12.167	3.472	0.709
	Soccer	21	12.619	3.324	0.725
	Total	86	12.151	4.007	0.432
Time 1 AQ hostility	Wrestling	21	15.429	5.938	1.296
	Walker	20	15.45	5.717	1.278
	Boxing	24	14.583	4.791	0.978
	Soccer	21	15.857	5.659	1.235
	Total	86	15.302	5.439	0.586
Time 1 AQ total	Wrestling	21	68.81	21.755	4.747
	Walker	20	66.3	15.885	3.552
	Boxing	24	62.292	15.349	3.133
	Soccer	21	65.905	17.723	3.867
	Total	86	65.698	17.640	1.902

* highlight indicates lowest mean for desensitization measure and highest mean for Aggression Questionnaire measures

Table 6.12. Means for all Measures at T2*

	Condition	N	Mean	Std.	Std. Error
Time 2 Desensitization measure of violence	Wrestling	20	6.05	0.887	0.198
	Walker	19	6	1	0.229
	Boxing	22	5.909	1.065	0.227
	Soccer	21	5.952	0.865	0.189
	Total	82	5.976	0.942	0.104
Time 2 Desensitization measure of harm imposed	Wrestling	20	5.7	0.923	0.206
	Walker	19	5.684	1.376	0.316
	Boxing	22	5.818	1.053	0.224
	Soccer	21	5.81	1.123	0.245
	Total	82	5.756	1.106	0.122
Time 2 AQ physical aggression	Wrestling	20	14.7	7.692	1.720
	Walker	19	12.684	3.400	0.780
	Boxing	22	12.091	4.597	0.980
	Soccer	21	12.095	4.437	0.968
	Total	82	12.866	5.286	0.584
Time 2 AQ anger	Wrestling	20	12.9	5.108	1.142
	Walker	19	11.579	5.470	1.255
	Boxing	22	11.5	3.596	0.767
	Soccer	21	11.381	4.33	0.945
	Total	82	11.829	4.597	0.508
Time 2 AQ indirect aggression	Wrestling	20	13.25	3.81	0.852
	Walker	19	12.737	3.856	0.885
	Boxing	22	11.545	4.768	1.017
	Soccer	21	12.714	4.724	1.031
	Total	82	12.537	4.304	0.475
Time 2 AQ verbal aggression	Wrestling	20	12.6	4.695	1.05
	Walker	19	10.368	4.4	1.009
	Boxing	22	10.864	4.167	0.888
	Soccer	21	10.714	3.58	0.781
	Total	82	11.134	4.227	0.467
Time 2 AQ hostility	Wrestling	20	15.25	6.463	1.445
	Walker	19	14.158	6.021	1.381
	Boxing	22	14.136	5.231	1.115
	Soccer	21	14.381	5.408	1.180
	Total	82	14.476	5.69	0.628
Time 2 AQ total	Wrestling	20	68.7	23.338	5.218
	Walker	19	61.526	18.130	4.159
	Boxing	22	60.136	18.676	3.982
	Soccer	21	61.286	17.553	3.830
	Total	82	62.842	19.463	2.149

* highlight indicates lowest mean for desensitization measure and highest mean for Aggression Questionnaire measures

