



The CSI effect on cold case investigations

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ABSTRACT

Much has been made about the potential impact of fictional crime scene shows in the media on jury verdicts. However, there has been little discussion about how those programs, and the myriad of other true crime shows and documentaries may otherwise influence the actual investigative process. The intent of this paper is to discuss ways that such shows may impact the investigative process. The focus will be on the investigation of old, unsolved cases, commonly referred to as cold cases, because of the increasing focus on forensics in all aspects of the investigation and the number of television shows that feature such cases.

This paper is not intended to be an academic study of the issue, as it relies much on anecdotal evidence and the experience of the author and others. The purpose is to hopefully generate further discussion and research with the goal of improving the investigative process.

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1. Proliferation of fictional and police procedural television and other media shows

It was a simple, open and shut case. The drugs were found in the locked room, right next to the suspect's pager. As the unit's crime scene technician, I had processed the scene and was now on the stand undergoing cross examination. To my surprise the defense attorney was not focusing on the justification for the search warrant or the other evidence linking his client to the room. Instead, he was drilling me on why I had not attempted to obtain fingerprints from the pager. I explained the problems with obtaining prints from a textured surface like that of the pager, but to no avail. The defendant was acquitted, and the primary reason given by the jury was that I had not bothered to attempt to print the pager.

Today the jury's verdict would be attributed to the CSI Effect; the impact that the overwhelming popularity of shows like *CSI: Crime Scene Investigation* (CSI) [1] have on a jury's expectations. The effect, initially based largely on antidotal evidence was first reported by the media in 2002 in a *Times* magazine article and on the CBS *Early Show*. It was not until 2006 that researchers began to seriously examine the validity of the phenomena [2].

Prosecutors have blamed the CSI Effect as "... creating greater expectations about forensic science that can be delivered." Defense attorneys complain when forensic evidence does exist the effect "creates exaggerated faith in the capabilities and reliability of the forensic sciences." And law enforcement agencies complain that

shows like CSI not only lead them to collect more evidence than they ordinarily would have in the past, but also offer criminals a tutorial on how to cover their tracks [3].

However, my acquittal was in 1990, ten years before the first program of the CSI series aired. The reality is, the CSI Effect is not a recent phenomenon. In years past, prosecutors had to overcome public perceptions of law enforcement investigations based on classic shows such as *Dragnet*, *Quincy*, and *M-Squad*. Early in my career one prosecutor told me that they always had to account for the fact that though cases were investigated by detectives who spent years learning their craft, the final judge of their work was done by twelve people who were basing their decisions on what they had seen on television and in the movies. I'm sure that even prosecutors in the Victorian era lamented the impact the fictional Sherlock Holmes had on their juries.

A major difference today is the huge increase in the number and type of such television shows, especially shows highlighting the forensic aspects of an investigation. One study showed that during the prime time viewing hours of one week in 2005 there were 63 homicides on forensic television shows on only six networks [3]. With today's explosion of available networks, some of them featuring nothing but crime related shows, the numbers must be in the hundreds, if not more.

Not only do law enforcement agencies have to deal with the totally unreal portrayals seen in *CSI*, *NCIS* [4], *Criminal Mind* [5], and other shows, they now have the burden of reality television. Starting with *COP* [6], the show that simply filmed officers performing their day to day activities, we now have television shows that directly impact how individual investigations are conducted. Television shows such as *The First 48* [7] (which works

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off of the premise that an arrest must be made within the first 48 h after the murder occurred or there is a high likelihood the case will go unsolved) can put artificial time constraints on an investigation. Detectives may rush an investigation to meet the time criteria so they will make it on TV. The Miami New Times researched arrests made by the Miami Homicide Unit that were featured in the program and discovered several resulted in wrongful arrests and/or dismissal of the charges prior to trial [8].

