Safety Management in the Adventure Tourism Industry

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Abstract The growth of commercial adventure tourism products globally over the last half-century has coincided with increasing levels of professionalism. By nature, engagement in an adventure encompasses challenges to be overcome; some of which may carry a real risk of harm to participants and employees. The chapter describes the nature of adventure experiences within the commercial operating environment. With a focus on activity safety, selected national and international standards available to the adventure tourism operators are described along with a national safety auditing scheme. The industry's future is discussed, with the outlook bright in provisioning quality tourist experiences.

Keywords Adventure tourism · Safety · Management · Risk · COVID-19

Introduction

Over the last half-century, commercial adventure tourism has grown from activity-based experiences provided to niche markets to what has become a *bona fide* component of mass tourism delivery. Opportunities for adventurous episodes over short or long time periods are now commonplace across the globe on both land and sea. New opportunities are likely to open also through the provision of new tourist experiences of outer space.

In simple terms, phenomenal growth of tourist adventures represents market forces responding to client demand. This chapter's purpose is to describe forces driving this demand along with implications and some resources available for the development of high-quality commercial adventures offered to tourists. A key concern here is ensuring safe experiences and safe travels of tourists while engaged in adventure experiences. The chapter provides a review and update of earlier work in

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this field by the present author (Morgan & Dimmock, 2006; Morgan & Fluker, 2006). A plethora of valuable work, with examples cited within the chapter, has been reported by others in the field before and since these publications. Other cited studies conducted and reported by Morgan are summarised to highlight aspects changing, and those remaining unchanged, in the pursuit of safety and quality in the conduct of commercial adventure tourist experiences.

Regarding chapter structure, the adventure tourist experience is first specified. The adventure tourism industry is then described within the operating environment. To highlight some of the negative consequences of misadventures, a brief and selective history of adventure is then offered. The chapter then moves to safety analysis through a discussion of the *public health approach* to injury problems, industry standards and regulations, and then an example of safety audits. The chapter concludes with an assessment of the future for commercial adventure tourism products, clearly impacted by the COVID-19 pandemic, with a specific focus on safety implications.

Specifying the Adventure Tourism Experience

Being a tourist involves travel away from home, normally overnight or longer, where travellers are typically motivated to seek and engage in some form of pleasurable experience. While tourist motivations are complex, and may encompass needs for escape, relaxation or educative experiences, seeking novelty through new experiences will be paramount for many travellers. Pleasures arising from novel experiences may be had by tourists during their travels and re-experienced, though perhaps in different ways, after the travel episode through reflections or captured images. Products provided by the global adventure tourism industry provide numerous sources for tourists to experience novel and perhaps challenging experiences.

At the heart of adventure is an experience of challenge. Challenge is created through uncertainty as to how obstacles within the adventure may be overcome. Some obstacles experienced in the adventure may present as hazards in the sense that a failure to overcome them carries a possibility of harm. Harm will be usually thought of as being of a physical nature such as injury events, though mental harm is similarly a real possibility. The quantified chance of not overcoming an obstacle may be thought of in terms of real risk. Rigorous and valid epidemiological data are typically used to quantify the real risk for injury problems.

Regardless, the challenge, together with uncertain outcomes, forms the adventure tourism experience. Key to this experience is the adventure participant's use of their own abilities, both physical and mental, to control and overcome manifest challenges posed by obstacles present in the adventure. Adventure-related outcomes then provide the desired psychological experiences sought after by involved adventurers. These psychological outcomes go beyond simply the experience of thrills. Deeper and longer lasting outcomes such as a sense of achievement, self-growth and raised self-efficacy can be realised through engagement in adventurous activities.

In an early study, Morgan (2001) attempted to demonstrate empirically elements in the adventure experience, and how these elements link to psychological outcomes for participants engaged in commercial adventure activities. Building on the previous conceptual work in the adventure field and psychological arousal, the study was based on the notion that challenge manifest in adventures stems from client perceptions of situational risk and personal competence.

Priest (1992) has illustrated this balance between risk and competence through the adventure experience paradigm. Under this paradigm, risk at maximum and competence at minimum produces *deviation* and *disaster*. Where risk is reduced or competence rises, but the former continues to outweigh the latter, a *misadventure* results. Conversely, competence at maximum and risk at minimum produce *exploration and experimentation*, and where the former is reduced or the latter rises but competence continues to outweigh risk, an *adventure* experience is produced. A *peak adventure* is predicted where risk matches competence (cf. the concept of *flow*; Giddy, 2020). Priest hypothesised that peak adventures would predict attendant psychological experiences of the adventure.

