

ANALYSIS OF MENTAL HEALTH ISSUES AND ITS IMPLICATIONS ON CABIN  
CREW AT EMIRATES AIRLINES

by

Syed Hammad Mumtaz

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Thesis Committee:

Dr. Wendy Beckman, Chair

Professor John Black

Dedicated to my superhero, my late grandfather.

Love you.

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## **ABSTRACT**

Mental health is a very important topic in today's day and age. Each one of the participants of the aviation industry go through some sort of stress that can test them mentally as well as physically. In this thesis, the focus is on cabin crew who often go unnoticed in many studies. The primary goal of this thesis is to understand what the levels of stress faced by cabin crew are at Emirates Airlines. A triangulation research method was used to obtain the data. For quantitative results a stress survey was used, which included specific stress factors to evaluate the participants' level of stress. A qualitative approach was also used, with interviews of cabin crew being conducted. The results of the study indicated high levels of stress among Emirates Airlines cabin crew with rostering procedures indicated as one area that particularly causes stress.

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## CHAPTER I - INTRODUCTION

Mental health is a very important topic in this day and age. Aviation is an industry that is constantly growing and requires a lot of manpower; from engineers who work on the tarmac during sandstorms fixing jets to pilots who are avoiding ice storms at a high altitude. Each one of the participants of this industry go through some sort of stress that can test them mentally as well as physically. The purpose of this study was to understand what the current level of stress is among Emirates Airline cabin crew, and to see if that stress is an outcome of workload, workplace conditions, or experiences.

The aviation industry has boomed rapidly over a relatively short period of time. Aircraft are capable of covering thousands of miles, non-stop, and across continents. In order for this industry to continue efficiently and to meet the continuous growth in demand, it is important for the people working in the industry to be mentally and physically fit and prepared. While aircraft may be able to cover thousands of miles of non-stop flying all around the world, the human brain is not designed to easily accept what these machines are capable of doing, especially as it relates to physical and mental health. It is extremely crucial to understand the 'human factor' issues that are raised in today's world with the growth of the aviation industry. It is important to understand what the mental health implications are regarding flight, ground and cabin crew when it comes to operating. There have been a number of studies done regarding flight (cockpit) crews when it comes to understanding the mental health aspect, but not a lot of emphasis has been given to cabin crews. Cabin crew are typically not seen as a very vital part of the industry by the general public; this is primarily because people think that all they do is

provide services on board, which is not true. Besides their responsibility of providing services to the passengers, the cabin crew have to be trained in order to evacuate the aircraft in case of an emergency. They have to respond to security emergencies such as unruly passengers or even a terrorist threat. They also have to help passengers with faulty onboard entertainment systems and assist handicapped passengers. They are responsible for the safety of underage travelers or even an onboard birth or medical emergency. All these different scenarios can occur spontaneously and can put the cabin crew in stressful situations. Thus, the cabin crew is prone to prolonged periods of stress that can have a damaging effect on their physical and mental health. The interactions with passengers is typically an issue that flight crew does not have to worry about. This issue is very specific to cabin crew as they are constantly providing services to the passengers. Interacting with passengers plays a huge role in stress experienced by cabin crew. Clearly, not everyone is satisfied with the services that are provided by the airline and the first defense is the cabin crew, who have to face plentiful questions and even abuse. Just like 'road-rage' there are many flights on which passengers exhibit 'air-rage', which is directly affected by the service of the cabin crew. Cabin crew health can also be affected by toxins onboard the aircraft. This can exaggerate their mental health issues as well (Smith, 2009).

The repercussions of stress problems or mental health issues with cabin crew can also affect the whole airline. One of the obligations of an airline management is to ensure a maximum output/performance of the highest quality and at a minimum cost. If

the airline is challenged with cabin crews who struggle with excessive stress and low performance, management problems may be serious.

