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Integrating Disaster Family Assistance into Transportation Education and Training

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ABSTRACT

The transportation industry has entered a new era where as professionals and educators we need to address transportation disasters not only from the technical side, but from the human services side as well. The history of the transportation industry shows technical expertise and efficiency as it relates to the investigation of transportation disasters (accidents/incidents), however the human services component has always been left to the side with the belief that these issues will be taken care of by another entity. The Aviation Disaster Family Assistance Act of 1996, the Foreign Air Carrier Family Support Act of 1997, and recent legislation for the Rail Passenger Family Assistance Act of 2003, indicates a change for transportation professionals relating to the human issues component of transportation disasters. As an industry we must address this component effectively or face legal ramifications and public ridicule.

INTRODUCTION

During the past six months, a Purdue researcher has been conducting informal needs assessments with major air carriers, major airport managers, the National Transportation Safety Board (NTSB), and the American Red Cross to address the emerging need for family assistance curriculum in academic programs and industry training. To date an overwhelming favorable response has been found related to the integration family assistance education into curriculum and training, in an effort to provide proactive plans and understanding for transportation professionals. Based on these assessments, the areas of greatest concern are: understanding the requirements of the legislation, establishing effective educational programs to address human issues in a transportation disaster, and establishing family assistance as a key component of transportation disaster plans. In this paper, the findings of the assessments will be shared along with the process Purdue is implementing to address this emerging area of study in the transportation industry. In addition, the author will discuss the benefits of this curriculum and training for transportation professionals and educators as it relates to not only our customers, but our employees as well.

CURRENT SITUATION

When most people think of a transportation disaster, they visualize dramatic and horrifying photographs, and news reel footage of the devastation and overwhelming grief. The first responders and accident investigators working the accident scene in an effort to locate survivors, recover evidence, and later victim's personal effects in the aftermath of the disaster, are easily recognized by the letters on their uniforms such as NYFD, NTSB, FBI, etc. The other familiar scenes imprinted on the public's mind are the faces and emotional reactions of the family and friends waiting for word on the fate of their loved one(s) who were passengers on the fated trip.

After the initial shock, and search and rescue efforts are performed, the focus turns to the investigation in the effort to determine the potential cause(s) of the accident. When the investigative professionals take over, we know their technical expertise will be used to identify answers as quickly and efficiently as possible. Based on our experience (transportation professionals and general public) with past transportation accidents, we are confident that the National Transportation Safety Board (NTSB) has enlisted the appropriate experts to perform all necessary aspects of the investigation.

As transportation professionals and educators, we excel on the technical side of the investigation process, and we continue to progress becoming more actuate with each passing year. However, the other side of the accident equation, the human side, has become lost in shuffle. An accident is not just about the what and how it occurred, but the effects on the people involved from the victims to their friends and family, to the employees of the transportation company, to the employees of the manufacturers of transportation items, and to the general public (the extent of which is determine by the media coverage an incident receives).

The latest challenge facing transportation professionals and educators is to provide students/employees with the tools, processes, and programs necessary to deal with the human side of the accident equation. The human side of the equation must take into account the traumatic emotional aftermath of a transportation disaster which reaches farther than just the accident scene and its investigation.

In 1996, the Federal government began the process of bringing the human side of the accident equation to the forefront for the transportation industry and general public. On September 9, 1996, a Presidential Executive Memorandum was issued in which President Clinton designated the NTSB as the coordinator of Federal services for families of major transportation disasters in the United States.

This memorandum was followed by the passage of the Aviation Disaster Family Assistance Act of 1996 which gave the NTSB the additional responsibility of aiding the families and victims of aircraft accidents. This piece of legislation has created a snowball effect in the area of transportation disaster family assistance. In 1997, the Foreign Air Carrier Family Support Act was passed by Congress, and now the Rail Passenger Family Assistance Act of 2003 is the latest piece of federal legislation to tackle the issues of family assistance for transportation disaster victims and their families.

These pieces of legislation are indicators to transportation educators and professionals that we can no longer turn a blind eye to the emotional elements of the human side of a transportation accident. As an industry, both professionals and educators, we must address these issues and prepare our students/employees for the effects of a transportation accident on people, which include themselves as they work with the victims and/or their families.

