



## EDITORIAL COMMENT

# Pokémon Go: cardiovascular benefit or injury risk?

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The recently introduced smartphone game Pokémon Go (Niantec Labs) has enjoyed huge popularity around the world, across all generations. The game uses augmented reality, where players catch ‘pocket monsters’ (Pokémon) using a smartphone camera layering these creatures over the everyday outdoor environment. The advantage over traditional games is that it incentivises players to get out and walk significant distances to catch the Pokémon, resulting in all the cardiovascular benefits that exercise can have. Indeed, the player who claimed to be the first to catch all Pokémon in the UK reported a weight loss of two stone during the process [1]. However, as with any mobile application, its use poses the potential for distraction from tasks requiring concentration, notably driving as reported in this journal by Bellal et al., as well as operating heavy machinery.

Indeed, the developers Niantec make it clear in the application’s start-up screen that users should remain aware of their surroundings. The application is certainly not intended for use whilst driving. To try to achieve this, it uses smartphone sensors to calculate the speed of the person playing and the app will not function above a certain speed, thought to be between 10 and 15 miles per hour.

Despite these restrictions to minimise use only when walking, in this article, we hear of two case reports of serious road traffic accidents in Tucson, Arizona where distraction from using Pokémon Go whilst operating a vehicle was a significant factor. The first case involved a man losing control of his pick-up truck, distracted whilst driving at ~40 mph, attempting to catch a Pokémon. The second case involved a woman colliding into a utility pole, swerving to avoid a pedestrian in the road who was catching Pokémon. Shortly after submission of this article, news emerged from Japan of two separate road traffic

accident fatalities within the space of a week, where the drivers were playing Pokémon Go [2, 3].

From a legal standpoint, the use of a mobile phone for any purpose, including the use of applications, is illegal in the UK and the majority of Western European countries including France, Germany, Spain and Italy. In Tucson, Arizona, from where this case reports comes, there is a restriction on text messaging whilst driving, but no specific restriction on the use of smartphone games. Therefore, it might not be considered illegal to use an app whilst driving even it has been shown to affect concentration.

It is laudable that Pokémon Go encourages players to become more active in walking and running whilst playing the game, which undeniably will contribute to the need for regular cardiovascular exercise in the fight against obesity. It also promotes exploring local areas and points of interest, which should be encouraged. However, as in the case recently published in this journal [4] and recent news articles highlight a potential danger to players and public alike from irresponsible gameplay. These are the first cases published in the medical literature of significant injury due to use of Pokémon Go and we believe that such incidents are underreported.

The cases reported in the journal are very serious as they suggest a new worrying trend of people playing Pokémon Go whilst driving, or walking unaware of their surroundings, which can be dangerous to the people playing the application but also other passers-by. We would suggest changes to be made in the game’s algorithm to lower the speed limit at which the application can function to a maximum speed of brisk walking pace—this prohibits playing whilst driving and hence avoids accidents. Additionally, the application could incorporate a reminder notice of the local law regarding use of smartphones whilst driving in their local area, using location-based services.

## REFERENCES

1. BBC <http://www.bbc.co.uk/news/uk-england-hampshire-36912572> (10 September 2016, date last accessed)
2. BBC <http://www.bbc.co.uk/news/world-asia-37182308> (10 September 2016, date last accessed)
3. CNBC <http://www.cnbc.com/2016/08/28/pokemon-go-behind-second-fatal-traffic-accident-in-japan-kyodo-reports.html> (10 September 2016, date last accessed)
4. Joseph B, Armstrong DG. Potential perils of peri-Pokémon perambulation: the dark reality of augmented reality?. *Oxf Med Case Reports* 2016;**10**:265–66.