Emirates Airlines is one of the largest airlines in the world. Emirates employs approximately sixty thousand employees worldwide and a significant number of its workforce is classified as cabin or flight crew. In recent years, Emirates has been growing aggressively by adding new destinations and aircraft. This huge demand is bringing in thousands of new flights and therefore, cabin crew. The crew is hired from all around the world to support the growing diversity in the United Arab Emirates (UAE). With this ever growing demand of the industry, there are many potential mental health issues that employees have to face on a day-to-day basis. Stress on the mind and body can cause a lot of disruption in a person's life and with such a large number of cabin crew, it becomes vital for the airline to make sure the airline does everything possible to minimize stress. One of the major sources of stress in the aviation industry is the scheduling of work. Uncertainty or too many changes in the work schedule creates stress and thus all efforts have to be made to balance the operational needs along with personnel needs. There are around 20,000 cabin crew currently at Emirates Airlines that operate in 238 different wide body aircraft. This is a huge number of employees who are dedicated to supporting the hundreds of aircraft that the airline operates (Cornwell, 2015).

### **Literature Review**

There are many issues surrounding mental health problems. One of them is the identification of specific mental disorders. There are many different types of mental disorders which range in level of impact they have on the crew. Identifying a mental

disorder can be extremely hard because it does not necessarily manifest itself physically. For this reason, mental disorders are mostly neglected by society as a whole. On the job stress is dealt with in a similar manner. People who do face stress, hesitate to open up about it because of the negative social stigma and its impact on their job security. The topic of mental health in general is taboo to the majority of the population and people often conceal such illnesses (Thornicroft & Rose, 2013). Along with identification, awareness of the topic is lacking in the aviation industry as well as generally. People often think that mental health is only for people who belong in mental hospitals or have an abnormality, which is incorrect. There is a significant number of the population that face anxiety and stress in particular, which is a form of a mental health issue. It is a simple fact that the more you know about something, the less fear and anxiety you experience (Hiner, 2005).

So what exactly is stress? Historically, the first ever proposal in terms of the definition of stress was coined by Hans Selye in 1936. (Szabo, Tache, & Somogyi, 2012). proposed that stress is the nonspecific response of the body to any demand. Furthermore, the definition of stress in behavioral science is understood as the perception of danger, with subsequent anxiety discomfort and emotional pressure, as well as struggling with adjustment (Baqutayan, 2015). Stress, from the beginning, has been seen as a predominantly negative word. However, scientists have argued that stress can also be positive under some circumstances. Some individuals may be more efficient working under higher stress, but this is not true for every individual. Therefore, mental health may

affect individuals differently based on their personality characteristics, workplace conditions, and the workload itself.

### **Causes of Stress.**

As mentioned previously, the types of mental health illnesses range in severity. It can be argued that mental health issues have always existed throughout the different eras of mankind. However, the increase in the global population has added to the repertoire of mental illnesses. The development of certain industries that originated after the Industrial Revolution has created new issues that the human brain has to work with. For example, a fear of flying never really existed before commercial aviation. No one thought about flying thousands of miles across the oceans and the continents a century ago. The ability to fly has brought plenty of innovation, along with many problems (both physical and psychological). Shift in work patterns to around the clock hours in industries such as medicine and aviation have brought down the sleep time for employees and 'jet-lag' has become a very regular phenomenon for passengers and crew. The British Medical Journal describes Jet-lag as the following:

Jet lag is an ill-defined phenomenon resulting from rapid flight across several time zones. It is considered to be due to desynchronisation of circadian rhythms, such as the sleep-wake cycle, with local time and to lack of sleep. A means of rapidly resynchronising body rhythms to local time would benefit people who suffer badly from jet lag. (Arendt, Aldhous & Marks, 1986, p. 1170)

The era of the fast paced 'jet age' brought jet-lag to the limelight. Constant trans-meridian flights have become the norm and effects both passengers and crew. Lack of sleep and the disruption of the circadian rhythm may not seem like an issue at first, but there is research that proves the effects are quite substantial when it comes to cognitive

