

Deaths of Celebrities and Substance Use: A Qualitative Investigation

Keywords: Celebrity; Substance use; Death; Addiction; Accident; Overdose; Suicide

Abstract

Raising awareness of the dangers of drugs is one of the most effective means of preventing addiction. This qualitative study was conducted to provide approachable and truly illustrative examples of the depredations of substance use among celebrities. The authors analyzed deaths related to substance use and defined their causes through thematic analysis as external causes such as accidents and suicide or internal causes such as medical complications. The ten deaths due to lethal overdoses were related to compulsive substance use, which according to the medical diagnostic criteria of DSM-5 is diagnosed as substance use disorder. Suicide after substance use commonly follows a history of depression or impulsive acts. This study is expected to help raise public awareness of the dangers of substance use by investigating deaths of celebrities related to substance use.

Introduction

One of the most serious ramifications of substance use is compulsion to continue using the substance despite obvious physical and psychological harm, and it often results in death, which is the most negative consequence and an enormous loss to society [1]. Many studies have attempted to categorize individuals with substance use disorder and substance-related deaths in various ways, but they failed to do so in any systematically consistent way. Neither did they take substance use sufficiently into consideration in the process. Individuals with substance use disorder have been reported as a high-risk suicide group, and suicide has been presented as a common cause of deaths of individuals with substance use disorder [2,3]. However, few reports have been done on the relationship between the deaths of celebrities and substance use.

In the past, celebrities were defined as public figures known for their accomplishments [4], but their influence on society has increased significantly in tandem with the development and proliferation of new forms of mass media. Celebrities' influence is readily apparent in the Werther effect, which is a spate of emulation suicides after a widely reported suicide [5]. The lives and deaths of celebrities have been studied extensively from the perspective of pathography, which is defined as the study of the life of a subject with regard to the influence of a particular disease or disorder [6,7]. However, psychiatric perspectives of substance use in celebrities concerning addiction have been presented only in the form of case reports, or reports on celebrities' depression, suicide, and public emulation of their suicide [8,9]. No study has yet explored and categorized the deaths related to substance use from a pathographical perspective.

The objective of this study was to classify deaths related to substance use of celebrities, so as to provide familiar examples that can raise public awareness of the dangers of substance use.



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Method

Study design

As the study was intended to be exploratory, the authors took a qualitative approach involving review of the available literature. Qualitative research offers rich and compelling insights into the real worlds, experiences, and perspectives of patients and health care professionals in ways that are completely different to, but also sometimes complimentary to the knowledge we can obtain through quantitative methods [10]. Literature we reviewed consisted of journal articles, books including psychoanalysis reports of psychiatrists and critical biographies, and websites including news articles and media reports in order to confirm the causes of celebrities' deaths.

Search method for inclusion in study

The search terms were *celebrity, famous people, addiction, abuse, substance, alcohol, drugs, death, and suicide*. Searches were conducted using the following search engines: PubMed, Web of Science, Korean Studies Information Service System, and Google Scholar. There were no limitations on dates of birth/death, gender ratio, or profession. Crimes involving substances and executions by lethal injection were excluded.

Selection of subjects

The authors assessed the deaths of 432 internationally famous individuals, or "celebrities" including Koreans, where substance abuse was involved. An issue which had to be confronted was the lack

of a valid instrument from prior research for reference. The evaluation included two dimensions adapted from Ohanian’s extensive work on the effectiveness of celebrity endorsers: attractiveness (5 items: attractive, classy, handsome/beautiful, elegant, and sexy) and expertise (5 items: expert, experienced, knowledgeable, qualified, and skilled) [11]. Using the 7-point Likert scale for 10 items above (from 1=strongly disagree to 7=strongly agree), total scores ranged from 10 to 70. One was defined as a “celebrity” if the average score measured by the authors was above 50. The researchers found 27 celebrity deaths that fit the parameters of this study by this process.

Analysis

The complete texts from literatures on the 27 subjects were cross-validated again to ensure their suitability. Following the text review, the authors discussed observations and reflections to minimize undue misinterpretations. Throughout the process of data analysis, data and investigator triangulation was done to minimize inconsistencies [12].

The process for thematic data analysis followed the guidelines of Braun and Clarke [13]. This involved four authors’ independently coding data, sorting codes into themes, and collating data to support the themes. The themes were reviewed by the authors, with divergences resolved through discussion.

