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Cruise passengers' perceptions of safety and security while Cruising the Western Caribbean.

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ABSTRACT

Each year millions of people vacation aboard cruise ships, some carrying thousands of passengers and crew members. These ships are small, floating cities that offer many options for food and entertainment. However, just as in life ashore, passengers can be exposed to dangerous situations involving their safety and security. Despite lots of bad publicity about the cruise industry especially after the Costa Concordia disaster, the results of this study indicated that cruise passengers were not overly concerned about their safety and security while on a cruise. Cruise ship operators have the obligation to protect all passengers on board, this paper examines passengers perceptions of safety and security while on a Western Caribbean cruise.

Key words: Cruise ship. Cruise passengers. Perceptions. Safety. Security. Caribbean

RESUMO

A cada ano, milhões de pessoas desfrutam férias a bordo de navios de cruzeiro, alguns deles carregando milhares de pessoas, entre passageiros e tripulação. Esses navios são pequenas cidades flutuantes, que oferecem muitas opções de comida e de entretenimento. Entretanto, assim como na vida em terra, passageiros podem estar expostos a situações perigosas, envolvendo sua proteção e segurança. Apesar de muita publicidade negativa sobre o setor de cruzeiros, especialmente após o desastre Costa Concordia, os resultados do estudo aqui relatado indicam que os passageiros de cruzeiros estão preocupados com sua proteção e segurança a bordo. Operadores de navios de cruzeiros têm o dever de proteger todos os passageiros a bordo. Esse artigo analisa a percepções de segurança e proteção pelos passageiros, em cruzeiro no Caribe.

Palavras- chave: Navios de Cruzeiros. Passageiros de Cruzeiros. Percepção. Segurança. Proteção. Caribe.

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INTRODUCTION

Each year millions of people vacation aboard cruise ships, some carrying thousands of passengers and crew members. The cruise industry is the fastest-growing category in the leisure travel market. Since 1980, the industry has experienced an average annual passenger growth rate of approximately 7.2% per annum. A record of just over 20 million passengers in the world cruised in 2012, with 11.5 million North American guests. Coupled with an annual occupancy percentage that exceeded 103% in 2012, this annual passenger growth shows an industry where demand continues to surpass supply, even in trying economic environments. In 2011 alone, 12 new ships debuted from Cruise Lines International Association (CLIA) member lines, with guest capacities ranging from 162 to 3,652 passengers sailing the world's waters for the first time. According to the Florida Caribbean Cruise Association (FCCA), the industry's growth is headlined by the Caribbean, which continues to rank as the dominant cruise destination, accounting for 39.8% of all itineraries in 2012, versus 41.3% in 2010, 37.02% in 2009, 37.25% in 2008, 41.02% in 2007 and 46.69% in 2006. Passenger numbers continue to remain consistent and high for the Caribbean, despite other rising cruise destinations.

The cruise ship industry concerns the movement of passengers by sea for pleasure. The physical environment in which the cruise ship operates is very complex and can be dangerous. Passengers rightly expect their safety and security to be of paramount importance. Their confidence in the structural and management systems associated with safety and security must be such that it does not prejudice their enjoyment of the cruise experience. The cruise ships also interact with the sensitive and fragile environment of the oceans and atmosphere. As a floating community, any negative impacts can be adverse. The regulatory framework, embedded in Conventions established by the International Maritime Organization (IMO), exists to ensure that minimum standards are established and maintained to protect the safety and security of cruise passengers, crew, the ship and the environment within which they operate. The 100th anniversary of the cruise ship RMS Titanic sinking brought a lot more attention to how the cruise industry has changed in the past century. Although cruise problems and tragedies are not new and have been with us for hundreds of years, perhaps since the beginnings of recorded history, the Titanic's sinking acts as not only a metaphor for cruises but also as a metaphor for tourism risk and dangers.

According to the Cruise Lines International Association and the American Association of Port Authorities, recently the cruise ship population has increased by leaps and bounds at a rate of 6-8% per year (CLIA, AAPA, 2011). During 2010 there were 18 million people worldwide who took a cruise while in 2012 there were 20 million people who did so with about 75% of the market originating from North America. Despite increased safety and security measures, as the number of cruise ships has grown, so too has there been an increase in cruise ship incidents. With modern technological advances and innovation, it's easy to see that the industry has made improvements in some areas but a deeper look at the state of cruising today points to an industry that is still plagued with safety and security challenges. In many respects after a hundred years, its remarkable how little has changed, the Costa Concordia disaster on Friday January 13, 2012 was proof of that. In both cases, the Titanic and the Costa Concordia, the ship took on water, passengers fled their cabins, both crew and passengers were disoriented, and there was widespread panic over the best way to evacuate the vessel. On Sunday April 14, 1912, the Titanic cruise ship hit an iceberg; in 2012, the Costa Concordia struck a rock close to shore.

