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EASTERN KENTUCKY UNIVERSITY

Using Multimedia to Counteract the CSI Effect

Honors Thesis

Submitted in Partial Fulfillment

of the

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Spring 2020

By

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Using Multimedia to Counteract the CSI Effect

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The CSI Effect is a phenomenon where people's views of forensic science and the criminal justice system are unfavorably influenced by watching television crime dramas. The dramatized elements from the fictional shows are thought to give viewers unrealistic expectations of forensic evidence, which is debated by researchers if this could cause real-world consequences, especially where the court room is concerned. Surveys were sent to ECU students to gauge the level of awareness students have of the CSI Effect, particularly comparing the awareness of forensics majors to non-forensics majors. Interviews were also conducted with professionals in the fields of forensic science and criminal justice to ascertain whether they thought the CSI Effect existed and what potential negative effects it had. The information gleaned from the research, interviews, and the surveys were used to make an informative documentary about the CSI Effect as a creative research project. The multimedia documentary video can be used as an educational tool to inform the public about the CSI Effect. Since the CSI Effect mainly exists due to people's ignorance, increasing public awareness of the CSI Effect, such as by watching a documentary, can be a counteractive measure against this phenomenon.

Keywords and phrases: CSI Effect, Television Crime Dramas, Phenomenon, Forensic Science, Documentary, Honors Thesis, Creative Research Project, Undergraduate Research

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Figure 1. The level of awareness forensic science students have compared to the level awareness non-forensic science students have based on three levels – never heard of the CSI Effect, heard of the CSI Effect but did not know what it was, and knew what the CSI Effect was.

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Introducing the CSI Effect

When forensic scientists, or even forensic science students, share what their profession or major is with someone who has an unrelated profession, the most common reaction from the other person is “That’s so cool, so you’re like [insert forensic scientist character from a TV crime drama]!” This response occurs so frequently because people who have an occupation outside of criminal justice may only be aware of what forensic science is based upon what they see on television (TV). The TV shows that they obtain this awareness of forensic science from are mainly crime dramas.

TV crime dramas are very popularly watched shows, such as *CSI*, *NCIS*, and *Bones* to name a few. While these shows have been effective in introducing the concept of forensic science to the public, the focus of the TV shows is on entertaining its viewers. Thus, most TV crime dramas are complete with an eccentric forensic scientist who can use their unparalleled brain to work out amazing scientific insights to answer all questions and solve the case. However, the scientist is not the only dramatized aspect, but the science itself is often skewed. The science in TV crime dramas is often portrayed as quick and flawless so as to be able to neatly wrap up the case at the end of the episode, yet the forensic science in reality takes time and is nowhere near as immaculate. In fact, forensic science is referred to as a “dirty” science since the condition of the samples collected from the crime scene are usually far from pristine, meaning that there always has to be some degree of uncertainty.

Therefore, if a person’s impression of forensic science is formed only through crime shows, that person likely has acutely glorified views of what forensic science is like. People having misperceptions of forensic science due to the TV crime dramas

describes a phenomenon called the “CSI Effect,” aptly named after the show *CSI: Crime Scene Investigation*. Several studies have been conducted with the purpose of establishing whether the CSI Effect is a real phenomenon or of determining whether the CSI Effect has any significant, negative impacts. Since the shows have become excessively popular, numerous meanings of the CSI Effect have been created, and numerous consequences resulting from the CSI Effect have been reported. The CSI Effect can be a controversial topic among forensic science and law researchers; the studies are not all in accord with each other though since some negate the CSI Effect while others declare that the CSI Effect has potentially real negative impacts.

Very few of the studies focus on finding a solution if the phenomenon does exist. While the problem is associated with watching the TV crime dramas, the solution is not in the TV shows themselves because the shows would not make for good entertainment if they were true to the science. Can you imagine watching a crime show about a case that lasted several episodes, and finally by the end of the case you still did not know all the answers to it? Viewers would likely be bored out of their minds and completely unsatisfied with the unanswered questions. Plus, the shows do have a positive side since they promote an otherwise not well-known field.