This study was exempted from the evaluation of Seoul National Hospital Institutional Review Board in 2014.

Results

Themes

Three major themes were identified, as specified in Table 1. One of the major themes – accidents -consisted of two subthemes based on intentionality. Appropriate quotations from the literature have been provided to define the themes and subthemes. The Manner of Death and Underlying Cause of Death sections on the death certificate in Korea were used as a general framework for the findings [14]. Accordingly, the major themes were divided into two main

constituents: external causes and internal causes (see Table 1).

External causes

Accidents: Overdose. Unintentional death due to overdose refers to death by a lethal dose of substance. In such a case, death occurred due to reduced tolerance to the substance, possibly after some degree of detoxification, or its increased use to realize the intended effect. Suicide was, obviously, not the intent. Several celebrities fall into this subtheme. Marilyn Monroe died at 36. Her death was caused by an overdose of pentobarbital and chloral hydrate in her blood [9]. She suffered from barbiturate and alcohol dependence for several years before her death along with accompanying depression and anxiety. These symptoms led her to being dropped from a film in 1961 and never appearing in any more films afterwards [15].

The autopsy results for the King of Rock and Roll, 43-year-old Elvis Presley, revealed that his death resulted from overdosing on diazepam, ethchlorvynol, ehinamates, chlorpheniramines, methaqualones and meperidines [15]. He started to take such drugs to counter insomnia, but he mixed them with 15-20 other pills including barbiturates, antihistamines, amphetamines, hydromorphones, codeines, and testosterone on every one of his concert tours. In 1973, drugs caused him to experience multiple dyspnea and loss of consciousness, but he continued taking drugs after his resuscitation for relaxation. He performed in gradually fewer and fewer concerts, and even sometimes collapsed on stage [16].

Controversy still surrounds the death of Michael Jackson at 52 as to whether it was suicide or homicide, but it is clear that the cause of his death was the intake of multiple drugs including propofol. His exhaustion from drug abuse had been known since 1993, and he began a rehabilitation program. However, the never-ending pressures of lawsuits and other problems caused him to fall into a downward spiral of ongoing drug use [17].

Many celebrities fell into this category, including the ‘27 Club’, which refers to a number of popular musicians who died at age 27, often as a result of drug or alcohol abuse [18]. During the autopsy of guitarist and musician Jimi Hendrix, hydroxyzines were found in his stomach, and barbiturates and amphetamines were found in his blood. Drug overdoses severely impaired his musical ability; at a show in 1970, for example, he had to step down from the stage after only three songs due to a sedative overdose [15]. Jim Morrison, the lead singer of ‘The Doors’ and also a part of the ‘27 Club’, was found dead in a bathroom in 1971 in Paris. His autopsy revealed a heart attack due to heroin overdose, and he was addicted to nearly every type of drug found on the market, including marijuana, hallucinogens, sedatives, cocaine, and heroin [9,15]. Heath Ledger joined the ‘27 Club’ with his death in 2008. He died from a prescription drug overdose; in his case, the drugs included codeine, temazepam, diazepam, and alprazolam [9]. Amy Winehouse, the Grammy Award-winning artist, died of accidental alcohol poisoning in 2011 despite participating in an alcohol rehabilitation program for several years [19]. The official report explained that Winehouse’s blood alcohol content was 416 mg per 100 ml at the time of her death, more than five times the legal drink-drive limit and in excess of the lethal level of alcohol [20].

Critically acclaimed actor Philip Seymour Hoffman died from acute mixed drug intoxication of heroin, cocaine, sedatives, and

Table 1: Themes with respective celebrities

| Main constituent | Major theme | Subthemes | Celebrities |
|------------------|-----------------------|----------------|---|
| External causes | Accidents | Overdose | Marilyn Monroe, Elvis Presley, Michael Jackson, Jimi Hendrix, Jim Morrison, Heath Ledger, Amy Winehouse, Philip Seymour Hoffman, Hyerin Jeon*, Deok Jang* |
| | | Other injuries | Edgar Allan Poe, Whitney Houston |
| | Suicide | | Vincent van Gogh, Ernest Hemingway, Kurt Cobain, Jiwon Seo*, Gwangseok Kim*, Dabin Jeong*, Young-Ha Park*, Jinsil Choi*, Jinyeong Choi* |
| Internal causes | Medical complications | | Billie Holiday, Montgomery Clift, Henri de Toulouse-Lautrec, Amedeo Modigliani, Dongin Kim, Hyeonsik Kim* |

* Korean celebrities.

amphetamine in 2014 at the age of 46 [21]. He confessed to being treated for drug addiction in his twenties, and although he kept his distance from addictive substances for more than twenty years and was recognized as a talented actor, he relapsed into substance use in 2012 when he started using painkillers [22]. Later, he underwent rehabilitation treatment and tried to quit, but not obviously with success [23].