behavior and mental health. Increases in plasma or salivary cortisol levels are used as biochemical markers of stress, and normal cortisol levels have been shown to have a diurnal rhythm with a maximum level in the morning and a nadir during the night (Morris, Aeschbach, & Scheer, 2012). A study comparing cabin crew to ground crew demonstrated that cabin crew had larger amounts of salivary cortisol than the ground crew over each of the four career cohorts tried. This increment was kept up over the working day and appears to propose that flying builds the discharge of cortisol. In the study, all the aircrew subjects had several transmeridian flights in the preceding weeks, which may have caused the increase in cortisol secretion in the aircrew subjects (Kwangwook, Ennacuer, Cole & Suh, 2000). The study determined cortisol levels amongst cabin crew and ground crew. The results show that there definitely is a difference between the two groups that were studied. Chronic jet-lag also plays a role in cognitive deficits. The study mentions: The cabin crew group, who had a history of repeated jet lag, had altogether higher salivary cortisol levels in a normal working day. What is more, this elevated level of cortisol was found in the same subjects when the cabin crew were on transmeridian flights, but not local flights. The cabin crew team likewise showed psychological shortages, potentially in working memory, which became clear following quite a few years of unending interruption of circadian rhythms (Kwangwook, Ennacuer, Cole & Suh, 2000).

Repeated jetlag is often the case for cabin crew, which made a big difference when it came to cortisol levels. This indicates that the cabin crew go through more chronic stress levels than a single one-time passenger or ground crew. However, this can

vary if someone is actually going through some sort of fear or anxiety. For example, a passenger that is diagnosed with fear of flying (also known as aerophobia or aviophobia) may have much higher cortisol levels than cabin crew or frequent flyers who experience jet-lag.

There has not been much research conducted on the specifics of cabin crew stress induced by work. However, the unique pattern of cabin crew work shifts compared to a regular 9 to 5 job indicates differences in both psychological and physiological loads the cabin crew have to go through. A survey that has been done on cabin crew and work related stress found differences in psychological strain between short-haul and long-haul flights.

The higher psychological strain scores by the short-haul group in the study (when compared with their long-haul counterparts) were consistent with a small but growing pool of research that indicated disturbed sleep patterns and circadian rhythms — which have been well documented among long-haul staff — and may be more widespread than originally thought (Kelleher & McGilloway, 2005 p. 4) The mix of having long-haul flights and then turn- arounds can be very damaging to the sleep patterns and circadian rhythm of the cabin crew.

### **Cabin Crew Lifestyle & Culture.**

The lifestyle and the daily routine of aircraft cabin crew is very different from other jobs; constant travelling through time-zones and keeping track of daily chores and life routines can be extremely challenging. Besides the travelling, cabin crew also has to bid for a specific schedule depending on their rank. For example, some crew have to go

through training courses for specific aircraft like the A380. Therefore, A380 crew might have a very different schedule compared to other cabin crew for the same company. Furthermore, crew scheduling is based on maximizing the efficiency of each and every employee. According to the Handbook of Transportation Science, crew scheduling is only one of many planning issues confronted by airlines. Most of these planning issues can be dealt with a proper supervision and management structure. However, a larger company would have to shuffle around a lot of staff in case of any emergency or issue that may arise. This may cause some cabin crew or even flight crew to be working extra hours and unexpected shifts to cater to the company's needs. Carriers more often than not start by tackling a timetable configuration issue, in which they decide the flights to be flown amid a given time period (Barnhart, Cohn, Klabjan, Johnson, Nemhauser, & Vance, 2003).

Additionally, the Handbook of Transportation Science mentions how crew scheduling can differ between domestic and international flights. These processes are unique to commercial airlines. The way things work in the business aviation sector are completely different. Since the corporate/business aviation sector does not have fixed schedules, it can become challenging for cabin crew in this specific sector of the industry. Once again, just as commercial cabin crew, not a lot of research has been done on private jet cabin crew members. However, an article suggests that private airline cabin crew usually work alone, and they encounter significant dejection and social separation. Working without a regular schedule, and with many last-minute departures and frequent changes of itinerary during a trip, requires a high tolerance for ambiguity. Furthermore,

without the protection of a union, they must fend for themselves concerning issues of pay equity, discrimination, and sexual harassment. Cabin crew in the business aviation sector have more individual responsibility compared to cabin crew in a commercial airliner, however, they too may have schedules similar to the commercial airline cabin crews. However, this would likely not be the same in terms of frequency of flight as the commercial airlines would (Friedenberg, 2012). This comparison between cabin crew that work for airlines and the ones who work in corporate aviation show substantial differences in how they are affected by the variances in the nature of their jobs. Not all cabin crew are allowed to be in unions, especially in the Middle East. There, the concept of unions is not popular and therefore cabin crew members in Middle-Eastern or Asian carriers do not have union protection like many of the air carrier crew members in the US.

