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Improving tourist beach safety awareness: The benefits of watching *Bondi Rescue*

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HIGHLIGHTS

- Television is an effective method for improving tourist beach safety awareness.
- Watching *Bondi Rescue* improved viewer awareness of need to swim near lifeguards.
- Watching *Bondi Rescue* improved viewer awareness of the rip current hazard.
- *Bondi Rescue* reaches a greater audience than existing beach safety interventions.

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ABSTRACT

Many tourists drown on beaches worldwide and an ongoing challenge is improving their behaviour and awareness in relation to beach safety and hazards. However, existing safety interventions are often limited in reach. Bondi Rescue is a television show based on the lifeguards at Bondi Beach, Sydney, Australia that has been viewed by millions globally. This study examines the value of Bondi Rescue as a potential global beach safety intervention. Data was obtained from video content analysis of Bondi Rescue and an online survey of 1852 global viewers. Positive outcomes from watching Bondi Rescue include improved awareness of the rip current hazard and the importance of swimming near lifeguards. 78% of respondents felt that watching the show improved their beach safety knowledge significantly. Bondi Rescue is particularly effective for improving beach safety awareness of international viewers who are infrequent beachgoers who might not otherwise receive any beach safety information.

1. Introduction

Australian beaches are a major recreational destination for both domestic and international tourists, receiving an estimated 100 million visitations per year (SLSA, 2016a) and are integral to Australia's tourism economy. However, with large waves, strong rip currents, variable tidal ranges and dangerous marine fauna, Australian beaches can also be hazardous environments. In the 2015–2016 season, 130 coastal drowning fatalities occurred and more than 13 000 ocean rescues were conducted (SLSA, 2016c). Between 2012 and 2016, international tourists constituted between 7 and 14% of coastal drownings in Australia per year (SLSA, 2016c) and of the 25 coastal drownings of overseas tourists in 2015–16, 44% and 36% were from Asian and European countries respectively (RLSSA, 2016). Beach related drowning, non-fatal drowning, and injuries requiring lifetime medical care represent a major public health problem associated with significant personal, societal and economic costs (Gilchrest & Branche, 2016; Sherker, Brander, Finch, & Hatfield, 2008), the latter of which become more problematic when incidents involve overseas travellers. Tourists are often considered to be an 'at risk' group at beaches due to their inexperience with local environmental conditions, participation in unfamiliar activities (e.g. ocean swimming, surfing), potential language barriers and a general lack of attention to safety details as part of being on holiday (Wilks, 2007, 2011; Wilks & Pendergast, 2010; Wilks, Dawes, Pendergast, & Williamson, 2005). As such, a major concern and challenge for beach safety organisations, local governments and tourism operators is making large numbers of tourists aware of beach hazards, and motivate them to adopt safe beach going practices in the countries they visit.

Most beach drownings occur on unpatrolled beaches, away from

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lifeguard patrolling areas, or outside of lifeguard patrolling times (Brander & Scott, 2016; Gilchrest & Branche, 2016; SLSA, 2016c). In Australia, only 4% of the estimated 11 000 beaches are patrolled by lifeguarding services and many hazardous, unpatrolled beaches are situated close to popular tourist accommodations with easy access to the beach (McKay, Brander, & Goff, 2014). Most of the known drowning 'hotspot' locations along the Australian coast, particularly in New South Wales and Queensland are also prominent tourist destinations (RLSSA, 2016; SLSA, 2016c). In the absence of lifeguards, tourists' knowledge and awareness of beach safety and hazards is therefore a critical determinant for their safety when visiting beaches. Unfortunately, several studies have shown that this knowledge is poor amongst tourists and international visitors to Australia, such as students (Ballantyne, Carr, & Hughes, 2005; SLSA, 2015; Wilks, 2007; Wilks et al., 2005, 2007; Williamson, Hatfield, Sherker, Brander, & Hayen, 2012).

A range of methods have traditionally been used to make beachgoers, including tourists, aware of beach hazards both in Australia and globally. These include warning and information signage, safety campaigns using slogans, brochures and posters, videos and public service announcements (Brander & MacMahan, 2011; Brander, Drozdzewski, & Dominey-Howes, 2014; Carey & Rogers, 2005; Hatfield, Williamson, Sherker, Brander, & Hayen, 2012; Matthews, Andronaco, & Adams, 2014). However, while these intervention methods serve a useful purpose in educating beachgoers to various extents, particularly in local settings (Hatfield et al., 2012), their overall effectiveness is largely unknown (Brannstrom, Brown, Houser, Trimble, & Santos, 2015; Mackellar, Brander, & Shaw, 2015; Matthews et al., 2014).