Figures

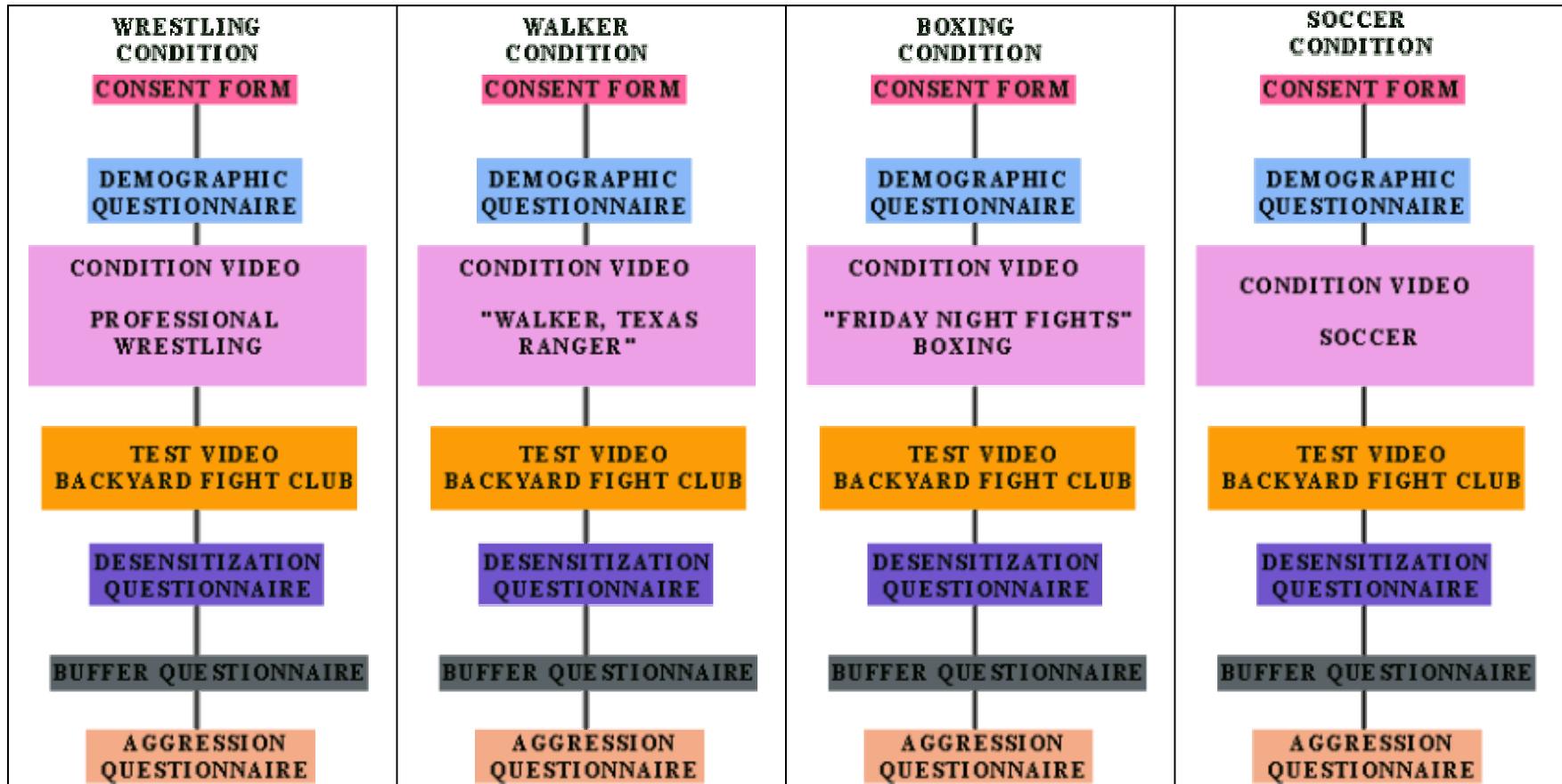


Figure 6.1. Layout of Experimental Design at T1

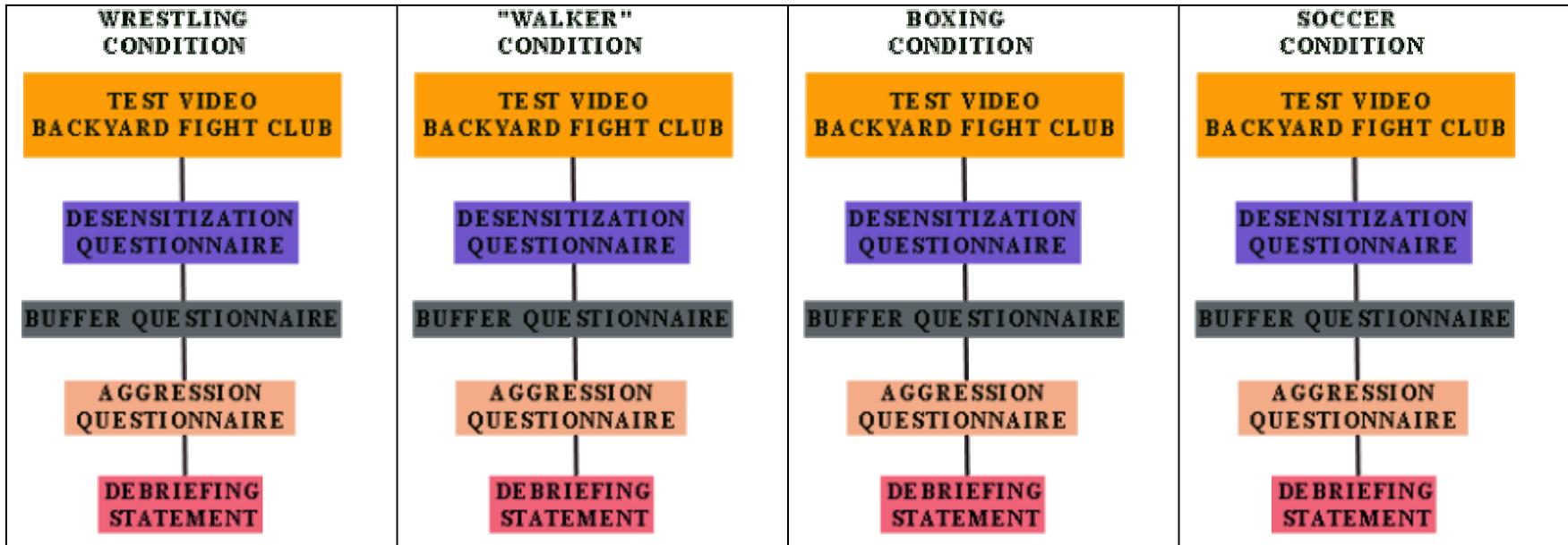


Figure 6.2. Layout of Experimental Design at T2

Desensitization Questionnaire Violence Measure Over T1 and T2

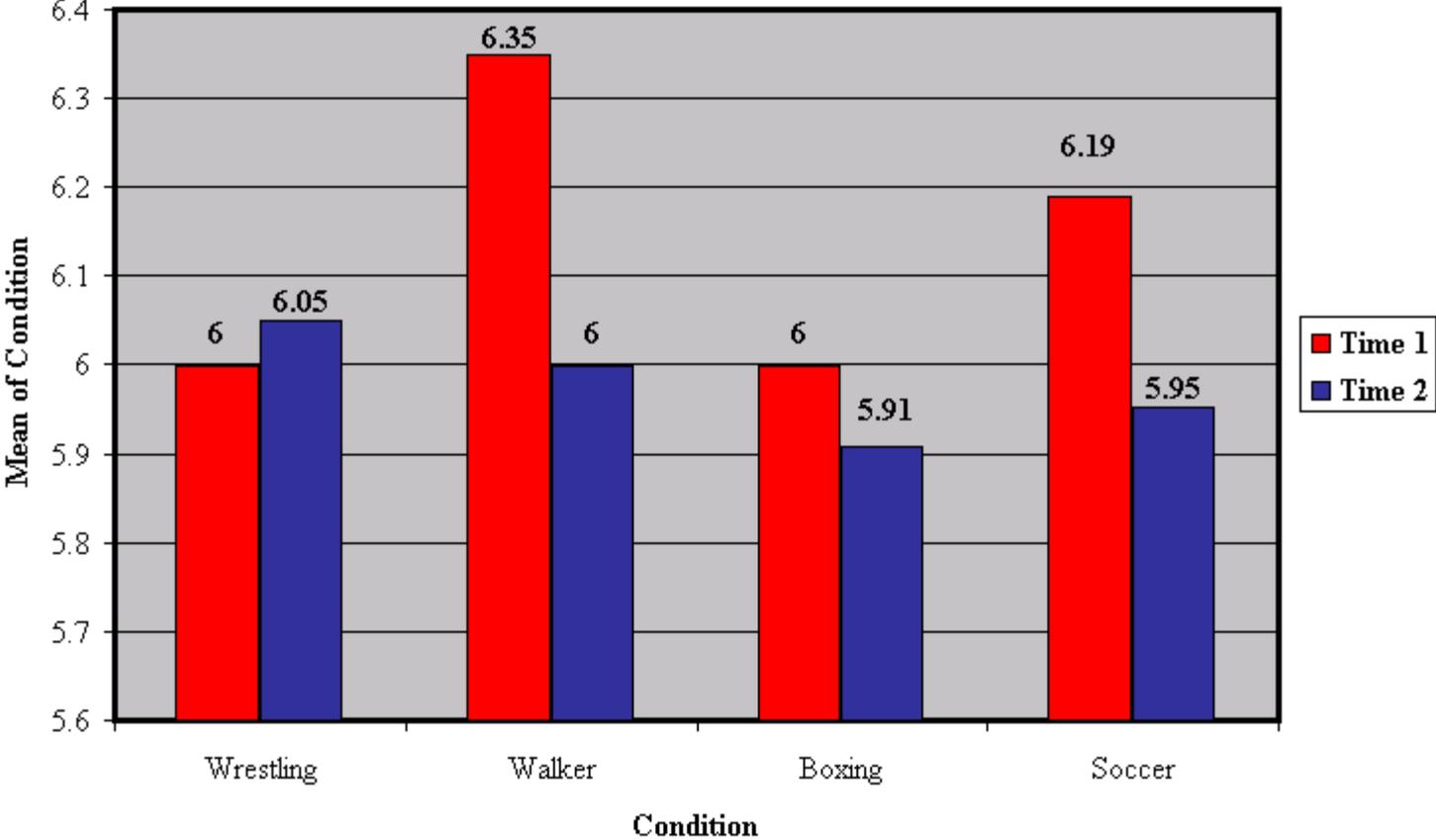


Figure 6.3. Comparison of Desensitization Questionnaire Violence Measure Over T1 and T2