The cabin crew culture itself is very unique. Usually, a newly recruited cabin crew member sees the job as an opportunity to explore the world. Having said that, when the crew cross into different time zones, they may do something that is not aligned with their body's clock, for instance, going out to explore a specific town, or sleeping in during the day. All these factors are challenging and differ in views depending on the experience of the crew as well as their motives. In general, the cabin crew culture is to get out and explore the places where they are visiting while on a short layover and use sleep strategies to minimize the effects of jetlag (Ruscitto, & Ogden, 2016).

**Cabin Crew Ethics.**

Another issue cabin crew face is maintaining a neutral view in regards to passengers. There have been a lot of cases in the past where a passenger has been a target of racial discrimination. Aviation is an industry of immense globalization. People travel from all corners of the world and there are many different nationalities, race, religion and gender when it comes to passengers. Cabin crews need to maintain professionalism and make sure no passenger is harmed on their flight. This same issue can also have a huge effect on cabin crew if the discrimination is done against them. Not many people think about what the cabin crew has to go through when it comes to hundreds of flights each year. They themselves can be a target of racial, gender or even religious discrimination. Not only by the passengers but the airline itself. (Millward, 2011) This can add to the stress level they already might be experiencing. As a recent example, an airline passenger racially abused fellow flyers, made sexual comments to a flight attendant and bit a police officer during an air rage rampage. The 46-year-old then threatened to punch a flight attendant in the face and damaged an entertainment console. The individual was subsequently jailed (Spillett, 2015).

Dealing with drunk passengers can also be a very difficult task for cabin crew. This also happens quite often on long-haul flights. Recently a drunk airline passenger had to be tied to his seat after causing chaos on an Emirates flight; the individual had sexually assaulted the cabin crew and went to the extent of breaking into the cockpit (Shouk, 2014). This east European sailor was restrained after a frenzy on the Singapore to Dubai

flight. The 28-year-old was sentenced to one year in jail at Dubai Court of First Instance and was also fined a thousand dirhams, roughly \$280 US dollars.

Re-occurring instances like these are a very common cause of stress for cabin crew. The same article mentions that: “Last week, a Dubai court sent a British passenger for psychiatric evaluation after he allegedly assaulted an Emirates flight attendant, threatened to chop her into pieces and started smoking in the toilet after drinking rum and coke,” (Shouk, 2014, pg. 1) Abusive passengers are a growing threat to cabin crew and are a channel of stress because the cabin crew have to directly deal with such passengers.

Cabin crew have to be extremely tolerant and professional when it comes to dealing with passengers. As mentioned previously, they themselves may have different personalities and attitudes, added up to 300 passengers on one single flight, with which the crew may have to spend 15 hours. There can be several factors contributing to unruly passengers, as described in an Australian Institute of Criminology (AIC) report:

The term ‘unruly passenger’ is used here to denote all passengers who, through their demeanour, behaviour or failure to comply with cabin crew directions, present a threat to the safety or security of the aircraft or those on board, but who are not engaged in an act of sabotage or terrorism

Furthermore, the AIC report mentions the complications when it comes to understanding passengers onboard a flight and concluded:

International literature suggests unruly passenger incidents are driven by passenger, environmental and carrier factors. In particular intoxication, airline policy, passenger profiles, flight destination (as an indicator of business/leisure passenger mix) and service failures (i.e.) failure of the airline or service to meet the passenger’s expectations were identified and discussed as possible factors contributing to unruly passenger incidents in Australia and internationally. It was

noted that unruly passengers were managed through a number of proactive (e.g. aircrew training) and reactive (e.g. restraint) measures, and that there was no consistent best-practice framework across carriers to guide aircrew management of unruly passengers (Goldsmid, Fuller, Brown, & Coghlan, 2016, pg. 5).

There is a lot of complexity when it comes to understanding personalities and how they might react to certain situations. The complications that further add to these situations is the fact that no ground support is available during a flight. There are no 'law-enforcement' agents, or police that can subdue an unruly passenger and take him away. The cabin crew has to handle the situation. There may be an on board air-marshal on the flight, but this may also not be the case. Cabin crew roles vary substantially, and they must be able to work under the possibility of extreme circumstances (Parnes, 2003).

