

Joint winner

# Licence to swill: James Bond's drinking over six decades

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**The known** James Bond exhibited problematic alcohol consumption in the Bond books, but their content often deviates from that of the movies.

**The new** Bond showed a consistent pattern of heavy drinking in all 24 movies over six decades (109 drinking events). His peak binge involved 24 units of alcohol (6 vespers), enough to kill some people. His hazardous activities after drinking included fights, vehicle chases, contact with dangerous animals, and sex with enemies, sometimes with guns or knives in the bed.

**The implications** Bond should seek professional help and find alternatives to drinking for managing on-the-job stress.



The peer-reviewed literature on James Bond has delved into his smoking,<sup>1</sup> violent behaviour,<sup>2</sup> and psychopathology, including 32 extreme behaviours<sup>3</sup> and a “dark triad” of abnormal psychology.<sup>4</sup> An examination of sex role stereotyping in Bond's world<sup>5</sup> has also been published, and the character Dr No was included in a study of the dermatology of movie villains.<sup>6</sup> But investigators of Bond's alcohol consumption have concerned themselves exclusively with the Bond novels,<sup>7</sup> a literary corpus often only tangentially linked with the content of the James Bond movies. As the movie series — the longest running movie franchise in history, and the fourth highest grossing<sup>8</sup> — has enjoyed a much larger audience than the novels, we examined alcohol use in the James Bond movie series to date.

## Methods

Two of the authors (NK, AT) watched all 24 James Bond movies in the Eon Productions series (1962–2015; online [Appendix](#), table 1).

## Abstract

**Objectives:** To describe the patterns of alcohol use in James Bond movies over six decades.

**Design:** Film content analysis.

**Setting:** Wide range of international locations in 24 James Bond movies (Eon Productions series, 1962–2015).

**Main outcome measures:** Drinking episodes for Bond and major female characters; alcohol product placement in films; peak estimated blood alcohol concentrations; features relevant to DSM-5 criteria for alcohol use disorder.

**Results:** Bond has drunk heavily and consistently across six decades (109 drinking events; mean, 4.5 events per movie). His peak blood alcohol level was estimated to have been 0.36 g/dL, sufficient to kill some people. We classified him as having severe alcohol use disorder, as he satisfied six of 11 DSM-5 criteria for this condition. Chronic risks for Bond include frequently drinking prior to fights, driving vehicles (including in chases), high stakes gambling, operating complex machinery or devices, contact with dangerous animals, extreme athletic performance, and sex with enemies, sometimes with guns or knives in the bed. Notable trends during the study period included a decline in using alcohol as a weapon ( $P = 0.023$ ) and an increase in the number of alcohol products in his environment (for alcohol-related product placement:  $P < 0.001$ ), but his martini consumption has been steady. Drinking by lead female characters and a random selection of 30 of his sexual partners was fairly stable over time, but also occasionally involved binges.

**Conclusions:** James Bond has a severe chronic alcohol problem. He should consider seeking professional help and find other strategies for managing on-the-job stress.

Alcohol-related content was identified, discussed, and recorded on a pre-printed form, and the details then transferred to an Excel file. A third investigator (PS) also watched selected segments when there was uncertainty about coding decisions, with final decisions reached by consensus.

## Alcohol use events: Bond

When Bond was seen drinking (the glass or bottle reaching his lips), this was deemed an “observed alcohol use event”. If the alcohol brand or bottle label was not visible, we assessed the beverage as being alcohol on the balance of probabilities. We classified other events as “alcohol use assumed” if actual drinking was not observed but alcohol was on the table in front of Bond and it was likely he had consumed some in that setting. In contrast, we did not assume that alcohol was consumed by Bond if alcohol was present but he was in a dangerous situation (eg, when his drink could be spiked). Examples of inclusions and exclusions are included in table 2 in the online [Appendix](#). To minimise the chance of missing drinking episodes, we cross-checked our data with details in a publication on Bond's drinking.<sup>9</sup>