Based on a sample of white-water rafters in New Zealand participating in a commercial adventure experience, Morgan's (2001) study demonstrated that perceptions of fear, danger and anxiousness increased, and perceived control decreased, where participants' perceptions of risk and competence moved into alignment. The implication for commercial operators, raised in this paper, was to determine and perhaps manipulate client perceptions of risk to provide participants with psychological benefits from their adventure experience.

A related study (Morgan et al., 2005) posed a *before*, *during* and *after* adventure framework to evaluate psychological elements associated with commercial adventures. Key influencers were expectations (including injury likelihood; before), interactions of perceived risk and competence together with attendant emotions (during), and psychological outcomes (e.g., enjoyment; after). The study assessed differences between participants on relatively longer duration commercial sea-kayaking adventures and those on shorter duration white-water rafting trips. Based on study findings from this group comparison, a segmentation was proposed for commercial adventure tourists according to desired level of challenge in the adventure and length of the adventure activities. Group labels were: fearless thrill-seekers (short duration, low challenge), daring thrill-seekers (short duration, high challenge), eco-seekers (long duration, low challenge), and competence testers (long duration, high challenge). The study found that perceptions of risk were not a key element to providing a beneficial adventure experience. And importantly, while clients appear to accept the risk of minor injury (bruises, scratches), real risk of serious injury was neither desired nor accepted.

Both these early studies by the present author, along with eminent works cited within the reporting for each, support the viewpoint that most tourists, including those participating in adventures, do seek safe injury-free experiences. Essentially, none seek or wish to experience serious harm. Yet clients do seek challenges, with many of these containing an inherently potential risk of harm stemming from hazards present in natural environments. The conundrum raised here concerns the

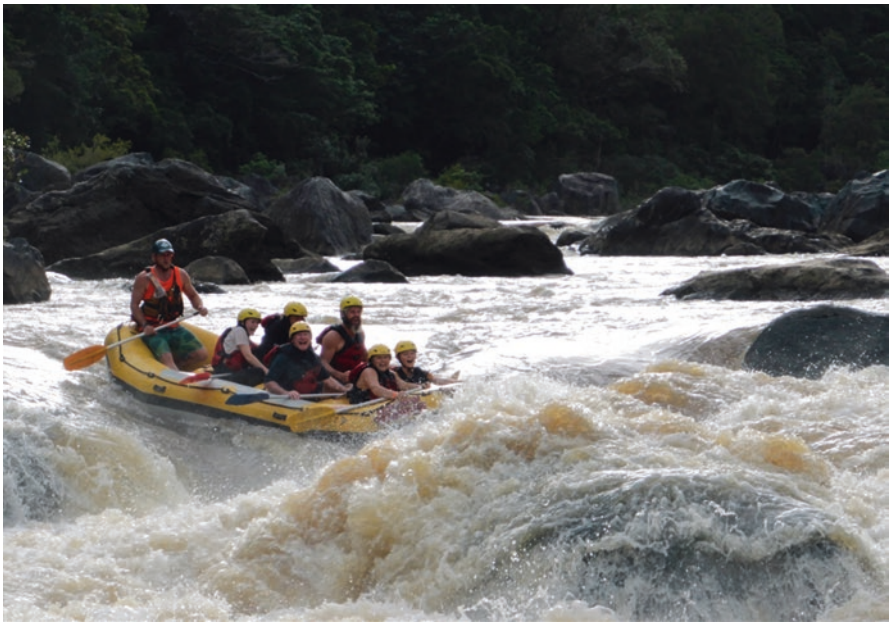

Fig. 1 White-water rafting can be an exciting but safe experience. (Image courtesy of Professor Donna Pendergast)

mechanism used by adventure providers to offer bona fide adventures where the risk of harm to clients remains at acceptable and controllable levels. Under this scenario, the desired adventure outcomes sought by participants are realised through their perceptions of risk calibrated by operators to be at suitable levels. These levels are set where clients have opportunity to exert appropriate control over perceived risk, while the operator retains full understanding the real risk faced by clients. This real risk is controlled to ensure that the chance of clients sustaining actual harm remains very low or negligible (see Fig. 1).