### **Differences between Flight Crew and Cabin Crew Stress Factors.**

There is plenty of discussion over who experiences the most stress when it comes to crew on an aircraft. In general, a lot of the research that has been conducted has been done on the flight-deck crew (pilots) because they are seen as the ultimate decision makers in any flight. A book called *Improving Teamwork in Organizations* mentions the relationship between flight deck crew and cabin crew: "The flight deck and cabin crews have markedly different task objectives and procedures; however, they share many aspects of the physical and operational context and follow established policies and practices that help them to coordinate their tasks," (Bowers, Edens & Salas, 2001 p. 108). Pilots, however, are known to experience the most cognitive stress. Cognitive stress is defined objectively as the nature of the task presented to the operator, e.g., excessive cockpit workload or inadequate information from which some critical decisions must be arrived at, such as landing in bad visibility or malfunctioning of ground aids (Jeeva &

Chandramohan, 2008). Research done on pilots goes in depth in identifying different types of stresses. This article also mentions that aviation psychologists have identified three types of stresses, including physical stress, cognitive stress and affective stress. Physical and cognitive stress deal with the body and the brain. According to the study, the most dangerous type of stress is affective stress. It mentions that affective stress affects a person within seconds of its onset, and can bring about a complete breakdown in rational behavior, as in the form of paralysis known as freezing at the controls. It is believed to be the most dangerous, especially as it is cumulative (Jeeva & Chandramohan, 2008). Cognitive stress differs as pilots have to focus on the flight deck while the cabin crew have to make sure everything is running smoothly in the cabin.

### **Emotional Labor.**

Cabin crew work in an environment where they have to follow certain attributes. There is limitation on what is acceptable and what is not. This complexity and strictness in the workflow causes cabin crew to deviate from just being themselves. Some personalities may have a higher conflict with obtaining and following these different attributes, which are not necessarily normal for a particular individual. For example, a shy, quiet and hesitant natured individual would have an extreme difficulty being the person who has to constantly talk and provide services to passengers over the flight period. Maintaining a certain type of emotion is deemed as emotional labour. This phrase was originated by Arlie Hochschild in 1983 (Taylor & Tyler, 2001). The constant changes in the dynamics of work, predominantly with the expansion of the service industry, led to understanding emotional labour. Emotional labour was defined by

Hochschild as dealing with one's sentiments to produce an openly acknowledged facial and real show of feelings. Essentially, emotional labour is an expression of feelings for a wage. Emotional labour is where an individual has to maintain and act out specific emotions that reflect the company's policy. Hochschild has mentioned two main forms of emotional labour. The first form is known as surface acting and the second one is called deep acting. Surface acting is where an individual has to tweak his or her surface emotions (mostly physical attributes like smiling) without actually having to feel them. Deep acting is modifying an emotion to match the organizationally required emotion (Hochschild, 1983).

In regards to this study, emotional labour can be seen as a requirement where cabin crew are forced to look and act a certain way, which hides their true feelings of possible stress and anxiety. Emotional labour itself is a very complex factor that can be studied among cabin crew. This would play a role in understanding more emotions and how cabin crew deal with them rather than actually looking out for stress factors and what may be causing them. The term emotional labour itself speaks volumes. As mentioned previously, there are many factors including personality traits that could help with coping with stress or maybe even make stress worse. Emotional labour is basically putting real emotions to the side and forcing an individual to act in a way that is acceptable to society and the workplace without taking into consideration of what the person may actually feel (Taylor & Tyler, 2000).

Besides the stress that is brought by external factors such as instances of unruly passengers on board the aircraft there are also internal factors that can make a big

difference in how cabin crew cope with stress. One of the most significant parts is personality and attitude. These attributes play a large role during the recruitment process. It is not easy to identify personalities and attitudes, but many cabin crew go through specific psychometric assessments before being hired. Some of the qualities that are required by most airlines is that the cabin crew must exercise self-control, be sensitive to emotions, and also be able to tolerate stress (Joyner, 2016). However, life events can bring deviations to an individual's mental health and depending on the type of that individual's personality

