Death by adventure: could you manage a fatal accident in the outdoors?

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Abstract:

Recent research into outdoor education fatalities (Brookes, 2002/2003) has highlighted the need for organisations and individuals to critically assess their ability to respond to serious incidents in the outdoors.

This paper presents the findings of qualitative research into the management of six fatal accidents that occurred in adventure activities. The study made no attempt to analyse the quality of the response but rather focused on the interaction between the major '*players*' that were identified and the '*fatality manager*'. This led to the mapping of the chronology and nature of interaction for a period of up to 2 years after the time of the accident.

A model linking the fatality management process into the generally accepted stages of risk management is also presented as well as the constraints, which the respondents felt limited the quality of their response. Finally a series of recommendations for organisations and individuals that operate in the outdoor education/recreation industry is presented to encourage not only reflection, but action.

Introduction

The provocative title of this paper is in response to the finding often recorded by coroners of "*death by misadventure*" and emphasizes the fact that between 1960-2002, a total of 114 deaths have occurred in outdoor education settings (Brookes, 2002/3). This equates to approximately 2.7 deaths/year. A New Zealand Mountain Safety Council report (1994:81) documented the incidence of fatalities in the outdoor activities, and it was found that of a total of 821 deaths between 1979 and 1993, 91 fatalities involved persons engaged in "*instruction, guidance or other professional care*". In plain terms, this means that 6.5 Outdoor Education/ Outdoor Recreation deaths/year occurred when clients were actually paying for their outdoor experience.

Outdoor activity providers are being required to meet higher community expectations in both the delivery of their services and the level of care they provide for their participants. They are also being made increasingly aware of the propensity of society to apportion blame when things do go wrong. Davidson (1996:198) alludes to this increasingly litigious attitude of society when he states;

> "*No one wants to be an under achiever in the longevity stakes. If you die early, present culture tells you that you've been cheated and therefore someone should be to blame*".

The desire of activity providers to be seen as a body of competent professionals through the establishment of national competency standards, coupled with the litigation and outrage issues, have led to a new level of interest in the development of pro-active approaches to risk management. Few would disagree with Fullagar (1996) who suggests that due diligence must be exercised with regards to risk management, through the development of a comprehensive contingency and emergency plan that is capable of rapid implementation and that ensures a prompt response to dangerous situations or injuries. This approach is strongly supported by McArthur (1991:64) who has participated in the management of several fatalities, and suggests

that   "The possibility of a fatality in an adventure program is a reality that must
         be faced. All responsible programs must be completely and adequately
         prepared to deal with this possibility. The tragic effect on so many people
         will never be erased or forgotten".

A detailed analysis of the content of seven existing response protocols occurred prior to the collection of data and it was anticipated that a comprehensive task list and management structure for a fatality response would also be an outcome from the analysis of data.

The Study

To investigate an event such as the impact a fatality in the outdoors would have on the manager through the use of preconceived hypotheses and rules would fail to address the attitudes, feelings and personal impact on the manager who has experienced this phenomenon. Therefore, this research topic demanded a qualitative approach. The researcher concurred with the view expressed by Strauss and Corbin (1990) that it was vital to permit the relevant concepts to emerge from the data through a process of systematic analysis. A qualitative methodology was also appropriate as the area of fatality management from the manager's perspective had not been investigated previously, and the outcomes would be difficult to predict.

The '*grounded theory*' approach defined and developed by Glaser and Strauss is 'to build theory that is faithful to and illuminates the area under study' (Strauss and Corbin,1990:24). This largely inductive approach used various forms of coding to reduce and analyse the material collected and led to the development of theoretical propositions that are grounded in the data.

Data Collection Instruments and Procedures

The modes of data collection included a questionnaire, a time ordered matrix, an in-depth interview and additional supporting documentation provided by the respondent or the relevant Coroner.

Questionnaire

This was a total of three pages in length, and included sections pertaining to the accident, the deceased, the fatality manager and the availability of supporting data. This was sent to each respondent and returned by post to the researcher prior to the interview. Examination of these documents enabled the researcher to have a greater understanding of the events leading up to the management phase and to adopt a more sensitive approach during each interview.

Time Ordered Matrix

In an attempt to display time linked phenomena that were only part of the bigger 'event' of managing the fatality, a time ordered matrix was designed based on the methodology presented by Miles and Huberman (1994). Each matrix was completed prior to the interview for examination by the researcher, and proved helpful in guiding the direction of the interview. This document was used to record the exact chronological sequence of events and all the significant individuals or groups that were involved. The researcher who was concerned for the psychological welfare of the respondents felt that the use of the matrix made the interview less threatening.

Miles and Huberman (1994:178) describe metamatrices as "master charts assembling descriptive data from each of several cases in standard format". A series of metamatrices was generated from the individual time ordered matrix completed by each respondent. Analysis by the researcher provided the opportunity to identify patterns in relation to the occurrence of events, the number of people interacting with the manager at a particular time, and the comparative significance of individuals and groups in relation to the fatality manager.

In-depth Interviews
In view of the sensitive nature of the topic, the researcher was acutely aware of the potential psychological danger to which each respondent could be exposed. The interview technique was considered to be of critical importance and the writings of Kvale (1996), Rubin and Rubin (1995) and Minichiello, Aroni, Timewell and Alexander (1995) were consulted to determine the best approach. Strategies suggested by McCosker (1994:303) including allowing the respondent to choose the location to remove any perceived power differential, or taking time out midway through the interview to provide support or a psychological break were adopted. The time ordered matrix was a further strategy which enabled each respondent to 'tell their story' with minimal prompting. It was a method of guiding the discussion and permitted the researcher to probe potential lines of thought that emerged.

Supporting Documentation
Copies of official statements made to Police, newspaper clippings, the findings of Coronial Inquests and a press release were examples of documentation provided willingly by the respondents. Reading of this data prior to each interview assisted the researcher to provide prompting questions to assist the respondent if he/she was having difficulty remembering specific details.

