H36 Race as a Variable in Dental Health of Korean War Military Personnel

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The goal of this presentation is to educate the forensic anthropological community on the impact of dental health and dental treatment of Korean War military personnel as it relates to race and sociocultural and historical events.

This presentation will impact the forensic community and/or humanity by de-emphasizing the importance of acknowledging the potential influence of pre-conceived notions concerning dental care as related to race, ethnicity, and national origin. In this case, data analysis provided objective statistical support for subjective experience-based assessments. The potential effect of historical events and psychosocial factors on characteristics of dental and skeletal remains should not be ignored during forensic analysis.

This paper will present data concerning the influence of race on dental treatment and health of soldiers, sailors, airmen, and marines serving during the Korean War. This research was spurred by a realization that preconceived notions regarding dental health as it varies by race, ethnicity, and national origin (and as reflected in forensic analyses of human remains) can affect the analyst's perception of racial classification. Specifically, in the case of a Korean War-era individual with mixed skeletal indicators of race, extremely poor dental health led one analyst to surmise that the individual was of Korean descent, while another analyst noted that similar degrees of dental disease were frequently seen in African Americans of the same era. This paper is an effort to quantify and/or verify these subjective observations using a sample of individuals from a temporally and occupationally similar background.

The sample for this research was drawn from a database of unresolved Korean War casualties and consists of individuals whose racial classifications were recorded by military officials as "W" (White) or "C" (Colored). All data were taken from original military dental records and represent the most recent documentation available for each person. The age of the White individuals in this sample ranged from 17 to 36 years (average age = 22.7), while the age of the non-White individuals ranged from 17 to 33 years (average age = 21.3). Data coded by the researchers included untreated carious lesions, restoration locations and materials, extractions, degree of calculus buildup, presence or absence of periodontoclasia, dental prostheses, and other oral diseases or anomalies. Class of dental health (a military designation between I and IV that ranks a service member's need for dental treatment) was also recorded.

Preliminary analyses indicate that degree of calculus differed slightly between groups, with non-Whites being more likely to have heavier buildup. Periodontoclasia was uncommon in both groups. The number of non-White individuals whose records showed unfilled/untreated carious lesions was more than double the number of untreated White service members ($p < 0.01$, Fisher's exact test). The number of extracted teeth in the White group was nearly double that recorded for the non-White group ($p < 0.01$, Fisher's exact test), and White individuals were far more likely to have dental prostheses, including fixed bridges and dentures, than their non-White counterparts ($p < 0.01$, Fisher's exact test). More than three times as many restorations were recorded for White individuals when compared to non-White service members ($p < 0.01$, Fisher's exact test), although the material used (i.e., silicate versus amalgam) did not vary significantly between the two groups on an individual basis ($p > 0.10$, Fisher's exact test). Somewhat surprisingly given these figures, dental class (I through IV) did not vary significantly by race ($p > 0.10$, Fisher's exact test).

These findings seem to indicate that the two groups experienced differential dental treatment, with White service members being more likely to have sought and received dental care than non-White individuals. Previous research on modern military samples indicates that non-White military recruits are less likely to have sought dental care prior to entering the military [1], a phenomenon that seems to be reflected in this Korean War sample. Furthermore, some research indicates that race influences the perceived need for dental care in modern military personnel[2]. Pre-recruitment socioeconomic status of military personnel and ethnic/cultural perceptions of dental care may have played a role in this disparity. Two other events, namely integration of troops and a dramatic increase in the number of military dentists, may have influenced access to dental care for Korean War-era service members.

References:

1. Chisick MC, Poindexter FR, York AK. Factors influencing dental utilization by U.S. military recruits. *Mil Med* 1996; 161:743-745.
2. Chisick MC, Poindexter FR, York AK. Factors influencing perceived need for dental care by active duty U.S. military personnel. *Mil Med* 1997; 162: 586-589.

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