### **Gender Differences.**

There are many differences as well as similarities between men and women. However, for the role of cabin crew, there are no differences regarding of what each person/employee has to do. But, the reaction of each cabin crew member may differ to a certain event. When it comes to emotional labour, a study suggests that the majority of the emotional labour is undertaken by women (Taylor & Tyler, 2000). Cabin crew are usually part of unions around the world. The Middle-Eastern airlines are government run and therefore no intervention of unions are allowed. However, consideration of gender issues is critical when it comes to the rights of cabin crew. A recent dispute was won by a union in regards to female cabin crew wearing trousers during flight as opposed to skirts which was the airline policy. British Airways allowed the female crew members to wear trousers while at work. The union saw this not only as a win for equality but also a win for common sense as the crew are not forced to wear skirts going into destinations with cold weather, fear of mosquito bites etc. (Topham, 2016). This also was a win for the

mental health of female cabin crew, as they can feel comfortable with what they want to wear, and still maintain a uniform without being discriminated against. Unfortunately, not all cabin crew have the luxury of joining unions. This can add extra pressure amongst cabin crew.

### **High Stress Situations.**

The threat of terrorism is a very real one in this day and age, especially after 9/11. The hiring processes for employees contain background checks along with their skill sets. How cabin crew deal with terrorist threats and emergencies can make them heroes. This is a huge part of what cabin crew might have in the back of their heads before boarding any flight. A story of a young Indian cabin crew who saved 350 passengers of a Pan Am flight in 1978 shows how courageous the cabin crew job can require one to be in unusual circumstances. Neerja was the name of a cabin crew who showed her heroics on Pan Am Flight 73, which had a stopover in Karachi. While in Karachi, four armed men hijacked the aircraft that had mostly American passengers. Neerja had become the person in charge of the aircraft as the cockpit crew escaped from the emergency hatch. After hours of keeping the passengers as hostages, there came a point where Neerja, along with a passenger, opened the doors and let out the majority of the passengers down the chute. Amongst this chaos she was sadly shot and was one of the overall 23 casualties on that flight. She was awarded many times by different governments from around the world for showing extreme courage in an extremely stressful situation. She had saved lives and did the most any human could have done. She was a well-trained cabin crew and did everything in her control to keep the passengers calm and safe (Sahani, 2016). Situations

such as hijackings, terrorist threats and even emergency landings can really test the efficiencies of a cabin crew. Training becomes a very crucial part of cabin crew employment.

### **Physiological Effects of Stress.**

Stress makes a significant difference to the human body. When stress takes over the body that is when an individual can get in trouble. Stress is then no longer something just in the mind. A study done on stress among pilots mentions, “Often, the existence of stress related symptoms are suppressed by the individual and ignored by the company, until they become apparent through behavior changes such as aggressiveness, alcohol dependence, or through sickness such as hypertension, heart diseases, or peptic ulcer or decreased performance,” (Jeeva & Chandramohan, 2008, p. 61).

Kelleher & McGilloway conducted a 2005 research study on work related stress among cabin crew. The study findings mention that work related stress makes a huge impact both for the physical well-being and psychological well-being of the person experiencing it. As mentioned previously, stress becomes a more tangible problem when the body is affected by it. The study focused on work-related stress by examining the nature of work for cabin crew. The results indicated that cabin crew experience high levels of work related stress in areas that have important implications for their health and that highlight a need for appropriate recognition and formal support (Kelleher & McGilloway, 2005).

Measures of stress during simulations may work for pilots but the simulation techniques for cabin crew are different. The distinctiveness of cabin crew work can vary

rarely be simulated. All cabin crew go through numerous vigorous tests before they are hired, and cabin crew also go through simulated situations. As technology progresses, there are new simulation techniques that have come to be used. The simulation techniques have become a vigorous part of the training that cabin crew receive. A study conducted by Chang, Liao and Kuo on the development of such simulated techniques mentions that the objective of the crew team preparation is to furnish the group with information on crisis management techniques, which is taught in classroom sessions. The ability to complete those simulated crisis management systems, through practice in a sensible and realistic environment, is done with a Cabin Emergency Evacuation Trainer (CEET). Furthermore, the study mentions that the CEET is a mockup of the cabin of a real aircraft, which includes passenger and crew seats, galleys, aircraft doors, overhead bins and a cockpit. (Chang, Liao & Kuo, 2013) The purpose of a CEET is to replicate all aspects of the real aircraft relevant to the training. Some of the different scenarios that are replicated by the simulator are mentioned in an article and includes aborted take-off, engine fire, gear collapse, ditching and decompression. (Aviation, Defense, Security and Space Industries, 2016). Even though there is much training conducted for cabin crew, the training does not really provide a solution to a potential mental health issues.

