Best Practices When Maximizing Missing Persons Case Resolution

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Abstract

Establishing consistent investigative strategies for missing and unidentified persons. Every day in the United States people go missing, and unidentified bodies are located both individually and after mass disasters. Law enforcement must standardize the way in which those victims are investigated, through meaningful collaboration in order to resolve these cases. The tens of thousands of missing persons and unidentified bodies has become known as America's silent mass disaster, and with more than four-thousand new cases being investigated by the nation's coroner's and medical examiners annually law enforcement has a duty to develop the protocols and practices needed to deal with missing persons and unidentified human remains (UHR's) through collaboration, policies, and training. The lack of consistent and effective agency policies and practices dedicated to resolving missing and unidentified human remains cases has caused these cases to reach unacceptable proportions, and a low probability of resolution. Collaboration with coroner's office, and other law enforcement agencies for prioritization of UHR's and missing person's case investigation. The lack of training in safety net procedures involving missing and unidentified person's databases, lack of use of federal, state, databases for the identification of missing and unidentified persons. Trust and ethical challenges of DNA samples use; and fingerprints for comparison to missing, and unidentified persons; and degraded DNA issues after mass disasters is a problem for law enforcement, and forensics.

Keywords: Unidentified Human Remains (UHR's), Real Vision System (RVI), Deoxyribonucleic Acid (DNA)

Introduction

The National Crime Information Center (NCIC) indicated that as of December 2013, it contained 84,136 active missing person's records, and the records of 632 active unidentified bodies being held in coroner's offices across the country (2013, para. 4), due to this fact it is imperative that law enforcement agencies make timely and accurate missing persons reports.

The Los Angeles Police Department policy concerning missing persons begins with a written incident report either by an officer answering a call for service in person, the incident report collects and documents the basic information from the complainant about the victim, and the circumstances that surrounds the incident, including the last known location of the victim and what the victim was wearing if known; a supervising officer then checks the incident report for completeness, after which the demographic and circumstantial information of the victim is entered onto the National Crime Information Computer Network where that information will remain until cleared (LAPD Adult Missing Person Unit, 2016, p. 1).

When compared to the teachings of (Mulawka, 2010, p.2) most police policies on unidentified human remains (UHR's) and missing person's cases contains many deficiencies and inconsistencies in the collection, correlation, prioritization, identification, and data entry of these cases (Mulawka, Sebetan, & Stein, 2010,). Some police agencies policies concerning missing person cases also does not adequately define, or allow for a higher priority at risk missing persons and of persons missing under unusual circumstances, diminished mental health, victim of foul play, sexual exploitation or are believed to be with persons that could endanger their life when compared to the nationally accepted standards of The National Center for Missing and Exploited Children NCMEC (NCMEC, 2006, p. 3).

NCMEC recommends that all law enforcement agencies modify their policies concerning entries of persons missing under circumstances that are inconsistent with the person's established pattern of behavior, or if new information is learned after the initial NCIC entry was made (2006, p. 3).

In 2007 the Georgia General Assembly established Mattie's Call, which is an emergency missing alert procedure that is activated when a disabled or elderly person is reported missing. The Mattie's Call law forced all Georgia law enforcement agencies to integrate the Mattie's Call criteria into its policies because the state recognized the problem of inconsistent policies within the hundreds of law enforcement agencies within the state, and sought to standardize the procedure that are to be activated during this emergency (Mattie's Call, p.1).

The problem with the policies of some law enforcement agencies is that they do not mandate follow up investigations of missing persons after thirty-days for the collection of the victim's Deoxyribonucleic Acid (DNA), and dental information for modification of the initial National Crime Information Network (NCIC) entry worksheet (2013 para 13). Mulawka teaches that law enforcement agencies should create and maintain its own worksheet data base which is to be dedicated solely to UHR's cases (Appendix 1).

