## REVIEW

*Robert B. Brannon,*[1] *D.D.S., M.S.D. and William M. Morlang,*[2] *D.D.S.*

# Jonestown Tragedy Revisited: The Role of Dentistry

**REFERENCE:** Brannon RB, Morlang WM. Jonestown tragedy revisited: the role of dentistry. J Forensic Sci 2002;47(1):3–7.

**ABSTRACT:** The authors record the contribution of dentistry to the identification of victims of one of the most significant tragedies of the 20th century—the mass suicide of members of a religious cult, which initially resulted in 913 deaths and ultimately in 923. Though forensic dentistry played a significant part in identifying victims, the only report by members of the United States identification team did not examine dentistry's valuable role. Furthermore, the dental-investigation aspects have been mentioned merely in passing by the news media despite an infinite number of stories on the tragedy ranging from factual to exposé. The dental team's organization, methodology, and significant contributions to forensic dentistry and a variety of remarkable problems that the team encountered and the lessons learned from them are documented in this paper.

**KEYWORDS:** forensic science, forensic odontology, Jonestown, Guyana, mass disaster, dental identification

Until recently, the largest number of deaths involving a religious cult occurred on November 18, 1978, at The People's Temple in Jonestown, Guyana. On March 31, 2000 a mass murder of the followers of the Restoration of the Ten Commandments of God in Uganda surpassed the Jonestown toll (1). However, at the time of its occurrence, Jonestown was one of the most significant nonmilitary forensic events in regards to the number of dead (2). The majority of those who perished were from the U.S. and were followers of Reverend Jim Jones. Deaths occurred by suicide and murder via cyanide and firearms. Nine hundred thirteen initially died (3); the final count reached 923 (4). The Jonestown tragedy is thus far the largest cult suicide in modern-day history.

Fingerprint comparison was the principal means of identification because of the availability of fingerprint records of adult cult members, which Guyanese authorities took when the members first arrived in Guyana (2).

Here is a brief synopsis of the chronology of events (2). On November 18, between 4:00 P.M. and 5:00 P.M., a Jonestown assassination squad killed California Representative Leo J. Ryan and four others as they attempted to board aircraft at Port Kaituma. Between 5 P.M. and 8 P.M., on the same day, 913 of the settlers at Jonestown and Georgetown committed suicide or murder and suicide. On November 20 the Government of Guyana began the medicolegal investigation at Jonestown, which lasted 36 h, and on November 21 the U.S. military arrived to support the Guyana efforts. However, authorities removed bodies from family groups that died together without documenting their relationship to each other (3). The first bodies were flown to the mortuary at Dover Air Force Base in Delaware on November 23, body processing began at Dover on November 24, and the last bodies arrived from Guyana on November 26.

In the aftermath, several published commentaries reflected on the multitude of problems U.S. authorities encountered in a tragedy of this type on foreign soil. These included numerous medicolegal and jurisdictional issues, such as determining cause of death, handling of remains of U.S. citizens, the investigation conducted by Guyana officials, search and recovery problems, and ethical conduct of The People's Temple physician (5–10). Some articles (6,7) and letters (9) were critical prompting rebuttals (8,10). Only two articles were generated by the military concerning the actual identification and investigative efforts. Thompson et al. (11) reported primarily on the autopsy findings of seven victims, and Jones (12) of the U.S. Air Force School of Aerospace Medicine conducted a valuable retrospective study on the emotional impact that the military recovery and identification teams experienced. However, missing from these highly focused accounts is the involvement of dentistry from the dentist's perspective. The purpose of this paper is to chronicle the valuable role that dentistry played in the investigation and identification process of one of the most significant tragedies in forensic annals and to record its historical significance with emphasis on problems, lessons learned, and contributions. In preparation for the article the authors reviewed, categorized, and tabulated data from the official AFIP dental findings and literature (11–13), relied on their own firsthand experience as members of the AFIP dental-identification team, and considered only the organization, information procedures, victim processing, and problems that directly affected the dental team.