Watching the TV crime dramas is not the only factor leading to the CSI Effect. Another highly significant factor leading to the CSI Effect is due to people not knowing any different from what the crime dramas portray. The CSI Effect phenomenon would hardly have any substantiality if people knew reality from fiction; if people had a realistic understanding of forensic science; and if people were aware of the CSI Effect in general.

Thus, the goal of the creative research project was to not only find a solution for

the potential CSI Effect phenomenon, but the goal of this creative research project was centered to be a solution for the CSI Effect. First, information was gathered through reading the literature of the studies that have been done, particularly noting their methods and the conclusions they had drawn concerning the existentiality and the significance of the effects of the phenomenon. Based upon that information, survey and interview questions were able to be constructed. The surveys were sent to ECU students, both with forensic science majors and other varying majors, to gauge the level awareness the students had of the CSI Effect. Then, a varying array of professionals in the forensic and criminal justice fields were interviewed to find out what their thoughts were and what experience they had with the CSI Effect. All of the obtained information from the literature, surveys, and interviews were utilized to create an investigative documentary to serve as an educational tool to counteract the CSI Effect.

Researching the CSI Effect

The CSI Effect has been defined in varying ways, with the broadest definition being that crime shows influence how viewers perceive forensic science in real life, resulting in misperceptions regarding forensic science and the evidence that is collected from a crime scene. Some main elements involving the misperceptions as a consequence of the CSI Effect include the viewers expecting there to be scientific evidence for every case as well as believing the science to be infallible (Rhineberger-Dunn et al. 533). In other words, the CSI Effect can be regarded as when people have unrealistic expectations of forensic evidence, due to watching the TV crime dramas (Hayes and Levett 229).

This concept of the CSI Effect has led people, such as criminal justice practitioners, to believe that it has serious real-world consequences. One area of interest that some believe to be heavily impacted is the court room, specifically the jurors within the court room. Since jurors are simply community members, they may not have much or any familiarity with forensic science and the criminal justice system other than what they have seen on television, yet they are given an impactful role of pondering the evidence presented at trial and giving a verdict. Hence, if the jurors have unrealistic expectations for forensic evidence, there is a chance that those ill-founded expectations could affect the jurors' decision-making process, which could produce dire repercussions (Maeder and Corbett 86).

For example, due to the unrealistic expectations of forensic evidence gained from watching TV crime dramas, juries are thought to be more likely to acquit if the forensic evidence was lacking, or generally did not meet their expectations, thus possibly resulting in a guilty person walking free (Cole and Dioso-Villa 1336). On the other hand, as a result from the TV shows making forensic evidence appear infallible, jurors may also put too much weight on the forensic evidence that is presented no matter how much more compelling the other side was, thus possibly resulting in an innocent person being convicted (Maeder and Corbett 86). DNA in particular was brought up in several of the literature as the main example of how jurors misperceive this evidence and give it too much weight in court since the shows portray DNA evidence to be incredibly reliable and infallible (Machado 272). The study of Hewson and Goodman-Delahunty explained that jurors have trouble assigning weight to DNA evidence given that they have seen how TV shows portray DNA to be extremely reliable in incriminating someone (56).

Numerous researchers are thus looking into this to see if it actually is a problem, and many are at odds with each other. For instance, in the study of Wise, interviews asking general, open questions about DNA profiling –the evidence, the legal and social implications, and the potential injustices it may create – were conducted with criminal justice practitioners, and fourteen out of the thirty-two criminal justice practitioners responded by mentioning the CSI Effect without any prompting from the interviewers about the phenomenon (386-387). These fourteen people not only believed in the CSI Effect phenomenon, but they also believed that the phenomenon was affecting their jobs (Wise 387). As many attorneys are persuaded that the CSI Effect is a real phenomenon based upon their experience in court, they have tried to adjust their methods to make up for the phenomenon’s supposed effects on jurors (Stevens 37). Examples of the adjustments attorneys have made in regards to the CSI Effect include explaining how the TV shows are fictionalized, asking about crime show viewing habits during voir dire, and presenting the lack of forensic evidence to explain the science was performed (Cole and Dioso-Villa 1343-1344). However, some studies are more skeptical of the existence of the CSI Effect. Shelton et al. declared that jurors’ expectations of scientific evidence were not as a result of their television viewing habits and, thus, that the CSI Effect does not have an influence on the jurors’ decision at court (333). Shelton et al. proposes that jurors’ expectations instead stem from the advancement of technology in general (364).