## 1 Drinking by James Bond and other characters in his films, by decade

	Events	1960s	1970s	1980s	1990s	2000s	2010s	All	P*
Number of movies	—	6	5	5	3	3	2	24	—
Total movie time (hours)	—	12.0	10.3	10.9	6.3	6.4	4.8	50.7	—
Number of drinking events by Bond	—	29	15	23	10	23	9	109	—
Drinking by Bond (per movie), mean									
Alcohol use events	109	4.8	3.0	4.6	3.3	7.7	4.5	4.5	0.51
Time from movie start to first drink (minutes)	—	24.7	17.8	20.4	27.0	22.7	20.0	22.0	—
Drink was cocktail or spirits	59 <sup>†</sup>	3.2	1.2	1.6	2.0	4.3	3.5	2.5	0.45
Drink was martini (cocktail group subset)	18	0.7	0.6	0.6	0.7	1.3	1.0	0.8	0.49
Drink was champagne or other wine	45 <sup>†</sup>	1.5	1.8	3.0	1.3	2.3	0.5	1.9	0.26
Smokes while drinking	6	0.3	0.2	0.2	0.0	0.7	0.0	0.3	0.72
Drinking by women (per movie), mean									
Alcohol use events, lead women <sup>‡</sup>	37	1.2	1.4	1.8	0.7	2.7	2.0	1.5	0.36
Alcohol use events, Bond's sexual partners <sup>§</sup>	17	0.5	0.4	0.8	1.0	0.7	1.5	0.7	0.25
Other (per movie), mean									
Alcohol mentioned outside of Bond's drinking events	51	1.3	2.2	2.0	2.0	2.3	4.5	2.1	0.08
Alcohol or container used as weapon	15	1.0	0.8	0.8	0.0	0.3	0.0	0.6	0.023

\* For trend: adjusted for total movie time (minutes) per decade. † Excludes an episode in which mixed spirits and wine were consumed. ‡ Given Bond's proclivity to sleep with most women he meets, nearly all of this group (22 of 24, 92%) were also among his sexual partners (exceptions: his boss "M", Camille Montes in *Quantum of Solace*). § Random selection of two movies per decade: 30 partners in total assessed. ◆

### Alcohol use events: the women in Bond's world

We similarly classified the alcohol use by the lead woman character in each movie — based on the order of the cast list on IMDb (the Internet Movie Database, <https://www.imdb.com>) — and by his sexual partners. Given the large number of the latter ( $n = 60$ ),<sup>1</sup> we randomly sampled drinking by this group of women (two movies per decade; total of 30 partners).

### Estimating peak alcohol intake by Bond

For the two greatest binge events observed, we estimated units of alcohol consumed and Bond's blood alcohol levels, based on one standard measure of spirits being 25 mL. Blood alcohol

concentrations were computed with the routinely used Widmark formula,<sup>10</sup> with Bond's weight assumed to be that of an average British man (84 kg).

### Bond's post-drinking activities

Bond's activities after drinking were recorded for the period until he was presumed to have gone to sleep for the night. Bond's post-drinking activities included fights, driving vehicles, gambling, sex, athletic extremes, and operating complex machinery or devices. "Alcohol used as a weapon" described instances in which alcoholic drinks were used as vehicles for drugs, or bottles were used in fights or to start fires (eg, Molotov cocktails).

## 2 Activities by James Bond after drinking events but before the end of the day: mean number per movie, by decade

Activity	Events	1960s	1970s	1980s	1990s	2000s	2010s	All	P*
Sex (usually implied; serial partners in same evening counted as single event)	41	1.5	1.6	2.6	1.7	1.3	1.0	1.7	0.50
Fighting (multiple fights once counted as single event)	38	2.2	1.8	1.2	0.3	2.0	1.5	1.6	0.19
Operating complex machinery/devices <sup>†</sup>	15	0.8	0.2	0.8	0.7	0.7	0.5	0.6	0.72
Driving a car or truck (including at high speed)	12	0.3	0.0	0.6	0.7	1.7	0.0	0.5	0.17
Athletic extremes outside of fight situations (eg, jumping large distances, full speed running)	12	0.5	0.2	0.8	0.0	0.7	1.0	0.5	0.63
Gambling (always for high stakes)	10	0.2	0.0	0.4	0.3	2.0	0.0	0.4	0.038
Contact with dangerous animals <sup>‡</sup>	3	0.2	0.0	0.0	0.0	0.0	1.0	0.1	0.21
<b>Total</b>	<b>131</b>	<b>5.7</b>	<b>3.8</b>	<b>6.4</b>	<b>3.7</b>	<b>8.3</b>	<b>5.0</b>	<b>5.5</b>	<b>0.77</b>