### Response Team

A team from the Armed Forces Institute of Pathology (AFIP) was responsible for assisting in the identification of the dead from Jonestown after their arrival at the mortuary at Dover Air Force

[1] Oral and Maxillofacial Pathology Department, Louisiana State University School of Dentistry, New Orleans, LA.

[2] Forensic odontologist, 9317 Gloxinia Drive, San Antonio, TX.

* Presented at the 53rd Annual Meeting, American Academy of Forensic Sciences, Seattle, WA, 22 February 2001.

Received 13 March 2001; and in revised form 24 April 2001; accepted 25 April 2001.

Base, Delaware. The AFIP Department of Oral Pathology was charged with providing forensic-dentistry support for this endeavor. At the time, the Department of Oral Pathology complemented the AFIP Department of Forensic Sciences with forensic pathology, aerospace pathology, and toxicology divisions. The chair of the Department of Oral Pathology was chief of the Forensic Dentistry Section for the disaster mission. The assembled dental team, all members of the U.S. Air Force, consisted of 12 dental officers (five general dentists, three oral surgeons, three AFIP oral pathologists, and one endodontist). A prosthodontist was also available for consultation. The dental-support team consisted of a computer programmer and ten dental technicians, one of whom had dental-radiology expertise. Additional dental officers and dental support personnel were recruited as needed from regional air force bases.

## Identification Data

The identification center in the mortuary at Dover AFB received 913 of the 923 bodies for processing and identification. Thompson et al. (11) provided a brief account of the means used to identify *these* 913 victims. Of these victims sent to Dover AFB, 666 were identified; 247 were not. The dental-identification team spent 25 days at the Dover AFB mortuary. In the immediate months following termination at the mortuary, dental identifications were made at the AFIP as additional antemortem records were received.

### *In-processing of Remains*

A pathologist examined each body and recorded the following: estimated age, sex, race, height, weight, scars or other body marks, condition of the remains, and a description of the clothing and personal effects. The dental team provided dental-age estimations when it was consulted.

### *Identified Remains*

The dental team had for comparison only 304 dental records, the majority of which were obtained with the help of relatives. There were virtually no dental records from the Jonestown settlement. A few months after the closure of the identification center at Dover, California dental schools provided dental records of several children suspected to have been in Jonestown. A few medical records from Jonestown were available, but they did not contain any dental information. The methods used to identify the 666 victims were fingerprint, dental, pathology, and footprint. Dental means identified a total of 223 (33%) of the 666 victims. Dental comparison was the only means of positive identification for 73 (11%) victims. Dental plus fingerprint comparison accounted for 150 (22%) victims. Fingerprint comparison was the most successful with 441 (66%) identifications. The remaining 2 (<1%) victims, an infant and an amputee, were identified by footprint and pathology, respectively. The identification rates for all 913 victims were fingerprint 48%, dental and fingerprint 16%, and dental 8%. Of the 260 children who were involved, 60 (23%) were identified by one or more methods (dental, fingerprint, and footprint). Positive dental findings contributed to the identification of Reverend Jim Jones.

### *Unidentified Remains*

Of the 247 remains not identified, 142 (58%) were estimated to be between the ages of 2 and 14 years, and 58 (24%) were estimated to be under two years. The lack of antemortem medical radiographs including skull films, which could be used for dental identification, further eliminated or reduced the search for dental clues. Twenty-five percent of the victims were age 60 or older, and many were partially or totally edentulous. As a consequence, removable prosthetic appliances were common findings.

## Analysis of Investigation

Although mass disasters have certain elements in common, each has certain problems that make it unique (13). The Jonestown tragedy was certainly no exception with its diverse set of problems. The nature of the tragedy demanded many decisions by U.S. and Guyanese authorities that did not include forensic dentistry directly. Whether or not final decisions, including remains management at the disaster site, hindered or prevented any dental identifications remains speculative. The following briefly describes the dental methods used and the problems forensic dentists encountered in the various components of the investigation.