While major nautical disasters are still a reality, the fatality rate has gone down considerably. More than 1,500 people of the 2,200 onboard died when the Titanic sank in the North Atlantic (Butler, 2012). A hundred years later, of the 4,200 onboard, just 32 were killed on the modern luxury liner Costa Concordia as it ran aground off the Tuscan Coast in Italy. These incidents remind us that large-scale cruise ship disasters are not just a thing of the past. Indeed, the first six months of 2012 kept reminding us of that with three cruise ship fires, two cruise ship sinking, ten passengers missing, personal injuries, cruise passengers robbery at destinations and many other incidents. Following the Costa Concordia disaster, another Costa ship, the Allegra, was left drifting in pirate-infested waters off the Seychelles in February after a fire in the engine room. Another fire on the Azamara Quest left that boat stranded in late March. Although these mishaps are well publicized the fact is that the number of occurrences is low compared to the 20 million cruise passengers. The Concordia tragedy has focused attention back on the safety and security and operating standards of the cruise ship industry.

SAFETY AT SEA CONVENTIONS

The International Maritime Organization (IMO) is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. It has always been recognized that the best way of improving safety at sea is by developing international regulations that are followed by all shipping nations and from the mid-19th century onwards a number of such treaties were adopted. The first maritime treaties date back to the 19th century. Later, the Titanic disaster of 1912 spawned the first international safety of life at sea SOLAS Convention, still the most important treaty addressing maritime safety. The International Convention for the Safety of Life at Sea (SOLAS) is described by the International Maritime Organization (IMO) as being 'generally regarded as the most important of all international treaties concerning the safety of merchant ships'. The SOLAS Convention was created as a direct result of the sinking of the RMS Titanic on 15 April 1912.

One of the key advancements in maritime safety that was brought about following the sinking of the Titanic was in relation to the number and use of lifeboats. The Titanic did not have sufficient lifeboats for all passengers, a lifeboat drill was not conducted, nor did the crew have adequate training in loading and lowering the lifeboats. Under SOLAS, all passenger ships must carry enough lifeboats, some of which can be substituted by life rafts, for all passengers, plus life rafts for 25 per cent of passengers. SOLAS also requires every crew member to participate in regular practice drills and have easy access to training manuals. Under SOLAS an 'abandon ship' and fire drill must take place weekly on all passenger ships. The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety. Flag States are responsible for ensuring that ships under their flag comply with its requirements, and a number of certificates are prescribed in the Convention as proof that this has been done. Control provisions also allow Contracting Governments to inspect ships of other Contracting States if there are clear grounds for believing that the ship and its equipment do not substantially comply with the requirements of the SOLAS Convention.

The International Safety Management (ISM) Code purpose is to provide an international standard for the safe management and operation of ships and for pollution prevention. The cornerstone of good safety management is commitment from the top (Vogel et al, 2011). In matters of safety and pollution prevention it is the commitment, competence, attitudes and

motivation of individuals at all levels that determines the end result. The cruise industry cooperates with the U.S. Coast Guard and other maritime nations to assure the safe passage of passengers. To ensure compliance with SOLAS, the Coast Guard examines each new cruise vessel when it first enters service at a U.S. port. Thereafter, these vessels are subject to quarterly Coast Guard inspections once they dock in a U.S port. The examinations emphasize structural fire safety and proper life saving equipment. Additionally, the Coast Guard witnesses fire and abandon ship drills conducted by the ships' crew and operational tests are made on key equipment such as steering systems, fire pumps and bilge pumps. The Coast Guard also closely examines the vessels and their operation for compliance with both international and U.S. environmental laws and regulations. The Coast Guard maintains the authority to require correction of any deficiencies before allowing a ship to take on passengers at any U.S. port.