Korean celebrities have died of substance use as well, including Hyerin Jeon, a scholar of German literature, and Deok Jang, a famous singer who debuted as the duo 'Hyuni and Deoki' and became a popular child star. Hyerin Jeon's official cause of death at the age of 32 was a 'sleeping pill overdose'. She previously told an acquaintance that she had obtained 40 tablets of secobarbital. This acquaintance claims in Hyerin Jeon's critical biography that this was likely the cause of her death, and recalled that she was using sleeping pills 'to numb the nerves', in addition to dealing with her insomnia [24]. Deok Jang died at 28 after overdosing on three kinds of pills including sleeping pills and a bronchodilator that she had been taking since her youth for depression and insomnia [25].

Other injuries. Two celebrities fit into this subtheme of accidental death related to substance use. The famous novelist Edgar Allan Poe was a well-known alcoholic. He slowly became exhausted for several reasons including irregular, intemperate binge drinking in the morning [26]. He was found in a gutter in Baltimore, delirious and dressed in shabby clothes, and he died shortly afterwards. He was only 41 [27].

Whitney Houston died at 48 from drowning after a heart attack due to cocaine use [28]. Her autopsy report stated that her organs had become severely damaged due to years of drug abuse. Nine substances were detected during toxicology testing, including cocaine, marijuana, alprazolam, cyclobenzaprine, and antihistamine [29].

Suicide: Among the deaths due to violent causes are confirmed suicides triggered by substance use. Famous celebrities who fall under this theme are Vincent van Gogh, Ernest Hemingway, and Kurt Cobain. Vincent van Gogh committed suicide by shooting himself with a handgun when he was 37. He was addicted to absinthe, which contains a hallucinogenic substance called thujone and has an alcohol content of 72%, according to the biochemist Wilfred Niels Arnold. He claimed that this addiction provoked van Gogh's madness and that the high dosage of alcohol in absinthe was likely a factor in the anxiety and symptoms of depression that van Gogh displayed in his later years [26].

Ernest Hemingway, remembered for great works like 'The Old Man and the Sea', gradually lost his literary gift in the latter part of his life because of alcohol addiction. In his sixties, he could no longer engage in creative activities [26,30]. He suffered from severe depression and alcohol addiction throughout his life. In his later years, his liver impairment, hypertension, and hepatitis caused by alcohol worsened, and he committed suicide with a gun at 63 years of age [31].

Kurt Cobain, the lead singer of the rock band 'Nirvana', presents a similar case. He died in 1994 at 27. Whereas his cause of death remains controversial, it was ruled a suicide by a gun (a penetrating wound to the head) in his autopsy, and heroin and diazepam were

detected in his blood. He had been admitted to a rehabilitation clinic in 1992 for heroin addiction, and he suffered repeated occupational setbacks and physical harm due to addiction [15].

Most of the Korean celebrities included in this study were confirmed to have used alcohol before committing suicide. Twenty-one-year-old singer Jiwon Seo was drinking with friends until four hours before his suicide, according to an acquaintance's book. His acquaintances did not see any reason for the suicide and grieved at his death, which strongly suggests that drinking was indeed involved in his impulsive suicide [32].

Questions remain about the death of singer, Gwangseok Kim, who committed suicide at 33 years of age without even leaving a suicide note at the height of his musical career. According to his wife, who was with him to the end, he was drinking until 3 am on his last day [33,34].

Dabin Jeong died at 28. She became a sensation nearly overnight after starring in a TV drama. Afterwards, her popularity slowly waned and she became embroiled in multiple lawsuits with her former agency. She had also been viciously maligned by online trolls before she committed suicide. She drank well into the night and is suspected of having hanged herself on an impulse while under the influence [34].