### **Psychological Effects of Stress.**

The mental effects of stress are plenty and can be the cause of a psychological problem as well. The mind is a very powerful tool in the human body. To cope with external factors, it has to process in a vigorous manner. External factors can be anything from a bad experience decades ago to being in a very constrictive place for hours doing

work (like a pressurized cabin of an aircraft). Cognitive behavior can change and be effected by all the kinds of stressors. Chronic exposure to stress hormones in our body can have an impact on the brain, in thinking and acting. The environment in which the behavior is conducted can also play a huge role in the mental effect of stress. Many disorders can be born from long exposures to stressful situations (Lupien, Mcewen, Gunnar & Heim, 2009).

A book on aviation mental health, *Psychological Implications for Air Transportation* indicates there is a growing understanding of mental health issues, and this has the potential to make a big difference in the aviation industry. To be able to understand the problems of mental health is key. Once people can understand the problems, they can also produce solutions that can be lifesaving. The book mentions different training procedures for cabin crew including the recruitment process, which incorporates both groups and individual interviews, medicinal and language testing, and new cabin crew members participating in a four to six-week instructional course. This covers statutory necessities, for example, wellbeing and crisis strategies preparing, flight medication, hijack/security methods, conflict management, restraining and breakaway procedures (Bor & Hubbard, 2006). Most of the carriers include similar training methods as a requirement for their cabin crew.

### **Methods of Preventing Stress.**

Depending on the level of stress and its effect on an individual, there are many preventative measures people can take to cope with stress. One of the most important actions is to make sure the overall lifestyle is healthy (Morin, 2013). This includes good

eating habits, regular exercising, and good sleeping habits. In addition to these common sense strategies, there are plenty of other points that can prevent or lower an individual's stress level. Some of these points are to meditate and massage. In order to balance the hormones, it is really important to be in a relaxed state of mind. With meditation, exercise, and living a healthy lifestyle, stress can be significantly reduced (Morin, 2013). If, however, stress is taking over an individual's life, where it becomes almost impossible to accomplish day to day activities, then professional help must be sought to develop a more specific solution can be developed which might include a combination of medication, a diet plan, and an exercise plan (Robinson, Segal & Smith 2016).

### **Statement of the Problem/Research Question**

There are plenty of factors that must be taken into consideration when it comes to analyzing mental health, anxiety and stress. Additionally, there are plenty of different phrases used to describe anxiety and the level of stresses. From understanding emotional labor, to workplace conditions, each factor can contribute in alleviating or aggravating stress. The general understanding of stress and anxiety is known, however, in this day and age, the effect of stresses in workplace and among working employees is important to understand as it may directly impact an individuals' or an organizations' productivity and well-being.

Cabin crew operate in a very unique environment in which they have to deal with thousands of passengers on a weekly basis. Along with providing services to passengers, the cabin crew must be extremely proactive in understanding the risks and hazards of any emergency which can take place at any time. Along with all these factors, cabin crew

have to maintain a respectful demeanor as they are representing the airline throughout the world. Physiological and psychological issues would seem to be common in a work environment of a cabin crew, but they are hardly talked about. It is crucial to understand if there is a certain level of stress that is reported by the cabin crew and what key factors contribute to it.

The purpose of this study is to determine the effects of mental health issues on Emirates Airlines cabin crew. The following are the specific research questions that will be answered:

- What are the current levels of stress reported by cabin crew?
- What are some of the factors that cause this stress among cabin crew?
- Does jet-lag, workload, and workplace conditions have direct implications towards cabin crew stress?
- Do female cabin crew experience more or less stress than male cabin crew?
- Is there anything that cabin crew can identify which can be used to reduce their stress levels?