The International Ship and Port Security Code (ISPS), is a comprehensive set of measures to enhance the security of ships and port facilities, developed in response to the perceived threats to ships and port facilities in the wake of the September 11, 2001 attacks in the United States. The Code has two parts, one mandatory and one recommended. In essence, the Code takes the approach that ensuring the security of ships and port facilities is a risk management activity and that, to determine what security measures are appropriate, an assessment of the risks must be made in each particular case. The purpose of the Code is to provide a standardized, consistent framework for evaluating risk, enabling Governments to offset changes in threat with changes in vulnerability for ships and port facilities through determination of appropriate security levels and corresponding security measures.

The levels are designed for easy communication of a clear message. The levels correspond to the basic assumption that a hazard with a low probability is a low risk and a hazard with a high probability is a high risk (Smith, 2004). Both the ship and port facility are responsible for monitoring and controlling access, monitoring the activities of people and cargo, and ensuring that security communications are readily available. In addition, Lois et al. (2004) describe cruise shipping as different from other shipping because the passengers' needs must be accommodated in the following ways: the ship's design and structure (for example, the requirement for appropriate traffic lanes, the division of accommodation for crew and passengers); the appropriateness of docking facilities or support for tendering; the servicing of supply, fuel, and waste management; the itinerary based on passenger demand; the terminal facilities required to process people and provide shore side facilities and services; and the need to have access to a transport infrastructure for home ports or turnaround ports and destinations. These characteristics all factor into the analysis of risk for a cruise ship thus affecting the level of passengers' safety and security.

LITERATURE REVIEW

Accidents, Injuries and Illness: The most common medical problems tourists are likely to experience are sunburn (Ross & Sanchez, 1990), and sexually transmitted diseases (Daniels, Kell, Nelson & Barton, 1992). Other common complaints are motion sickness and jet lag (Dardick, 1992), skin problems (Kelsall & Pearson, 1992; Lockwood & Keystone, 1992), and diarrhea (Bryant, Csokonay, Love & Love, 1991; Mathews, Pust & Cordes , 1991). The use of alcohol continues to remain a significant factor in accidental drowning (Howland, Mangione, Hingson *et al*., 1990). Though less serious, diarrhea remains the most common cause of ill health among all travelers, with stress, alcohol, fatigue, climate and diet all as possible

contributors to the condition (Bushell, 1993). Though medical illness is a major concern to tourism authorities and health professionals, ironically accidents cause 25 times as many deaths of travelers abroad than infectious disease (Dawood, 1989). Among the specific problems that are likely to occur in an unfamiliar marine environment are drowning (Avery, Harper & Ackroyd , 1990; Pearn, 1988; Manolios & Mackie, 1988), scuba diving accidents (Wilks, Knight & Lippmann, 1993) , power-boat injuries (Paterson & Sweeney, 1968), marine envenomations (Fenner, Williamson, Callanan & Audley, 1986; Mcgoldrick & MARX, 1992), surfing injuries (Lowdon, Pateman & Pitman, 1983), medical complications with women water skiers (Morton, 1970), coral infections (Patterson, Bell & Bia, 1988), and recreational fishing injuries (Hahn, Reilly, Farr & Patterson, 1993). Other water-based sports in which injuries occur include rowing and yachting (Smithers & Myers, 1985). These are all activities that cruise ship passengers participate in at different destinations that can have some effect on their safety and security.

A reasonably detailed international literature is available on the types of accidents and injuries to tourists aboard cruise ships. The most common medical problems experienced by cruise ship passengers are gastroenteritis (Werner, Hudgins, Morrison & Chin, 1976; Danenberg, Yashuk & Feldman, 1982; Ho, Glass, Monroe *et al*. , 1989) and respiratory illness (Fitzgerald, 1986; Christenson, Lidin-Janson & Kallings, 1987; Digiovanna, Rosen, Forsett *et al*., 1992); both relate to the potential for food, water, and ventilation contamination in a closed environment (Hall, Herring & Jozwiak, 1984). Less frequent, but no less important, are marine envenomations (RUSSELL, 1991; HARRISON, 1992; Mcgoldrick & MARX, 1992), which require appropriate first aid or possibly medical attention. Among the more common stinging invertebrates causing problems are hydroids, fire coral, jellyfish, anemones, cone shells, star fish, sea urchins and sea cucumbers (McGoldrick & Marx, 1992). However, the importance of monitoring tourist activities should not be understated. For example, coral cuts and abrasions can become infected and develop into a serious injury if not treated early (Callanan, 1993). For this reason tourism operators should ensure that protective footwear is available for cruise ship passengers visiting coral reef areas, and first aid is provided for any coral cuts.