### *Preplanning Aspects*

Confronted with the challenge of this disaster, the Department of Oral Pathology at the AFIP felt confident that it was up to the task because of the recent experience that the department had gained in two previous mass disasters—the Tenerife, Canary Islands, aircraft disaster (14) and the Big Thompson Canyon, Colorado, flood (15). Disaster ready, the department now had in place a mass casualty protocol for forensic dentistry; it included procedures, material, and an experienced response team. The knowledge that the forensic dentistry team for the Jonestown disaster had gained from the pertinent forensic literature and the annual AFIP Forensic Dentistry Course complemented their abilities. All of the aforementioned were instrumental in determining the disaster-specific organization, staffing, and protocol of the forensic dental section and its attendant subsections—postmortem examination and radiology, antemortem record reconstruction, and records comparison and computer.

### *Postmortem Examination and Radiology Subsections*

In the retrospective study of the stress that the identification and recovery teams experienced, Jones (12) so aptly stated, "It is difficult to convey to someone who has not had firsthand experience what a week in a tropical climate can do to human remains. The changes in color and size, the infestation with various insects, and above all the overpowering and unforgettable odor of just one body are beyond recognition." And so it was with the Jonestown remains, and, as a consequence working to identify them was very stressful to the team, physically and mentally. Grotesque and maggot-infested, most of the bodies showed moderate-to-severe decomposition and putrefaction: foul odor, distention of tissues, slippage and color changes of skin, and protrusion of tongue and eyes. Bodies were unrecognizable; discoloration made race determination difficult. At times, dental personnel were overcome by olfactory distress despite double masking with a perfumed ointment. Some of the victims, particularly young children, were already partially skeletonized because of severe postmortem decomposition. The sheer number of children involved, a fact many team members found difficult to accept, further heightened the emotional impact.

The oral surgeon's expertise expedited the initial phase of the dental processing. Rigor mortis of mastication muscles had disappeared in the victims negating surgical resection of jaw bones. In many instances, decaying flesh could be readily freed from the bone without surgical instrumentation. In some instances, a modi-

fied facial dissection consisting of a bilateral releasing incision from the lip commissure to the tragus of the ear was necessary. Mandibles were easily luxated allowing optimal access for the postmortem dental charting. Allowing the mandible to remain attached to the victim was the correct ethical decision in this particular disaster, and it kept the body intact eliminating the possibility of inadvertently commingling body parts.

The postmortem forms were designed for use with computer codes for individual dental characteristics. Because of the large number of unidentified remains, the team used a multiple verification technique. In order to achieve accurate documentation, teams composed of three dentists conducted the postmortem examination using the multiple verification technique that was used previously by the dental team in the Tenerife disaster and by Vale and Naguchi (16) in the 1974 Pan American 707 airliner disaster in the Samoan Islands. One dentist examined, one charted, the third verified that the first reported accurately and then verified that the other charted correctly. They then switched roles and examined the same victim to ensure accuracy. This method of redundancy allowed for verification of findings and consultation on questionable findings. The alternation of team members in the roles of examiner and recorder helped to reduce fatigue, an important benefit considering the voluminous number of bodies that were to be examined. Taking turns charting also helped break up, albeit to a minor degree, prolonged contact with the remains.

A problem affecting postmortem data collection was the lack of recovery of teeth. Postmortem loss of teeth was not uncommon and was observed more often in the partially skeletonized. Wrapping the head or securing the oral environs of the victim prior to removal from the scene would have in most instances eliminated loss of dental evidence. Certainly recovery of loose teeth on the ground would likely have been beneficial.