This data was also helpful in determining if the perceived importance of some events or players had changed over time. Understandably, the first 24 hours after the accident are chaotic and documents such as official statements made to the Police served to confirm the exact timing and sequence of events and interactions with significant individuals. This data also proved useful when trying to accurately construct the metamatrices. Where a coronial inquiry had been conducted but the respondent was not in possession of the report, it was sought directly from the Coroners Office in the relevant State.

The Sample
A purposive sample involving six respondents who have managed single outdoor fatalities was used in this study. This type of sampling satisfies the three conditions suggested by Neuman (1997) for an appropriate approach. Firstly, through a variety of corroborating sources, especially rich and informative raw data has been gained. Secondly, the managers of outdoor fatalities could be considered to be a specialised group that is not easily accessed. Thirdly, this study presented a unique series of case studies that permitted in-depth investigation.

Initially it was assumed that it would be a difficult task finding a suitable number of respondents, however a snowballing effect broadened the number of possible participants and within a week of commencing the search, six respondents had agreed to take part. A further interesting and significant observation was the fact that the respondents were from diverse employment backgrounds and that the case studies would involve an assortment of outdoor pursuits.

The sample consisted of one woman and five men currently residing within Victoria and New South Wales, who at the time of undertaking the role of a fatality manager, were between 22 and 44 years of age. Of the six managers, five would be classified as professionals in relation to the

provision of outdoor activities, while the remaining manager would be classified as a semi-professional. Although there are some who would be critical of the apparent gender imbalance, it is in line with recent studies such as the one conducted by McIntyre(1991) that point to comparatively low levels of participation in outdoor pursuits by women.

The six case studies involved victims that ranged from 11 to 22 years of age (5 Male, 1 Female) that were involved in a variety of programmed activities that included orienteering, camping, whitewater kayaking and rafting.

Limitations
It would not be practical in terms of time, cost or energy to analyse the thoughts of all the fatality managers who fit the criteria of this study. Brookes'(2002/3) recent research has highlighted the number of potential case studies that could have been investigated however it was felt that a sample group of 6 would be adequate. A small purposive sample can be seen as a limitation, however the findings were never intended to be a general representation of the views of all of those who have managed a fatality in the outdoors. The intent of the research was to highlight the potential impact that the management task can inflict on a manager and to suggest strategies that others may elect to adopt in the future.

In some cases, managers were aware that colleagues were participating in the study and this could be considered by some to be a limitation. In response, it can be said that all interviews were conducted on a one-to-one basis, so no manager could have been influenced by the physical presence of another manager, and all were aware that the data was to be treated confidentially. Although some of the managers knew each other, their geographic location and/or differing roles within the outdoor profession would tend to preclude any collusion, and no evidence supporting this potential limitation was determined.

There are obviously cases where a fatality has had a more significant negative impact on the manager than the cases included in this study, and the researcher acknowledges the possibility that only managers who generally felt positive about their response to the fatality chose to participate. It may be that the involvement of 'negative respondents' would have made a more representative sample, however the potential psychological risk for both the respondent and researcher would have been greater.

A further potential limitation relates to the truthfulness and accuracy of the information provided by the respondents. The researcher acknowledges that the human perception of reality changes over time and that details can be forgotten. The use of police statements, coronial reports and media clippings as methods of triangulation served to provide a more accurate chronology and view of the management process, and it was felt that the respondents were open and honest in their interaction with the researcher. Most interviews concluded with the expressed hope by the respondent that through participation, they had contributed positively to the welfare of future fatality managers.

The role of the researcher could also be perceived as a limitation in that recognised and subconscious bias is virtually impossible to eliminate when the study is subjective in nature. Fox (1996:51) suggests that subjective bias "could be infiltrated into the study through the researcher controlling the design of the experience, selecting the sample, choosing the methods of collecting and analysis of data, having selected particular quotes from the data to support the analysis results and discussing the findings". The involvement of critical friends, the use of triangulating data, the ability to reflect on the data, and the analysis of themes that had emerged only through

the process of induction were all strategies employed to reduce potential researcher bias.

A final limitation that is pertinent relates to a factor identified by a potential respondent who felt that to reduce a fatality and its subsequent management to words would not be right. Written expression has the potential to remove the feelings, emotions and meaning of a significant life-changing event such as the management of a fatality.