Television has previously been identified as being a potentially valuable tool for educating large numbers of people about beach safety and hazards (Drozdzewski, Roberts, Dominey-Howes, & Brander, 2015; Mitchell & Haddrill, 2004; Woodward, Beaumont, Russell, & MacLeod, 2015). A recent report by Surf Life Saving Australia (SLSA, 2016b) found nearly a quarter of beachgoers (22%) identified television as a source of coastal safety information. One potential television-based beach safety intervention with a large global audience are reality television shows dealing with ocean lifeguards. Past and present shows such as *Piha Rescue* (New Zealand), *Lifeguard! Southern California* (California) and *Bondi Rescue* and *Surf Patrol* (Australia) portray daily activities of lifeguards and lifesavers, primarily focusing on rescues and conditions leading to these rescues. Consequently, lifeguard reality shows could be a valuable intervention method for beach safety as viewers can learn from the actions, mistakes and reflections of other beachgoers.

Bondi Rescue first aired on prime time television in Australia in 2006 and is ongoing with Season 12 airing in 2017. According to the show's producers (CJZ), Season 11 attracted up to 600 000 viewers on a regular night, with earlier seasons attracting up to 1.6 million viewers (CJZ 2016; pers. comm., 18 October 2016). Nearly half of the audience (49%) is between 25 and 54 years old and the show is sold to nine other countries (CJZ 2016; pers. comm., 18 October 2016). With millions of viewers worldwide, the show has the potential, either fortuitously or by design, to serve as a significant educational tool concerning beach hazards and safety messages for potential international beachgoers, both within their own countries, and when traveling overseas. However, the potential educational benefits to tourists of *Bondi Rescue*, or any other lifeguard reality show, have yet to be examined in this regard.

The aim of this study is to evaluate the educational effectiveness of *Bondi Rescue* in communicating information about beach hazards and safety messages to a global viewing audience, both in terms of the content of the show and viewers' perceptions from watching the show. Although the focus is on Australian beaches, this global audience potentially represents both domestic and international tourists visiting any beach. Importantly, the study will illustrate that ocean lifeguard based reality television shows do represent a large and potentially global scale beach safety intervention method for those who watch them. This has significant implications since tourists, with an improved awareness and understanding of beach safety, would more likely visit a beach without putting themselves at risk, ultimately reducing the incidence of beach related drowning and injury.

2. Location of study

Bondi Rescue is filmed at Bondi Beach in Sydney, New South Wales, Australia, which is Australia's most popular beach with over 2 million domestic and international tourists annually (Destination, 2014). Bondi Beach is approximately 900 m long, faces southeast and is an embayed beach, protected by two prominent headlands to the north and south (Fig. 1). The regional wave climate is characterised by an average wave height and period of 1.6 m and 10 s, respectively, with most waves approaching from the east and southeast (Short, 2007a; Short & Trenaman, 1992). Bondi Beach is therefore exposed to wave action most of the time although, due to wave refraction effects, there tends to be an increasing wave energy gradient along the beach from north to south (McCarroll et al., 2014). From a physical perspective, Bondi Beach is representative of many surf beaches found in Australia and globally, being dominated by the presence of sand bars and rip current channels (Short, 2007b), including a persistent rip at the southern end termed 'The Backpacker Express'. Of note, an episode of *Bondi Rescue* aired during writing of this manuscript (Episode 12, Season 12) documented the fatal drowning of a Norwegian tourist in this rip current on 2/3/2017.

Bondi Beach is patrolled year round by professional lifeguards employed by Waverley Council, with the main lifeguard tower being situated in the middle of the beach (Fig. 1). Typically, two pairs of red and yellow flags, which in Australia designate supervised swimming locations, are placed on the beach; one at the northern end and one near the main lifeguard tower (Fig. 1). The southern half of the beach does not generally have flags, however lifeguards continuously monitor this section of the beach both directly, and remotely. During busy summer months, Bondi typically has eight lifeguards on duty each day. Volunteer surf lifesavers also patrol on weekends and public holidays during the extended summer period.

3. Methods

This study obtained both quantitative and qualitative data using three methods: i) a video content analysis of episodes from *Bondi Rescue*, ii) an online survey of *Bondi Rescue* viewers, and iii) lifeguard data records.

3.1. Video content analysis (VCA)

Content analysis involves systematic and replicable analysis of media that communicate information, through assigning numeric values and subsequent analysis of relationships using statistical methods (Riff, Lacy, & Fico, 2014). Content analysis has been used previously in relation to reality television shows (Blair, Yue, Singh, & Bernhardt, 2005; Oliver, 1994) and YouTube videos relating to the rip current hazard (Mackellar et al., 2015). Seasons 1–8 of *Bondi Rescue* (2006–2013) were selected for the VCA, as they were the only seasons available on DVD at the time of the study. This encompassed 98 episodes in total, each approximately 22 min long without advertisements. A coding system was developed using an empirical approach where themes, categories and variables were