An interesting and common postmortem finding among the victims, especially in the young, was the presence of pink teeth. Endodontically-treated teeth remained white. The factors were just right for this pathologic event to occur—a very warm and humid environment. Daily temperatures recorded at the scene two days after the suicide occurred were 85 to 90°F in the shade and 100 to 105°F in the sun, with extremely high humidity (2). Kirkham et al. (17) have shown through controlled experimental conditions that if teeth are to become pink after death, sufficient blood in the chamber is necessary so that on hemolysis enough hemoglobin is present to diffuse into the dentinal tubules and impart its red color. Most critical is the moist environment, for it is the humidification that helps keep the pulp protein soluble so that diffusion can occur. The young demonstrate this phenomenon more readily than the old because the pulp chamber in youth is larger and more vascular and has less secondary dentin. Pulp vascularity and secondary dentin are not only related to age but variable with the health of the tooth (17).

In order to capture maximum dental evidence, the team decided to perform a complete radiographic examination of the mouth, i.e., a full-mouth survey, in which a dental film is positioned periapically in each tooth area. An advantage of the periapical dental radiograph is that it shows the entire tooth or teeth in a selected region along with the adjacent bone and soft tissue. A full-mouth survey of periapical radiographs was taken on all victims, both dentulous and edentulous. In the edentulous, the periapical films were placed over the same areas of the alveolar ridges as they would be if the teeth were still present. Smaller pediatric dental film was used for children. Wet gauze placed intraorally held the film in place. The dental radiology technicians instituted a chain of custody to avoid commingling and/or loss of exposed film and radiographs prior to and after development, respectively. A dental officer was assigned to evaluate radiographs for quality control.

*Antemortem Record Reconstruction Subsection*

The almost impossible task of comparing antemortem dental records, which the team received from dental offices, with postmortem dental records required that the team transcribe all antemortem dental evidence to a single antemortem dental-record form in order to create a composite antemortem picture. Like the postmortem dental forms, the antemortem forms were designed for use with computer codes for individual dental characteristics. Retrieval of antemortem dental records was very disappointing; the majority came from relatives who helped procure the records from the dentists of the deceased. A plea for dentists of the deceased to provide dental records was announced in the *ADA News,* a periodical of the American Dental Association, and this yielded a few from cooperative dentists. The team also searched antemortem medical records for dental evidence but to no avail. Without success the team examined for dental evidence photographs that family members sent.

The antemortem team used a multiple verification system in this subsection, too. One dentists transcribed the antemortem dental-record information to a standardized form, which a second dentist then verified. This system was necessary, in part, because of the sheer volume of antemortem dental records and because many were of less than ideal quality, which caused the transcribing dentist to make educated guesses. To complicate matters further, dental records were not current since Jonestown essentially had no dental treatment available.

*Records Comparison and Computer Subsection*

The Records Comparison and Computer Subsection received postmortem dental records from the Postmortem Subsection and completed antemortem composite dental records from the Antemortem Record Reconstruction Subsection. Members of the Comparison Subsection were ultimately responsible for comparing all postmortem examination and radiographic findings with the completed composite antemortem dental records and radiographs.

The records comparison section team became more active late in the course of the identification process as the work of the postmortem and antemortem teams progressed to completion. Of invaluable assistance was the implementation of a forensic dentistry computer-matching system originally conceived by dental officers and a computer-programming specialist during the identification of victims of a 1976 Colorado flood (15) and further developed during the 1977 Tenerife Pan Am/KLM disaster (14). This computer program was essential in processing the 913 remains. A manual comparison of a single antemortem composite dental record to 913 postmortem records would have taken well over 7 h. The section still performed manual comparisons, but the probabilities that the computer provided narrowed the number of comparisons and thus made comparisons much easier. The computer generated a list of probable matches in minutes, which saved a significant amount of time, and, more importantly, allowed the team to make positive identifications rapidly, benefiting the families of the deceased. After manual comparison, the chief of the forensic dentistry section or his designee would review all possible matches. This section employed multiple verification, too, and used an official identification summary form to summarize the identification data and to document the decision-making process. The chief or designee along with a minimum of two dentists who were in agreement with the fi-

nal interpretation signed this form. The degrees of certainty were essentially (1) positive identification (certainty), (2) consistent with (findings support an identification but not to a degree allowing certainty), and (3) unidentified (insufficient evidence).