Desensitization Measure of Harm Over T1 and T2

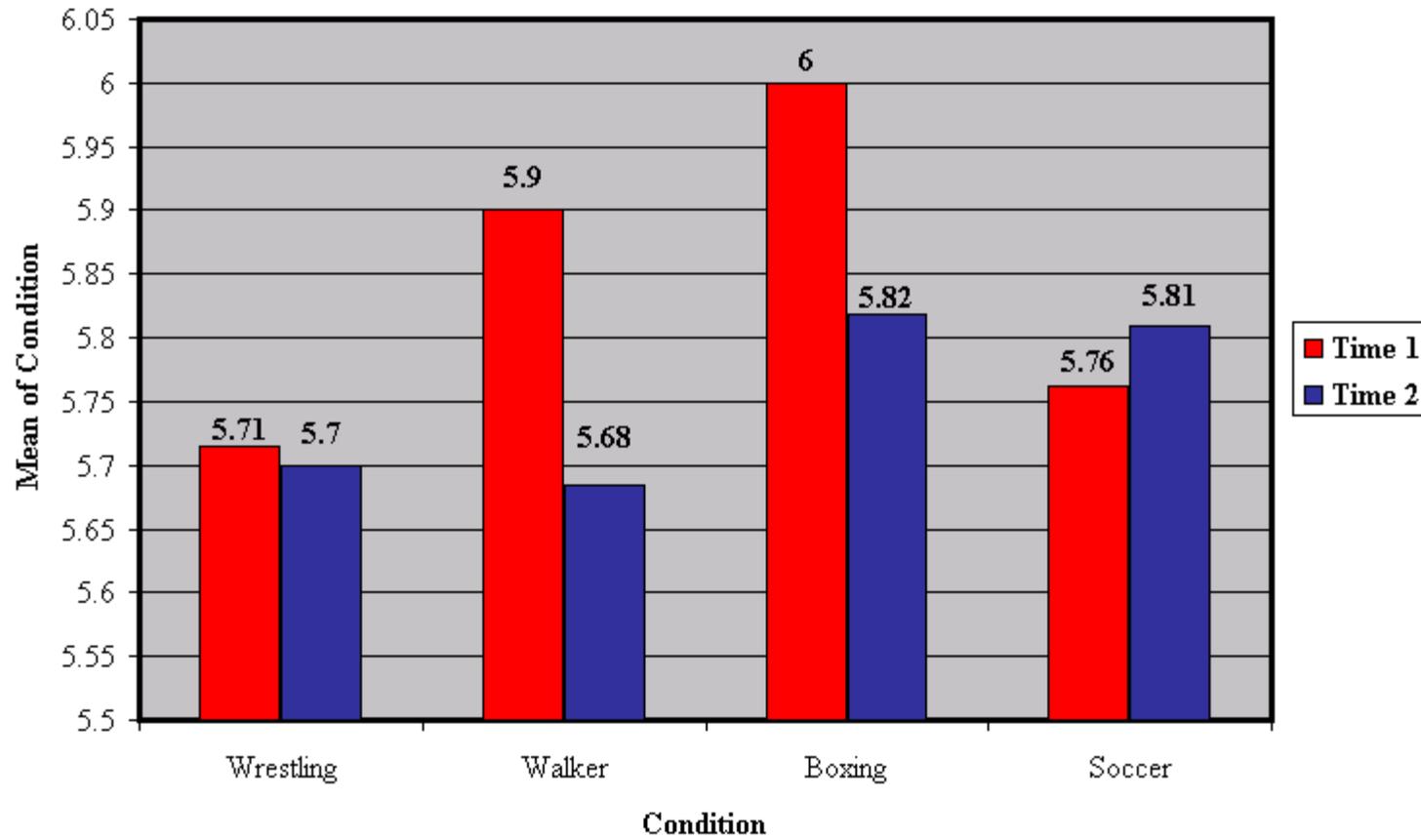


Figure 6.4. Comparison of Desensitization Questionnaire Harm Measure Over T1 and T2