Results

Time ordered matrix results

Analysis of the time ordered matrix that was generated by each respondent and supported by corroborating evidence in the form of newspaper articles and coronial reports, led to the development of a metamatrix displayed as Figure 1. It is an attempt to plot the timing and duration of the direct interaction between the fatality manager and those people who have been identified as 'significant individuals or groups' from the time that it was determined that the victim had died. In considering these interactions, the reader needs to be conscious of the varying time scale used to cover the 2 year period after the accident. A series of brief summaries provides an insight into the nature of these interactions
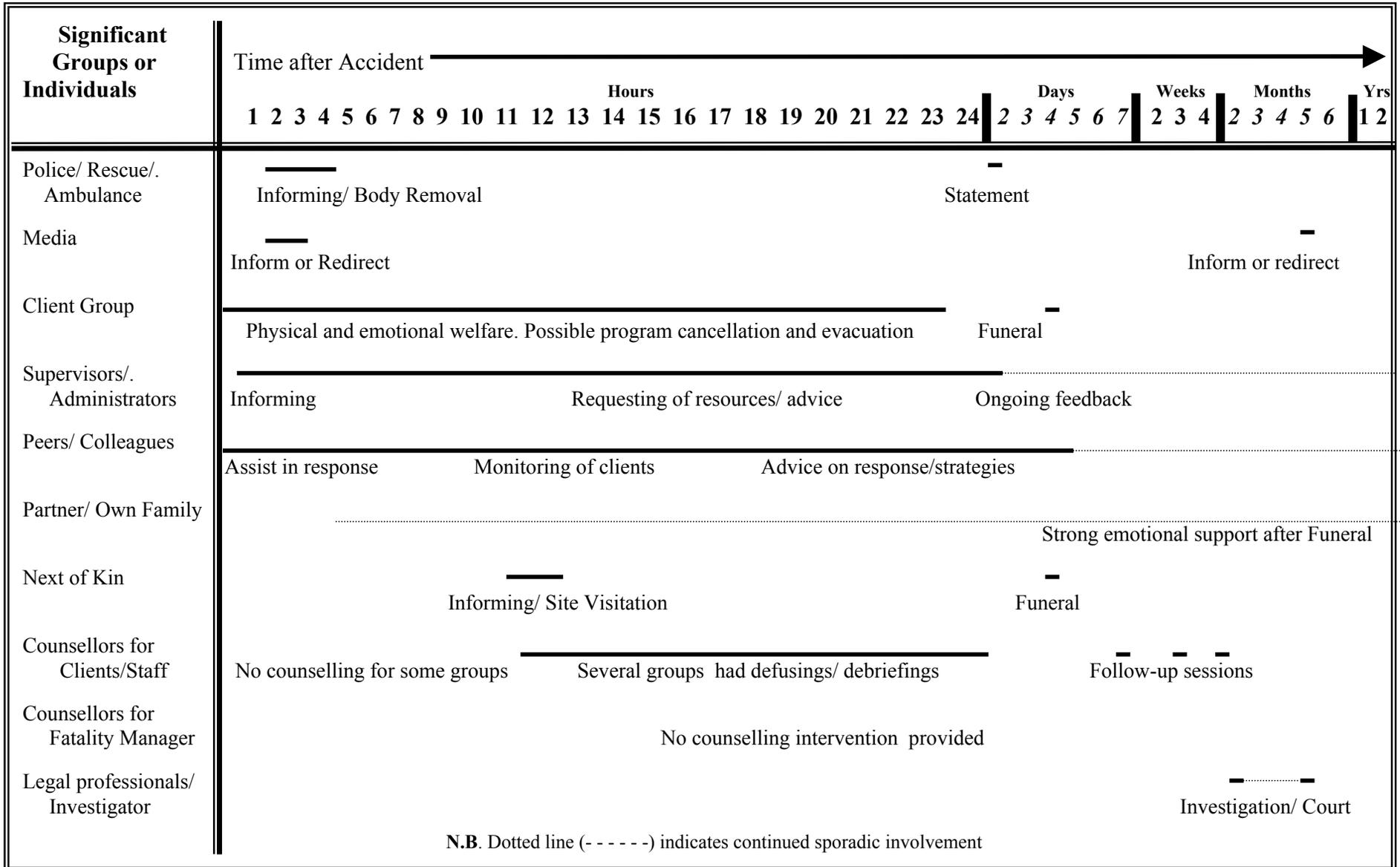
Significant Groups or Individuals

Time after Accident →

	Hours	Days	Weeks	Months	Yrs
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	2 3 4 5 6 7	2 3 4	2 3 4 5 6	1 2

Police/ Rescue/. Ambulance — Informing/ Body Removal · Statement

Media — Inform or Redirect · Inform or redirect

Client Group — Physical and emotional welfare. Possible program cancellation and evacuation · Funeral

Supervisors/. Administrators — Informing · Requesting of resources/ advice · Ongoing feedback

Peers/ Colleagues — Assist in response · Monitoring of clients · Advice on response/strategies

Partner/ Own Family — Strong emotional support after Funeral

Next of Kin — Informing/ Site Visitation · Funeral

Counsellors for Clients/Staff — No counselling for some groups · Several groups had defusings/ debriefings · Follow-up sessions

Counsellors for Fatality Manager — No counselling intervention provided

Legal professionals/ Investigator — Investigation/ Court

N.B. Dotted line (- - - - - -) indicates continued sporadic involvement

Figure 1. Typical Interaction between Fatality Manager and Significant Individuals/ Groups

Police/ Rescue/ Medical Services
It would seem that the interaction with these emergency service groups is usually completed with the first 24 hours and that they are not involved at any one time for more than a few hours. There appears to be a pattern in that the Police will generally visit the site quite soon after the accident and the later interaction is in the form of formalised information gathering through written statements. The shortness of these periods of interaction is probably an indication of the various demands placed on these highly trained personnel by society.

Media
The duration of interaction with media personnel is generally short and concluded within the first 24 hours. Often they attend the site within the first 4 hours when the fatality manager is under the greatest stress. In relation to reporting, it appears the accident is only newsworthy to the television and radio networks for the first 24 hours, to State newspapers for 1-2 days, and for one edition of the local weekly newspaper close to the site of the accident or the home of the deceased. A factor limiting the involvement of major media services appears to be the distance between the site of the accident and the operational bases of major news services. In the fatalities managed by 2 of the respondents where this occurred, the flying time by helicopter from a capital city to the site was under 30 minutes. The decision to issue a press statement will almost guarantee media attention and that the duration of their involvement will be extended.

Client Group
It would appear that the level of interaction is dependent on the relationship that exists between the activity provider and the client group. Interaction with the client group generally ceased within 24 hours as the fatality manager became involved in the multitude of tasks and other personnel took over a 'care' role.

Supervisors/ Administration
The interaction appears to be initiated within the first 24 hours and is probably related to the fatality manager both informing his/her supervisors of the accident and the requesting of resources to help manage the situation. It would seem that the level of involvement with supervisors/ administration is directly related to the fatality manager's position in the management hierarchy of the organisation.

Peers/ Colleagues
The significant level of interaction that these individuals have in working with, and supporting the fatality manager should not be under-rated. It is quite obvious that the intensity of the interaction changes after approximately 5 days and coincides with the occurrence of the funeral. The support and assistance does not stop but is reduced as all parties involved tend to return to the normal duties of life. The potential impact on casual/part time staff is worthy of mention as these people sometimes do not have a significant peer/colleague network.

Partner/ Own Family
Just as the peers and colleagues play a significant role, the partner and/or family members also are important to the psychological welfare of the fatality manager. These people are not involved in the high priority tasks of management such as documentation, evacuations, etc but rather are available as 'counsellors' and 'comforters' often after hours when the pace has lessened. The consistency of their availability mirrors the interaction with colleagues however the duration of interaction is much longer.