*Problems Encountered*

Unrecovered dental structures and inadequate antemortem dental records are among the most commonly encountered problems in mass-disaster dental identification (13). In this disaster unrecovered dental evidence resulted from not securing the head and oral cavity prior to removal of the bodies and failure to collect teeth on the ground. Many of the bodies were moved twice—first by Guyana officials and then by U.S. military (2). Teeth were either dislodged from their sockets during body manipulation or were already on the ground. Postmortem loss of teeth was a common finding, especially in the partially skeletonized victims. Whether or not it had an adverse affect on the dental identifications is conjectural. Although many antemortem dental records were outdated and/or of poor quality, the "coup de grace" was the inability to obtain dental records. This lack of antemortem information compromised the ability of the computer to match this information with postmortem information and to provide viable probabilities. And in the end it allowed the dental team to identify only 223 (24%) of the 913 victims. Reverend Jones willingly accepted foster children, and it is possible that some of the children (and adults, too) may have been citizens of Guyana, which precluded acquiring sufficient antemortem information from Guyanese sources (2). Lack of acquisition of antemortem dental records may have been, at least in part, a result of next of kin not wanting (for whatever reason) to send dental records or to provide the name of a dentist even though they knew or suspected family members were at Jonestown. This is supported by the fact that a very high percentage (~60%) of the bodies were never claimed.

Another problem that limited dental identification was the lack of patients' names on removable prosthetic appliances. Unfortunately, many of the deceased, primarily in the middle-aged and elderly group, had unlabeled removable prosthetic appliances but were not wearing them. This is a universal problem in mass-disaster identification (13,18).

Identification of the children was also a major problem. From the dental standpoint, the main culprit was lack of or outdated antemortem dental records. Some children were probably born in Jonestown and had no dental records. Many had dental records in the United States when they had only deciduous teeth, which they had since shed in Jonestown. Other factors included lack of fingerprints and authorities' disregard for the victims' location and relationship to the adults by whom they were initially found. This disregard resulted in the loss of valuable information since many children and their parents died together. This loss accentuated the need for authorities to have recorded the relationship of the bodies. Borrowed or exchanged personal effects significantly complicated the identification of victims, especially in the pediatric group (11,13). Several children were discovered to be wearing each others' labeled clothing when the antemortem dental radiographs did not match the "believe-to-be" victims indicated by clothing. As it turned out, interchange of clothing was commonplace with some articles even having more than one name on them.

No one among the dental team was immune to the emotional impact of Jonestown. The dental officers and dental support staff openly discussed how the condition of the bodies, the foul odor, the high number of children, and the physical contact with the bodies played havoc with their ability to adjust and cope with the task at hand. It is not known if all dental members let their feelings be known since records were not kept on this aspect of the identification process. One study (12) examined the emotional effects on personnel involved with transporting and identifying Jonestown bodies, but no study exclusively examined the emotional effects of the dental identification team, so it is unknown how the dental team fared in comparison to the other identification-team members. Results of the study (12) suggested that mental stress in the form of short-term dysphoria was more common in those younger than 25 years, the enlisted, the African-American, and those with prolonged exposure to the bodies. The author reasoned that emotional stress would be less with identification teams composed of older members with forensic experience paired with younger members with frequent rotation of jobs. Day-by-day group support in the form of group discussions conducted by mental health professionals was also considered to be a stress-reducing factor. Lighthearted but respectful humor was a valuable tool that the dental team used to combat the mental pressures of Jonestown, a ploy also corroborated by the study.