INFORMAL NEEDS ASSESSMENT

The human elements of transportation accidents have moved to the forefront in fields of transportation and psychology within recent years due to the effects of mass electronic media, including the Internet, and pressure from victim and survivor groups. Based on this, the author performed an informal needs assessments with major airlines, major airports, and the NTSB in to determine the elements that are needed for effective curriculum and training programs in the area transportation disaster mental health and family assistance.

The needs assessments were conducted in an interview format, either a face-to-face or over the phone. Five (5) main elements were address, with other topics being explored as they were discovered in the interview (Attachment A). The interviews were conducted over a two (2) month period in the summer of 2003.

Respondents include six (6) airlines, three (3) airports, and the NTSB (Family Assistance Program). Each respondent was directly responsible for the disaster family assistance planning and training component in their organization.

NEEDS ASSESSMENT RESULTS

All respondents to the needs assessments stated they were pleased to have professional educators involved in the area of transportation disaster mental health and family assistance training. They commented that the involvement of professional educators and trainers gives them confidence that the information and training presented to employees and students will provide the essential elements related to the human aspect of transportation disasters prior to their involvement in an actual accident situation.

Each respondent had a family assistance plan in place; however the comprehensiveness of the individual plans varied greatly. In general all the plans covered the basic elements prescribed by legislation, but there were differences in implementation, training procedures, and adherence to requirements. Based on this information, the author defined a need for standardized annual training for organizations to keep employees current with the family assistance components of transportation disasters. In addition, the author discovered a need for course work to be created and developed in formal education programs for individuals who are interested in the field of transportation.

The need for the education of persons in transportation disaster mental health and family assistance is evident from the responses to the needs assessment, but the need for educators, organizations, employees, and students to understand the requirements of the legislation were

noted as a high priority items. Programs and courses can be established at various levels for individuals in the area of transportation disaster mental health and family assistance, however without an understanding of the basis for this training and the Federal requirements that generate the compliance issues, organizations can put themselves into a vulnerable position. The legislation is very clear on the responsibilities and roles for the different entities defined in the legislation; therefore these items must be addressed with employees and students in order to keep the organization in compliance.

PURDUE UNIVERSITY'S RESPONSE

Faculty in the Aviation Technology Department at Purdue University have been involved in the field of transportation since the department's inception. Until recently the main focus has been the technical component of aviation accident investigations. Our extension into the emerging field of transportation disaster mental health and family assistance is a natural progression for the Aviation Technology Department as we strive to assist students and industry professionals with new elements affecting not only aviation, but the entire transportation industry.

The author has taken the lead role in defining the area of transportation disaster mental health and family assistance for course work and research in the Aviation Technology Department. With the support of the department's Graduate Program Chair, the author has developed an entry level graduate course in the area of transportation disaster mental health and family assistance. The course is scheduled to be offered to students in the fall of 2004. (Attachment B)

Based on information gathered from the needs assessments the author has designed a course that will be presented in a lecture format (3 credits hours) with group exercises. The topics to be covered in the course will range from an examination of the legislation, to understanding the dynamics of human reaction in disaster situations (victims, family, employees, and the general public). The course is an introductory course into the field of disaster mental health for transportation accidents (family assistance) at the graduate level. The long term goal of the department is to establish a series of courses in disaster mental health (family assistance) for graduates, undergraduates, and industry professionals. This series of courses is being developed to provide students the option to select the study of disaster mental health for transportation accidents as a concentration area for their degree program. Over the next three years, the author will develop graduate courses and introductory undergraduate courses related to various transportation disaster mental health issues. The decision to include undergraduate course development was made in an effort to provide these students with an awareness of transportation disaster mental health and family assistance as they enter the transportation industry workforce.

In addition to the departmental goal of establishing curriculum in the area of transportation disaster mental health and family assistance, the author will be working with other departments at the University to establish an interdisciplinary program in the study of transportation disaster mental health and family assistance. To date, the departments that will be part of this program are agriculture, psychology, sociology, health sciences, technology, and engineering.

CONCLUSION

Any transportation disaster involves more than the technical aspect of the investigation into the probable cause. There is the human component and human issues that accompany any transportation disaster which can not be ignored. This human side touches more than the victims and their families and friends, it reaches an organization's employees, the community where the accident occurred, and the public at large.