There are also the programs that highlight true crime cold case studies, usually featuring the actual detectives who worked the case. Having participated in a few of these I know that even these programs have the potential for creating their own form of CSI Effect. Producers must work within certain constraints. The case studies have to grasp the interest of the viewer by showcasing success stories and have to be condensed to fit within the thirty minute to one hour time slots (commercials included). To insure future cooperation from law enforcement agencies the programs will usually avoid including anything controversial that might embarrass the department. The viewing public is not aware of the missteps, false starts, roadblocks, and mind numbing minutiae that accompanies every complex investigation. And like the fictional CSI stories, these selective case studies can warp the public's misconception as to the true nature of police investigations.

On the other side of the coin there are programs such as the NPR podcast *Serial* and Netflix series like *Making a Murderer* [9] and *The Confession Tapes* [10]. These highlight alleged problematic investigative practices. Documentaries like *The Central Park Five* [11] focus on investigators that go horribly wrong, resulting in wrongful convictions of innocent persons. Deja Vishny, a defense attorney in Wisconsin told me that because the *Making a Murder* program featured a Wisconsin case, instead of the CSI Effect, they have the "Making a Murder Effect." She has found the series to be a helpful tool during voir dire, allowing her to ask prospective jurors about their attitudes towards police investigations.

Then there are the daily news reports. On one side are the stories like that of the recent identification and arrest of the Golden State Killer who is believed to be responsible for multiple murders, rapes, and burglaries spanning a twenty year period. The investigators submitted DNA recovered from a crime scene to a public genealogy website and then tracked him through familial matches to family members. This has led to a spike in the technique being used in other cases. Then there are stories about crime lab scandals; from a chemist in a Massachusetts crime lab admitting to falsifying drug tests [12] to the temporary suspension of DNA testing by the Washington D.C. crime lab due to allegations that the lab's procedures for analyzing DNA mixtures were "insufficient and inadequate" [13].

And last but not least are the shows that focus on the unsolved cases. Most of these serve to raise public awareness with the hope of generating new leads. However there are others that, exploiting the victims and their families search for the truth are much less reputable.

An example of one such program is the Court TV series *Psychic Detectives* [14]. The "detectives" use "visions, feelings, and other psychic techniques . . . that help police crack the case and give the victims' families and loved ones the truth of what happened" [15]. In an article for *Skeptical Inquirer*, Joe Nickell researched the claims of several of the psychics that appeared in such shows and claimed to have been instrumental in solving specific cases. In addition to finding that many of the investigating agencies said they never heard of the psychic, Nickell wrote that his research indicated that "psychics do not solve crimes or locate missing persons – unless they employ the same non-mystical techniques as real detectives: obtaining and assessing factual information, receiving tips, and so on, even sometimes getting lucky" [16].

Other cold case shows will sometimes utilize the services of pseudoexperts. These are defined as "self-proclaimed profilers and others who profess to have an expertise . . . when, in fact, their experience is limited or non-existent" [17]. Such experts often perpetuate debunked myths when expressing their opinions or conclusions; leading to the possibility of misdirecting the investigation. These shows often are done with the cooperation of the investigating agency, who do not themselves properly vet the qualifications of the "expert," instead relying on the producers or falling victim to the expert's celebrity status. The potential result could be considered a "real time" CSI Effect, occurring even before the show is aired.

2. Impact on the investigative process

While much has been written on the CSI Effect's impact on trials and jury verdicts, there has not been much discussion on how such shows may effect investigations during their earlier stages. Based on the discussion above, the influence of the media goes well beyond the public's forensic expectations of the forensic capabilities of law enforcement agencies. Additional influences include the public expectations on how the police should approach investigations on the most basic levels, from record keeping to the amount of manpower and resources dedicated to a single case. Law enforcement agencies and investigators are also not immune from the hype. When a show becomes popular, departments will often adopt the program's terminology as their own. Evidence technicians become Crime Scene Investigators, wearing jackets with CSI blazed across the back. Units that investigate sex crimes become Special Victims Units.