Next of Kin

The interaction with the Next of Kin is typically short in duration and is generally associated with explaining the specific details of the accident and is often carried out at the accident site. The other point of contact is after the funeral service where condolences are passed on to the immediate family. The interaction between two fatality managers and the Next of Kin continued to be maintained due to a family connection and/or the conscious desire to provide a greater level of response than would be considered normal.

Counsellors for Clients/ Staff

When a decision to provide counselling is provided, it is generally instigated within the first 24 hours. The types of counsellors involved ranged from clergy and school counsellors to professional trauma counsellors with tertiary qualifications. It is significant to note that there was a lack of any sort of counselling involvement in 3 of the 6 cases being studied. This could indicate a degree of ignorance with regards to the potential benefits for clients/ staff and possibly a lack of understanding of the principle of 'Duty of Care' and current Occupational Health and Safety legislation.

Counsellor for Fatality Manager

While none of the respondents actually was provided with specialist counselling, most commented that they felt it would have been beneficial. This finding indicates that some organisations are failing to either consider the psychological needs of the fatality manager and/ or attempt to address those needs appropriately. Several of the respondents were responsible for arranging the counselling for staff, but did not have the opportunity to attend the sessions themselves due to management pressures.

Legal-Solicitors/ Investigators/ Coronial Inquest

It is apparent that the involvement of legal parties is directly related to the decision by the Coroner to hold an inquest. The timing of the inquest varies, though it is generally conducted within 6 months of the accident. In those organisations where the fatality manager was a permanent member of staff, their employer engaged legal representation. This lead to further documentation, site visits and coaching in techniques to respond to 'probing' styles of questioning.

Summary

The metamatrx that has been developed is significant in that no researchers have previously tried to timeframe the events following a fatality from the perspective of the fatality manager. It is readily apparent that each management sequence is unique and that the sample is not large enough to construct a standard or typical time line of the events and interactions that will occur.

However, it can be said that the fatality manager is placed under enormous psychological pressure within the first 24 hours in having to deal with the multitude of tasks, his/her own grief, and communicating with various individuals or groups. Peers and colleagues play a significant role in assisting and supporting this person until the time of the funeral, at which point the partner and family generally become the primary sources of psychological support. Failure to provide professional counselling for the fatality manager places greater onus on family and peers, and potentially increases the degree of impact and length of the recovery period.

Interview results

The transcripts of the six taped interviews needed to be 'interpreted' so as to reflect the respondent's views while at the same time excluding any bias on the part of the researcher. The

processes of open, axial and selective coding were adopted, and throughout the coding process, the researcher moved between inductive and deductive modes of thinking. Categories continued to emerge and the analysis stage took several months with much questioning, evaluation and modification occurring. The outcomes of this qualitative analysis included-

      a. categories and sub categories of constraints.
      b. A comprehensive list of management tasks that need to be addressed in a Fatality Management Protocol.
      c. A model that locates fatality management within the risk management process.

Constraints

Each of the six respondents expressed concerns and raised issues relating to how their ability to respond to the fatality was hindered or restrained, and each category identified will be discussed in the following text.

Incomplete Tasks

Being unable to release the body of the deceased that was trapped in a powerful rapid, a female respondent felt that part of her inability to respond effectively was related to her gender. At the time of the research interview, another respondent felt that he had not yet talked at length with the Next of Kin about some issues, despite the fatal accident having occurred almost years before. The physical and emotional aspects of management that the manager felt he/she had failed to complete, directly influenced the manager's own perception of personal competence and degree of resolution.

Relationship to Victim

The degree of psychological impact on the manager appears to be substantially increased if the victim had more than a client/instructor relationship with the fatality manager prior to the accident, and this finding is supported by the studies of Bamford (1986) and van der Kolk (1990).

Location of Fatality

Despite the advent of mobile phones, there are still large sections of Australia that do not permit access to the networks of service providers. Activity managers often select wilderness locations to conduct their programs for the feelings of isolation and self-reliance that can be gained, however this factor can work against the fatality manager should an accidental death occur.

The sheer size of the client group can also work against the manager when news of the accident is communicated by the media. This effectively forces the manager to commit to the task of informing all parents/guardians of clients that are of school age, and can be a tedious and time-consuming task. Although it is not essential that the fatality manager supervises each call, the process monopolises phone lines that could be used for more essential communication. Delays in response due to the location of the accident also potentially increase the psychological impact of the tragedy.

Time of Fatality

Significantly, four of the six fatalities examined in this study occurred late in the afternoon or at night. Accidents at this time of day are often attributed to fatigue or low levels of blood sugar, which can in turn influence the quality of judgments made by both leaders and participants. Haddock (1993:34) also suggests that "risk shift" including aspects such as "get-home-itis" may also be contributing factors. The onset of fatigue late in the day may also limit the manager's ability to think clearly and respond efficiently and appropriately, and is further reason for supporting the development of a comprehensive experience plan and fatality management protocol.

This timing may also be significant in potentially reducing the involvement of media personnel, as it may prove impossible for them to reach the scene and file their story/ feature in time for the evening news. Unless a press release has been distributed, the likelihood of the media filing a story on the day subsequent to the accident appears to be significantly reduced. Therefore, the decision on whether or not to be pro-active by contacting the media, may need to take into account the time of day when the fatal accident occurs and the probability of media attendance.

Similarly, the lateness of the hour may prevent the fatality manager from gaining access to staff and administrators who can assist in responding because they have already left their place of employment to travel home. It may also make access to some counselling providers more difficult, although most professional organisations with whom arrangements have been pre-planned, will provide a mobile number to client groups that can be used to establish after hours contact.

Fatality Manager's Psychological State
Obviously each fatality is unique, as is the number of variables that will need to be addressed, yet the manager is expected to perform in a thorough and professional manner in spite of the emotional impact the death of a client or colleague is having on him/her. Two respondents spoke of the sense of failure they experienced in that their attempts at rescue had been unsuccessful. The grief of each of these managers was heightened by the relationship that had existed prior to the accident, and probably invoked feelings of doubt and guilt that were beyond normally expected levels.