The majority of the nation's local law enforcement agencies has not created a UHR's worksheet and database which would facilitate documenting the steps taken during UHR's case investigation such as a departmental Real Vision System (RVI), as recommended by Mulawka (2010) where personal information such as dental charts, X-rays, full autopsy, and an anthropological examination chart complete with full facial photographs of any distinguishing marks and clothing of the victim should be documented into the internal database Mulawka (2010) Appendix A. The problem with the lack of law enforcement agency policies concerning missing persons and unidentified human remains is not just an American problem according to Fantino (2009), who stated that there are no centralized comprehensive policies for missing persons in the countries of Canada, The United Kingdom, Australia, and many other countries (Fantino, 2009, p. 3).

Fantino went on to state that the problem was such a concern the Canadian government that The Office of the Privacy Commissioner of Canada has recommended the adoption of a narrow definition of a missing person which included that a report be made by the police, the missing person's whereabouts were unknown, and the concerns about the safety or welfare of the missing person (Fantino, 2009, p. 3).

Collabration

Mulawka, wrote that there were 40,000 sets of human remains being held in in medical and coroner's facilities that are not unidentified in the United States (2010) p.748. Mulawka points out that law enforcement agencies are not working closely on this problem with coroner's offices of resolving unidentified human remains (UHR's), which exacerbates the situation especially since the county coroner's office receives UHR's remains from multiple law enforcement agencies. Mulawka points out that collaboration is further inhibited when coroners develop fingerprints, x-rays, and DNA from UHR's, and that information is not to be pasted onto, and retained by law enforcement agencies for future matches to known UHR's and missing persons in a streamline fashion Mulawka (2010) p. 9.

The problem of the lack of collaboration between local law enforcement and the forensic community is further illustrated in the fact that the forensic community has made speedy developments in computer, technical, and laboratory management, making it possible to link missing and unidentified cases in addition to traditional investigative mean (Mulawka et al., 2010, para. 3). According to Hickman (2004), "an estimated twenty percent of medical examiners and coroners reported that they use NCIC somewhat often, or very often, while eighty percent said that they used NCIS rarely or never" (Hickman, Hughes, Strom, & Ropero-Miller, 2004, p. 5). Hickman went on to state that compounding the problem was the fact that direct access to NCIC was not permitted by the federal bureau of investigation, placing additional workload on local police to enter UHR's onto NCIC on their behalf (Hickman et al., 2004, p. 5).

Collaboration issues and problems that could be faced by law enforcement and coroners can go much deeper. Problems with legal and ethical issues can ultimately play a part in unidentified human remains cases if not agreed on beforehand such as creating guidelines and best practices procedures (Pearsall, 2010, p. 3). Pearsall also saw a problem with the professional development of coroners in order to be effective by recommending regional training through the development of incentives, fellowship programs, and establishing leadership programs for death investigation administrators (Pearsall, 2010, p. 4).

Many Georgia law enforcement agencies do not take advantage of the power and process of the county coroner's office as outlined in title 45 of The Georgia Code which enumerates the powers of the coroner to hold an inquest into the any death in any county in the state as a result of violence. These inquests are held publicly and sometimes involve a seated jury for purpose of the inquest to establish the facts surrounding the death of a missing person, this is an advantage for investigators who can attend, and take notes from testimony that may be relevant to a missing person investigation (Legislation-title 45, 2014).

Database Training

The Federal Bureau of Investigation (FBI) Violent Criminal Apprehension Program (VICAP) is the world's largest investigative repository database of missing persons where foul play is suspected and unidentified remains case information (VICAP, 2015, p. 1)   VICAP'S services makes it possible for law enforcement agencies to collect, analyze, they own missing person cases either on a local or national level (para 2). Once a missing person involving suspected foul play, or unidentified person's case is entered into VICAP, any other law enforcement agency can request investigative services including: crime analysis, database searches, and case consultations, (para 3). The problem is that of the 17,000 law enforcement agencies in the country only a dismal three percent (about 400) participate in the VICAP Program (Cooper & King, 2015, p. 201).

In an effort to address the national deficiencies in law enforcement education concerning missing persons and UHR's, The University of North Texas Center for Human Identification (UNTCHI) in conjunction with The National Institute of Justice (NIJ) introduced an online course designed to address the lack of training of law enforcement in the techniques, skills and knowledge intended to eliminate the problems that UHR's and missing person's cases often face by creating a safety-net program when investigating these cases (Spamer & Adams, 2009, figure 3). Spamer teaches that training in this four step safety net process will significantly reduce the incidence of UHR's and missing persons from failing because of investigative shortfalls.