\* For trend: adjusted for total movie time (minutes) per decade. † Includes flying a helicopter, driving other vehicles (eg, speed boats), using spy gear, cracking safes and doors with coded locks, working with electricity, shooting guns (apart from in fights), trying to apply a defibrillator to himself, retrieving a solex unit, and operating nuclear power plant machinery. ‡ Includes escaping a komodo dragon, evading a tarantula, and a drinking game with a scorpion on his hand. ◆

## 3 Qualitative details of alcohol use by James Bond and other major characters in his films

Alcohol-related aspect	Details of episode	Movie
<b>James Bond</b>		
Bond drinks "filthy stuff"	Bond and Ali Kerim Bey (station head in Turkey) each describe (at different times) the local Turkish drink raki as "filthy stuff". This could refer to its relatively low quality (eg, high tannin content, which may cause headaches), but it might be implied that Bond is keen to drink anything alcoholic, regardless of quality.	<i>From Russia with Love</i> , 1963
Bond shows an extreme interest in alcohol	Bond and M are briefed by an officer of the Exchequer about smuggling while drinking a rather disappointing brandy. M asks why they are disappointed, and Bond replies "I would say that it is a 30-year-old Fins, indifferently blended, Sir, with an overdose of Bons Bois."	<i>Goldfinger</i> , 1964
Others describe Bond's interest in drinking	Bond's friend Felix Leiter comments, when talking about Bond's likely activities, "Ten will get you one, it's a drink or a dame."	<i>Goldfinger</i> , 1964
Others describe Bond's heavy drinking	"Liquor for three" is what Felix Leiter says when Bond boards a plane near the end of the film — as the only passenger, implying that Bond will be drinking enough for three people.	<i>Goldfinger</i> , 1964
Example of a heavy drinking episode	Bond, alone in a hotel room and anticipating a visit by villain Elliot Carver's people, has been drinking vodka shots (neat). He seems depressed and may be thinking about his ex-girlfriend (Paris Carver), now Elliott's wife, an impression supported by his abrupt response to Paris' appearance ("Why did you marry him?"). He appears to have drunk about 40% of the bottle, or 12 units of alcohol, for an estimated blood alcohol level of 0.18 g/dL (but probably higher, as this was Bond's fourth drinking episode that day).	<i>Tomorrow Never Dies</i> , 1997
Report of problems with Bond's liver	After being released from a North Korean prison, Bond's body is scanned; a medical assessor comments, "Liver not too good", to which someone replies, "It's definitely him, then", implying that Bond's heavy drinking is regarded as an identifying feature.	<i>Die Another Day</i> , 2002