Aggression Questionnaire Measure of Physical Aggression Over T1 and T2

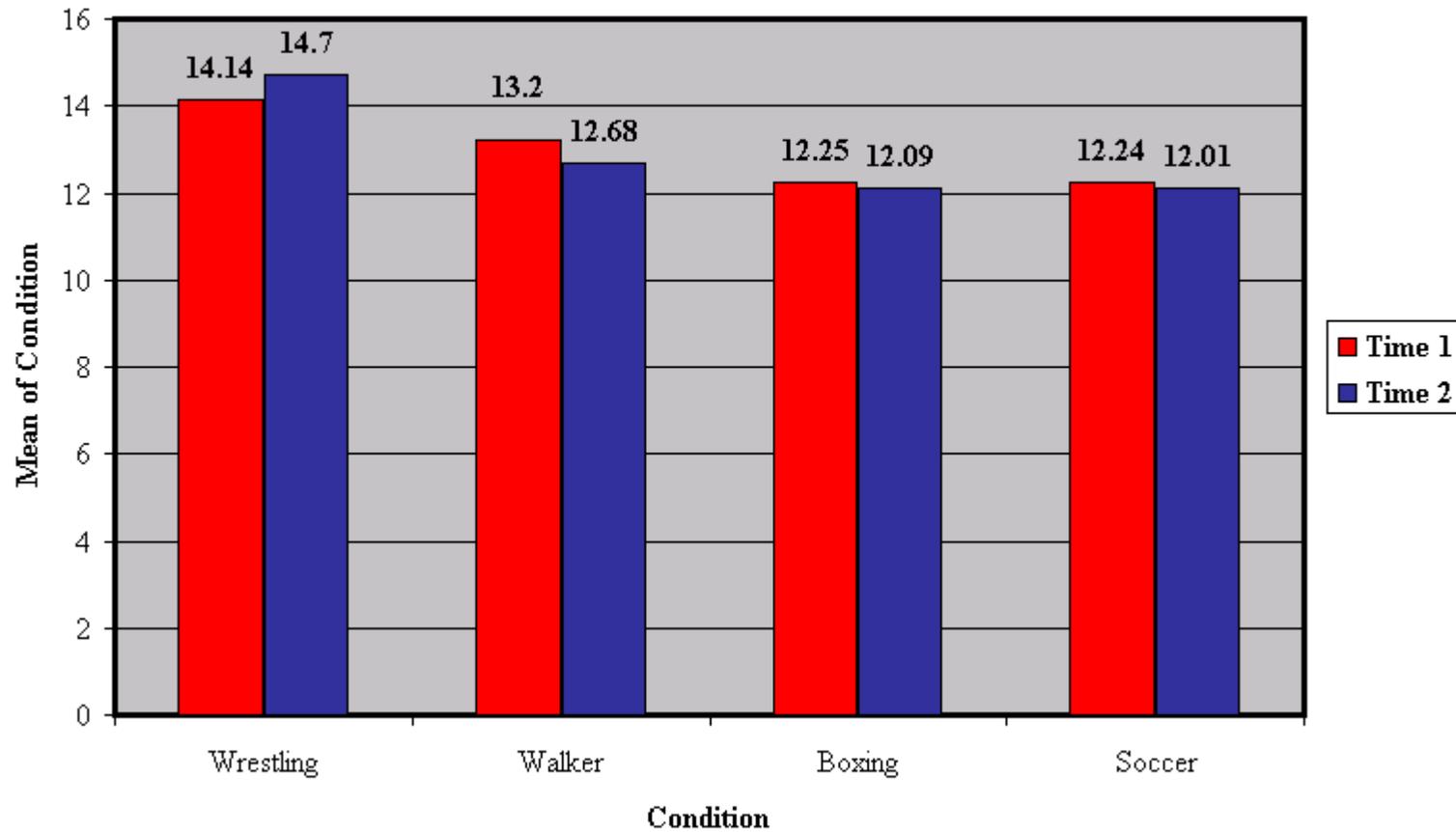


Figure 6.5. Comparison of Aggression Questionnaire Physical Aggression Measure Over T1 and T2