This paper use cold case investigations as case studies to show how these shows can influence the investigative process prior to trial. Cold case investigations employ the same investigative approaches and techniques as fresh cases, but also face unique problems that are not normally shown in media portrayals, both factual and fictional.

3. Sins of the past

When I first began reviewing cold cases for DNA potential for the Washington, D.C. Metropolitan Police Department I received a call from the family of Millicent Allewelt. Ms Allewelt had been raped and murdered after she discovered an intruder in her home in 1973. They were hoping to see if the new CSI technology they had been hearing about could finally solve her murder.

At first her case looked promising. The homicide logs revealed that Ms. Allewelt had apparently surprised a burglar on her return home. She had been bound and sexually assaulted on her bed, creating lots and lots of potential for DNA. The evidence log books revealed that a sexual assault kit had been done during the autopsy and, along with all of the other evidence had been sent to the evidence warehouse for storage.

Then the shortsightedness of the past surfaced. Unlike one of the complete and neatly organized case files seen in the fictitious cold case shows, Ms. Allewelt's file consisted of nothing more than a few basic reports. There were no witness statements, crime scene photographs or diagrams, evidence or lab reports. We discovered that in the past, someone had made the decision that in order to save space, when a case was considered "cold," it was stripped of everything but the basic investigative reports.

Worst yet was that the physical evidence was nowhere to be found. No one back in the day anticipated the current advances in DNA technology, and as storage space became limited, evidence warehouse workers would sometimes, without consulting anyone, dispose of the really old evidence to make room for new. In other

cases, biological material had been stored for years in an open warehouse with no climate control.

The department had failed to live up to the expectations created by CSI and Cold Case and Ms. Allewet's case would not be solved. However the CSI Effect did create what could be considered in the long run to be a positive backlash. Recognizing that we can not anticipate where technology may take us in the future, the D.C. City Council passed new legislation mandating that physical evidence and case files in unsolved case be maintained for at least sixty-five years or until the expiration of the statute of limitations expires, whichever came first. They also extended the statute of limitations for crimes such as sex offenses, if a DNA profile is identified but no match is made at the time [18].

Other shortcomings were also identified. MPD had over 2000 cases going back to 1968. Like with many departments still, these cases were not in any searchable database. Records were kept in old log books, containing only the basic information. If new information came in or someone inquired about an old case, an investigator would have to conduct a hand search of the logs. Often the new information was vague, did not contain the victim's name or exact location of the murder, and the date of the crime could be off by several years. The public would expect that someone like Penelope Garcia, the fictional super-crime analyst in the CBS crime drama Criminal Minds, would be able instantly find and access the file, which was certainly not the case. It is impossible to know how many viable new leads when uninvestigated because the investigator was unable to connect the information to the right case.

To address this, the Violent Crime Case Review Project was created. Its purpose was to conduct a systematic review of all homicide cases over three years old, going back to 1968. During the review the case would be summarized and the data entered into searchable databases such as the FBI Violent Criminal Apprehension Program (ViCAP) and the MPD case management system. This would allow not only the case to be identified based on minimal information but also links to be developed between cases, both solved and unsolved.

Issues such as these are commonplace with departments around the country, along with the problems associated with solving them. Evidence retention is expensive, and the case reviews and data entry, though done primarily by unpaid interns required time, equipment, supervisory personnel, and a commitment by the department to maintain the databases. This leads to another expectation that is created by the media which is the availability of resources required to solve cases, and cold cases in particular.

4. Misconceptions about unlimited resources

It was a horrific crime. A teenage girl, walking along a road she has walked a thousand times, was raped and murdered. Her body set on fire. The entire town was outraged. The local sheriff's office devoted all of its resources 24/7 to solving the crime, but all leads were going nowhere. Then they caught a break. The laboratory was able to develop a full DNA profile from the sex kit. As the profile was entered into CODIS, expectations ran high, and then crashed. No matches, either to a suspect or another crime. As weeks turned into months and nothing new was developed, the case went cold.