It is only human nature that the dental-team members spent many hours discussing and wondering how and why a tragedy like this could possibly happen. Many articles ensued attempting to psychoanalyze the reasons why the people involved committed the acts that they did (19–23).

## Lessons Learned

Following the rules of crime-scene investigation and all it entails is of paramount importance for effective mass-disaster identification and can have an effect on the ability of the dental team to identify victims. Clues were forever lost when children were separated from family members. In this disaster identifying one family member would have made it easier to identify the others (7).

Dentists should be members of the search-and-recovery team in order to optimize the preservation and collection of dental evidence at the disaster site.

The postmortem finding of pink teeth is a pathologic sign that remains may have been in a hot, humid environment for a prolonged duration. However, other factors have been reported in the development of pink teeth (24).

One should be very cautious with personal effects, for they may be borrowed or exchanged as they were in this disaster.

Some degree of mental stress is unavoidable in most dental-team members; it goes hand in hand with mass-disaster identification though it can be silent. The realization that the dangers of mental stress cannot be discounted or overlooked in future disaster operations prompted the development of a plan to curtail and manage this aspect of the dental-identification process.

Based on performance in this disaster, computers for dental identification in mass disasters were deemed "here to stay" and were a necessary part of the forensic dental-team armamentarium. The assistance of the computer reduced identification time, cost, and number of personnel.

Multiple verification techniques, as they were used in all three dental subsections, are a must for mass-disaster identification. They virtually eliminated the need to re-examine or re-evaluate remains and/or dental records.

Readiness, i.e., the ability to respond immediately with dentists and ancillary personnel with mass-disaster experience and necessary equipment, is essential to success.

## Contributions

Forensic dentistry made at least two major contributions to victim identification, mass-disaster dental teams, and forensic sciences in general. First, the involvement of dentistry at Jonestown provided a full-fledged opportunity for the use of a computer program for dental identification in a mass disaster. To our knowledge this was one of the first uses of a computer program designed specifically for dental identification in a mass disaster (25). Just a few weeks earlier a computer system for dental identification was successfully used in the collision of a Pacific Southwest Airlines Boeing 727 with a Cessna aircraft in which 144 people perished (26). As for Jonestown, the development and successful use of a military dentistry computer system for dental identification fostered new ideas and refinements that were soon employed in the Gander, Newfoundland, Arrow-Airlines disaster (27). Secondly, a protocol consisting of 29 recommendations to assist mass-disaster identification teams cope and avoid mental-health problems was developed (28). These recommendations are based not only on the literature (12,29), but also on the cumulative experience of the military from several mass disasters including the invaluable knowledge it gained during the Jonestown experience.

New ideas and information were also generated and employed by military forensic dentistry. Capitalizing on the recommendations (12) to minimize emotional stress and the authors' own Jonestown experience, the forensic dentistry protocol of the military was refined to include the use of the following: teams small in number, teams composed of dentists with forensic experience paired with inexperienced members, and frequent rotation of jobs to reduce prolonged contact with remains. Lastly, Jonestown further added to the experience the military gained at Big Thompson Canyon and Tenerife, giving a core of military dentists mass-disaster experience—a much needed asset in the military for the many mass disasters that subsequently followed.

*Acknowledgments*

This article is dedicated to the memory of the late Southern P. Hooker, the chief of the Jonestown dental-ID team and our cherished friend, colleague, and mentor. We wish to acknowledge Michael Higgins, editorial consultant, Maureen Raymond, computer services software supporter, and Elizabeth Strother, head dental librarian for their assistance in the preparation of this article. All are with the Louisiana State University School of Dentistry.