Aggression Questionnaire Anger Measure over T1 and T2

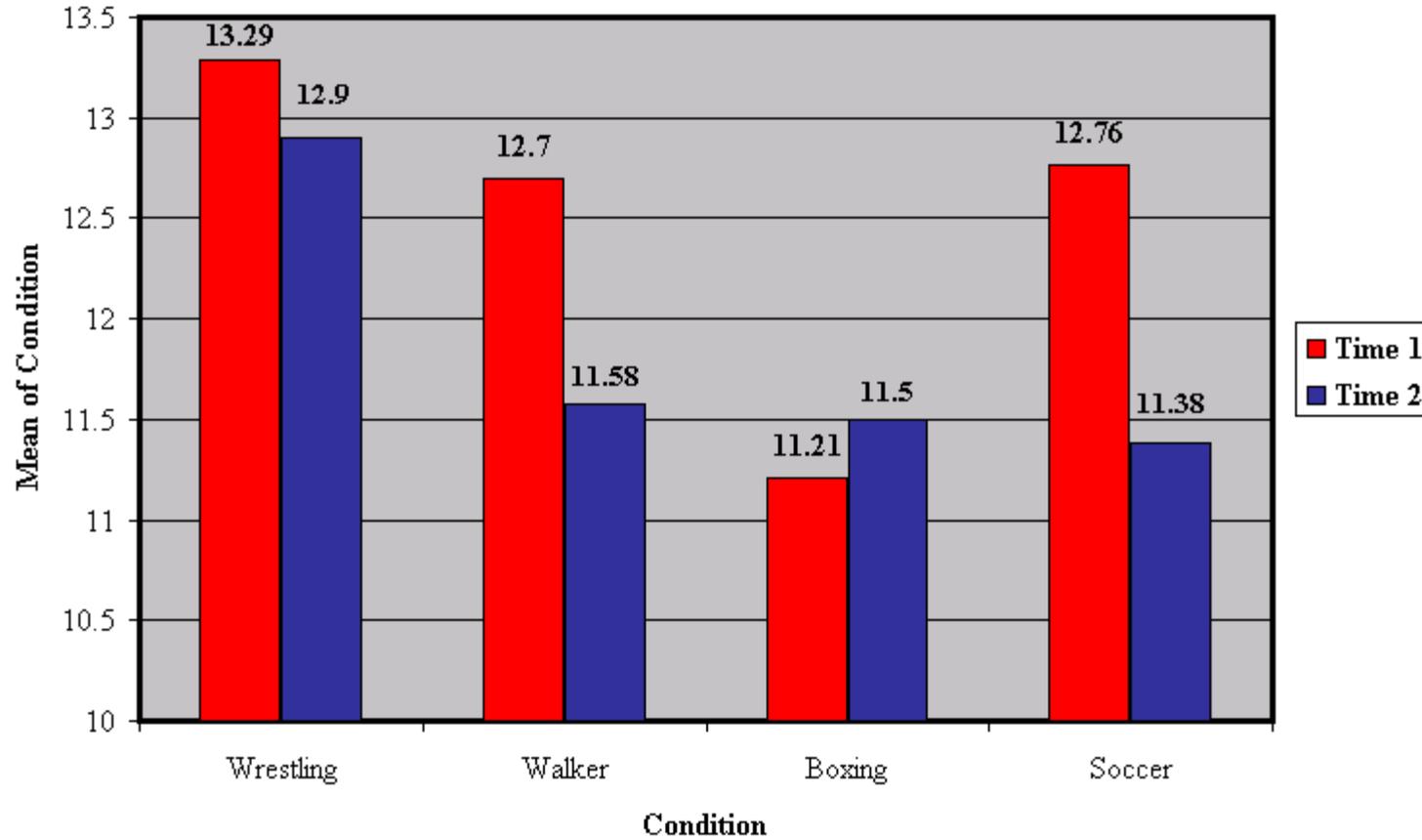


Figure 6.6. Comparison of Aggression Questionnaire Anger Measure Over T1 and T2

Aggression Questionnaire Indirect Aggression Measure Over T1 and T2

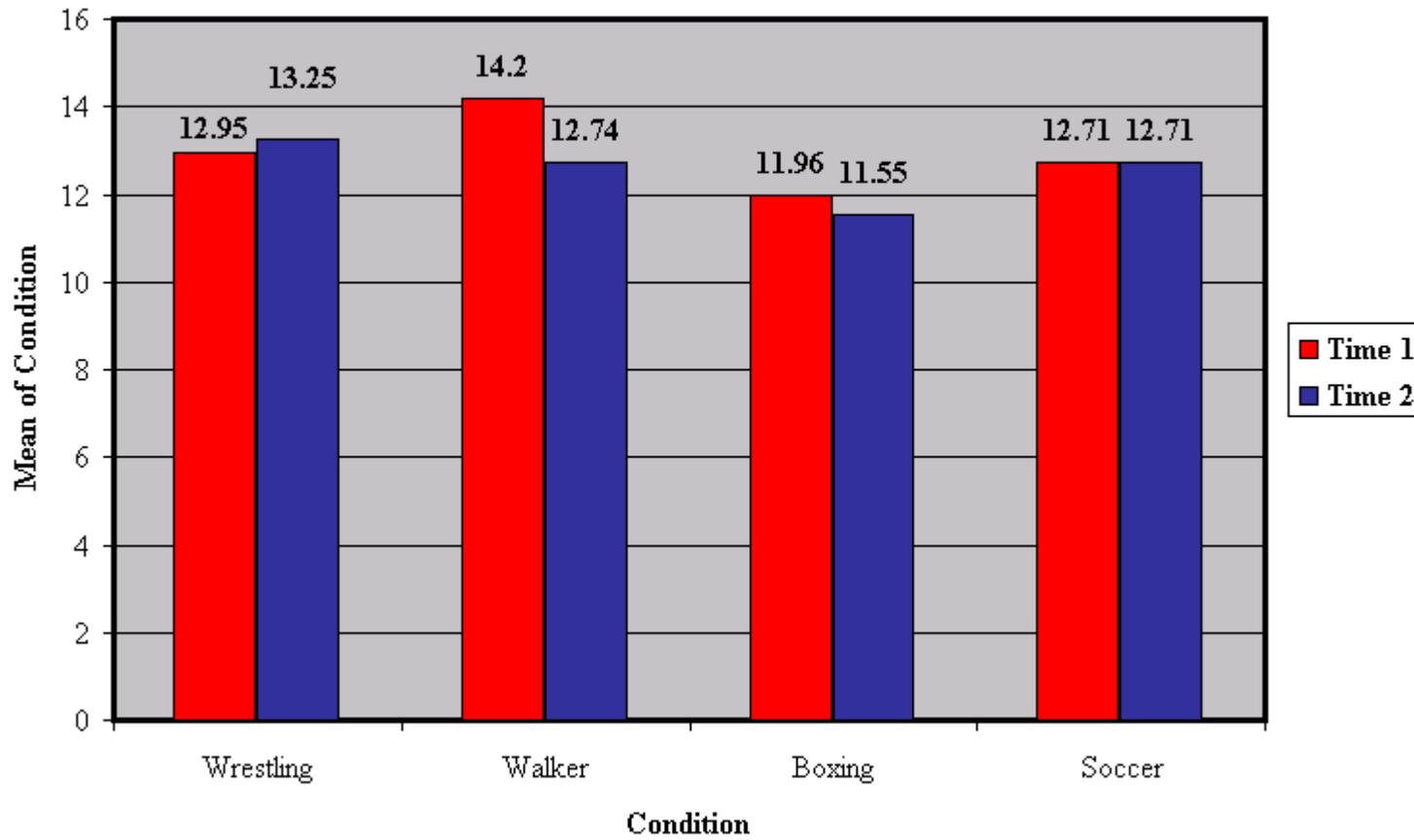


Figure 6.7. Comparison of Aggression Questionnaire Indirect Aggression Measure Over T1 and T2