The girl's mother was not satisfied. There had to be something else the sheriff could do. One more interview, one more forensic examination. Something that would break this case wide open. But in spite of her pleas, the reality is there was nothing else that could practically be done. The sheriff and his deputies would stay alert for anything promising, and maybe eventually CODIS would produce a hit.

But for the mother, this was not good enough. She rented space on three billboards that lined the road where her daughter's body was found. She used the billboards to question why, after all that time, the Sheriff had been unable to solve the case. She wanted to shame the sheriff out of what she perceived was his inaction and indifference. In her mind she knew there was something more that he could be doing.

This story was the plot for the movie *Three Billboards Outside Ebbing, Missouri* [19] Though fictional it is based on the playwright coming across similar billboards during his travels about unsolved crimes [20].

The frustration of the mother in the movie, as well as victims and family members everywhere is understandable. They want no stone left unturned, no forensic test left undone that might offer even a remote possibility of bringing closure to their case. They naturally become frustrated when they see the ease by which fictional police shows can bring criminals to justice, or the level of effort exerted by an agency in the true crime dramas (especially in the case of the agency responsible for the investigation of their case or the featured case is not that much different than theirs). They have learned over time that using the media to publically shame a department can work.

I have often said that cold case investigators are basically gamblers, living for the "long shot." I have argued that the most sure-fire way not to get the evidence you need to close a case is not to try. Unfortunately that argument has its limitations, especially when faced with the reality of the limitations of forensic science combined with the finite resources of any law enforcement agency.

An example is a decade old homicide case that occurred in Washington, D.C. The victim was shot multiple times by multiple guns. Thirty-two shell casings were recovered from the scene. After seeing a CSI style program where a suspect's DNA had been recovered from spent shell casings, the family demanded that such test be performed in their case. After reviewing how the shell casings had been handled and stored over that decade, and consulting with DNA experts, it was decided that based on the available technology that the odds against obtaining a usable and probative DNA sample was astronomical. In addition, the cost of conducting such testing and the time required would severely tax the limited resources available for other casework.

Understandably, for the victim's family, astronomical odds were good enough reason to try. They, like other families who had received similar news, resorted to a form of "whataboutism" – attempting to discredit the agency's decision without refuting the justification behind it. What about that department, featured on television that devoted an entire team of detective on that one case for a whole year, and in spite of apparently greater odds, were successful? Why does that case rate and not mine?

Honest communication, empathy, and transparency can sometimes moderate the unrealistic expectations created by CSI and other shows. However, the insistence that "every case is equally important" is hollow when an agency blatantly violates that philosophy. This most commonly occurs when, often due to media attention or other pressures, a case is determined to be "high profile." It is the ranking officials who usually make this determination, and in many cases, like the general public, it is these officials who have elevated expectations of the capabilities of the forensic science.

5. Misconceptions of the investigators

While the CSI Effect focus on how the media has created unrealistic expectations of the forensic capabilities of law enforcement, but those unrealistic expectations are often held

by the investigators as well. Though cold case investigators don't typically fall victim to the juror's misconception that forensic evidence can be found on every crime scene, they, like much of the public have an exaggerated faith in the capabilities and reliability of anything even loosely associated with the term "forensic science".

In reality, investigators are not expected to be forensic experts. Instead, they function much like a "jack-of-all-trades." Their job is to take information from different sources and piece it together to tell a story. To do so they have to rely on the work of other experts, such as forensic examiners and scientists. This requires not only an understanding of what they can do, but also their limitations and the idiosyncrasies of their field.

Though an investigator's exposure to both fictional and true crime television programs may warp their perception of the reality of the forensic sciences, often the training that they receive does little to correct that perception. This problem is exacerbated by the fact that in many small to mid-size agencies, there are no specifically designated crime scene investigators. The responsibility for evidence identification, collection, submission, and the analysis of the results rests solely with the officer or investigator.