Example of a very heavy drinking episode	During a private flight, the bartender notes Bond has drunk six "vesper martinis". Based on the bartender's detailed description of the "vesper", we estimated Bond had already drunk 24 units of alcohol (and may have continued drinking for the rest of the flight), for an estimated blood alcohol level of 0.36 g/dL. Bond's movements seem slower than usual but he speaks without slurring. It would take about 24 hours for his liver to metabolise this amount of alcohol, and his job performance would be impaired the following day.	<i>Quantum of Solace</i> , 2008
Bond drinking day after day while depressed (and also taking pain relief medication)	Bond, recently injured by a gunshot, is resting on a remote beach. He drinks while in bed with a woman, takes pills (presumably pain relief medication), and then participates in a fairly dangerous drinking game with a scorpion on the back of his hand. The next day, he drinks spirits (neat) alone in a bar. The overall impression is depression and reckless fatalism.	<i>Skyfall</i> , 2012
M16 report on Bond's alcohol addiction	Raoul Silva, ex-M16 operative turned cyberterrorist, has captured Bond. He reads from an M16 report on Bond's fitness to be an agent: "Alcohol and substance addiction indicated." Silva also comments, "Just look at you, barely held together by your pills and your drink."	<i>Skyfall</i> , 2012
Bond's self-assessment	At a medical clinic in the Austrian Alps, Bond is interviewed by clinician Madeleine Swann, who asks, "How much alcohol do you consume?" Bond replies, "Too much".	<i>Spectre</i> , 2015
<b>Other people and alcohol</b>		
Alcohol and liver disease	Mr Osato (a villain) to Bond: "I always take a glass [of champagne] in the morning. You should try it." Bond: "It's bad for your liver, isn't it?" Mr Osato: "Nonsense..."	<i>You Only Live Twice</i> , 1967
Alcohol and liver disease	Bond's boss at M16, M, declining the offer of a drink: "Not for me thanks. Doctor's orders". Bond: "Pity about your liver, Sir..."	<i>Diamonds are Forever</i> , 1971
Impaired behaviour	Countess Lisl von Schlaf has consumed a bottle of champagne with Bond, and trips on a cushion, presumably being a little drunk.	<i>For Your Eyes Only</i> , 1981
First example of binge drinking by a lead woman character	Stacey Sutton drinks red wine at a meal with Bond; one empty bottle is visible, Bond pours from another one that is now 90% empty. If they have drunk equal amounts, Sutton will have consumed about seven units, for a blood alcohol level of 0.17 g/dL, but her impairment is minimal, except for falling asleep on her bed before getting under the covers.	<i>View to a Kill</i> , 1985
Second example of lead woman character getting drunk	Madeline Swann becomes obviously drunk on red wine while sitting on the floor in a Morocco hotel room with Bond; she falls when getting up and has double vision: "Look, there are two of you", "Two Jameses, lucky me". Her staggering suggests that her blood alcohol level was at least 0.10–0.20 g/dL, indicating that she had consumed 4–8 units of alcohol (47–87% of a bottle of wine for a 55 kg woman), but double vision typically occurs at higher levels (> 0.20 g/dL <sup>13</sup> ). A level of 0.25 g/dL would indicate she had consumed 1.1 bottles of wine.	<i>Spectre</i> , 2015

