Celebrity traumatic deaths: Are gangster rappers really "gangsta"?

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Background: Celebrity injury-related deaths are a common topic of conversation and receive wide media coverage. Despite stereotypes and broad generalizations, it is unclear if the mechanisms of demise echo those of the general population. The objective of this study was to evaluate the epidemiology underlying celebrity traumatic deaths.

Methods: We evaluated all known injury-related deaths in celebrities (musicians, athletes, actors, politicians and celebrity socialites) that occurred between Jan. 1, 2000, and Sept. 1, 2011. Exclusion criteria were drug/alcohol overdoses and suicides. We used standard statistical methodology.

Results: Among 389 celebrities who died because of their injuries, motor vehicle collisions remained the most common mechanism overall. Rappers and politicians had a higher proportion of deaths due to interpersonal violence than all other celebrities. Gunshot wounds were most common in these cohorts (83% and 63%, respectively). Rappers and athletes also died at a younger mean age than other celebrities. Sport-related deaths were most common in boxing and mixed martial arts. Additional mechanisms included airplane crashes, animal interactions and recreational activities.

Conclusion: Despite occasionally exotic scenarios, most celebrities die of injury mechanisms similar to those of the general population. It is also apparent that rappers and politicians die by violent means at young and middle ages, respectively, more commonly than all other celebrities.

Contexte: Les blessures mortelles chez les gens célèbres sont un inépuisable sujet de conversation et font l'objet d'une vaste couverture médiatique. Au-delà des stéréotypes et des généralisations, on ignore si les mécanismes en cause dans ces blessures suivent la même tendance que dans la population générale. L'objectif de cette étude était d'évaluer l'épidémiologie sous-jacente des décès d'origine traumatique chez les gens célèbres.

Méthodes: Nous avons analysé tous les décès de gens célèbres (musiciens, athlètes, acteurs, politiciens et célébrités mondaines) survenus par suite de blessures apparentes entre le 1^{er} janvier 2000 et le 1^{er} septembre 2011. Les critères d'exclusion étaient les surdoses de drogue et d'alcool et les suicides. Nous avons utilisé la méthodologie statistique standard.

Résultats: Parmi 389 personnes célèbres décédées par suite de blessures, les accidents de la route sont demeurés le mécanisme sous-jacent le plus fréquent dans l'ensemble. Les rappeurs et les politiciens ont présenté la proportion la plus élevée de mort due à la violence interpersonnelle comparativement aux autres célébrités. Les blessures par balle ont été plus fréquentes dans ces cohortes (83 % et 63 %, respectivement). Également, les rappeurs et les athlètes sont décédés à un âge moins avancé que les autres célébrités. Les décès liés à la pratique de sports ont été plus nombreux chez les boxeurs et les adeptes des arts martiaux. Parmi les autres causes relevées, mentionnons : écrasements d'avion, blessures infligées par des animaux et activités récréatives.

Conclusion: À quelques exceptions près, la majorité des célébrités qui meurent à la suite de blessures subissent le même type d'accidents que la population générale. L'étude a aussi fait ressortir que les rappeurs et les politiciens meurent davantage de mort violente à un jeune âge et à un âge moyen respectivement, comparativement aux autres célébrités.

limited number of conditions cause the majority of potentially preventable injury-related deaths. ¹⁻³ More specifically, death from airway obstruction, hemopneumothoraces, circulatory instability (predominantly hemorrhage) and intracranial hemorrhage dominate. ¹⁻⁴ While severe

traumatic brain injury is the leading specific cause of trauma deaths in North America overall, it also represents the most common scenario in motor vehicle collision (MVC) mortality as well.⁵⁻⁷

Although severe injury represents the most frequent etiology of death between the ages of 1 and 45 years in the developed world, it is most commonly traumatic deaths among celebrities that receive the greatest media coverage and postulation. Despite this focus on socially prominent and mediasavvy celebrities, it is unclear if their well-publicized traumatic deaths match the standard profile of society at large with regard to mechanism and type of death. Given the modern media's 24-hour ability to expand the profile of a potentially small issue into a dominant concept through focus and repetition, it is also unknown if these celebrity traumatic deaths are similarly disproportionate.