## References

1. Uganda toll 924, tops Jonestown. The Gazette (Montreal) 2000 April 1; Sect. A17.
2. The Guyana tragedy—an international forensic problem. Forensic Sci Int 1979 Mar–Apr;13(2):167–72.
3. Eckert WG. Catastrophes et morts collectives—recent American experiences in mass deaths. Am J Forensic Med Pathol 1980;1:77–9.
4. Templer R. Death at Jonestown. Irish Times 1998 Nov 14; City edition. Sect.: Weekend; 5.
5. Curran WJ. The Guyana mass suicides: medicolegal re-evaluation. N Engl J Med 1979;23:1321.
6. Altman L. Bungled aftermath of tragedy. Am Med News 1979 Apr 27;22 Suppl:6–7.
7. Witten M. Guyana: the autopsy of disbelief. Lab World 1979 Mar;14–5, 17, 19.
8. Zelez GN. Acting within limits is justification for Guyana. Lab World 1979 Oct;74.
9. Siegler R, Drew CR. Medical complicity in the Guyana tragedy [letter]. N Engl J Med 1979 Sep 6;301:559.
10. Glaser FB. Doctor's role not "pivotal" in Jonestown [letter]. N Engl J Med 1979 Dec 20;301:1401.
11. Thompson RL, Manders WW, Cowan WR. Postmortem findings of the victims of the Jonestown tragedy. J Forensic Sci 1987;32:433–43.
12. Jones DR. Secondary disaster victims: the emotional effects of recovering and identifying human remains. Am J Psychiatry 1985;142:303–7.
13. Brannon RB, Kessler HP. Problems in mass disaster dental identification: a retrospective review. J Forensic Sci 1999;44:123–7.
14. Brannon RB, Morlang WM. Tenerife revisited: the critical role of dentistry. J Forensic Sci 2001;46:722–5.
15. Morlang WM, Wright LS. Lessons from the Big Thompson Canyon. Gen Dent 1978;26:36–9.
16. Vale GL, Noguchi TT. The role of the forensic dentist in mass disasters. Dent Clin North Am 1977;21:123–35.
17. Kirkham WR, Andrews EE, Snow CC, Grape PM, Snyder L. Postmortem pink teeth. J Forensic Sci 1977;22:119–31.
18. Clark DH. An analysis of the value of forensic odontology in ten mass-disasters. Int Dent J 1994;44:241–50.
19. Seiden RH. Reverend Jones on suicide. Suicide Life Threat Behav 1979; 9:116–9.
20. Dwyer PM. An inquiry into the psychological dimensions of cult suicide. Suicide Life Threat Behav 1979;9:120–7.
21. Lasaga JI. Death in Jonestown: techniques of political control by a paranoid leader. Suicide Life Threat Behav 1980;10:210–3.
22. Zee HJ. The Guyana incident—some psychoanalytic considerations. Bull Menninger Clin 1980;44:345–63.
23. Black A. Jonestown—two faces of suicide: a Durkheimian analysis. Suicide Life Threat Behav 1990;20:285–306.
24. Matthews JD. Pink teeth resulting from Russian endodontic therapy. J Am Dent Assoc 2000;131:1598–9.
25. AFIP team helped identify bodies of cultists. U.S. Med 1978 Dec 15;6–7.
26. Cirigliano L. Disaster! Crash victims identified by forensic dentistry. CDA J 1978 Dec;6(12):29–32.
27. Lorton L, Rethman M, Friedman R. The computer-assisted postmortem identification (CAPMI) system: sorting algorithm improvements. J Forensic Sci 1989;34:996–1002.
28. Morlang WM. Mass disaster management. In: Stimson PG, Mertz, CA, editors. Forensic dentistry. Boca Raton: CRC Press, 1997;196–8.
29. McCarroll JE, Ursano RJ, Wright KM, Fullerton CS. Handling bodies after violent death: strategies for coping. Am J Orthopsychiatry 1993;63: 209–14.

Additional information and reprint requests:
Dr. Robert B. Brannon
Department of Oral and Maxillofacial Pathology
Louisiana State University School of Dentistry
1100 Florida Avenue
New Orleans, LA 70119