Although it did not emerge as a factor during the review of the current literature, it appears that some managers were involved in processing concurrent psychological issues during the fatality management process. While these issues may have been pushed aside or ignored for the critical first 24 hours, this strategy could not be adopted for an extended period of time. These sources of psychological stress are significant, limit the manager's ability to cope, and could also contribute to physiological effects such as hypertension, headaches, or sleep disturbances (Lamers:1982).

The need to maintain a level of composure and control in dealing with clients, colleagues/peers and staff was perceived to be very important. This response is possibly related to the gender of the fatality manager, and the cultural expectation that "real men don't cry" or display their emotions. In view of the fact that the majority of those working in positions of management in outdoor programs are male, this finding is significant. For this reason, it is imperative that the manager is provided opportunities to interact with personnel who have been trained in Critical Incident Stress Debriefing (CISD) techniques.

It is only natural that the fatality manager will have negative perceptions of some of the groups that choose to become involved in response to the accident. Concern as to how the general public will perceive the organisation and individuals involved in response to media coverage, and of the possibility of a Coronial Inquest and subsequent litigation only heighten the manager's level of anxiety and stress. Should an Inquest be deemed necessary by the Coroner, the manager's level of doubt and guilt may be deepened and as Raphael (1992) suggests, lead to secondary traumatisation through the revisiting of details and events six months after the tragedy. A Coronial Inquest will generally extend the period of recovery, especially if the media are looking for someone to blame for the accidental death, as is sometimes the case.

Similarly, the actions of voyeurs who want to take photographs and/or know all the details, or clients who may have contributed to the accident, can evoke strong feelings of anger and

resentment. Fortunately the Police will usually insist that spectators keep a reasonable distance from the accident site, and that the body is shielded from public view.

Nature of Management Task
The magnitude of the task is not fully appreciated prior to the fatality, and so comes as a shock to many. The multiple demands in trying to respond to the requests and needs of so many groups results in a very significant level of stress. The relative importance of making an adequate response appears to take priority over all other normal duties to the point where they are often ignored or forgotten. This could have catastrophic consequences for some organisations, especially with regards to recruitment and aspects of finance. Small commercial, outdoor adventure organisations operating on limited finances and with only a few staff, will find it extremely difficult to maintain any semblance of a normal program and could potentially be forced to close the business in the long term. The fatality manager is so pivotal to the whole response process, yet his/ her needs are generally ignored. As a result, peers/ colleagues and the manager's own family are forced to become the primary emotional care providers.

Lack of Resources
The lack of an effective communication system accessible to the fatality manager was viewed as a significant constraint for several of the respondents, and their comments were in relation to the following issues:
a.   the lack of provision of some form of effective emergency communication.
b.   the lack of a system that was reliable, secure, and of sufficient size to cope with numerous demands.
The failure to provide some form of emergency communication could effectively increase the potential for the development of Post Traumatic Stress Disorder in some of those who have been severely traumatised. This study has revealed that out of the six case studies, counselling support was only provided for two client groups and one staff group. As has already been noted, none of the fatality managers was even offered the option of counselling assistance.

The failure to provide specialist intervention is an indication that fatality managers and those in administrative positions may not have an adequate understanding of the severity of psychological impact that a traumatic death can cause. The potential for some clients, staff and the fatality manager to develop Post Traumatic Stress Disorder, along with the fear of possible litigation, should be enough incentive to invite those with Critical Incident Stress Debriefing skills to become part of the fatality management response. The potential cost of providing this service may be significant, but the duty of care owed to those effected must be considered as one of the highest priorities of the fatality management response.

A lack of administrative support to generate the necessary documentation needed to respond effectively constrained some fatality managers. Failure to be provided with this support only served to increase levels of stress and frustration.

Although some of the respondents had a degree of understanding as to how they should manage aspects of the response to a fatality, none had a guiding document or protocol. The trial and error methods indicative of a confused or disorganised approach (Haddock:1993) would appear to fit some aspects of the case studies contained in this research. Each of the respondents would agree that a document that had actually guided the manager to address potential issues prior to the accident would have been valuable.