Flags of Convenience: Cruise lines have avoided U.S. laws and regulations dating back to as early as 1920. A number of U.S. vessels, namely the cruise liners the M/V Reliance and the M/V Resolute, were 're-flagged' in the south American country of Panama in order to circumvent the U.S. law, the 18th Amendment to the Constitution prohibiting the manufacture, sale, or transportation of alcohol in America which went into effect on January 16, 1920 (Wing, 2003). The International Maritime Organization (IMO), of which the United States is a member, requires all ships engaged in international trade to have a country of registry in order to sail in international waters, a ship is considered the territory of the country in which it is registered (Tomlinson, 2007). The verbiage of this clause is particularly important as it states 'a country' and could pertain to any country, developed, developing or undeveloped. Even more importantly Tomlinson states that the ship is considered the territory of its country, thus making them subject to that country's laws and regulations. By opting to re-flag in a new nation, a vessel owner becomes subject to the safety, labor, and environmental codes of that nation. Thus, those nations whose open registries have become the most popular also tend to be those who possess the most lax labor, safety, and environmental codes (Wing, 2003). This can result in negative effects on cruise passengers' safety and security.

A vessel's country of registration is commonly referred to as the 'flag of convenience' (FOC). Flagging a ship under a foreign flag for the convenience of the cruise line is nothing new, nor is it rare. Many cruise ship companies have established their main office-headquarters in Miami

although their cruise ships are registered to Panama, Liberia, Malta, the Marshall Islands or the Bahamas, in fact to date only one cruise ship was registered in the U.S. Thus, cruise ships are not affected by changing laws inflicted upon U.S. based corporations. In fact for years these ships had no obligation to respect U.S laws. Likewise, a U.S. citizen cruise passenger faces the same predicament with any crime or safety and security issue. Thus, U.S. laws do not apply and passengers are at the mercy of maritime laws which are often dating back seventy five to more than one hundred years. Consumers should be aware that the cruise ship's duties and liabilities are governed not by modern, consumer-oriented common and statutory law, but by nineteenth-century legal principles, the purpose being to insulate cruise lines from the legitimate claims of passengers (Dickerson, 2004). Employees and passengers may have difficulty litigating claims due to the fact that international maritime law applies to the cruise industry because cruise ships sail in the waters of many countries, as well as in the waters of no country, otherwise known as the high seas (Tomlinson, 2007). The country where the cruise ship is registered can determine the level of passengers' safety and security to the extent to which those laws are revised and updated.

Anyone who boards a cruise ship will find that neither the cabin nor the ship itself is in compliance with the American Disabilities Act (ADA), 1990. Notice-requirement clauses also stated in the ticket-passenger contract limit the time in which passengers can file a claim against the cruise line. Under maritime law, plaintiffs generally are afforded a three-year statute of limitations for personal-injury claims. However, the Limitation of Vessel Owner's Liability Act (2000) allows cruise lines to establish, through passenger tickets, a one-year statute of limitations (Porter, 2006). For nonphysical injury claims, cruise lines may impose even shorter time limitation periods such as requiring that written suit be filed within six months instead of the one year allowed for physical injury lawsuits or requiring that written claims be filed within days as opposed to months after the accident (Dickerson, 2004). Fortunately, the Jones Act allows cruise ship employees to hold cruise lines accountable for incidents occurring as a result of the cruise line's negligence. Additionally, passengers are often successful at obtaining damages by filing negligence claims against the cruise line. According to the Shipping Act 1984, a ship-owner owes the passengers the duty of a high degree of care.

The legal rights and remedies of U.S. passengers and any passenger for this matter, are greatly inhibited due to flags of convenience, partly because ticket-passenger contracts are written under the cruise ship registered country's law and can include limited-liability clauses. Under maritime law, such clauses are acceptable and enforced in court. Regardless of litigation locale, the majority of courts contend that for crimes occurring while at sea must be filed in accordance with maritime law. Most passengers do not read all the pages of fine print of the ticket contract nor do they realize that a cruise ticket forms a binding contract between the passenger and the cruise line. These passenger-ticket contracts have been heavily litigated because they contain limited-liability clauses such as forum-selection clauses, choice-of-law provisions, and notice-requirement clauses that limit the rights of passengers (Porter, 2006). Forum-selection clauses provide that any controversy arising out of the cruise contract is to be litigated, if at all, in a certain jurisdiction to the exclusion of all others (Burke, 2000).