As professional educators and trainers in the transportation industry we must take a proactive position to prepare our organizations, students and employees for the variety of effects (technical and human) that occur with all transportation disasters. We can no longer assume that everyone will be okay, and some outside organization will take care of the human elements and emotions for us, while we use our expertise to determine the how and whys of the accident. It is now our responsibility to take care of delicate and challenging human side of the transportation disaster equation, not some unnamed organization we can not guarantee will be there to help victims and their families.

While some transportation fields and organizations might believe they are removed from the disaster equation, they must take into account that the transportation industry is not isolated to the organization that provides the actual mode of transportation. The industry is a community of organizations that contributes various parts and services to form the end product, the mode of transportation with passengers. While an organization may not have the passengers as part of their specific customer base, they might be the organization that designed the engine(s), steering system, safety restraints, brake system, etc. that was used to provide the actual transportation. When we encompass all the aspects of the transportation industry it is easy to see that a transportation disaster reaches past the actual provider to manufacturers and others. Therefore, the effects of the disaster will reach organizations that have previously viewed themselves as removed from the accident occurrence.

No longer can we take a wait and see attitude concerning the education and training our students/employees in the components of transportation disaster mental health and family assistance, the effects of a transportation disaster are too far reaching. As educators and trainers we must take a proactive role in establishing curriculum and training to assist our students/employees in the delicate task of dealing with the human aspects and emotions of a transportation disaster.

Attachment A

Informal Needs Assessment Questions

Interview Format (Face-to-Face or Phone)

1. Does your organization have a formal disaster family assistance plan in place?

YES – How long has the plan been in place?

NO - Why has no plan been developed?

2. Does your organization provide annual training to employees related to disaster human factors for major transportation accidents?

YES – Describe the training?

NO – Do you have plans to develop an annual training program? Why or Why not?

3. Besides yourself, are the employees aware of the Federal requirements pertaining to disaster family assistance?

YES – How were they made aware of the requirements?

NO - Why?

4. What do you see as the greatest training / education need in the area of disaster human factors for major transportation accidents?

5. Given the opportunity to create greater understanding related to disaster human factors for major transportation accidents, what do you see as key elements to understanding this emerging area of importance?

Attachment B

Proposed Graduate Course Outline

Aviation Technology, Purdue University

Introduction to Transportation Disaster Mental Health and Family Assistance

Course Objective: The items addressed in this course will provide the student with a basic understanding of the field of transportation disaster mental health and family assistance. Topics for this course include: Federal legislation related to disaster family assistance; an organization's roles and responsibilities related to victims and their families; an organization's role and responsibilities related to their employees and the general public; basic disaster mental health; basic effects of ambient anxiety; basic elements for preparation of disaster human factors plan. At the end of this course the student will be able to:

1. Identify and discuss Federal legislation related to disaster family assistance.
2. Identify and discuss an organization's roles and responsibilities for victims and their families.
3. Identify and discuss an organization's roles and responsibilities for their employees.
4. Identify the basic components of disaster mental health as it relates to individuals, families, and organizations.
5. Identify and discuss the ambient anxiety related to major transportation disasters.
6. Identify and discuss the elements involved in disaster public relations, and differentiate disaster public relations and traditional public relations.
7. Identify basic components of a disaster human factors plan.
8. Develop a beginning disaster human factors plan.

| Week # | Topic |
|---------------|---|
| 1 | Course Introduction |
| 2 | Federal Legislation |
| 3 | Federal Legislation |
| 4 | Government's Roles and Responsibilities in Disaster Human Factors |
| 5 | Organization's Roles and Responsibilities in Disaster Human Factors |
| 6 | <i>EXAM 1</i> |
| 7 | Basic Disaster Mental Health – General & Transportation Accidents |
| 8 | Basic Disaster Mental Health – Age Groups |
| 9 | Elements of Ambient Anxiety |
| 10 | Effects of Ambient Anxiety |
| 11 | <i>EXAM 2</i> |
| 12 | Traditional Public Relations |
| 13 | Disaster Public Relations |
| 14 | Family Assistance Plan |
| 15 | Family Assistance Training Program |
| 16 | <i>FINAL EXAM</i> |

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