Defining the Adventure Tourism Industry and Operating Environment

The onus rests with the adventure tourism operators, acting within a commercially regulated environment, to meet the needs of adventure tourist clients. Morgan (2016, para. 1) has offered a definition of adventure tourism consistent with the previous section that defines the phenomenon according to the client experience:

> Adventure tourism encapsulates a broad range of structured and unstructured tourist products. An adventure takes place when participants use their skills and abilities to face uncertain and often novel challenges. Participants, whether novices or experienced, may require sufficient personal fitness to engage both real and perceived risks, including risk of injury, during adventures.

Morgan and Dimmock (2006) provide examples of various types of commercial adventure activities according to whether they are based on land, sea or in the air. Examples include sky diving, mountain biking and surfing. To facilitate adventure activities for clients, commercial operators typically provide access to the activity location, equipment, training and client monitoring. For example, commercial clients engaged in a snorkelling activity may be provided with boat transport to a coral reef, facemask, snorkel, wetsuit and personal flotation device, instruction on breathing and facemask use as well as directions for the location of activity limits (e.g., not going beyond the reef edge). Other safety activities may take place, of which the clients are unaware, such as head counts, recording, and observations of participants and conditions.

Commercial adventure tourism operations do not however take place in isolation. Morgan and Fluker (2006) have illustrated the commercial adventure tourism operating environment regarding the broader legal concerns. Within the legal framework are elements consisting of the local economy, industry accreditation (e.g., standards, employee certification, required insurance), public policy and injury patterns. These elements represent zones of operator concern. Falling within the legal context is the zone of commercial operator influence. Elements within the zone of influence, where the commercial adventure operator has control, include business operations elements incorporating aspects such as employee recruitment and local knowledge of activity conditions. The operator also has direct influence for the nature of the activity including the level of real risk to which clients will be exposed.

As noted above, within commercial adventure operations, operators must match client expectations with the provisioned experience. Morgan (2000) cited a case in New Zealand where the cause of death of an international tourist was due to a mismatch in such expectations. A direct quotation from the Maritime Safety Authority's (1995) investigation into this white-water rafting accident at the time stated:

> Personnel in the industry are predominantly young men with a desire for excitement and adventure. Many are quite immature and live life "on the edge". This severely affects safety judgements and assessments of client capability. There is a significant difference between the guides' perception of an exciting trip; the guides' perception of client expectations and the actual clients' concept and expectations of an exciting trip. This leads to guides running trips for their own entertainment without due regard for the needs of their clients.

To facilitate research in commercial adventure tourism safety, Morgan (2000) proposed an Adventure Tourism Process model. Based on perceptions of fear, control and risk held by both operators and participants, the model identified gaps between these actors that may have implications for the provision of safe experiences. Although the model has not been subject to empirical testing (to the present author's best knowledge), a more recent qualitative study by Clinch and Filimonau (2017) has focussed on the instructor training and decision making in adventure tourism. Key findings reported include requirements for appropriate policies around risk management and provision of suitable training opportunities (Fig. 2).

This opening section has provided a brief introduction to the adventure experience and the role of the commercial adventure operators, with particular regard for aspects of client safety. Safety issues in the provision of commercial adventure

Fig. 2 Training and supervision are critical for safe adventure tourism experiences. (Image courtesy of Tourism Queensland, used with permission)

tourism, identified by researchers and others some two decades previous and earlier, remain just as relevant today. Nevertheless, as described later in this chapter, clear examples can be found to demonstrate that the commercial adventure industry has increased in professionalism through the implementation of astute regulations, standards and practices this century, and so offer to clients more safe experiences. These initiatives reflect recognition of the commercial importance of adventure tourism for many nations.

Before delving further into aspects of safety management, and in particular, implications for the future of the commercial adventure tourism industry arising from the COVID-19 pandemic, the chapter makes a short digression to the history of adventure with a focus on specific incidents (which of course litter history) to highlight and underpin consequences that may arise from misadventures.