While affecting the decision of the jurors is the most drastic impact that the CSI Effect could potentially have, other various areas have been believed to be impacted by it as well. One mostly positive effect of the CSI Effect is that it draws prospective students into the field of forensic science. The study of Weaver et al. was focused on forensic

science students and how their crime show viewing habits influenced their expectations of forensic science, finding that many of the students thought the shows to be unrealistic (389-390). One study by Machado even investigated the CSI Effect among prisoners where when interviewed, the prisoners claimed that by obtaining knowledge through the crime dramas, they could become more sophisticated criminals (280).

The meaning of the CSI Effect gets quite muddled through varying professions – lawyers, forensic scientist, scholars, etc. – trying to narrowly define the CSI Effect according to the subjects being studied, such as jurors, students, and lawyers. The attempts at pinpointing the meaning of the CSI Effect has seemed to result in more debate about the existence of the CSI Effect. Thus, all of this research will be used as a basis to compose interviews to seek what people with firsthand experience really have to say about the CSI Effect. Instead of focusing on any one area, this study will look at all possible areas that the CSI Effect is believed to impact to see if the meaning of the CSI Effect can be unified in one definition. This will be accomplished by obtaining the expert opinions from various professionals, such as forensic scientists, attorneys, and police, and comparing their responses to see if they agree upon the existence and meaning of the CSI Effect. Getting their experience, such as where they have encountered the CSI Effect and what they believe the significance of the phenomenon, will help to gauge the gravity of the CSI Effect and how it can be counteracted. The research will also be used to formulate surveys for ECU students to gain insight on the awareness level of the CSI Effect and see if the students think that the CSI Effect could exist. The information gained from the surveys and interviews will be compiled to make the creative part of this research project – a documentary to educate people about the CSI Effect.

Motive of the CSI Effect Project

The first time I encountered the term “CSI Effect” was when I was given a tour at the Indiana State Police Laboratory to discover if forensic science was the major I wanted to pursue in college. The guided tour was conducted by forensic biologist Paulita Thomason, and I can still recall how animated she was as she explained what the CSI Effect phenomenon was at the very beginning of the tour. At the time, I did not think much about the gravity of the CSI Effect she was trying to convey; I simply wanted to explore the rest of the laboratory and admire all of the high-technology instruments.

The second time I encountered the term “CSI Effect” was my freshman year of college as a forensic science major at Eastern Kentucky University (EKU). The CSI Effect term seemed to reverberate among the staff of the EKU Forensic Science Program with a cautioning tone. My interest with the CSI Effect grew after hearing about the cautions, learning about the phenomenon in class, and even seeing some of my friends leave the program to change their major.

The stressed significance of the CSI Effect given by the forensic scientist and the professors with years of experience in the field influenced my inquisitiveness for the phenomenon. I wanted to know more about its significance – where it has an impact, what other professionals in the field of forensic science and criminal justice thought of it, and how many people are aware of it. Thus, I thought of seeking to discover the answers myself and creating a documentary to inform others about the CSI Effect based upon my findings. If the CSI Effect actually has the potential to create real-world consequences, I wanted to create a tool that would counteract the phenomenon by educating the public.

Investigating the CSI Effect

The Surveys

The platform for the surveys was made through Google Forms. The surveys consisted of questions to ascertain the level of awareness that students have of the CSI Effect and to see if they thought the CSI Effect was a real phenomenon. The survey also asked for the student to say what his or her major was so that the awareness of forensic science majors versus non-forensic science majors can be compared. The link of the survey was emailed to ECU students, and 60 students, spanning 36 majors, responded.