The Cruise Vessel Security and Safety Act of 2010 require crimes aboard cruise ships to be reported to the U.S. Coast Guard and Federal Bureau of Investigations (FBI). Cruise ships operating under foreign flags are not currently required under US law to report crimes that occur outside US territorial waters. Each ship would be required to maintain a logbook to record all missing individuals, alleged crimes, and passenger and crew member complaints regarding theft, sexual harassment, assault and deaths. It is understood that the new Act will

apply to all US-flagged vessels, and to those foreign flagged ships which call at U.S. ports to embark, or disembark passengers. Logbooks would be available to the FBI and Coast Guard electronically, as well as to any law enforcement officer upon request. Statistical information would be posted on a public website maintained by the Coast Guard. The legislation would also require cruise ships to maintain medications used to prevent sexually transmitted diseases after assault, as well as equipment and materials for performing a medical examination to determine if a victim has been raped. A United States licensed medical practitioner would be on every ship to perform the examinations and administer treatment. Passengers would be given free, immediate, and confidential access to a national sexual assault hotline and the FBI. The Act also tackles physical aspects of ship safety and security, addressing elements such as guard rail heights of at least 42 inches, peep holes for crew and passenger cabin doors, security latches, time sensitive key technology and information packets provided to passengers on how to report crimes.

Cruise ship owners would be required to implement fire safety codes as well as technology to detect when a passenger falls overboard. Procedures would be established to determine which crew members have access to cabins and when. Appropriate crew members would be trained in crime scene investigation, and each ship would be required to maintain at least one crew member trained and certified accordingly. The new Act also seeks to enforce various safety and environmental standards. The Coast Guard is authorized to dispatch personnel to monitor the discharge of waste, to verify logbook entries related to waste treatment and disposal, and to act as public safety officers by securing and collecting evidence of alleged crimes. All these measures will significantly improve cruise passengers safety and security because the cruise line industry has been forced to make significant changes to improve cruise ship safety and security.

METHODOLOGY

The purpose of the study was to determine cruise passengers demographics and perceptions about their safety and security while cruising the Western Caribbean. An extensive search of journal databases and the international database of dissertations and thesis revealed that there was no previous research on cruise passengers' perceptions of safety and security. Given the scarcity of empirical data on the subject and the Costa Concordia disaster of 2012, the researchers decided to conduct this study. On the bases of literature review and discussions with previous cruise passengers and travel agents of the cruise industry, a questionnaire was designed. The questionnaire was administered by previously trained student assistants onboard the Royal Caribbean Jewel of the Seas cruise ship on a six day cruise to the Western Caribbean in March 2012. The survey research method was used and it was a convenience sample because of time and cost limitations, a total of 125 respondents completed the survey.

The questionnaire was comprised of 21 questions which can be arranged in two sections. The first section collects demographic information like age, gender, annual household income, education level, method of booking, number of cruise experiences and nationality. Summary data of selected demographic attributes of survey respondents are shown in Table 1. The second section asked respondents to give information about their perception relating to safety and security by responding to statements using a five-point Likert-type scale, ranging from 'strongly agree (5)' to 'strongly disagree (1)'. The respondents completed the survey voluntarily. The data was analyzed using the 2007 version of Excel and SPSS version 19. A

number of statistical techniques were applied to the data. First, descriptive statistics (including frequency distributions, means and standard deviations) were computed to have a first look on the profile of cruise ship passengers then a one-way analysis of variance (ANOVA) was used to determine if there were differences in perceptions of safety and security based on cruise experience.

RESULTS

The results from a descriptive analysis of the respondents' demographics data are presented below in Table 1. The demographic information in this study revealed that the majority of the respondents came from the USA (62.4%) and Canada (11.2 %) with smaller percentages from other areas of the world. Previous research done by the Cruise Line International Association in 2011 indicated that about 73% of cruise passengers originated in North America, our study also revealed that 73.6% of the respondents originated from this region. Males accounted for about 46.4% with females 42.4%. About 80% had some education beyond high school while just over 60% of the respondents had annual income exceeding $50,000. Previous research showed that a higher percentage of cruise passengers were younger people with incomes of more than $50,000. The results of this study were consistent with those findings.