A Brief History of Adventure Travels and Some Negative Consequences

The word adventure emerging from Latin origins is said by Arnould (2015, para. 1) to refer "to the fate of individuals, to what would befall them". Adventures, both those real and fictitious, have long captured the imagination of the general public through vicariously experiencing travels to the unknown, while eliciting in readers feelings of arousal and related emotions. Great adventurers well-known to history include Leif Erikson, son of an equally famous father who undertook in the eleventh century ventures to North America, Ibn Battuta's fourteenth century travels across

dozens of countries, and Zheng He's fifteenth century sea voyages traversing several oceans. These and other great explorers overcame uncertainty and real risks to discover new worlds and new peoples (DNews, 2011). Yet the same human desires in the not so famous can be identified through historical record. Books, reports, and news stories can be readily found for adventure-related incidents, with these often being of note due to the tragic outcomes they describe.

One such incident, well-remembered today, occurred in the small Australian town of Daylesford in 1867. Known as *Daylesford's lost boys*, the tragedy's location can be found today marked by a stone monument (Carrubba, 2019). Three boys, with the leader being all of seven years, left early-morning the small township in mid-winter for a bush journey to seek wild goats; likely this experience would have felt to them an exciting adventure. While the boys were seen later in that day, and provided directions homeward, these were ignored. Despite extensive searchers, the trio's bodies were not found for some 25 days, huddled in a tree hollow to (presumably) escape the freezing conditions. Such misadventure has ramifications for those surviving well beyond their occurrent.

Tragic events similarly occur despite being provisioned and supervised by professionals. Morgan and Fluker (2006) described the 1999 Interlaken tragedy where 21 activity participants lost their lives during a commercial adventure tourism activity. This activity required that participants, under the guidance of instructors, rappel and body raft a short stretch of river rapids and waterfall. Cited in Morgan and Fluker, Bita (2001, p. 13) reported at the time the ensuing Swiss court judgement that laid the blame on the adventure company and guides:

> Judge Thomas Zbinden found that most of the participants didn't know what canyoning was, let alone have any experience of it. The guides' supervisors ignored signs of a thunderstorm brewing in the Valley, he said, even though storms had been predicted in the local newspaper and on radio. They [the canyoning tour operators] had time to cancel the trip but went on regardless. The junior guides were not properly trained, the judge concluded, because they had not been instructed on how to read all the danger signs of an impending flood.

Commercial adventure tourism typically takes place in dynamic natural environments. A key question associated directly with participant safety is whether events are predictable, and so may be managed or countered to prevent harm to participants or employees. The 2019 Whakaari/White Island Volcano disaster provides a pertinent example. Chappel (2020) reports that on December 9th, 2019 47 persons were visiting the volcanic island located off the eastern coastline of New Zealand's North Island. Twenty-two persons lost their lives as a result of a volcano eruption with others suffering severe injury (Worksafe New Zealand, 2020). In response to the incident, a Worksafe New Zealand (2020) investigation concluded that parties involved in taking tourist to the Island did not meet their obligations under the *Health and Safety at Work Act 2015*. Worksafe New Zealand report further:

> 22 people have lost their lives in this tragic event. WorkSafe is tasked with investigating workplace incidents to determine whether those with health and safety responsibilities met them. This was an unexpected event, but that does not mean it was unforeseeable and there is a duty on operators to protect those in their care (2020, para 2).

Thankfully, loss of life due to misadventures suffered by commercial adventure tourists, are relatively infrequent events. On this positive note, opportunities for overcoming challenges and risks may still be found and fulfilled today with ready-made options available through commercial adventure tourism products across the planet. Such adventures on offer today provide to participants levels of safety that far exceed, through being informed by greater knowledge and technical advances, those experienced by the great explorers or others suffering misfortune in previous centuries. Yet relatively recent tragedies, including those reported here, indicate that safety remains a pertinent issue for commercial adventure operators.

Therefore, examination remains warranted to assess current provisions of adventure tourism experiences in regard to the likelihood of harm being experienced by participants. To facilitate this assessment, a review of the public health approach to unintentional injury problems is now described.

The Public Health Approach Towards Reducing the Potential for Harm

Morgan (2015) provides an application of the public health approach (PHA) to the commercial adventure activity of river tubing. In this activity, now banned in some countries, tourists have opportunities to float on inflated tyres down seemingly tranquil rivers while sipping alcoholic drinks purchased along the way (Tisson, 2015). Through methods applied frequently to a range of injury problems, the risk of harm inherent to this activity and strategies for prevention may be assessed. Morgan notes though that the feasibility of a PHA application should account for likely costs and benefits of implementing the process.