When asked if they knew what the CSI Effect was (and asked to define it if they did), approximately 25% of the students knew what the CSI Effect was. The study Weaver et al. tested to see the awareness as well but only to forensic science students (381-382), so I wanted to see the difference between forensic science students and students with other majors at ECU. When the awareness of the CSI Effect is inspected by forensic and non-forensic majors, however, there is a significant difference. Only 12% of non-forensic science students were aware of what the CSI Effect was while 59% of forensic science students knew what the CSI Effect was. **Figure 1** shows and compares the level of awareness that forensic and non-forensic science students have of the CSI Effect, with the levels being never heard of the CSI Effect, heard of the CSI Effect yet do not know what it is, and aware of what the CSI Effect is. The levels between never heard of the CSI Effect and being aware of the CSI Effect appear to be inversely related to each other, further indicating a significant difference of awareness between forensic majors and non-forensic majors. This significant difference shows a lack of the other majors being educated on the CSI Effect, which means that other majors should be taught on

what the CSI Effect is as well. Educating the other majors on the CSI Effect is just as important as educating the forensic majors on it since people get called to serve as the jury regardless of what their major (or lack of major) was, and jurors are the main focus of the CSI Effect's impact.

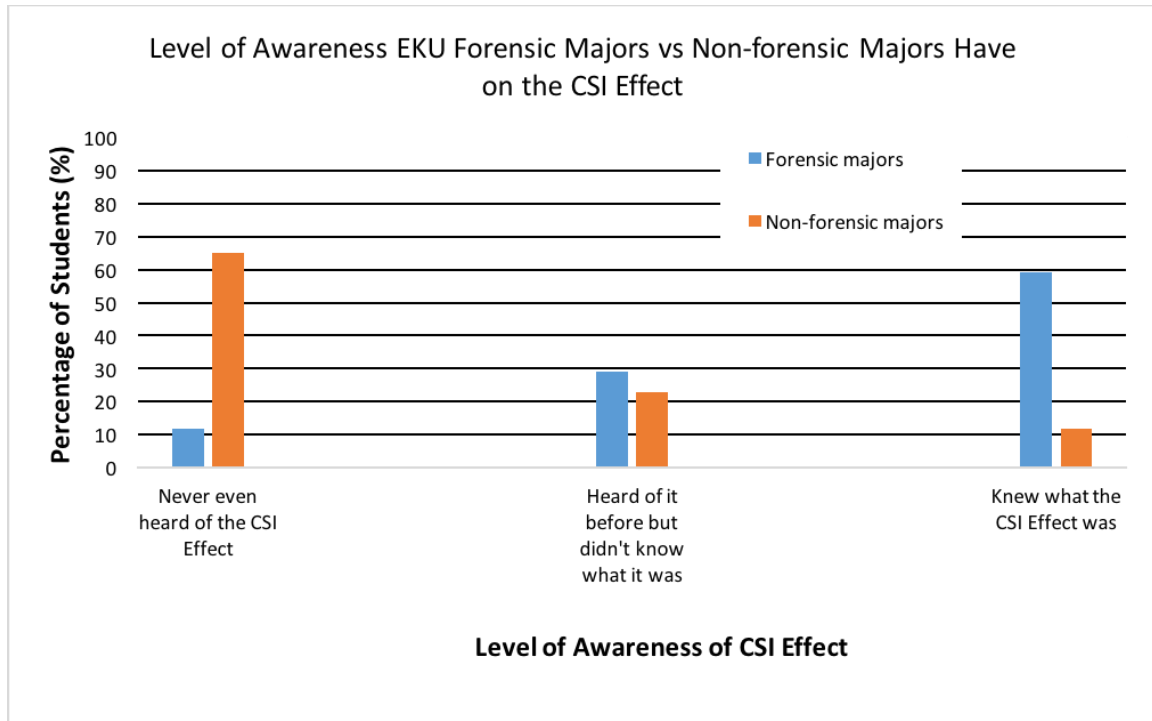


Figure 1. The level of awareness forensic science students have compared to the level awareness non-forensic science students have based on three levels – never heard of the CSI Effect, heard of the CSI Effect but did not know what it was, and knew what the CSI Effect was.