The primary objective of this study was to evaluate the epidemiology underlying celebrity traumatic deaths over an 11-year period.

METHODS

We identified all traumatic deaths is celebrities that occurred in a nearly 11-year period (Jan. 1, 2000, to Sept. 1, 2011) using numerous popular media sources. These included websites dedicated to cataloguing celebrity deaths as well as international and national newspapers. In total, we consulted 96 different websites, including www.nytimes.com, www.deathlist.net, www.deadoraliveinfo.com and www.famousdead.com). We also used websites, such as www.ranker.com and www

.IMDb.com, to abstract and verify demographic and mortality details. Each death (and mechanism) was doubly confirmed by alternate websites and multiple authors. We defined a celebrity as a global person of public interest who would be known to a substantial percentage of North American lay people. Politicians, athletes, actors and musicians typically met the "celebrity" criteria, but well-known victims from international locations could also be included. Exclusion criteria were alcohol/drug overdoses and suicides.

Variables of interest included the type of celebrity (politicians, musicians, athletes, actors and celebrity socialites), age at death, mechanism of injury, cause of death, year of death and location of death. Comparisons were made between various subspecialties within each category (e.g., Do rappers die as a result of interpersonal violence more often than other musicians? "Other musicians" included jazz, country, rock, blues, etc.) We considered celebrity socialites to be people who are very frequently discussed in the popular media and with whom the average socially aware citizen would be familiar.

Statistical analysis

All analyses were performed using Stata version 12.0 software (Stata Corporation). We report normally or near-normally distributed variables as means, and non-normally distributed variables are reported as medians. We compared means using the Student t test and medians using the Mann–Whitney U test. Differences in proportions for categorical data were assessed using the

Table 1. Celebrity deaths by category							
Celebrity	Total	Age*	MVC	Violent†	Other‡	Aerospace§	Sport¶
Musicians							
Rapper	12	29	2	10	0	0	NA
Others	21	47	9	4	3	5	NA
Actors	14	49	6	0	7	1	NA
Celebrity socialites	36	50	25	4	6	1	NA
Politicians	62	59	15	39	8	0	NA
Athletes							
Soccer	84	24	47	12	23	0	2
Autoracing	29	40	9	1	11	3	5
Hockey	28	26	1	0	0	26	1
Other	26	30	10	3	8	0	5
Boxing/MMA	24	32	3	7	4	0	10
Pro wrestling	21	37	0	1	16	0	4
Football	16	25	4	5	4	0	3
Baseball	12	27	5	2	4	1	0
Basketball	6	29	3	1	2	0	0

MMA = mixed martial arts; MVC = motor vehicle collision; NA = not applicable; pro = professional.

^{*}Mean age at time of death in years.

[†]Gunshot wound, stab wound, assault, explosive (bombings).

[‡]Health issues unrelated to a sport.

[§]Airplane and helicopter crashes.

 $[\]P$ Deaths directly related to playing or training within the professional sport.

Fisher exact test. We considered results to be significant at p < 0.05.

RESULTS

A total of 389 celebrities died as a direct result of severe injuries between Jan. 1, 2000, and Sept. 1, 2011. When categorized by celebrity type, deaths were significantly most common among athletes (246 deaths; p = 0.045; Table 1). Within the musician category, more rappers died of violent means than other musicians (83% v. 19%; p = 0.001). All violent deaths among rappers were caused by fatal gunshot wounds. The mean age of death was also younger among rappers (29 yr) than among other musicians (47 yr) as well as all other categories of celebrities, except athletes (29 yr; p = 0.033).