The Fatality Management Model

The model is displayed in the form of a flow chart (Figure 2) and attempts to place the research findings in a relational form to the generally accepted process of risk management for outdoor activities. The response of the fatality manager to the individuals/ groups identified in the study and the numerous tasks this interaction represents highlights the importance of maintaining effective communication.
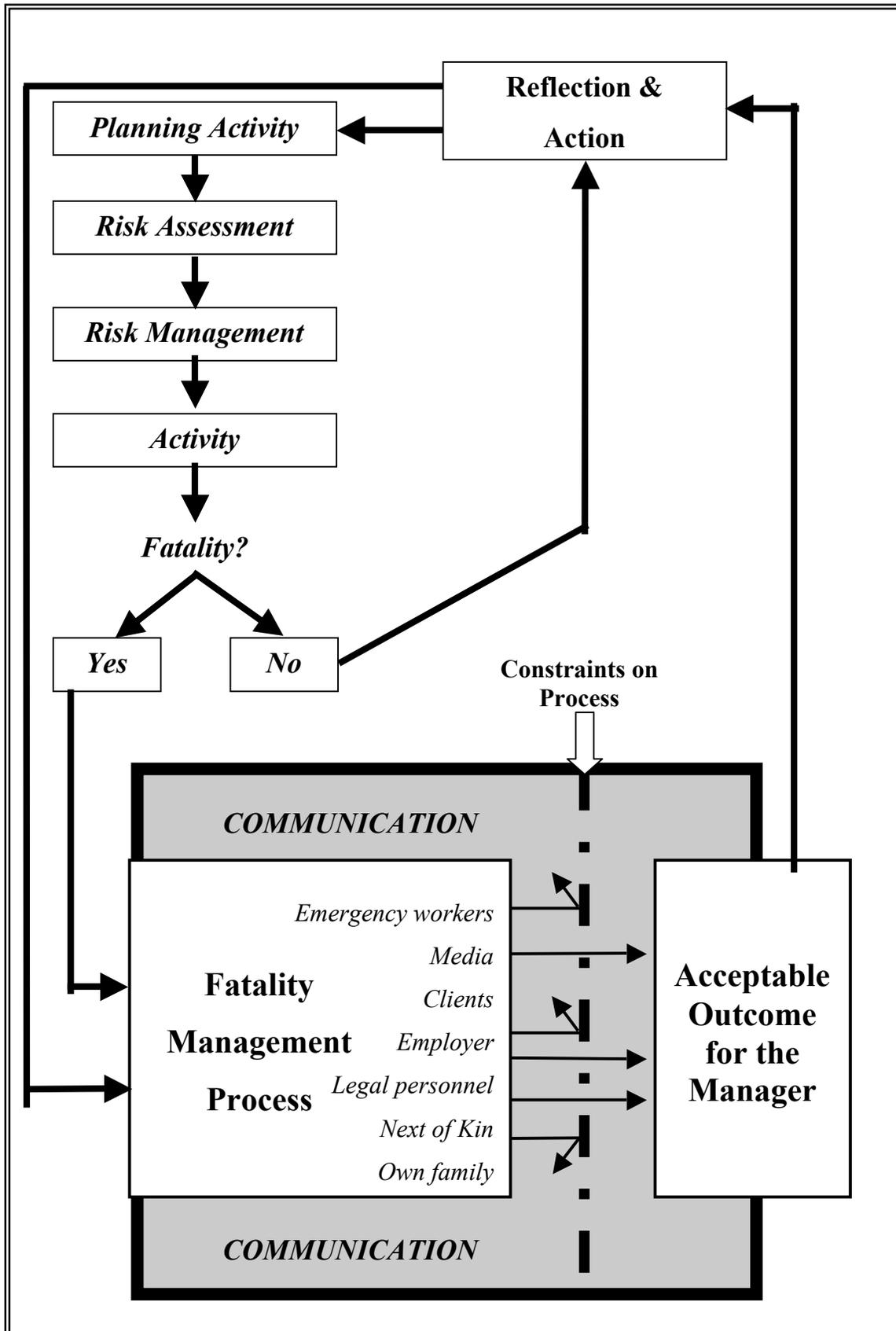
Figure 2 Fatality Management Model

Particularly important is how the *constraints* can act as barriers in preventing or slowing down the completion of some of the tasks or phases of the management process. The extent to which they are overcome or avoided through the use of an established management protocol will ultimately determine the duration and degree of impact on the manager and the overall quality of the response.

The fatality managed by the respondent Paul may be useful as an illustration of the effect of constraints. Paul was in the unique situation of managing the response to the accidental death of his friend's son. He had very limited access to secure and effective modes of communication, was several hundred kilometres from his support network, and was in the process of separating from his spouse. Following the accident, he was so shocked and overwhelmed that he felt unable to communicate with the media, yet he allowed a news team to follow him by car for several hours. At no time was he or any members of his group provided with access to trained trauma counsellors. Each of these factors constrained his ability to respond to the situation, and so influenced the quality of the outcome.

In hindsight, attempts could have been made to provide an alternative manager or arrange for several competent individuals to be on-site to support Paul. The effectiveness of emergency communication could have been given greater consideration prior to the trip. Subsequent to the accident, attempts could have been made to gain access to several phone lines at a local business or school. He could also have been instructed to direct all media inquiries to the school principal and adopt a 'no comment' stance to reduce his level of anxiety. Counselling intervention could also have been made available to all those traumatically effected when the group returned to the school approximately 24 hours after the accident.

What is deemed to be an 'acceptable outcome' will be subjective and evaluated differently by the individuals directly involved in the response (eg. Fatality manager, colleagues) and those external to the process (eg. Media, general public). However the focus is on achieving a response that the fatality manager felt was well managed, and was primarily focussed on the physical and emotional welfare of <u>all</u> the individuals who were traumatically effected by the accident. This appraisal would also take into consideration the level of forward planning that had taken place, as well as the resources that were made available to respond appropriately.

The 'Reflection-Action Loop' indicates that evaluation should occur with regards to the fatality management response that was implemented. It should consider not only negative aspects that need to be addressed but also consider those aspects that were well managed. Reflection on the planning phase that initially preceded activity engagement is also important and could for example, conclude that the risk management strategies that were adopted need to be revised or that alternative sites need to be considered. This reflection will only be valuable if it leads to positive action at both stages of the risk management loop, and should ultimately enable the operators of the adventure activity to work with greater levels of confidence and competence.

Major Features of a Fatality Management Protocol
There can be little doubt that the magnitude of the management task in responding effectively to a fatal accident in an outdoor adventure program is beyond the abilities of one person, and necessitates a coordinated approach using the skills, knowledge and experience of many

competent individuals. To delegate this task to one person and effectively make him/her the focal point of the management response is potentially risking the manager's psychological stability and will limit the quality of the response.

The literature review for this research considered the existing protocols of seven different organizations and ranged from Department of Education guidelines to church based operations and national outdoor activity operators. These have been summarized into Figure 3 that also includes specific items that emerged from the coding process to be categorized as "Management Tasks". The reader should understand that not all of the listed items will apply to all organizations, but that it is an attempt to be as comprehensive as possible.