At a basic level, the PHA process follows a five-step implementation to assess an injury problem (Morgan, 2015). Morgan (2011) provides an example of this for drowning events (Table 1). The first step is injury surveillance. Rigorous surveillance, which may be in some instances costly or impractical, requires a clear definition of the injury problem addressed, plus measurement of risk factor manifestation

Table 1 PHA to researching injury problems using a drowning example

PHA steps		Knowledge base required with respect to drowning
1. Conduct injury surveillance	⇨	Clear definition of drowning including circumstantial criteria Measures of drowning risk accounting for risk exposure
2. Identify injury causes and risk factors	⇨	Identification of drowning risk and protective factors, their roles, dependencies, interactions and potential for control
3. Develop and evaluate interventions	⇨	Determine risk to be reduced or modified Develop and test drowning countermeasures for effectiveness
4. Implement beneficial interventions	⇨	Implement drowning prevention programs for *at-risk* populations
5. Review residual injury problem	⇨	Feedback loop to PHA Step 1 injury surveillance

and exposure to that factor. The second step is identification of causal risk factors and potentials for control. This step typically requires application of rigorous epidemiological designs focusing on the injury problem at hand. The third step is the development and evaluation of interventions designed to prevent injury. The fourth step follows where beneficial interventions are implemented with the final step (step 5) providing a feedback loop through review.

In practice, safety regulators or activity operators may move straight to the PHA step 4. Interventions here may be made based on evidence or knowledge sources from other activities or taken up through a common-sense approach. Examples may be the mandatory wearing of personal flotation devices for water-based activities or carrying of satellite communication devices for remote travels. Where a full PHA approach cannot be implemented, Morgan (2006) suggests a starting point for assessing possible injury problems is through application of Haddon's matrix.

Applications of Haddon's matrix have been described for adventure tourism as well as natural settings (Heggie, 2006; Senthilkumaran & Pratim, 2017). The matrix is used to identify candidate causal risk factors associated with a commercial adventure activity manifest before, during or after the event. In this analysis, causal risk factors should be distinguished from risk markers, where the latter may be associated with causal factors (e.g., male gender *marking* the causal risk factor of overconfidence; Morgan, 2006). Causal risk factors, specified pre-event, event, or post-event, may then be categorised as to whether they are associated with the participant, the activity or the environment.

As proposed by Morgan (2015) in regard to river tubing, alcohol use may be a causal risk factor associated with the participant pre-event. Engaging in the activity while unsupervised may be an associated event factor. Transport links facilitating first aid may be associated with the environment post-event. Such analysis should also recognise that some causal factors may interact, compounding the risk of injury (Morgan & Ozanne-Smith, 2019). For example, poor swimming ability may exacerbate the risk of river tubing under the influence of alcohol or failure to wear a personal flotation device. Once specified, options for control of those factors may be considered. Candidate strategies implemented for this example, which should be subject to rigorous assessment, might include alcohol bans, wearing personal flotation devices and provision of emergency communication equipment (see also *Part II Safety: Tourist Injury*).

Industry Standards and Regulations

To prevent injury and promote safety, including requirement for forms of risk analysis as described above, standards and regulations provide a guide or mandatory requirement for commercial adventure tourism operators. Operators in Australia, for example, may review standards pertaining to risk management, standards pertaining to activities, as well as international standards (Morgan & Dimmock, 2006). An overview to example each standard is now provided.

Guidelines for risk management available to organisations and individuals are available through Standards Australia Limited. For commercial adventure tourism operators, a critical source to guide the implementation of safety is provided by AS ISO 3100:2018: Risk Management—Guidelines (Standards Australia, 2018). The standard is grounded in an organisation approach where the management of risk is considered as a component of leadership and governance. Safety implementation is facilitated through three interrelated principles: value creation and protection; leadership and commitment; and, recording and reporting. The standard describes components or elements within each of the three principles.

The process principle in this standard specifies a procedure to manage risk. The current schema reflects that reported by Morgan and Fluker (2006). This incorporates at the core a risk assessment where these events are identified, analysed according to factors including likelihood and consequence and then evaluated against an established risk criteria. Risk events are treated or addressed through options that may include removing risk, retaining risk and sharing risk (e.g., through insurance). Monitoring risk and recording are also key elements in risk management planning. Several complementary standards are also available on *risk assessment techniques*, *project risk* and *guidelines for sporting and recreational organisations*.