Though most students were unaware of the phenomenon, 83% of the students claimed that they watched TV crime dramas at least somewhat on a weekly basis. Additionally, when asked if they thought CSI-related shows could influence people's views on what forensic science is like in real life, all 60 survey participants replied, "Yes," and approximately 97% of the students could foresee this being a problem in

some way. This indicates that if provided with a definition of the CSI Effect, most of the students surveyed would likely say that they think the CSI Effect exists.

The amount of time students spent watching CSI-related shows on a weekly basis was compared to their awareness of the CSI Effect to see if there was a correlation between the two. Their amount of viewing time was split into two-hour increments – 0, 0-2, 2-4, and 4-6, but not enough students watched more than 6 hours a week to conclude anything. According to the results, there was no significant difference of the level of awareness among the time increments that people spend watching these shows. Thus, unlike Hayes and Levett's study (221, 226), no correlation between the amount of time students spent watching TV crime dramas and the awareness of the CSI Effect was found. These insights show overall how unaware people are of the CSI Effect, thus demonstrating the usefulness for creating an informative documentary to educate the public.

The Interviews

Eight interviews were conducted and recorded; one was filmed in person, and the others were screen recorded using Zoom. The eight participants had varying professions – state police crime laboratory manager, forensic biologist and training specialist, forensic pathologist, Director of the ECU Forensic Science Program, sergeant police officer, special agent criminal investigator, defense attorney, and a deputy district attorney. When asked if they believed the CSI Effect was a real phenomenon, all responded with saying the CSI Effect did exist and used examples from their own firsthand experience to explain why they knew it was real. The examples they explained

ranged from people having misperceptions about what the job of forensic scientists were really like to people having highly unrealistic expectations of forensic evidence. The examples of the unrealistic expectations of evidence consisted of thinking that the time evidence is analyzed and presented in court is fast, that the forensic scientists can analyze evidence to find answers to everything, that a case will have a lot more evidence than there actually is, and that there will be forensic evidence presented for every case. Based on where their field of work is, they encountered the CSI Effect in multiple situations – in students, in jurors, in court, in the familial connections to victims, and in the general public.

Based upon the research, multiple studies referenced DNA evidence as a main misperception people have as a result of the CSI Effect, but these studies did not mention any other types of evidence. Thus, I asked the professionals what the types of evidence pertaining to the CSI Effect were. The professionals all thought that the CSI Effect pertained to all types of evidence. Special Agent Criminal Investigator Tyler Sells explained that while he thought DNA evidence was probably the most misperceived evidence, he emphasized that the CSI Effect pertains to every type of forensic evidence. Dr. Fredericks, the Director of the Forensic Science Program, further explained that the CSI Effect can easily be seen in types of evidence that are heavily dramatized in the TV shows, using anthropology as an example.

When asked if they thought the CSI Effect was an issue, they all indicated that it was an issue with varying reasons why they thought so. They explained that people who watch these shows are convinced that they understand the science, and so their unrealistic expectations can actually cause issues, ranging from complications to potential grave

outcomes. Both investigator Tyler Sells and Sergeant Vawter expressed that they have had situations where people thought they were incapable or being lazy at their jobs because the people were convinced that obtaining scientific evidence were as easy and as possible as what the shows portray. Forensic biologist and lab manager Paulita Thomason said she often had to explain something she did not do because of jurors' expectations that there will always be forensic evidence, and Deputy District Attorney Stacey Edmonson further stressed that this was a problem because it was taking up time at trial to explain things that were once unnecessary to and also that forensic scientists' time were being wasted when they could instead be at the lab and analyzing more evidence. Both forensic biologists Paulita Thomason and Megan Foley said that jurors give too much credibility to the scientists that the jurors may not give proper weight to the other evidence presented at trial. Most of the professionals expressed that these reasons as a result of watching crime dramas could very potentially affect their decision, such as acquitting a guilty person if they believed that there was not enough science presented or incriminating an innocent person if they assigned too much weight to the scientific evidence presented.