Management Issues

* Management command structure
* Comprehensive contact list of essential response personnel
# Explicit job descriptions for management personnel including prioritised checklist of tasks to be addressed
* Implementation flowchart
* Documentation checklist
* Review of all activities in operation and adjust priorities
# Administrative support available for documentation
# Contingency funds available to cover response
# Listing of previous fatality managers/industry contacts identified to provide external advice/assistance
* Education of organization personnel (including new/casual staff) of operational procedures

Communication

Internal
Communication flowchart attached to job descriptions of response team members
Instructional staff always have rapid access to emergency communication
* Competent person to control phone system identified
* Possible use of aircraft to communicate with ground party in wilderness location
* Communication to all staff-including those not involved in response

External –General
* Communicate fatality to Police
* Procedure to notify Next of Kin
* Guidelines for interacting with Next of Kin
* On-going liason with Sponsor, Client supervisor
# Method of contacting parents/guardians rapidly is in place
* Sample letter of notification to parents/guardians
* Notification/ liason with legal representative
* Notification/liason with insurance representative
* Establish contact with local emergency services personnel
* Establish contact with relevant land managers

External- Media

* Media spokesperson identified
* Policy to direct all enquiries to media liason spokesperson
* Guidelines for interacting with media
* Log kept of all media and industry contacts
* Potential to use a media release strategy
* Media release-sample
* Possible contact with police to request media ban
* Media interview statement-sample
* Statements for media (eg. Safety record, competence of staff, program background, organization philosophy)

N.B. Those items identified by (#) have resulted directly from this research

Figure 3. Suggested Content for a Comprehensive Fatality Management Protocol

Physical and Psychological Welfare

\# Removal and support of friend/relative/colleague of victim from management process as soon as possible

\# Removal of any personnel from management team who may be under significant stress due to other emotional issues

* Cater for physical needs-first aid, food, shelter, water, rest

* Field support of clients/staff

* Potential to provide relief staff

Counselling Response

* Planned strategy to provide Critical incident Stress Debriefing(CISD) to clients, staff and management team connected to accident/response

\# Tertiary qualified specialist to coordinate counselling response

* Specialist counselling personnel identified

* CISD trained staff members identified as part of response team

* Notes on signs and symptoms of stress/ sudden death/ stages of grief

* Handouts on grief and coping to be distributed at counselling

* Stress management strategies for self and others

* Provision of specialist intervention for clients

\# Faciliatate therapeutic opportunities-eg. Release time, funeral, on-going counselling, anniversary of accident.

* Notes on when manager should seek specialist intervention for him/herself

* Long term monitoring of health of clients/staff-possibly up to 1 year and including pre/post coronial inquest

Review of Response

* Comprehensive Incident report

* Conclusions on causes of accident

* Recommendations to prevent further accidents

* Review management response/ adjust protocol and procedures-Post accident/annually

* Potential to engage independent investigator

* Preparations for coronial inquest/further legal proceedings

N.B. Those items identified by (#) have resulted directly from this research.

Figure 3. Suggested Content for a Comprehensive Fatality Management Protocol

The many aspects of fatality management determined by this study point to the task being extremely complex and demanding. The actions of the media are creating unrealistic perceptions of risk and generating "Public Outrage" (Sandman, Weinstein and Klotz, 1987) with regards to outdoor accidents and specifically fatalities. Coupled with this are the fear of potential litigation, and a greater understanding of the "duty of care". These factors are encouraging many activity providers in the commercial and volunteer outdoor sector to address this often-neglected aspect of risk management.

Recommendations Arising from the Research

This section will include recommendations that relate to individuals and groups working in the outdoor industry and also recreation and outdoor education peak bodies operating at State and National levels. Possible areas for future related research have also been identified.

Recommendations to Potential Fatality Managers/ Outdoor Activity Providers/ Peak Bodies in the Outdoor Education/ Recreation Industry
Program Planning
- Programming/ planning should consider the effectiveness of emergency communication systems currently employed and potential difficulties to effect rescue-evacuation. This may result in the selection of new/alternative sites that can still be used to achieve existing objectives.
- Programming should reflect the increased probability of accidents/ fatalities occurring late in the afternoon.

Protocol Development

- Immediate removal /support of management personnel who may have an emotional attachment to the deceased, or any members who may already be under significant psychological stress. These individuals will need to be closely monitored, but some could potentially be responsible for liasing with the Next of Kin.
- Activity providers establish a reserve within each yearly operating budget to address potential response costs (Personnel, transport, counselling, release time, legal advice, etc)
- Those organisations that have already developed a Fatality Management/Critical Incident Response protocol review its content in the light of the findings of this study and closely examine the items listed in Figure 3 for relevance.
- All organisations offering outdoor adventure activities should develop a Fatality Management/Critical Incident Protocol. This document should be comprehensive and identify strategies for dealing with the media, management tasks and structure, communication, and the health and welfare of all individuals that have been traumatically affected, including those who are employed on a casual or volunteer basis. All aspects of the response must be capable of implementation in less than 24 hours, and preferably less than 12 hours.

Fatality Management/ Critical Incident Management
- The specialist intervention personnel/organisation that will coordinate the program of intervention needs to be clearly identified and readily accessible.
- A database of individuals who work in the outdoor industry that consent to be contacted in the event of a fatal outdoor accident could become a useful resource, especially for small organisations or those who have a large number of volunteer personnel. This database could include those who

have previously managed a fatality, and individuals who have completed CISD training and would be available to assist if called upon. This database would possibly be most useful if established on a State level.

- Where possible, a Team Management approach should be adopted to lessen the impact, allow individuals to focus on particular tasks and generally organise a quicker and more comprehensive response. The members of the Management Team must be highly accessible during the course of their normal employment.

- The monitoring of affected personnel in the time following the fatal accident and after the work of counsellors is completed, will largely become the responsibility of family and peers. These groups should particularly look for signs and symptoms that indicate the increased use of alcohol and prescription or illicit drugs, and emotional disturbance. Those individuals who have no family members nearby, are employed on a casual or volunteer basis, or are single, may feel they have less support and will generally require closer monitoring.

Training/Education
- The issue of Fatality Management needs to be addressed at State and National Conferences and workshops to raise awareness levels regarding the potential impacts of fatal accidents during adventure programs. Some of the specific areas of content should include: Management Strategies, Understanding Grief and Trauma (especially for males), Intervention Approaches, and Interacting with the Media, Writing a Critical Incident Response Strategy.

- Individuals/ organisations should encourage staff to participate in short course training (2 days) to enable them to deliver Critical Incident Stress Debriefing (CISD). This professional development would also serve to increase the level of awareness in the Industry, and could be conducted following the State or National Outdoor conferences.

- Institutions providing vocational education/ tertiary education for those who will work in the outdoor industry, especially at management levels, should adequately address the topic of Critical Incident Response in their course content.