Commercial adventure tourism operators may also refer to the Australian Adventure Activity Standard (AAAS; Outdoor Council of Australia, 2019). This standard, specific to a range of outdoor recreational activities, applies to activities that encompass those being led, where these participants have a level of dependence on the leaders. The components of the AAAS framework are: the management of risk; planning for the activity (including emergency planning); communication and managing participants; being responsive to the environment and conditions, equipment and logistics; and, leadership. The Standard has been adapted for an array of activities including angling, canyoning and snorkelling. The standards are not legally binding per se, but may be required by regulators to be met before access to an activity location is granted.

An international standard for adventure tourism operations is provided by the International Organization for Standardization. This is the *Adventure Tourism—Safety Management Systems—Requirements* (ISO, 2014). The Standard is designed to assist adventure tourism operators in the delivery of safe activities.

The Standard provides guidance on: the organisational context; leadership; planning (including addressing risks); aspect of support (including communication and documentation); operations (including emergency preparation); performance evaluation; and mechanisms for continual improvement. A complementary handbook has also been developed (Lazarte & Rojas, 2016). This handbook underpins the aims of the Standard to implement and demonstrate safety, meet participant and staff expectations and support legal compliance.

In recognising the growing importance of commercial adventure tourism, many countries have implemented processes and standards in the promotion of safety. In Brazil, for example, the Brazilian Ecotourism and Adventure Travel Trade

Association (ABETA) has implemented, in partnership with government and industry, a Safe Adventure Program to certify commercial operators across 16 adventure destinations (Adventure Travel News, 2010). More generally, across the globe, a recent snapshot survey of adventure tour operators reported that 74% had a documented safety and risk management plan (Adventure Travel Trade Association [ATTA], 2020).

Safety Audits

New Zealand provides a model for adventure safety that likely represents world best practice. The model is designed and implemented to provide for safe participant experiences in the adventure tourism industry. Full details, in addition to those described below, are provided at the SupportAdventure (2021) website. New Zealand adventure tourism operators in this legal framework are certified under the *Health and Safety at Work (Adventure Activities) Regulations 2016*. Certification falls under the New Zealand Adventure Activities Certification Scheme (Joint Accreditation System of Australia and New Zealand [JAS-ANZ], 2021) developed by WorkSafe New Zealand and JAS-ANZ (with the former-named body being the Scheme owner).

SupportAdventure (2021) provide publicly available information and documentation used for Scheme implementation. To determine whether their businesses fall within the regulatory framework, commercial adventure (and other) operators may access a decision tree from the site which provides a guide for those requiring registration and safety audits. Key characteristics of regulated activities within this decision tree are the charging of fees to clients for the adventure, providing guidance or teaching to clients, being classified as a land- or water-based recreational or educational experience, and importantly, where the participant experience exposes participants to serious risk that requires operator management.

Under the New Zealand regulatory system, qualifying commercial adventure tourism operators must develop and implement a Safety Management Plan. The Safety Plan is supported through commercial operators embedding a culture of safety throughout their organisation and operations underpinned by a safety management system. Key system aspects recommended include planning for safety incorporating specification of staff responsibilities, developing a hazard and risk register underpinned by communication, staff management, emergency response, incident reporting, and specific attention to issues associated with drugs or alcohol. The process bears costs in the order of NZ$5000, with operators having access to financial support through *Tourism Industry Aotearoa* (Radio New Zealand, 2020).

The Post-Pandemic Future of Commercial Adventure Tourism

The COVID-19 pandemic has seen tourism revenues plunge globally (Madden, 2021). Reduced mobility both across borders and within countries has clear ramifications for adventure tourism operator revenue. Lower demand for adventure experiences has been exacerbated further by operators having reduced access to public liability insurance (Mitchell & Lynch, 2020). Presumably, the *hardest hit* commercial adventure tourism operators would be those reliant on international markets not able to be replaced by domestic demand (including small island nations). Being realistic, the industry may never return to pre-pandemic economic levels, where prior to COVID-19 global adventure tourism expenditures had been estimated at $683 billion, some 30% of total tourism expenditure at that time (ATTA, 2021a).