The death of Yongha Park, famed actor, was also concluded to be an 'impulsive suicide' due to extreme stress from several sources on the grounds that he had lived a normal life until only a few days before his death, had no prior symptoms of depression, and committed suicide after coming home drunk [34].

Jinsil Choi and Jinyeong Choi were two siblings whose deaths shared many similarities. They both suffered from depression for a long time, hanged themselves after drinking [34].

Internal causes

Medical complications: Six celebrities were identified as dying from internal causes due to medical complications. Billie Holiday was one of the finest-ever female jazz vocalists. She was arrested for heroin possession when facing the possibility of death due to heart disease and liver cirrhosis at 44. She was locked in a single cell and died in a coma; her official cause of death was pulmonary edema [35]. She displayed alcohol dependency at 25 and later became addicted to marijuana, opium, and heroin. Her condition rapidly deteriorated, and she was repeatedly arrested and even imprisoned. She later attempted a comeback, but her effort due to her criminal record [15].

A famous Hollywood actor, Montgomery Clift was found dead at his house at 45 in 1966, and his autopsy revealed coronary artery obstruction. Excessive alcohol and prescription drug use had affected him since his early thirties. Afterwards, he seemed to have gotten his condition under control and starred in many movies, but his substance problems gradually worsened, and his drug and alcohol-fueled antics like streaking while intoxicated were reported in the media. The movie world started to turn away from him in his thirties because of his poor behavior caused by alcohol and substances like pentobarbital, and he persisted with his substance use even after production companies refused to hire him for not being trustworthy

[36].

The French impressionist painter Henri de Toulouse-Lautrechad made a strong impression on the art world with his Moulin Rouge poster. He died in 1901 at 37 from alcohol addiction and syphilis complications. His drinking problem started at around age 20 when he took to alcohol in an attempt to overcome physical and psychological handicaps. He painted less and less and increasingly frequented bars and cabarets in his early thirties. His drinking condition deteriorated to the point that his hands convulsed. He once fired a gun at an imaginary spider and declared that he had to go into hiding from the police [37]. His family eventually hired a servant to look after him, but he was later locked up in a hospital for intense seizures due to alcohol addiction [38].

Amedeo Modigliani, remembered for paintings of women with long necks, died at 36 from tubercular meningitis when addicted to alcohol and cannabis [35]. His continued drinking and cannabis abuse were major factors in his death from tuberculosis complications [26].

Dongin Kim and Hyeon-sik Kim are two Korean celebrities who fall under this category. A study about Dongin Kim states that, during the Japanese occupation of Korea, he began to drink *Fructus Deseminatus* or get a 'sleeping injection' [39]. He started suffering insomnia due to business failure and became incapable of writing. He became dependent on diethylbromacetate, Calmotin (a type of sleeping pill), and chloral hydrate. His condition worsened: by 1948, he had arteriosclerosis and was suffering gradual memory loss. At the outset of the Korean War in 1950, his family took refuge, but he was left behind all alone because he was nearly unconscious. He died in 1951 at the age of 51 [40].

The singer-song writer Hyeon-sik Kim died at 33 from liver cirrhosis. His acquaintances cited marijuana use and binge drinking as reasons for his weakening constitution. His record label and family hospitalized him in a closed ward to prevent him from overworking as well as drinking whenever his body weakened. He became unable to use marijuana anymore when he was arrested in 1987, but his chronic binge drinking worsened. He was drunk when he recorded his 6th album, famous for the 'My Love By My Side' track, and it was posthumously released [41].

Discussion

This study was conducted to qualitatively investigate celebrities' deaths related to substance use from a pathological perspective and to present celebrity deaths as familiar and specific examples of the dangers and harmful effects of addiction. The researchers reviewed the available literature, conducted a thematic analysis, and classified the reported deaths under three major themes.

Many celebrities first used drugs to relieve symptoms resulting from extreme stress. This corresponds to the first stage of the addiction process: recreational, sporadic drug use. In the second stage - intensified, sustained, escalated drug use - users build tolerance and require increasingly greater dosages to experience the same high as before. The rate of increase would not be nearly so high if induced by natural reward. The increments are also large [42]. On the way to drug dependency, withdrawal symptoms and negative effects increase in severity. At this point, addicted celebrities are no longer able to

do their jobs. This is the third stage - loss of control of drug intake and full addiction - where they display certain conditions that satisfy psychiatric diagnostic criteria. Repeated substance use even in the face of such negative effects is 'compulsive use of drugs', which is typical of addiction, and compulsive use is reported to increase over time and with ever greater dosages [43,44]. In this study, the findings of death by overdose and medical complications corresponded with the three stages to addiction by Piazza and Deroche-Gamonet [45].