Table 1: Demographics of Passengers

Country of current residence (N=125)	Frequency(N)	Percent(%)
USA	78	62.40
Canada	14	11.20
Australia	10	8.00
Europe	4	3.20
Asia	7	5.60
Other	12	9.60
Age (N=125)		
18-24	43	34.40
25-34	31	24.80
35-44	17	13.60
45-54	15	12.00
55-64	14	11.20
65-74	4	3.20
75 and older	1	0.80
Gender (N=111)		
Left blank	14	11.20
Male	58	46.40
Female	53	42.40
Education (N=125)		
High School	24	19.20
College	48	38.40
BS Degree	41	32.80
MS Degree	7	5.60
PhD Degree	5	4.00
Income (N=121)		
Blank	4	3.20
<$50,000	45	36.00
$50,000-$75,000	33	26.40
$76,000-$99,000	21	16.80
$100,000-$125,000	12	9.60

Greater than $125,000	10	8.00
Major Source of Information (N=125)		
Cruise company brochure	11	8.80
Cruise company website	35	28.00
Travel Agent	22	17.60
Other travel websites	15	12.00
Friends/relatives	33	26.40
Advertising: TV, Newspaper, Magazines	4	3.20
Other sources	5	4.00
Cruise booking method (N=125)		
By phone with Cruise Company	33	26.40
Cruise company website	33	26.40
Travel Agent	26	20.80
Other travel websites	32	25.60
Other method	1	0.80

The three top major source of information used by cruise passengers to make a decision about the cruise were the cruise company websites 35 (28%), friends and relatives 33 (26.4%) and travel agents 22 (17.6%). However, the method used by cruise passengers to book the cruise 66 (52.8%) used the cruise company websites or sales agents; 26 (20.8%) booked via travel agents while 32 (25.6%) used other travel websites, for example Travelocity, Orbitz, Priceline etc.

The tourism industry is a service based industry, and the cruise travel and cruise ship itself can be viewed as a floating resort and tourism destination. Therefore, service quality issues are among the most important topics for cruise marketers because a good service quality and consumer's satisfaction can guarantee business survival at least in the service industry. Consequently, the hospitality and tourism industry have focused on service quality improvement and customers' satisfaction. Incidents onboard cruise ships will negatively affect customer satisfaction and public image about cruising. First, second, third and more than three times cruising passengers' perceptions were evaluated using mean and standard deviation statistics. The comparison of the mean and standard deviations of cruise experience with cruise safety and health information using 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5-strongly agree can be seen in Table 3.

A one-way analysis of variance (ANOVA) revealed differences in perceptions of safety and security based on cruise experience, i.e. the number of cruises previously taken by respondents, to test for preference differences among four means; first time cruisers, second time cruisers, third time cruisers and more than 3 time cruisers. The significance level for all statistical analysis was p = .05. The results revealed significant differences between means among the groups cruise traveler experience and two statements, "the cruise ship provides enough security" and "knowledge of fire exits". For the statement "I believe this cruise ship provides enough security for my personal safety," F=19.65, p= 0.05; 1st cruise M=4.0, 2nd cruise M=4.06, 3rd cruise M=4.01 and more than 3 cruises M=4.20. Meaning that significantly, those with greater cruise experience were more likely to feel that the cruise ship provide enough security. For the statement "I am aware of my cabin location and the nearest fire exits," F=25.07, p= 0.05; 1st cruise M=3.60, 2nd cruise M=3.57, 3rd cruise M=4.27 and more than 3 cruises M=4.13. Meaning that significantly, the more frequent one cruised the more likely it is that one will take note and be aware of their cabin location and nearest fire exits. It can be

inferred from the results that cruise passengers who have taken more than one cruise take precautions to guard their own safety and security.

Table 2: Significant Differences Regarding Cruise Experience

Survey Item	Number	F Statistic	Multiple R	p Value
Cruise ship provides enough security for my personal safety	124	19.65	0.37	.05
I am aware of my cabin location and the nearest fire exits	124	25.07	0.41	.05

Significantly cruise passengers with greater cruise experience were more likely to take personal precautions to safeguard their safety and security while on the cruise ship. Overall, cruise passengers were not overly concerned about this cruise ship safety and security practices. Generally cruise passengers felt that their safety and security was not going to be negatively affected while on the cruise, see Table 3.