To assist commercial operators, the World Travel & Tourism Council has provided protocols for the new normal in adventure tourism (Mirashi, 2020). These protocols concern: preparedness for operations and staff; safe experiences; trust and confidence; and, enabling policies. To meet each protocol, measures taken by both companies and the industry are specified. This document provides both a complementary guide and checklist available to adventure tourism operators to ensure effective and safe practices.

Surviving adventure operators may seek to use downtime for a re-appraisal of their safety practices in line with available standards and regulations described above. Information such as the *Adventure Travel and Trade Association Guidelines*, containing activity-specific information relevant to COVID-19 may be used to inform this outcome (ATTA, 2021b). Following available guidelines may assist to raise the quality of experiences offered to participants. Operators should be mindful too that new health-related COVID-19 practices including hygiene measures and social distances do not detract from, obfuscate or replace other standard requirements for safety (Wilks, 2021). Hence, this major global pandemic challenge should be looked on as an opportunity to review and improve the practice of adventure tourism provision. Improved safety practices will facilitate providing clients with peak adventure experiences (Fig. 3) while not placing them at risk of serious harm.

Conclusion

Finding Quality Through Embedded Safety

Commercial adventure tourism, in many forms, will seek to *balance* the level of adventure to which participants are exposed with requirements for the provision of a safe experience. Where the balance is not realised, misadventures resulting in injury may follow. Such events are not only tragic for involved participants but also

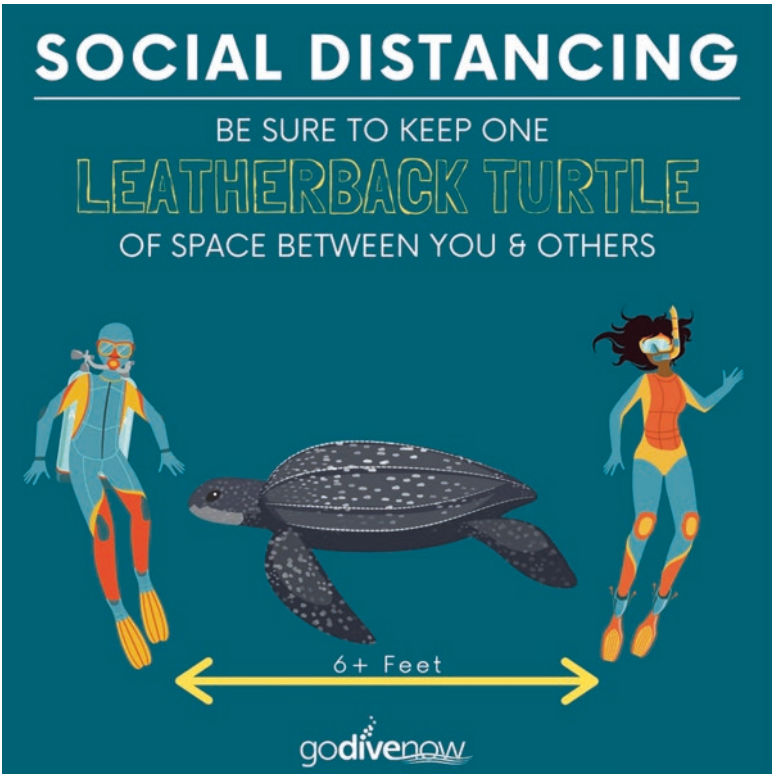

Fig. 3 During COVID-19 adventure groups continued to promote the fun and excitement of their activities, while also highlighting the important message of social distancing. (Image provided by the Diving Equipment & Marketing Association (DEMA), used with permission)

have obvious financial and brand ramifications for responsible operators and the wider industry. Nonetheless, the present author sees no reason why aspects of high adventure and responsible levels of safety should be viewed as opposing forces.

The aim for operators is to provide quality in the provision of the adventure experience, a standard that incorporates responsible safety practice. This chapter documents a range of sources that can be used to support adventure operators in this quest with many available freely from the Internet. Other sources of valuable information informing on safety may be provided through professional expertise and industry associations. While the foreseeable provision of commercial adventure experiences may be changing across the globe, safety remains a fundamental concern for surviving operators and an essential desire for participants when engaged in their adventure activities.

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