According to Spamer (2009) a problem with law enforcement agencies is that they are not conducting public database records searches to locate the missing person, or established that the person did exist (figure 4). Database search sites such as Lexis-Nexis, Facebook, Twitter, Instagram, and sites such as state driver's license, marriage/divorce records, social security death index, cellphone, business, real estate, are not being taken advantage of (figure 10).

NCIC offline searches are a component of the missing person safety net procedure and differ from online searches because it allows law enforcement to query records that are no longer available on the active NCIC server. When law enforcement agencies are not using NCIC offline search capabilities when investigating missing person's cases important information can be missed When off-line is better (2010), para. 1.

Just because a missing person is entered into a database does not mean that there will be sufficient information listed to identify that person's remains if found. The staggering number of missing persons listed in the NCIC database makes positive identifications problematic without all but the most detailed descriptors associated with the missing according to Libal (2005), who cited that "the information, even that information listed for the missing person might not be what the investigator need to identify the remains" (Chapter 3).
 Law enforcement faces problematic questions such as had the person ever suffered broken bones, the condition of their teeth, tattoos and piercings and other small details. Libal (2005) also wrote that one of the biggest problems with missing persons are those that were never reported missing, and that this could happen for a variety of reasons including, visiting from abroad, no family, or the person could have been murdered by a family member who did not report the murder (Libal, 2005, Chapter 3).

This problem was recognized in October 2011, members of The University of North Texas Center for Human Identification (UNTCHI) conducted a two-day workshop in Virginia Beach, VA. That department recognized that it's investigative members needed additional training in the area of missing persons and UHR's, and that training was intended to educate the law enforcement community in an overall effort at reducing the number of missing and unidentified persons in the United States (Murphy, 2011, p. 1).

The problems encountered by police and coroners when working investigating UHR's cases can be traced back to a lack of training, timeliness and sometimes even carelessness, these are important consideration according to Ajay (2014), who cited that one of the biggest problems seen when police are investigating highly decomposed UHR's is that they may not be interested in working with such cases, or they may try to match the UHR's identity with artifacts or photos quickly; methods that may result in misidentification and embarrassment (Kumar, Harish, Singh, & Kumar, 2014, p. 76).

Improper training of police officers and their supervision in the demanding and challenging investigations of missing persons has been known to affect the attitudes of law enforcement officers in a negative manner according to Smith (2015) who wrote that of 334 police officers from three police departments, only half of that number had ever bothered to read and familiarize themselves with the "training, leadership, or utility of risk assessment tools relating to missing persons" (Smith, Greene, & Shalev, 2015, p. 352). The article goes on to realize that police supervisors are not trained as effective leaders in order to promulgate an actual missing person investigation during its early stages.

Hedges (2002), wrote of the problems of police officers that are tasked with missing person's investigations by commenting that missing person investigations are often overlooked because they are an everyday occurrence, and that the detectives do not appreciate or understand the complexities of these investigation; nor are their committed to their completion (Hedges, 2002, p. 32). Hedges went on to state that missing person cases are sometimes viewed as less important or serious than other policing responsibilities, and that crime is not necessarily involved in missing person cases (Hedges, 2002, p. 32).

The police can often become a part of the problem when they are overworked and have time restraints when investigating UHR's, (Kumar et al., 2014, p. 76). Inadequate training, bad attitudes, delays, not taking and preserving fingerprints; and that they usually request postmortem examination only to avoid unwanted allegations from the families at a later date; all of which leads to further decomposition of the UHR's (Kumar et al., 2014, p. 76).

According to NamUs (2011), few law enforcement agencies take advantage of experts and instructors from organizations such as (UNTCHI), and The National Missing and Unidentified Persons (NamUs) provides training and technical assistance for DNA processing and profile development, forensic odontology, fingerprint services, forensic anthropology, publications, and communications outreach, but few law enforcement agencies use these services (The National Missing Persons and Unidentified Persons System (NamUs), 2011, p. 1).