When asked how the CSI Effect could be ameliorated, all eight professionals congruously replied with the same answer – education. Each expert stressed the importance of educating jurors and the public in general about the CSI Effect so that people can be aware and understand reality from fiction. With their consent, clips of the recording were taken from the interviews and incorporated into the documentary.

Creating the CSI Effect Documentary

I figured the best way I could inform people about the CSI Effect would be in the form of a video, particularly a multimedia video that could tie in aspects from the surveys and the interviews, to educate them in a hopefully engaging way. Plus, I found it fitting that the solution would be in the same form as the source of the problem – TV shows. The platform I used to create my documentary video was through the application iMovie.

Before I went into all the information about the CSI Effect, I wanted to include a creative example at the beginning in order to help the audience grasp the concept of the phenomenon. Thus, I created a 1.5-minute mini film that I named “A TV Crime Drama” to parody typical crime drama shows. The mini film features six small scenes that seem central to any episode of a crime drama – the murder (or crime in general), the call reporting the crime, the crime scene investigation, the forensic scientist reporting his or her findings, the arrest of the perpetrator, and the case being all wrapped up by the end of the episode. However, all the scenes are only being carried out through audio means by using sounds and voice actors while the visual part shows a clock with a different time for each scene. The time and date displayed shows that the case took place and was solved in a two-day timespan. By doing this, the viewer is forced to listen closely to what is being said to understand what is going on while also being limited to seeing only the time. Thus, by paying attention to the clock, the viewer can see how rapidly the case was solved. Through exaggerating the crime shows that are already exaggerated, this highlights how the shows are dramatized and, thus, fictional, which might help to improve the audience’s understanding of the CSI Effect.

Then, the informational documentary part of the video begins. The documentary is split into seven topics – what is the CSI Effect; what are examples of the CSI Effect; is

the CSI Effect a real phenomenon; where is the CSI Effect; what types of evidence does the CSI Effect involve; is the CSI Effect an issue; and how can we counteract the CSI Effect? Clips from the interview recordings that fit into a topic were cut out and placed under the appropriate topic. The clips were then further trimmed and were intentionally positioned so that the clips from the interviews transitioned as seamlessly as they could to each other so as to create a uniformed message about the CSI Effect from all of the professionals. Graphics created from the survey results were also inserted into the video reflect the information conveyed from the interviews. Music was also added and edited when appropriate to set the mood for the documentary.

The video is approximately fifteen minutes long. Given how much valuable information and excellent examples I received from the interviews, the video could have been much longer; however, I tried to cut the video down as much as possible to create as much as an impactful impression without overwhelming the audience. While it would have been neat to have image or snippets showing what forensic science and criminal justice is like, I think that the words of the experts alone leave a more powerful message than any image or snippet could convey. The video also has an emphatic ending of all of the experts saying a variant of the word “educate” to effectively demonstrate the importance to spread awareness about this phenomenon.

Conclusion

People’s misperceptions and unrealistic expectations that could indirectly have varying negative effects are as a result of ignorance. A majority of people have once watched TV crime dramas before, yet so many are unaware of the CSI Effect. Only 25%

of all students surveyed were aware of the CSI Effect, and only as little as 12% of non-forensic science students that were surveyed knew what the CSI Effect was. From the interviews, multiple professionals in forensic science and criminal justice have reported based on their personal experience that the CSI Effect is a real phenomenon and that it has real negative effects, yet very few outside of the criminal justice system are aware of this.

The professionals that were interviewed all agreed that educating the public was the best way to diminish the impacts of the CSI Effect while the results from the survey indicate that there is a need to spread awareness about this phenomenon. While the CSI Effect will probably always exist, especially due to ever-advancing technology, the impacts from the phenomenon can still be reduced through efforts to spread awareness to everyone. Even doing something as simple as watching a multimedia documentary about this phenomenon can be an effectual step in counteracting the CSI Effect.

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