Aggression Questionnaire Verbal Aggression Measure Over T1 and T2

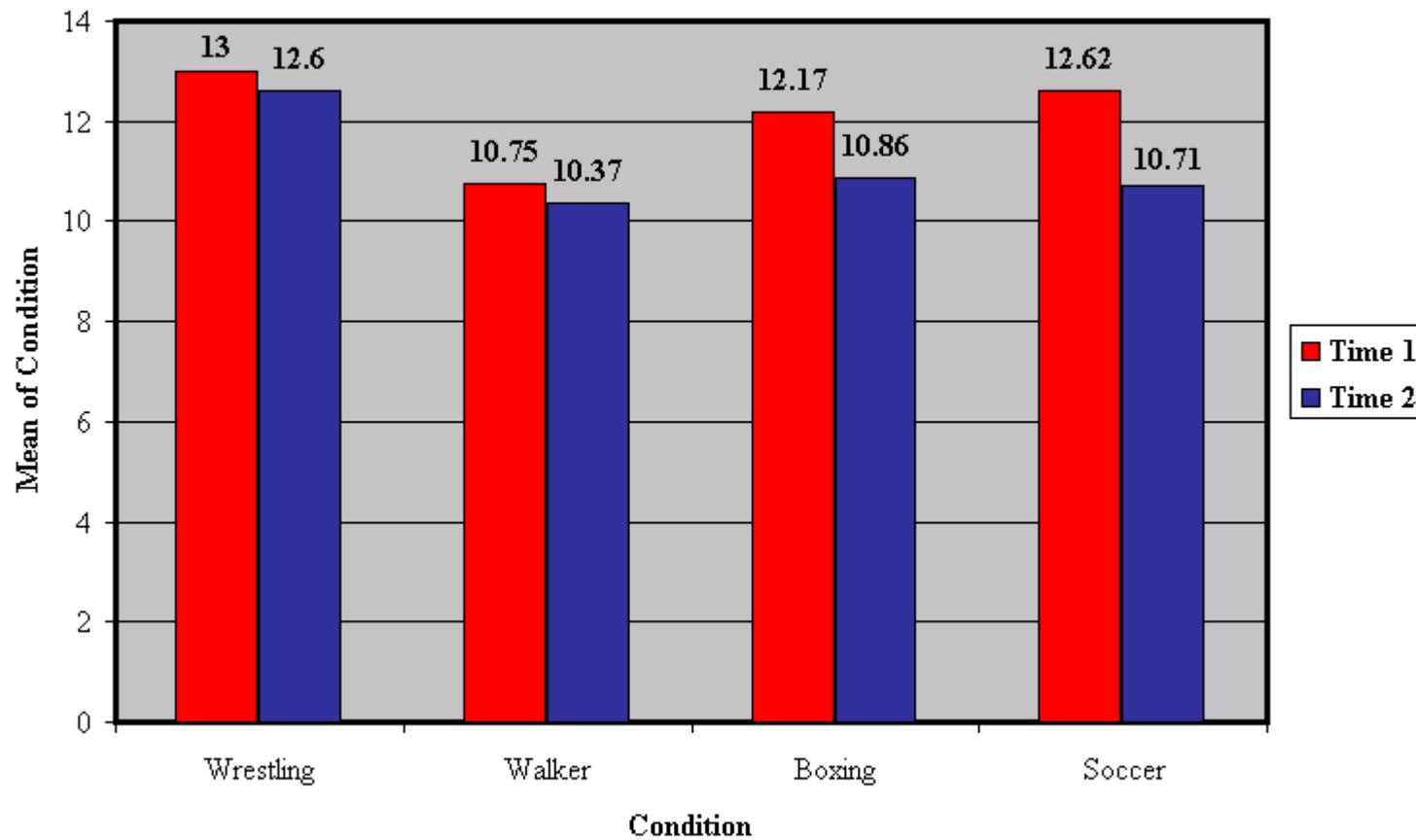


Figure 6.8. Comparison of Aggression Questionnaire Verbal Aggression Measure Over T1 and T2

Aggression Questionnaire Hostility Measure Over T1 and T2

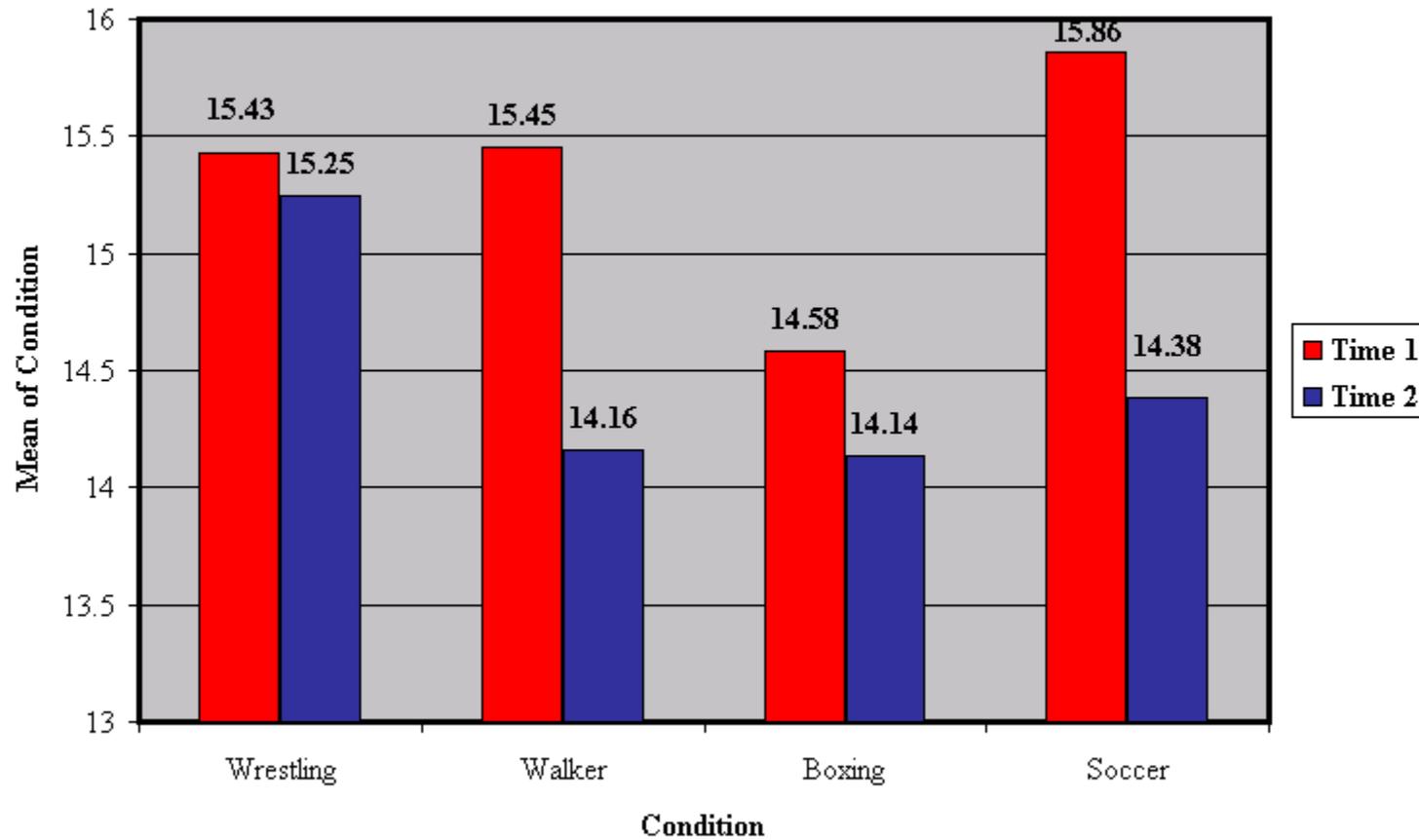


Figure 6.9. Comparison of Aggression Questionnaire Hostility Measure Over T1 and T2