Often the only formal training that investigators receive in the area of the forensic sciences or services offers a thumbnail sketch of their capabilities, focusing primarily on what the science or service can do rather than what they cannot. The training often comes without warning labels – no cautions as to false positives or negatives, or the subjective nature of some of the findings. Investigators like absolutes – findings to be in black and white. That is the way that forensics are portrayed on television and for decades that is how some forensic experts presented their findings in court. Following their TV brethren, experts in fingerprint analysis, firearms and tool mark examination, bite-mark comparisons, hair and fiber evidence and other fields use to say that they could make matches with "100% certainty", "to the exclusion of all others", or other similar language. Not only have these claims been proven to be wrong (forcing the examiners to change the way they testify about their findings) but research conducted by the National Academy of Sciences, the Texas Forensic Science Commission, the President's Council of Advisors on Science and Technology, and the National Commission on Forensic Science has called into serious question whether or not many of these fields are supported by any science at all. Some forensic tools, such as hair and bite-mark analysis have been largely discredited [21]. Though their use in the past has been shown to result in confirmed wrongful convictions, some investigators, as well as television shows, still consider them as valid tools to this day.

DNA, once considered by investigators as the most "black and white" of the forensic sciences when it comes to giving definitive answers is becoming less concrete. As testing becomes more sensitive, and more of the DNA recovered from crime scene being mixtures of multiple profiles, the analysis has become more subjective and open to alternative explanations. Investigators, seeking to take advantage of a private laboratory's new "super testing" techniques may not realize that even if a profile is developed it might not be able to be entered into CODIS because of the laboratory's private status.

Additionally, the limitations and idiosyncrasies of the forensic databases that have helped drive the cold case investigation movement are often poorly understood by investigators. This lack of knowledge can actually contribute to cases going unsolved. As an example, while the CSI shows are instantly able to positively identify a suspect by running their fingerprints through AFIS, what they don't show is the false negatives, or the times that the suspect's known print is in the system but the database does not produce a match to

the latent from the crime scene. If an investigator has identified a suspect they should not rely on the AFIS results, but instead submit a request for a manual one-to-one comparisons of the known prints to the latent recovered from the crime scene.

6. Temptations of new and emerging technology

In our consumer society, we are captivated by the promises offered by the latest and greatest; from the newest iPhone and driverless cars, to new dietary approaches that are guaranteed to help us lose that stubborn belly fat. We often embrace the new without reading the fine print, which leads to disappointment. Sometimes unforeseen glitches develop, revealing that the new technology was not quite ready for prime time. Some people do not buy into anything new until it has been around for a few years and most, if not all of the quirks have been identified and corrected. They let others be the Guinea pigs.

Investigators, especially cold case investigators are no different than the rest of the public. They (as well as victims' families, and television producers looking for the next story with an interesting twist) are always looking for anything new that may bring closure to a case. Cold case investigators sometimes hear about new technology or innovative techniques from the crime shows or news media or from other cold case investigators – especially at law enforcement conferences where cold case success stories are usually featured. Also present at those conferences are the companies that develop and/or offer the new technology. The companies help sponsor the conferences in exchange for a booth in the vendors' hall and a chance to make a presentation to the conference participants.

While there is nothing out of the norm about a company pitching its product to its end users, there is a strategy behind it. A combination of the CSI Effect, lack of familiarization of the limitations of forensics, and the hope of finding that silver bullet that will solve that case, the investigator is more susceptible to a marketing pitch than the lab director would be. The lab director is in a better position to ask the critical questions. The investigator just wants the product or technique to deliver on the sales promises.

One of the technologies that has been in the forefront of cold case investigations involve the use of DNA to predict the appearance of the suspect and create a sketch of the suspect. One company that provides such a service promotes its success stories, such as a department believing that their suspect in a rape/murder was of one ethnicity until the company's tests proved otherwise – redirecting the investigation and ultimately leading to an arrest [22]. Its web site has a page showing a side-by-side comparison between their blind composite predations and the actual photographs of the source of the DNA [23].