## 4 Drinking by James Bond and the DSM-5 criteria for alcohol use disorder\*

Item	DSM-5 questions <sup>†</sup>	Our assessment	Supporting details
1	... had times when you ended up drinking more, or longer, than you intended?	Yes	See <a href="#">Box 3</a> , "Bond's self-assessment".
2	... more than once wanted to cut down or stop drinking, or tried to, but couldn't?	Possibly	See <a href="#">Box 3</a> , "Bond's self-assessment"; but we don't know of any serious attempt to cut down. Indeed, his long term drinking pattern is relatively stable ( <a href="#">Box 1</a> ), and he has not shifted to any reduced alcohol products.
3	... spent a lot of time drinking? Or being sick or getting over other after-effects?	Yes	Drinking is a common activity for Bond ( <a href="#">Box 1</a> ), as noted at least twice by friend and colleague Leiter ( <a href="#">Box 3</a> ). Specific examples of long drinking events: drinking at a remote beach, and the day of four drinking episodes while waiting for Carver ( <a href="#">Box 3</a> ). Bond's liver problems also suggest a lot of drinking ( <a href="#">Box 3</a> ).
4	... wanted a drink so badly you couldn't think of anything else?	Possibly	There are no occasions where this impression is definitely conveyed, but there is no doubt that there are occasions when he seems very keen on a drink; eg, gulping undiluted "Siamese vodka" after a fight ( <i>You Only Live Twice</i> , 1967); sculling brown liquid (probably whiskey) after another fight, directly from a decanter ( <i>Casino Royale</i> , 2006); downing a glass of spirits in three gulps after a car chase and fight ( <i>Quantum of Solace</i> , 2008).
5	... found that drinking — or being sick from drinking — often interfered with taking care of your home or family? Or caused job troubles? Or school problems?	Yes	For a period Bond is considered unfit to be an agent, and an internal MI6 report notes: "Alcohol and substance addiction indicated" ( <a href="#">Box 3</a> ). Further, his boss M seems aware of his heavy drinking when she asks, "Ran out of drink where you were, did they?" ( <i>Skyfall</i> , 2012). Bond also drinks at his MI6 office, from a hip flask, while apologising to a picture of Queen Elizabeth II ( <i>On Her Majesty's Secret Service</i> , 1969).
6	... continued to drink even though it was causing trouble with your family or friends?	Possibly	Bond's friendships are largely transitory and he seems to have no living relatives. His drinking may interfere with establishing long term relationships, but all the women with whom he would like to have long term relationships die.
7	... given up or cut back on activities that were important or interesting to you, or gave you pleasure, in order to drink?	Possibly	There are limited data on Bond's leisure interests (other than womanising, with which he often mixes drinking: <a href="#">Box 2</a> ). During episodes of very high consumption (eg, 24 units on one occasion: <a href="#">Box 3</a> ), sexual performance is probably seriously impaired.
8	... more than once gotten into situations while or after drinking that increased your chances of getting hurt (such as driving, swimming, using machinery, walking in a dangerous area, or having unsafe sex)?	Yes	Bond has consumed alcohol before many risky situations (fast driving, fighting, and using machinery etc.; <a href="#">Box 2</a> ). It is highly probable that much of his sexual activity is unsafe, as he never discusses barrier contraception and does not appear to have condoms at hand (particularly when having spontaneous sex underwater).
9	... continued to drink even though it was making you feel depressed or anxious or adding to another health problem? Or after having had a memory blackout?	Yes	Bond continues to drink despite an MI6 report indicating he has alcohol use and liver problems ( <a href="#">Box 3</a> ). When apparently depressed he continues to drink heavily — even very heavily (two examples in <a href="#">Box 3</a> ).
10	... had to drink much more than you once did to get the effect you want? Or found that your usual number of drinks had much less effect than before?	Yes	We consider this very likely, as he has an extremely high tolerance level for alcohol; eg, he could still talk without slurring after consuming at least 24 units of alcohol on a single occasion ( <a href="#">Box 3</a> , "Example of a very heavy drinking episode by Bond").
11	... found that when the effects of alcohol were wearing off, you had withdrawal symptoms, such as trouble sleeping, shakiness, restlessness, nausea, sweating, a racing heart, or a seizure? Or sensed things that were not there?	No	Despite his apparently high chronic alcohol intake and heavy drinking episodes, Bond displays none of these problems. Indeed, he nearly always shows amazingly rapid reflexes and athletic capacity, winning a large majority of his fights and only occasionally being shot (despite thousands of bullets being fired at him).

\* Satisfying six or more of these criteria indicates severe alcohol use disorder.<sup>11</sup> † These questions should all be preceded with "In the past year, have you: ...", but given our unavoidably fragmentary account of Bond's life, we have taken a longer term perspective. Similarly, as we did not interview Bond personally, we have focused on observable behaviour. ◆

### Alcohol use disorder assessment

The psychiatrist on our team (DH) led the evaluation of the collated quantitative and qualitative data relevant to DSM-5 criteria for alcohol use disorder.<sup>11</sup> As we could not interview Bond in person, we focused on his observed behaviour throughout his life (and not just the most recent 12 months, as per the usual DSM-5 criteria).

### Alcohol product placement

Data on specific visible alcohol brands (eg, on beverage containers, on advertisements in the background) were collected. Evidence for product placement was cross-checked with a website devoted to product placement in movies<sup>12</sup> and with the names of alcohol companies listed in the movie credits.