Although NamUs is available for law enforcement, more than 10,546 active missing persons remain on their database, a major problem is that the effectiveness of the NamUs system is dependent upon local law enforcement to proactively enter their own data on unidentified remains and missing persons into the system, and most medico-legal agencies currently do not use this system (Reineke, 2013, p. 7). Those sentiments are echoed by Pittman (2010), who cited that only 1,100 of 17,000 law enforcement agencies use NamUs (Pittman, 2010, p. 37).

Fingerprints

According to The United Sates Attorney General (2014) tremendous advancements that has been made in deoxyribonucleic acid (DNA) technology, but this science is not routinely used by law enforcement missing person investigations (Using DNA to identify missing persons, 2014, para. 2). The FBI has provided two databases that some law enforcement agencies has used to enter the data into from the missing person or unidentified human remains and the family members of the victim, to date this database is not used to its full potential, and to further the problem, countless unidentified human remains are disposed of without the collection of DN (Using DNA to identify missing persons, 2014, para. 3). Some law enforcement agencies must become more efficient at understanding the fragile and precariousness of collected DNA samples from UHR's, at times when DNA samples are submitted for analysis, the lack of proper training of law enforcement officers in the care of the sample can result in degradation of the sample, or the law enforcement crime lab may lack the capacity to test the sample in an appropriate time frame (Using DNA to identify missing persons, 2014, p. 4).

Using DNA to identify UHR's to locate missing persons by law enforcement has been not just a local and state level problem, but is causing enormous challenges in entire regions of the US as well such as the US border with Mexico, where the DNA recovered from the remains of illegal immigrants that have died attempting to cross into the US cannot be uploaded into the FBI's combined DNA index system by law, preventing those that are attempting to create a more inclusive system to be stifled by bureaucratic roadblocks (Reineke, 2013, p. 3).

Local law enforcement agencies rely heavily upon the forensic laboratories of the FBI to develop DNA profiles from samples taken from missing persons, and UHR's, but this service has developed problems according The U.S Inspector General Report 10-39 (2010), which addressed a severe backlog of processing DNA samples submitted from law enforcement. The report cited that the DNA samples which had been submitted from missing person cases comprised the largest portion of the backlog, accounting for 1,147 cases, or forty-two percent (Inspector General, 2010, p. 12). The report went on to state that because missing person cases usually lack suspects, or pending trial, they are considered a low priority, and compound the problem is the fact that the processing time of DNA from missing persons and UHR'S is about 365 days (Inspector General, 2010, p. 13).

The failures of the criminal justice system to use technology such as DNA to identify UHR's has been recognized by Berg (2015) who wrote about the clear humanitarian predicament that the police and federal authorities face along the US border, and the obligation to find the best way in which to identify the remains of the decease (Berg & Taala, 2015, p. 271).

Mass disasters often involve large loss of life leaving law enforcement and the forensic community with the responsibility of identifying human remains on a large scale. UHR's can be found in many states of degradation, and this presents a major problem in a chaotic environment such as a mass disaster site where the process of identification of UHR's can be complicated (Budowle, Bieber, & Eisenberg, [Abstract] 2005).

The responsibility that law enforcement has after a mass disaster is individual identification of human remains including skeletal and dental features, fingerprints, marks such as tattoos, scars, medical devices and implants, the more traditional methods of identification can be a problematic when there is substantial fragmentation of bodies, and in large amounts; can present a daunting problem to rescue workers and government agencies (Budowle et al., 2005, p. 231).

Complicating the problem further is the fact that some mass disaster scenes can present unexpected and unpredictable problems and place tremendous stress on all involved, however, with planning and organization; prioritization before a disaster event the problems presented with identifying human remains during a mass disaster can be reduced and the likelihood of returning UHR's to their families increased (Budowle et al., 2005, p. 231). The specter of countless UHR's at mass disaster sites often presents law enforcement with several choices of which identification technologies to employ as a means of identifying the remains using both DNA and conventional means, both can have their advantages and problems according to Turney (2010).