Motor vehicle collisions were more commonly the cause of death among actors, celebrity socialites, and musicians other than rappers (56%; p = 0.029). When publically reported (68%), traumatic brain injuries and death at the scene represented the most frequent fatal MVC scenarios. Among politicians, the most frequent cause of death was a violent mechanism (63%; p = 0.038). Although the most common cause of traumatic death among athletes was an MVC (33%), violent murders (13%) and deaths directly related to participation in the sporting event itself (12%) were also common. The latter scenario was most dramatic among athletes from combat sports (boxing and mixed martial arts [MMA]), where 42% of deaths occurred within or near the ring (p = 0.041).

Aerospace (airplane or helicopter) crashes were also relatively common among celebrities overall (37 deaths), although a single airplane crash killed 26 young professional hockey players. Despite a young mean age of death among soccer players (24 yr), myocardial infarction remote to the soccer field was also common (17%). It is unclear if these deaths were related to chronic illicit stimulant or drug use. Of the 30 athletes who died while competing or training in their sports, 4 cyclists were struck by vehicles. Nonsporting, violent deaths also appeared more common among football (31%), boxing/MMA (29%) and soccer (14%) players than among all other athletes (7%; p =0.039). Rappers (83%; p = 0.009) and politicians (63%; p =0.020) had a greater chance than other celebrities of dying by violent means. Although suicide in professional wrestling was very common, discussion of this aspect was beyond this project's scope. The most common geographic locations of deaths were Los Angeles and New York (34%).

DISCUSSION

This study addressed a number of traditional stereotypes regarding the traumatic death of celebrities. Violent deaths were most likely to occur among rappers and politicians, accounting for 83% and 63% of all deaths, respectively.

The primary difference between these 2 cohorts, however, was the dramatically younger mean age at death among rappers (29 v. 59 yr). Although not quite as common overall, violent deaths in athletes were led by football players (31%), boxers/MMA (29%) and soccer players (14%). These athletes were also typically young (29 yr). Although professional soccer players are not commonly considered violent personalities, the remaining findings were in line with many of our popular culture stereotypes. Football players and boxers, for example, are often known to grow up in economically and socially challenging environments. Among most of the celebrity cohort, however (i.e., celebrities other than rappers and politicians), MVCs and natural causes of death were common. This supports the assertion that beyond the notable examples, most celebrities die from similar causes as the public at large. During MVCs, traumatic neurologic and vascular injuries at the scene of the trauma remain dominant scenarios.

Deaths as a direct result of either participating in or training for various sports is also notable. Combat activities, such as boxing and MMA, represented the highestrisk occupations compared with all other sports (42% v. 9% of deaths). After removing cyclists (n = 4) or runners (n = 1) who were struck by vehicles, professional wrestlers who died owing to high-risk acrobatics (n = 4) and drivers who died from autoracing crashes (n = 5) from our analysis, the relative danger of boxing and MMA becames even more notable (42% v. 4%).

Limitations

Although the most common geographic locations of death were Los Angeles and New York, the interpretation of these data are somewhat unclear given the high percentage of celebrities that reside and/or work in these 2 locations. Additional limitations include the possibility of omission of some celebrity deaths given the popular media sources of this data. On consideration of the extensive and multiple person searches inherent in our methodology, however, we believe the likelihood of us having missed a large number of deaths is low.

CONCLUSION

Most celebrities who die from early traumatic deaths die from similar mechanisms and at similar ages as the population at large. Exceptions include young rappers and middle-aged politicians who die from violent interactions. Within the sporting world, football and soccer players and boxers also appear to die more frequently from violence-related injuries and therefore of more turbulent lifestyles than other athletes. Gangster rappers really do appear to be "gangsta."

Competing interests: None declared.

RECHERCHE

Contributors: C.G. Ball, E. Dixon and N. Parry designed the study. All authors acquired data; C.G. Ball, E. Dixon, N. Parry, J. Pasley, K. Inaba and A.W. Kirkpatrick analyzed it. C.G. Ball, N. Parry, J. Pasley, K. Inaba and A.W. Kirkpatrick wrote the article. All authors reviewed the article and approved its publication.

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