### 5 Product placements in James Bond films, particularly visible and verbal mentions of brands of alcohol: mean number per movie, by decade

Type of product <sup>†</sup>	Items	1960s	1970s	1980s	1990s	2000s	2010s	All	P*
Champagne	13	0.0	0.8	0.6	0.7	0.7	1.0	0.5	0.19
Other wine	1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.76
Spirits	6	0.0	0.0	0.2	1.0	0.3	0.5	0.3	0.06
Beer	5	0.2	0.0	0.2	0.0	0.7	0.5	0.2	0.21
Alcohol product probably noticeable only by those familiar with it <sup>‡</sup>	10	0.0	0.0	0.0	0.7	1.0	2.5	0.4	< 0.001
<i>Total</i>	<i>35</i>	<i>0.2</i>	<i>0.8</i>	<i>1.2</i>	<i>2.3</i>	<i>2.7</i>	<i>4.5</i>	<i>1.5</i>	<i>&lt; 0.001</i>
All product placements (including alcohol, but also cars etc.)	258	5.0	6.8	7.6	11.3	20.7	30.0	10.8	< 0.001
Alcohol products as proportion of all product placements (as per the row above)		3.3%	11.8%	15.8%	20.6%	12.9%	15.0%	13.6%	0.27

\* For trend: adjusted for total movie time (minutes). Exception: in the final row, based on total number of product placements. † Excludes two reported product placements for which the product was not seen or mentioned in the movie but was instead involved in off-screen promotions. We also excluded three brands that were considered fictitious (eg, the Thai wine "Phuyuck" in *The Man With the Golden Gun*, 1974). ‡ Based on the bottle shape or colour (ie, the brand name was not visible). ◆

## Results

Bond had a mean 4.5 drinking events per movie (median, 4; range, 2–9), with no statistically significant trends over the six decades (Box 1).

Bond has consumed a diverse range of drink types, indicating that he is happy to drink whatever is readily available. He does, however, show a preference for cocktails and other spirits (55% of all drinks). This class includes a cocktail he designed himself (the "vesper"), for which he provided instructions to a barman in *Casino Royale* (2006). Also included in this category is his fairly stable level of martini consumption. He was seen to drink beer on only four occasions.

One statistically significant change over time has been the declining use of alcohol as a weapon by any character, including Bond ( $P = 0.023$ ; Box 1). Alcohol as a weapon mainly involved using bottles in fights, but alcohol was also exploited as a vehicle for drug delivery (eg, chloral hydrate in spiked drinks in *From Russia with Love* and *The Living Daylights*) and, on two occasions, for starting fires (*Thunderball* and *A View to a Kill*).

Both the lead female characters and the random sample of Bond's sexual partners had a stable pattern of drinking across the six decades (Box 1). In contrast to Bond, who has not smoked while drinking since 2002, some of his sexual partners have continued to do so (eg, Séverine in *Skyfall*, 2012).

After drinking, Bond frequently engaged in a wide range of potentially high risk activities (Box 2). These included fights, driving vehicles (including chases), operating complex machinery (eg, flying a helicopter), contact with dangerous animals, and sex. The latter is noteworthy, as it sometimes involved enemies (eg, Fiona Volpe in *Thunderball*, Helga Brandt/No. 11 in *You Only Live Twice*), or was undertaken with guns or knives in the bed (eg, Jinx activated a flick knife in bed during a post-coital moment in *Die Another Day*, 2002). In other movies, Bond was under the influence when escaping a komodo dragon, evading a tarantula, and playing a drinking game with a scorpion on his hand. An example of the extreme complexity of the mix of his post-drinking tasks include a series of contiguous events in *Dr. No* (1962): Bond operated nuclear power plant machinery, destroyed (almost single-handedly) Dr No's nuclear/space complex, killed Dr No, rescued Honey Ryder, and escaped the island. Similarly, on

another post-drinking occasion he successfully killed the "Man with the Golden Gun", accomplished the mission goal (retrieving a solex unit), and escaped the island before it was destroyed. On yet another occasion, after drinking at lunch he chased May Day up the Eiffel Tower, jumped on top of a high speed lift, drove a stolen taxi recklessly on footpaths and through the streets of Paris ("violating most of the Napoleonic code" in the process), then jumped about 10 metres from a bridge and through the roof of a barge. Performing these types of activities after drinking has not declined over time, and high stakes gambling by Bond after drinking has indeed significantly increased (Box 2).