DNA is currently the gold standard for identifying UHR's with its high standards of care and leaves little room for critique of its forensic processes (Turney, 2010, p. 1), however, despite the record of accuracy that DNA has established for itself, there are some situation in which this scientific procedure causes problems. Turney (2010) points to the great Australian Bushfire of 2009 in Victoria as an example in which 173 people was killed and their bodies was subjected to great heat. The subsequent police investigation relied on DNA profile development to identify the UHR's, but this process was extremely time consuming and local officials had not taken into account the problems that arose out of the customs and sensibilities of the local community due to the long time periods that DNA testing caused; which created a loud and intense outcry for the return of their family member's bodies.

Another problem with the use of DNA to identify human remains over more conventional methods is that DNA technology is expensive, time consuming, resource intensive, and the requisite equipment may not be available in sufficient quantities (Sergio, 2012, p. 1). The conventional methods of identifying UHR's that has been mentioned are fingerprint, dental and other physical attributes. These time tested methods have been used for decades to identify the deceased and have sometimes served as an alternative to DNA testing as they are less labor-intensive and are known as low technological requirements (Sergio, 2012, p. 1).

The simplicity of some conventional means of identifying human remains also has their own problems and has drawn criticisms due to its low technology methods which may not establish conclusively the identity of human remains, and at other times have garnered a low level of confidence with its results (Sergio, 2012, p. 1). Basque Research (2011) seems to agree with Sergio's conclusion in its assessment of the problems with the quality and capabilities of the DNA collection kits that law enforcement CSI teams use to collect DNA samples at the scenes of UHR's by citing that in most cases the material available to identify the person is in a very degraded state, and that the kits do not produce very accurate results being that viable DNA is not available (2011, p. 1).

According to London (2013) there is the assumption that the family members of the missing and potentially of UHR's would welcome the advent of DNA technology in their quest to get answers, and that desire would potentially invite the donation of DNA by those family members for matching, but again a problem has emerged in this area, the identification of the missing and UHR's based on kinship donations of DNA has raised concerns of impropriety, and that law enforcement would use those donated samples for conducting criminal investigations or attempt to identify political activist. (London, Parker, & Aronson, 2013, p. 1178).

The problem of trust concerns and the belief by some, that law enforcement could misuse DNA samples, and the genetic profiles that are developed from them, has also been raised by Hindmarsh (2010), who cited that this issue is a major concern, and calls for independent oversight in the forensic community over the collection of DNA should be done by a non-police entity who is not involved in the investigation (Hindermarsh & Prainsack, 2011, p. 271 Mass disasters can occur at any time resulting in multiple UHR's, taking the fingerprints for the identification of those victims is a significate part of the investigative response, and that responsibility is placed the hands of coroners who have law enforcement authority, but according to Pearsall (2010) the problem with elected coroners is that they fulfill all legal state requirements but are often not physicians, or have any medical training (Pearsall, 2010, p. 31), and this lack of expertise could further delay or prevent the identification of UHR's.

Pearsall's concerns of the difficulties and requisite skillset needed to remove the fingerprints of UHR's, which may be badly burned or decomposed is reflected by Mulawka (2014), who cited that it is imperative that personnel are properly trained in the manual postmortem fingerprint removal and recovery techniques that are involved in a process called postmortem workflow…because "postmortem workflow can facilitate decisions regarding which specific fingerprints techniques should be used" (Mulawka, 2014, p. 9).

Mulawka went on to underscore the importance of proper fingerprints recovery for UHR's identity as crucial during medicolegal investigations and the problems sometimes associated with this process, stating that DNA and fingerprints are always preferential to other methods, but cautioned that there is shortfalls with the basic understanding regarding the complexity of fingerprint removal of the deceased and citing that this fact is a major contributor on a national scale regarding the identification of unidentified human remains (Mulawka, 2014, p. 10). Further on the issue of the mishandling, and misinterpretation, and processing of DNA and other evidence of UHR's, Refuge (2011) wrote that the lack knowledge of the personnel involved can have a detrimental effect on criminal cases and the lives of others (Refuge, 2011, p. 1).