Table 3: Cruise Passengers Perceptions

Safety and Security Statements	1-M	SD	2-M	SD	3-M	SD	4-M	SD
I was given enough information about safety aboard this cruise.	**3.81**	**0.87**	**4.00**	**0.80**	**4.00**	**0.76**	**4.33**	**0.72**
Enough information about safety is available on the ship's company web site.	**3.68**	**0.85**	**3.77**	**0.84**	**4.13**	**0.74**	**3.93**	**0.80**
I am confident that the crew makes sure everything is done to ensure a safe environment.	**3.90**	**0.84**	**4.14**	**0.65**	**4.40**	**0.63**	**4.27**	**0.70**
I believe that this cruise ship provides enough security for my personal safety.	**4.00**	**0.74**	**4.06**	**0.73**	**4.01**	**0.88**	**4.20**	**0.68**
I feel there is no danger of theft of my personal property while on this cruise.	**3.55**	**1.01**	**3.77**	**0.88**	**4.00**	**0.84**	**3.73**	**0.80**
I have concerns about possible rape or sexual assault while on this cruise.	**2.64**	**1.04**	**1.86**	**1.19**	**2.13**	**1.35**	**2.00**	**1.25**
I do not feel threatened by possible acts of terrorism while on this cruise.	**3.63**	**0.99**	**3.83**	**1.01**	**3.73**	**0.96**	**4.13**	**0.52**
I am aware of my cabin location and the nearest fire exits.	**3.60**	**0.96**	**3.57**	**0.92**	**4.27**	**0.80**	**4.13**	**0.74**
I am aware of the life vests location in my cabin.	**3.77**	**0.98**	**3.51**	**1.12**	**4.13**	**0.99**	**4.13**	**0.99**
In the event of a fire I know what to do and where to go.	**3.72**	**0.92**	**3.91**	**0.67**	**3.87**	**1.24**	**4.07**	**0.80**
I have concerns about falling or losing my balance.	**3.07**	**1.09**	**3.14**	**1.06**	**3.07**	**1.22**	**3.07**	**1.44**
Generally I think that my safety and security will not be negatively affected on this cruise.	**3.93**	**1.00**	**3.94**	**0.94**	**3.93**	**0.80**	**4.33**	**0.82**

1-M =mean for passengers on their first cruise
2-M=mean for passengers on their second cruise
3-M=mean for passengers on their third cruise
4-M=mean for passengers who cruise more than three times

DISCUSSION AND CONCLUSION

Crime - In 2012 about 20 million people worldwide took cruises and over the last eight years cruise crime incidents average 400 per year according to incidents reports published by the U.S. Coast Guard and the FBI. The law mandates reporting of kidnappings, sexual assaults and other crimes and requires vessels to be equipped with cabin peepholes and video surveillance systems, among other security measures. It is understood that the new Act will apply to all US-flagged vessels, and to those foreign flagged ships which call at U.S. ports to embark, or disembark passengers. Of the crime incidents as of 2010, an average of 8-10% occurred ashore at the destination outside of the United States' jurisdiction**,** in the United States, the jurisdiction over an event that occurs aboard a vessel generally lie with the state in whose waters the vessels are moored. Sexual assault average 8-12% (42) of the crime incidents with about half (21) accounted by rape. About 70% of all FBI cruise crime reports involved less serious matters such as simple assault, low-dollar loss theft, fraud, suspicious activity, bomb threats, or activity that was not criminal in nature.

In 2011, the U.S. Federal Bureau of Investigation closed 16 investigations involving crime on cruise ships, 13 of which were sexual assaults, according to data posted online by the U.S. Coast Guard. But that doesn't represent the total number of incidents reported to the U.S. FBI, including any still-open or pending prosecutions. The Cruise Vessel Security and Safety Act of 2010 actually change the way crime incidents are available to the public online. Amidst these FBI reports cruise passengers seem not to be too worried about crimes while on cruise ships. For this study a one-way analysis of variance (ANOVA) revealed no significance in the variance of the means with relation to crimes on the cruise ship, meaning the passengers were not overly concerned about crime while on the cruise. However, significant differences exist between means among the groups cruise traveler experience and the statement "I believe that this cruise ship provides enough security for my personal safety," meaning that more experienced cruise travelers were more confident in the ship security measures so there was no need to worry. While it's easy to let your guard down on a cruise, travelers shouldn't assume they're safe just because they're onboard a cruise ship. Sure, a cruise may feel like a great escape from the realities of life, a floating party and of course no one has to drive home, but drinking too much can compromise one's judgment whether on land or cruising on the high seas.