There is a bias that addiction or substance use occurs among celebrities more frequently than among ordinary people, seemingly because celebrities are constantly exposed through media. However, a report by the United Nations Office on Drugs and Crime states that 1.72 million to 2.4 million adults between 15-64 years of age have used illicit drugs once or more in 2007 [46]. Alcohol is legal in most countries, but the World Health Organization (WHO) reported 33,000 deaths from alcohol abuse in 2012, which means alcohol is the cause of 1 in 20 deaths [47]. This suggests that substance use and its danger are problems for all of society, not just individuals.

According to the WHO, 25.8% of deaths involving alcohol use are caused by injuries [47]. An increase in the incidence of accidental deaths after substance use has been reported extensively in previous studies [48,49]. Increase in reaction time; decline in judgment; and loss of balance, concentration, and perception while using substances are naturally considered to be factors in the greater number of deaths [50]. All of the celebrities within the 'Other Injuries' subtheme in this study used high volumes of addictive substances. Edgar Allan Poe's case corresponds to the results showing that the way of drinking, not just the amount, is relevant in assessing injuries due to alcohol consumption [51].

Much of the literature dealing with celebrities who committed suicide uses the words 'depression' and 'impulsive'. This corresponds to the two perspectives of studies on the relationships between alcohol/drug use and depression. Firstly, depression leads to drinking; people use alcohol to counter negative emotions; and a steady increase in drinking causes drinking problems [52]. Secondly, drinking leads to depression [53]. Furthermore, it appears to be related to available studies demonstrating that a patient's chronic drinking induces impulse control disorder, in turn leading to increased risk of suicide in depressed patients [54].

Most Korean celebrities who committed suicide after drinking did not leave suicide notes and had been leading normal lives, which supports the academic view that the abilities to control negative feelings and make rational judgments decline, and *ceteris paribus*, that drinking provokes impulsive suicide or self-injury [55]. The amount of alcohol and danger of suicidal behavior are reportedly related quantitatively, and a study on depression patients reported that drinking or substance use triggers thoughts of suicide [56,57]. About one million people per year take their own lives around the world, more than the combined number of people who are murdered or die in war [58]. Thus, the prevention of the harmful consequences of drinking and raising awareness of the dangers of substance use are essential toward preventing suicide [58].

The proximate causes of celebrities' deaths related to chronic alcohol and substance use have been cardiovascular, gastrointestinal, and infectious diseases. Substance use is implicated in complications

in nearly all organs. The harmful use of alcohol is also a major factor in especially serious diseases like liver cirrhosis, malignant tumors, and tuberculosis [59,60]. This gives us a basis for declaring complications from substance use to be the causes of death of Hyeon-sik Kim and Henri de Toulouse-Lautrec.

This study is necessarily limited in that others may have different opinions on the causes of deaths of celebrities, and that some of the collected data may be inaccurate. The authors made great efforts to confirm the official causes of the celebrities' deaths by collecting relevant data, validating redundancies, and conducting cross validation, and they accepted the official causes wherever possible.

Until it was acknowledged as a psychiatric disease, substance abuse was long considered by most a moral issue, and deaths due to substance use still frequently lead to moral castigation of the deceased. When celebrities die from substance use, they are denounced as immoral or idealized as romantic. Both phenomena occur because the use of addictive substances was not previously acknowledged as the probable first step of addictive behavior. As shown in the results of this study, a lot of suicides after substance use were committed impulsively. We should also pay attention to the ramification of deaths of celebrities involving substance use for substance users as celebrities' influence is apparent like in the Werther effect. By investigating deaths related to substance use from a qualitative perspective and providing a wider context, this study should offer the useful view that substance use is a social issue that requires prevention and treatment. This study should prove useful in raising awareness of the harms associated with substance use because it offers cases that are extremely familiar to the public. Further research should be conducted in this area to expand the knowledge base on the use of mental health programs in promoting public awareness of the dangers of substance use.

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