Conclusion

The problem of missing persons is not uniquely an American problem; it is a problem in every industrialized country in the world. People go missing for different reasons and circumstances from runaways, abduction, to being victims of an assortment of manmade and natural disasters. The common denominator to all of these situations is that the families of the missing want answers and service, and law enforcement and the forensic community are tasked with providing those answers.

Sometimes those answers are contained within the discovered human remains of a person that is seemingly without a name. When this happens law enforcement must form partnerships with the larger medicolegal forensic community including the offices of the coroner, and medical examiners, and together develop effective and standardized methodologies in which to provide the answers that the families so desperately need and deserve, and that the criminal justice system mandates, and accounting for every case of a missing person or unidentified remains of a human being.

In order to fulfill the mission of locating missing person and identifying UHR's every available resource that can assist investigators in this endeavor must be utilized to its upmost potential, but the greatest obstacle that must be overcome now and in the future is the standardizing of the most proven and effective means of locating missing persons and the use of the latest cutting edge forensic technologies for identifying human remains by every law enforcement agency, and medicolegal office in the country. Whether the search to identify the missing or human remains is conducted using the latest DNA technologies, computer databases, or other means, the ethical considerations of human rights and privacy must be of paramount concern for the rights and dignity of both the missing, deceased, and their love ones.
Recommendations:

The standardization of training and agency policy is the most important need.

Missing person investigations must be conducted ethically, with priority, collaboration, and standardized training. Every agency handling a missing person case should consider that person as an at risk case and liaison should establish with the family of the missing. The standardization of training is an imperative, and it is important that law enforcement agencies across the country uniformly avoid any missing person or UHR's case from falling through the cracks of procedural and policy differences commonly seen when examining the results of these investigations by creating a safety net model of commonly accepted procedures.

Training programs for law enforcement designed to address missing persons and promulgated by departmental supervision should be created the growing problem of missing persons, and should be expanded to include the larger medicolegal community such as coroners, and medical examiners emphasizing the benefits of the CODIS System, DNA, and the NamUs databases. Training programs such as is offered by The National Criminal Justice Training Center at Fox Valley feature subject matter experts that train law enforcement agencies during conferences centered on investigating missing persons.

Procedures Should consist of first establishing that the missing person is in fact missing by using databases to search for them. This procedure could potentially locate a person that is voluntarily missing for various reasons. Once that step is completed a comprehensive demographic entry of the missing person should be entered onto NCIC, and the NamUs databases, including dental records, and the creation of a DNA Family Pedigree Tree from close family members should be taken and submitted to a laboratory dedicated to missing persons and UHR's, making a robust CODIS search fruitful in the event that the missing person's remains are recovered. The collection of ante-mortem dental records should be done if the missing person has not been located within thirty days. The NamUs entry is recommended so that the family of the missing can search for and contribute to the search. The news media should be contacted to feature the missing persons on their broadcasts and posters of the missing person should be created and publicly disseminated. In cases when UHR's are recovered, a forensic anatomical bust representing the likeness of the person should be created and featured in the media including internet social media outlets, and law enforcement agency homepages and the contact information of the investigating officer should be included.

The unidentified decedent reporting system that allows coroners and medical examiners to enter and edit decedent information, and families and law enforcement to search its database should be expanded and linked to the national crime information network, creating a one stop shop for missing persons and UHR's cases. Law enforcement training in the science of forensic DNA should be taken advantage of such as the President's DNA Initiative which offers free online training in eliminating DNA backlogs, research and development, using DNA to identify missing persons, as well as funding.

Because of the far reaching ramifications involving the collection of DNA from missing persons, UHR's, and their family members, a national policy concerning the ethical processing, profile development, storage and dissemination of DNA results as an oversight mechanism such as an ethical code of conduct should be created calling for the highest ethical standards of privacy and professionalism in this regard designed to gain the trust of all involved. Mass fatality training should be conducted on an annual basis in which law enforcement, and the medico-legal community work together to prepare for these events in which the recovering and identification of UHR's can be expedited by fingerprint, dental and DNA methods.

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