Copious qualitative data allowed us to detail the many problematic aspects of Bond's drinking behaviour (Box 3). For example, Bond's peak observed binge drinking event involved an estimated 24 units of alcohol (six vespers), leading to an estimated blood alcohol level of 0.36 g/dL, well into the range that can be fatal ( $\geq 0.30$  g/dL<sup>14</sup>). His next heaviest binge involved about 12 units of alcohol, for an estimated blood alcohol level of 0.18 g/dL. Other notable features include a medical scan that showed that his liver was "not too good" and an MI6 report that stated "alcohol and substance addiction [were] indicated". Nevertheless, Bond has partial insight into his problem, admitting he drinks "too much" (*Spectre*, 2015). The only health consequence of alcohol ever discussed by Bond or other people was liver disease (on three occasions) (Box 3).

We classified Bond as having "severe" alcohol use disorder, as he met six of the 11 DSM-5 criteria (Box 4). Three of the female characters also had heavy drinking events (one at levels sufficient to cause staggering and double vision; Box 3).

Bond's environment contains high levels of alcohol, and the number of product placements for alcohol brands has increased significantly over time ( $P < 0.001$ ; Box 5). This rise was partly driven by a significant increase in the number of placements of alcohol products that require viewers to be familiar with the product to recognise it, based on the shape and colour of the bottle.

## Discussion

It is almost certain from the available quantitative and qualitative data that James Bond has a chronic drinking problem; indeed, it is "severe" according to our application of DSM-5 criteria (Box 4).

This drinking problem was also suggested by an analysis of an alternative biographic data source (the James Bond novels).<sup>7</sup> This complementary investigation found that his maximal one-day intake was 50 units of alcohol. Consumed over 12 hours, this would achieve a blood alcohol level of about 0.61 g/dL, a level that would be fatal for most people; the highest blood alcohol level measured in a living person among 46 000 patients at a trauma centre was also 0.61 g/dL.<sup>14</sup>

Despite high chronic alcohol intake and extreme binges, Bond's health is apparently not overly impaired. Although his liver is "not too good" (Box 3), he shows no dermatologic or other physical signs of alcoholism. Even his teeth are in good shape despite his high level of champagne consumption (high sparkling wine use is associated with dental erosion<sup>15</sup>). However, given his history of repeatedly being knocked unconscious, he should be aware that alcohol may interfere with recovery from traumatic brain injury.<sup>16</sup>

Many environmental factors are likely to fuel Bond's high alcohol consumption. Alcohol products and advertisements seem to be ever present, and at increasing levels (Box 5). We found that 79% of the women with whom he associates drink, his workplace colleagues drink (including his boss M, also while on the job), and the villains with whom he engages also often drink (with the notable exception of Vargas in *Thunderball*, 1965), as do most of his sexual partners (57%; data not shown), some of them quite heavily (eg, Madeleine Swann, Stacey Sutton, Countess Lisl von Schlaf; Box 3).

## Risk reduction strategies that Bond could consider

Ideally, Bond should urgently seek professional help for his drinking. But a few potential interim strategies might minimise his risks in the short term.

He should avoid drinking on the job, in particular when anticipating a gunfight or if he is likely to be drugged (as these are problems he frequently encounters). Complex tasks, including aerial combat in helicopter gunships and deactivation of nuclear weapons, are best done with a zero blood alcohol level.

He should avoid drinking with sexual partners who may want to disable, capture or kill him, as 9 of 60 (15%) have attempted to do so in the past.<sup>1</sup> Not drinking can also help when negotiating delicate conversations with new partners about barrier contraception and sharing sexually transmitted disease histories.

Partners who drink should not smoke in bed (eg, Tiffany Case in *Diamonds Are Forever*, 1971), as this is a fire risk. Further, Bond should neither allow knives in bed (eg, Jinx) nor hide guns under pillows.

Addicts fetishise their object of desire and its context. Bond should therefore be mindful of how he exhibits his encyclopaedic knowledge of alcohol (vintages, design of cocktails etc.) when aiming to project an image as a connoisseur or to show off his expensive tastes. Bond should instead try to cultivate a more detached perspective and to develop alternative interests; eg, his nascent interests in lepidopterology (study of moths and butterflies) revealed when commenting expertly on M's collection.

## Creating a more supportive environment for Bond

Bond's workplace (MI6) should be a more responsible employer by referring him to work-funded counselling or psychiatric support services for managing his alcohol use disorder. These services

should also determine whether he has any post-traumatic stress after killing so many people and having been tortured so often (eg, in *Casino Royale*, *Spectre*).