The technology is not without its critics. Some cite a lack of peer review [24]. Others bring up that many of a person's characteristics, such as their age, presence of facial hair, or the physical effects of their lifestyle is not encoded in their DNA, thus potentially skewing the final composite [22]. Even the results promoted in the company's web page with the side-by-side comparisons may be misleading. The examples on the web page are handpicked by the company and in all likelihood do not represent a random sample of their work. Additionally, since the known photo of the DNA contributor is shown side-by-side with the composite predictions, confirmation bias can play a part in the evaluation. Since the viewer was told that the two were a match, they will generally tend to look for likenesses between the two rather than differences. It would be interesting to see if a viewer could identify the correct contributor by comparing a series of photos, such as in an eyewitness identification procedure, to the composite profile.

This is not to say that this technology is not without value. As in the earlier case example, the technology allowed the investigators to discover that they were on the wrong track. However, if the investigator, through the CSI Effect or insufficient training does not know what questions to ask, and does not understand the limitations of the technology, they may actually derail their investigation by improperly excluding the right suspect because, in their opinion, they do not look enough like the DNA composite profile.

While new technology and investigative techniques are exciting, if not vetted properly and fully understood prior to their use they can adversely impact an investigation. Such vetting requires extensive consultations between the investigator, laboratory personnel, and prosecutors. Questions must be asked not only about the acceptance of the technology and techniques by the court and potential negative impact their application may have on future cases.

7. Involvement of private organizations and individuals

The overall impact that CSI and other police procedural shows have had on cold case investigations has been exacerbated by social media. Web pages on specific cases are sometimes created by a victim's family members or private individuals. Many of these are intended to increase public awareness in a case, but some exist to encourage tips or for amateur sleuths to debate their investigative theories. During the broadcasting of the NPR Podcast, *Serial*, which examined the alleged wrongful conviction of Adnan Syed [25], some members of the Reddit discussion board visited the crime scene locations in order to get information to booster their theories or discredit others. Often, the reasoning behind many of these theories was based on misconceptions and common myths promoted on programs like *CSI* and *Behavioral Minds*.

While some consider this to be a harmless hobby, it can take on a life of its own. Rumors and speculation become "facts." When the "facts" become general knowledge, no matter how ridiculous they are, limited investigative resources have to be dedicated to addressing them.

Also on the internet are several organizations that promote themselves as cold case group. These groups offer the services of their members to law enforcement agencies, with some extending their offer of help directly to victims and/or their family members.

Some of these organizations have been around for decades. Some are professional groups whose membership consists of primarily active cold case investigators who use the organization share information and to capitalize on the training and experience of other members. Others have both active and retired investigators and other experts. They will provide assistance only at the request of a law enforcement agency, and their participation in a case is never disclosed except by the requesting agency.

Other, differently structured cold case organizations and groups, though presumably well intended, can adversely impact an investigation. Instead of providing assistance only at the request of law enforcement some reach out to the victims and/or the victim's family members and, promoting themselves as victim advocates, attempt to push their services on the investigating agency. Some groups have even attempted to conduct case reviews by using only what is in the public record, give their findings to the investigating agency, and then attempt to take credit for assisting in the investigation. As discussed above, such actions not only may force the agency to devote limited resources to addressing rumors and speculation, but can also help drive a wedge between the victim and/or victim's family and the investigation or cause them other unnecessary trauma.

An example is a profile that was done by a group called The Profiling Project on the murder of Seth Rich in 2016. Rich was an

employee of the Democratic National Committee who was found shot to death in the street in the neighborhood where he lived. According to the investigating agency, the evidence pointed to Rich being killed during an attempted robbery [26].