Fire - Even though modern cruise vessels are designed with smoke detectors and sprinkler systems, fire is a risk. In 2011, a fire aboard a Hurtigruten cruise ship off the coast of Norway killed two people, injured nine others and forced the evacuation of nearly half of the 262 people aboard. An engine fire on the Carnival Splendor in 2010 did not injure any of its passengers, but the fire stripped the ship of its power, knocking out its operating systems and leaving its 3,300 passengers without air-conditioning, hot food or water. Most cruise ships fires started in the engine room in the lower part of the ship. A one-way analysis of variance (ANOVA) revealed significant differences between means among the groups cruise traveler experience and the statement "I am aware of my cabin location and the nearest fire exits," meaning that the more experienced cruise travelers were more likely to know the location of their cabin in relation to the ship fire exits. Fires are relatively uncommon on cruise ships but they can have devastating results when they occur, not only can passengers and crew get burns but there is also the danger of smoke inhalation.

Falling overboard - Although falling overboard is rare, it does occur. During 2011 at least 22 people went overboard on cruise ships and passenger ferries, including passengers who

jumped. One of the requirements under the Cruise Vessel Security and Safety Act is that ships must be equipped with rails not less than 42 inches above the deck, and with alarms and other technology to help signal and locate passengers who go overboard. For this study a one-way analysis of variance (ANOVA) revealed no significance difference between means among the groups cruise traveler experience and the statement "I have concerns about falling or losing my balance", meaning that passengers were not overly concern about falling overboard while on this cruise. As a general rule, it is important for cruise passengers to pay attention to safety announcements and make sure they try on the life jacket and know where the muster station or lifeboat station is located. When traveling with friends or family, it is important to have a contingency plan so that everybody knows how to find one another in the event of an evacuation. It is unlikely that something will happen, but just in case it does it is better to have a plan if something does happen than to be drawn into hysteria when an emergency situation presents itself.

THE FUTURE OF CRUISE SHIPS SAFETY AND SECURITY

Some travel industry experts feel that the sheer size of the Costa Concordia and other cruise ships may pose greater evacuation challenges because of the large number of passengers, but cruise officials point out that regulations have kept pace with the size of the ships. Evacuation routes and safety equipment, including the size and number of lifeboats, are scaled in accordance with the increased size of the vessel. There is no indication that size was a factor in the Concordia accident, but the 24-hour window for safety drills was scrutinized. Some critics argue that the window should be tightened so that passengers will be better prepared in case an emergency strikes early on, as it did on the Concordia. Unlike airplane safety announcements, which take place before takeoff, cruise drills aren't required before the ship leaves the dock. The Concordia passengers who had boarded before Civitavecchia had already been through the drill, but nearly 700 passengers who joined the ship there had not. The next drill had been scheduled for the following day, a day too late for many.

A record 20 million people worldwide took a cruise in 2012, an increase of almost 2 million from 2010, according to the latest industry figures. While North America (11.5 million) and Europe (6.2 million) are the main markets, the Australian cruising market grew by 30 per cent, to more than 500,000 passengers. The future of the $38 billion cruise industry looks bright. China has begun building cruise ships which is expected to significantly impact the cruise industry especially in Asia. Additionally, a number of new cruise ships are coming on line with 19 new ships expected to enter the market within the next three years. It is clear that cruise passengers safety and security will depend upon updated International Conventions, the design, layout and size of the ship, country of registry, crew training and drills and cruise companies adherence to standards and "common sense." There will continue to be public concerns about cruise ship safety and security because in part the news media seem to single out incidents that occur on cruise ships. The news media seem not to treat with equal coverage similar comparable incidents on land that occur at hotels, restaurants and theme parks. Cruise ships are getting bigger and there will be accidents, crime, fire, passengers and crew falling overboard and others incidents. However, based on the statistics from the U.S. Coast Guard and the FBI, there are about 400 incidents per year from the 20 million people who cruise. These statistics are not overwhelming by any means but the cruise industry can have better safety and security records with better efforts from the cruise industry, the destinations where cruise passengers disembark and the cruise passengers themselves.

Generally, the results of this study revealed that cruise passengers were not overly concerned and felt their safety and security was not going to be negatively affected while on this cruise.

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