Similarly, the workplace culture needs to change; to start with, MI should no longer offer Bond drinks in workplace settings. Further, MI6 management needs to redefine Bond's job to reduce his stress levels. More field support and a stronger team approach are needed so that his duties do not weigh as heavily upon him. This may reduce his need to take excessive individual responsibility for mission success, and lessen his drive to pursue missions when off duty (ie, as a rogue agent) and personal vendettas. More training in how to negotiate with enemies may also reduce the need for killing them, as might MI6 placing limitations on his "licence to kill".

## Conclusions

There is strong and consistent evidence that James Bond has a chronic alcohol consumption problem at the "severe" end of the spectrum. He should seek professional help and try to find other strategies for managing occupational stress. His workplace (MI6) needs to become a responsible employer and to refer him to support services, and to change its own workplace drinking culture.

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- 1 Wilson N, Tucker A. Die Another Day, James Bond's smoking over six decades. *Tob Control* 2016; 26: 489-490.
- 2 McAnally HM, Robertson LA, Strasburger VC, Hancox RJ. Bond, James Bond: a review of 46 years of violence in films. *JAMA Pediatr* 2013; 167: 195-196.
- 3 Alrutz AS, Kool B, Robinson T, et al. The psychopathology of James Bond and its implications for the revision of the DSM-(00)7. *Med J Aust* 2015; 203: 452-456. <https://www.mja.com.au/journal/2015/203/11/psychopathology-james-bond-and-its-implications-revision-dsm-007>
- 4 Jonason PK, Webster GD, Schmitt DP, et al. The antihero in popular culture: life history theory and the dark triad personality traits. *Rev Gen Psychol* 2012; 16: 192-199.
- 5 Neuendorf K, Gore K, Dalessandro A, et al. Shaken and stirred: a content analysis of women's portrayals in James Bond films. *Sex Roles* 2010; 62: 747-761.
- 6 Croley JA, Reese V, Wagner RF. Dermatologic features of classic movie villains: the face of evil. *JAMA Dermatol* 2017; 153: 559-564.
- 7 Johnson G, Guha IN, Davies P. Were James Bond's drinks shaken because of alcohol induced tremor? *BMJ* 2013; 347: f7255.
- 8 Wikipedia. James Bond in film. Updated Sept 2018. [https://en.wikipedia.org/wiki/James\\_Bond\\_in\\_film](https://en.wikipedia.org/wiki/James_Bond_in_film) (viewed Sept 2018).
- 9 Leigh D. James Bond drinks: the complete guide to the drinks of James Bond, 2nd edition. Amazon Digital Services, 2012.
- 10 Andersson A, Wirehn AB, Olvander C, et al. Alcohol use among university students in Sweden measured by an electronic screening instrument. *BMC Public Health* 2009; 9: 229.
- 11 American Psychiatric Association. Diagnostic and statistical manual of mental disorders, Fifth edition (DSM-5). Arlington (VA): American Psychiatric Association, 2013.
- 12 Jones S. James Bond product placement: the definitive timeline of brands in Bond [online]. *Hollywood Branded* [website]. 14 May 2018. <http://blog.hollywoodbranded.com/blog/james-bond-product-placement-the-definitive-timeline-of-brands-in-bond> (viewed Sept 2018).
- 13 AlcoholAlert! Blood Alcohol Level and You [webpage]. 2017. <http://www.alcoholalert.com/blood-alcohol-level.html> (viewed Sept 2018).
- 14 Afshar M, Netzer G, Salisbury-Afshar E, et al. Injured patients with very high blood alcohol concentrations. *Injury* 2016; 47: 83-88.
- 15 Schlueter N, Tveit AB. Prevalence of erosive tooth wear in risk groups. *Monogr Oral Sci* 2014; 25: 74-98.
- 16 Ponsford J, Tweedly L, Taffe J. The relationship between alcohol and cognitive functioning following traumatic brain injury. *J Clin Exp Neuropsychol* 2013; 35: 103-112. ■