Aggression Questionnaire AQ Total Measure Over T1 and T2

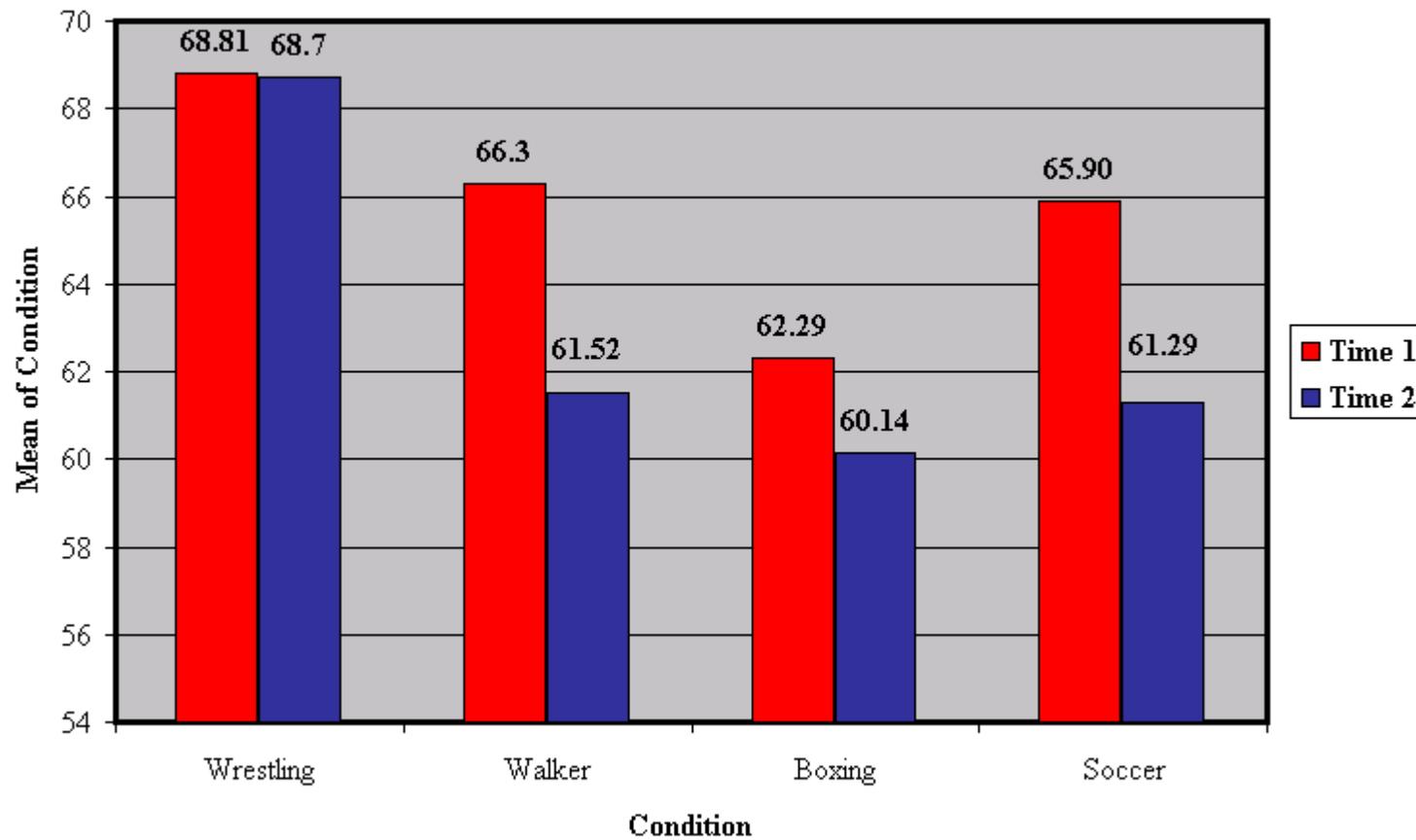


Figure 6.10. Comparison of Aggression Questionnaire AQ Total Measure Over T1 and T2

CHAPTER 7

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CHAPTER 8
APPENDICES

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Appendix A

Consent Form

I agree to take part in a research study titled *Judging Media Content*, which is being conducted by Kevin Williams of the Grady College of Journalism and Mass Communication. Kevin can be reached by calling 542-4978. This study is under the direction of Dr. Bruce C. Klopfenstein of the Telecommunications Department of Grady College. He can be reached by calling 542-4964. I understand that I do not have to take part in this study, and I can stop taking part at any time without giving any reason, and without penalty. I can ask to have information related to me returned to me, removed from the research records, or destroyed.

The purpose of this experiment is to study how viewers judge media content and how media content affects viewers. By taking part in this experiment I will be awarded 1 research credit for the first phase of the experiment and ½ credit for the second phase. Full participation in both phases will result in 1.5 research credits. I will be asked to answer a few questions describing myself and my television viewing habits. I will then proceed to view 2 video clips each in duration of 5 to 10 minutes. After viewing this content I will be asked to complete a questionnaire. I will be required to return in 3 days time to complete the second part of this study. This will consist of again viewing 5 to 10 minutes of video content followed by completing a questionnaire. Each session of this experiment should take no longer than 45 minutes.

I understand that I may be exposed to adult situations (which may include harsh language, graphic violence, and sexual references) in the video content. No other discomforts or stress should be gained from this experiment. There are no other risks foreseen than those created by watching televised adult situations. Again if I am uncomfortable with what I see during the course of this experiment, I understand that I can stop taking part at any time without giving any reason, and without penalty. I understand that any information which could personally be connected to me will be kept confidential and not shared with anyone outside the research group. This personal information can only be released with my permission. If information about me is published, it will be written in a way that I cannot be recognized. However, research records may be obtained by court order. The researcher will answer any further questions about the research, now or during the course of the project, and can be reached by telephone at: 706-542-4978.

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Signature of Researcher Date

Signature of Participant Date

For questions or problems about your rights please call or write: Chris A. Joseph, Ph.D., Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-6514; E-Mail Address IRB@uga.edu.

Appendix B

Demographic Questionnaire

JUDGING MEDIA CONTENT

1. Last four digits of your Social Security Number. _____
2. What is your gender? (Circle one) Male Female
3. What race would you consider yourself to be? (Circle one)
Caucasian African-American Latino Asian-American Other
4. What is your age? _____
5. How many hours of television do you watch in a typical day? (Circle one)
1 to 2 hours 3 to 4 hours 5 to 6 hours
7 to 8 hours 9 to 10 hours 11 to 12 hours
More than 12 hours
6. How would you describe the amount of soap operas you watch on television?
(Circle one)
1-Devoted viewer 3-Infrequent viewer
2-Frequent viewer 4-Don't view at all
7. On a scale of 1 to 10 with ten being the most enjoyable, how much do you enjoy watching soap operas on television? _____
8. How would you describe the amount of talk shows (Oprah, Rosie O'Donnell, Hard Ball, etc.) you watch on television?
(Circle one)
1-Devoted viewer 3-Infrequent viewer
2-Frequent viewer 4-Don't view at all
9. On a scale of 1 to 10 with ten being the most enjoyable, how much do you enjoy watching talk shows on television? _____

10. How would you describe the amount of wrestling you watch on television?

(Circle one)

1-Devoted viewer

3-Infrequent viewer

2-Frequent viewer

4-Don't view at all

11. On a scale of 1 to 10 with ten being the most enjoyable, how much do you enjoy watching wrestling on television? _____

12. How would you describe the amount of cartoons you watch on television?

(Circle one)

1-Devoted viewer

3-Infrequent viewer

2-Frequent viewer

4-Don't view at all

13. On a scale of 1 to 10 with ten being the most enjoyable, how much do you enjoy cartoons on television? _____

14. How would you describe the amount of game shows you watch on television?

(Circle one)

1-Devoted viewer

3-Infrequent viewer

2-Frequent viewer

4-Don't view at all

15. On a scale of 1 to 10 with ten being the most enjoyable, how much do you enjoy game shows on television? _____

16. How would you describe the amount of Professional Basketball (men's and women's) you watch on television?

(Circle one)

1-Devoted viewer

3-Infrequent viewer

2-Frequent viewer

4-Don't view at all

17. On a scale of 1 to 10 with ten being the most enjoyable, how much do you enjoy watching Professional Basketball on television? _____

Appendix C

Desensitization Questionnaire

Instructions:

Place an "X" in the spot where you agree the most. The following four questions refer to the second video, which was of backyard fight clubs.