Because of Rich's place of his employment and the timing of his murder prior to the 2016 presidential election, conspiracy theories soon sprung up about the motive behind his murder. Spread across the internet and some media outlets, the conspiracy theories were disproved, and in some cases publically retracted by those spreading them [26]. These theories severely hurt the family and drained resources from the investigation. In an editorial to the Washington Post, Rich's parents wrote "We ask those purveying falsehoods to give us peace, and to give law enforcement the time and space to do the investigation they need to solve our son's murder [27]."

In conducting their review of the case, the only information that The Profiling Project had access was what was available to the public. In their forty-five page report, issued in conjunction with a press conference a month after the parents' plea, The Profile Project contradicted the investigative agency's theory of the case; concluding that Rich was "more likely" killed by a "hired killer or serial murderer." Though the report included sections classified as "sensitive information releasable only with the author's permission," the entire report, including those sections was made available to the public over the internet [28].

All of this is not to say that independent, outside reviews of cold cases is not a good practice. As discussed above, some cold case investigators regularly present their cases to colleagues from other agencies in order to get a second opinion. Case reviews of unsolved cases by outside investigators is part of the established policy in the U.K. However, when an investigative agency is making decisions as to who should conduct a review, like when they make decisions as to what forensic testing should be done and by what lab, they should have a through vetting process in place. This process must include input from the agency's laboratory and the prosecutor's office.

There is a move to try to remove the review process from the investigating agency and give the victim and/or victim's family more control over an investigation. One cold case organization, the Cold Case Investigation and Research Institute is promoting the "Cold Case Accountability Act of 2020." In general, the act proposes that after a case has remained unsolved for thirty-six months, the victim's family can demand that the investigating agency turn the entire case file over to "private sector experts." The victim's family is also allowed to have any physical evidence tested or retested at their expense [29].¹

Outside of the social-economic implications of wealthier families being able to pay for more advanced testing, if the act was ever made into law, the impact of the CSI Effect on the investigation could be profound. Chain of custody, privacy issues, and the integrity of the investigation need to be addressed. Unqualified "experts" may increase the burden on an agency's limited resources by making unfounded claims and/or unrealistic recommendations. Additional forensic testing based on the latest fad technology may not only produce useless results, but unintended consequences. As has even occurred with law enforcement agencies, submitting biological material for the "latest and greatest" testing may use up all of the material and yet produce nothing. The family making the decision to use that testing may not have been aware that new technology was coming on line that would have had a better chance at producing a positive result.

¹ Cold Case Accountability Act of 2020, <https://www.change.org/p/families-victims-law-enforcement-need-the-cold-case-accountability-act-of-2020>.

8. Conclusion and recommendations

The CSI Effect goes well beyond the influence of the fictional crime shows have on jury expectations. The impact of those shows, along with reality television and other true-crime procedural shows can affect many aspects of an investigation even in its earliest stages. It is not only the public who is influenced by such shows, but the investigators as well. To counter the effect, departments need to invest in training in areas such as critical thinking and training that emphasizes the limitations of the forensic sciences and experts. This includes emphasizing that investigations are a team effort requiring the informed input of laboratory personnel and other experts when making investigative decisions.

Honest and transparent discussions, combined with empathy can help tempter a victim and/or victim's family's unrealistic expectations regarding forensic capabilities and the investigative process. These discussions may include laboratory personnel and other experts who could explain the strengths and limitations of their areas of expertise.

Independent reviews of unsolved cases can help identify missed leads, unidentified forensic potential of evidence, and other issues. However these reviews must be done by qualified individuals with the support of the investigative agency. Recommendations must be practical and take into account an agencies capabilities, resources, and legal limitations.

Unsolved cases are an excellent learning tool. When past problematic policies, procedures, or investigative practices come to light they must be acknowledged and corrected. Sometimes that acknowledgement must be made public or at least to the victim and/or the victim's family to help build trust in the investigative process going forward.

Competing interest

In the article I discuss the use of cold case organizations for consultations and case reviews. I am a member of two such organizations: The Mid-Atlantic Cold Case Homicide Investigators Association and the Vidocq Society.

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