- Managers/administrators need to be made more aware of their legal obligations to staff (permanent, casual and volunteer) and clients with regards to the Occupational Health and Safety Act of the State in which they operate. They should also closely examine how far their responsibilities extend with regards to the 'duty of care'. They should understand that the failure to provide counselling for those traumatically affected could result in serious psychological problems and place management in a position of high exposure to litigation.

- The establishment of contacts with the major news organisations to create positive links. This could lead to the more accurate representation of outdoor activities containing elements of risk, especially if accurate statistics on low levels of accidents and fatalities emerge from databases currently under development. Reporting that is more empathetic and factually correct would also be a desirable outcome if these industry links could be established.

Monitoring/ Feedback
- The practice of incident/accident reporting must be strongly encouraged within organisations and on a national level. While some may see this activity as a negative reflection on their level of instructional competence, it is a vital indicator and guide to improve practice and prevent future accidents. Analysis of the annual statistics could also provide direction for further professional development workshops or conference topics, and may even influence the content of programs being offered.

- The yearly publication of statistics of incidents/accidents and fatalities relevant to the outdoor industry within Australia as databases continue to come on-line would be very useful. The Australian Journal of Outdoor Education or State industry publications could be suitable for disseminating this data. Representation could be made through Outdoor Council of Australia

for access to statistical data from the National Coroners Information Service database that is currently being implemented.
- Independent specialists could be contracted to conduct auditing of the Critical Incident Response Strategies that have been developed, or that have been implemented.

Recommendations for Future Research
- Since the fear of litigation appears to be one of the primary sources of motivation for organisations/ individuals to improve their level of risk management, research could be conducted to determine how significant the insurance payouts/ settlements in the outdoor adventure industry are, and perhaps determine any trends.
- A longitudinal study into the career pathways taken by fatality managers following a fatal accident, to determine whether the skills and knowledge of these individuals is being lost from the outdoor industry.
- Since multiple fatalities have occurred in recent years in Australia and New Zealand. Research could focus on the outcomes for the managers of these events and determine how the response varied from that needed to respond to a single fatality.

Conclusion

It is to be hoped that the reader has gained a deeper appreciation of the complex issues that are involved in the management of a fatal accident during an adventure activity. Environmental factors, the initial shock of seeing someone die, and the varying levels of skill at responding to such an emergency are but a few of the factors which will have a bearing on the quality of the outcome for the fatality manger. The reader is encouraged to process the findings that have emerged from the experience of the six fatality managers in this study, and then to act on his/her convictions to thoroughly prepare to respond to a "Death by Adventure".

References

Bamford, D. (1986). The effect of disasters, grief and stress on national parks and reserves staff. *Report, National Parks and Reserves District and Chief Ranger Conference,* Wellington, New Zealand.

Brookes, A. (2002). Outdoor education fatalities in Australia 1960-2002. Part 1: Summary of incidents and introduction to fatality analysis. Journal of the Australian Outdoor Education Council Inc. *7*(1) 20 - 35.

Davidson, G. (1996). Managing risks in the outdoors. *Proceedings of the Risk Management In the Outdoors National Conference, May 1996.* (pp.195-202). Launceston, Tasmania: Outdoor Recreation Council of Australia.

Fox, R. (1996). Women, nature and spirituality: An exploration into women's wilderness experience. Masters Thesis, Griffith University, Brisbane, Australia.

Fullagar, I. (1996). Risk management in recreation and the law. *Proceedings of the Risk Management In the Outdoors National Conference. May 1996.* (pp 97-116). Launceston, Australia: Outdoor Recreation Council of Australia.

Haddock, C. (1993). Managing risks in outdoor activities. Wellington, NZ: New

Zealand Mountain Safety Council.

Kvale, S. (1996). Interviews- An introduction to qualitative research interviewing. Thousand Oaks, California: Sage Publications.

Lamers, W. (1982). Death, dying and bereavement. Symposium, Stockholm. In Wilkerson, J.A.(ed) (1985). *Medicine for Mountaineers (3rd Edition).* Seattle: The Mountaineers.

McArthur, A. (1991). Fatalities in adventure programs- Managing the aftermath. *Proceedings of the 7th National Outdoor Education Conference* (pp 62 −67). Melbourne, Australia: Australian Outdoor Education Association.

McIntyre, N. (1991). Why do people rock climb? *Australian Journal of Leisure and Recreation.* 1(3), 33-37.

Miles, M.B. & Huberman, A.M. (1994). Qualitative data analysis: An expanded source book (Second edition). Beverley Hills, CA: Sage Publications.

Minichiello, V., Aroni, R., Timewell, E. and Alexander, L. (1995). In-depth interviewing: Researching people. Sydney, Australia: Longman Cheshire.

McCosker, H.(1994). 'Phenomenographic interview applied to women and domestic violence: Potential conflict of interest.' *Proceedings of the Phenomography: Philosophy and Practice Conference.* (pp 299-305). Brisbane, Australia.

Neuman, W.L. (1997). Social research methods: Qualitative and quantitative approaches (3rd Edition). Sydney, Australia: Allwyn and Bacon.

New Zealand Mountain Safety Council. (1994). Survey of fatalities occurring in outdoor recreation- Part 1: Indexes and summaries. Wellington, NZ.: NZMSC.

Raphael, B. (1992). The victim, the trauma, the justice-10th Annual Oration. Adelaide, Australia: South Australian Justice Administration Foundation.

Rubin, H and Rubin, I. (1995). Qualitative interviewing-The art of hearing data. Thousand Oaks, CA: Sage Publications.

Sandman, P.M., Weinstein, N.D., & Klotz, M.L. (1987). Public response to the risk from geological radon. *Journal of Communication.* 37(3), 93-108, cited in Brown, T. (1998). Risk management: Research needs and status report. *Journal of Experiential Education.* 21(2), 71-85.

Strauss, A. and Corbin, J. (1990). Basics of qualitative research-Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications.

van der Kolk, B. (1990) Post-traumatic stress disorder In Braverman, S. (1990) Understanding psychological trauma. CVA Media Inc.

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