1. How violent would you rate the clip (clip B) that you just watched?

Not at all _____:_____ : _____:_____ : _____:_____ : _____:_____ Extremely Violent

2. How much harm do you think was inflicted on the participants in this film as a result of their actions?

None at all _____:_____ : _____:_____ : _____:_____ : _____:_____ Serious Harm

3. How uncomfortable did the video you just watched make you feel?

Not at all _____:_____ : _____:_____ : _____:_____ : _____:_____ Very Uncomfortable

4. How excited did the video you just watched make you feel?

Not at all _____:_____ : _____:_____ : _____:_____ : _____:_____ Very Excited

Appendix D

Wrestling Buffer Questionnaire

This page refers to the first video you saw of the professional wrestling match.

Circle the answer you believe to be the correct answer.

1. Another wrestler runs into the ring after the match is over. What type of hair does he have?

- A – Red bowl-cut
- B – Long blond
- C – Dark crew-cut
- D – None, he was bald

2. How was the match won?

- A – No one won. Both wrestlers were disqualified
- B – One wrestler made the other submit
- C – Pinfall (count of three)
- D – One wrestler choked the other unconscious

3. Who won the match?

- A – Kurt Angle
- B – Chris Jericho
- C – Stone Cold Steve Austin
- D – The Rock

4. What color is The Rock's trunks?

- A – Black and White
- B – Red
- C – Gold
- D – Blue

Appendix E

“Walker, Texas Ranger” Buffer Questionnaire

This page refers to the first video you saw of “Walker, Texas Ranger.”

Circle the answer you believe to be the correct answer.

1. What sports phrase did Walker use when fighting three different groups in the opening clip?

- A – Ready, Aim, Fire
- B – On your mark, get set, go
- C – Ready, set, go
- D – Strike One, Strike Two, Strike Three

2. At one point Walker was fighting people in uniforms. What were those people wearing?

- A – Police Blue Uniforms
- B – Military Camouflage
- C – Fireman’s Yellow Suits
- D – Scientist’s lab coats

3. How long did the bleached-haired man say he had waited to fight Walker?

- A – 5 years
- B – 6 months
- C – 15 years
- D – 25 years

4. What was the color of the shirt worn by the last guy in this clip that Walker kicked?

- A – Red
- B – White
- C – Blue Striped
- D – Green

Appendix F

Boxing Buffer Questionnaire

This page refers to the first video you saw of the boxing matches.

Circle the answer you believe to be the correct answer.

1. Which beverage sponsor had their logo displayed in the middle of the ring?

- A – Coke
- B – Jack Daniels
- C – Miller
- D – Budweiser

2. What Cable Network sponsored and aired this fight (their logo was in the corner of the screen)?

- A – Fox Sports
- B – ESPN/ESPN2
- C – USA
- D – HBO

3. In the second fight, what caused an interruption in the action?

- A – Low blow
- B – Fan tossed something in the ring
- C – A rabbit punch (around the back in the kidneys)
- D – Head butt

4. What hotel/casino did all the fights take place?

- A – Aladdin
- B – Caesar's Palace
- C – The Sandbar
- D – The Orleans

Appendix G

Soccer Buffer Questionnaire

This page refers to the first video you saw of the soccer match.

Circle the answer you believe to be the correct answer.

1. What were the abbreviations of the names of the two teams?

- A – MUN and MAN
- B – TOR and UTV
- C – GER and BEL
- D – IRL and CHN

2. Which Motor Company advertised on the banners on the side of the field?

- A – Chevrolet
- B – Volkswagen
- C – Ford
- D – BMW

3. Which Video Gaming Console advertised on the banners on the side of the field?

- A – Dreamcast
- B – Xbox
- C – Gamecube
- D – Playstation2

4. Was this match videotaped live or was it delayed (Was there ever a “Live” logo displayed on screen)?

- A – Taped live
- B – Delayed

Appendix H

Time 2 Test Video Buffer Questionnaire

This page refers to the video you just saw of the backyard fights.

Circle the answer you believe to be the correct answer.

1. In the opening clip one of the boys was wearing a shirt which had what superhero's logo on it?

- A - Batman
- B - Superman
- C - The Flash
- D - Wonder Woman

2. What color pants were worn by the person who jumped from the top of the gymnasium onto the guy on the table?

- A - Blue
- B - Red
- C - White
- D - Yellow

3. The final acts of this video featured people jumping off of what structure onto their opponents?

- A - Garbage dumpsters
- B - Cars
- C - Rooftops
- D - Ladders

4. Was there music playing when the guys were jumping off the trampoline?

- A - Yes
- B - No

Appendix I

Debriefing Statement

Debriefing Statement

Thank you for participating in this experiment, entitled “Judging Media Content.” While it is true that you were forming judgments about the media content and noting your perceptions through filling out several questionnaires, the true aim of this experiment was to study if and how subjects, such as yourself, are desensitized to actual violence by watching media violence. The clip of teenagers fighting in their backyards was a clip of actual violence. Depending on what condition you were randomly selected for, you either viewed a clip of televised professional wrestling, a soccer match, several boxing matches, or clips from “Walker, Texas Ranger” beforehand.

This experiment was studying how each of those clips affected the viewer when asked to rate how violent they perceived an actual clip of violence (the backyard fights) to be. The researcher was looking for differences among the groups and hypothesized that those who watched wrestling beforehand would rate the backyard fight clip as less violent when compared to those viewers who were previously exposed to different conditions. Asking participants to come back at a later time was the researcher’s strategy to see if any effects lasted for any considerable length of time. The demographic information you filled out at the beginning of this experiment (how much television do you watch, do you watch wrestling, etc.) will provide the researcher with useful information that they can factor into their data. The Aggression Questionnaire was used to see if the different conditions (viewing different clips) created significant differences between groups in how aggressive or hostile the clips made them feel.

Again, thank you for your participation. If you have any further questions, comments, or would like to know the results of this experiments please contact Kevin Williams at 706-542-4978.

For questions or problems about your rights please call or write: Chris A. Joseph, Ph.D., Human Subjects Office, University of Georgia, 606A Boyd Graduate Studies Research Center, Athens, Georgia 30602-7411; Telephone (706) 542-6514; E-Mail Address IRB@uga.edu.