## CHAPTER II – METHODOLOGY

As discussed previously, the purpose of this study was to analyze the effects of mental health issues on Emirates Airline cabin crew by looking into different factors that may cause stress, including jet-lag, workload, and workplace conditions. To ensure the study was fair and ethical, it was approved by the Institutional Review Board at Middle Tennessee State University as protocol number 16-2211 (Appendix A). There has been limited research conducted on the mental health issues faced by cabin crew. No research could be found on mental health issues on Emirates cabin crew, one of the busiest air carriers in the world. Various bits of past academic research has been conducted on flight crew as well as ground crew and has been more specific in regards to fatigue. Although fatigue is an interconnected factor to mental health and stress, it is not the only factor that can be caused by a busy lifestyle with disturbed circadian rhythms. There are many other factors that are taken into consideration, and this study provides an in depth analysis of what are the top factors that can have an effect on an Emirates Airline cabin crew.

To gain the optimum results for this research, a triangulation method was used. This included both qualitative and quantitative techniques for obtaining data. The birth of triangulation stems from a navigation and military strategy that uses several standpoints to pinpoint a more accurate reference. Even with elementary values of geometry, more viewpoints mean better accuracy. This also goes hand in hand with research methodology. With more types of data being observed and collected, there will be better understanding and accuracy of judgement. The accuracy is crucial when it comes to

understanding a topic which may be a little less clear by its nature. Mental health cannot just be analyzed by numbers. There has to be information on past experiences of an individual that can be correlated to a score that will be provided by the survey. To make assumptions solely based on a single type of research technique is not efficient, especially with the topic of mental health.

Primarily, a descriptive research methodology was used for this study. A survey was administered to a selected sample from a specific population of Emirates Airline cabin crew members. The survey used was based on an ISMA (International Stress Management Association) questionnaire (see Appendix B). The survey included generic demographic questions which contained age and gender and then a list of questions that focused on workload/workplace conditions and stress. Quantitative data obtained by the questionnaire/survey gives a numerical value that can be analyzed statistically, whereas the qualitative information obtained by the interviews will give a better understanding on what issues are being faced and may or may not back up with the statistical analysis. Therefore, both quantitative and qualitative approaches were used to better understand the scenarios faced by cabin crew at Emirates Airline and to satisfy the research questions of this study.

The ISMA questionnaire in its original form is generic. There is no specificity on cabin crew and their stress levels hence the questionnaire was modified to fit the requirements for cabin crew. These modifications included questions that were more aviation related. For example, questions about nervousness on a flight were more specific

to cabin crew, along with possible encounters with unruly/disruptive passengers. These were included to better understand and cater to the cabin crew experiences.

The overall survey asked very relatable questions to stress and anxiety and provided a score that reflected the level of stress an individual was experiencing. This survey proved to be an effective tool for this study. Higher scores meant that there definitely is a potential mental health issue the crew is experiencing. The lower the score, the better the crew member is at coping with stress.

### **Participants**

The participants in this research was cabin crew working for Emirates Airlines. They were from different backgrounds in terms of years of experience, age, and gender. A sample size of 300 people was taken and the participants were approached through social media and word of mouth. Emirates' cabin crew has an independent Facebook group where they discuss issues and swap flight schedules with others. The group is called EK Swaps and has over 6000 members. The group is restricted to Emirates cabin crew and a friend who is member of this group was able to provide access to individuals who are members of this group. Along with EK Swaps, there were numerous other similar groups only for Emirates cabin crew that were based on batch numbers and seniority. The survey was linked in all of these groups by the friend who had access as a member. Specifically, on EK swaps group the survey was pinned for maximum exposure whereas on the other groups it was simply shared as a link on the main discussions page. A couple of cabin crew friends were asked to do the interviews and a few others were approached by word of mouth through acquaintances. There were 378 participants who

took the online survey. Out of this 378, 240 completed the survey. The rest either did not complete the survey, or opted out from taking the survey.

### **Instruments**

The survey was created using SurveyMonkey.com due to its efficient nature in gaining and analyzing the data. This online survey platform provided participants with questions based on demographics as well as experience. The question types ranged from interdependent questions to Likert scale type questions asking about the intensity of stress on their psychological or physiological state. The Likert scale choices included the range from 1) strongly agree, 2) agree, 3) neutral, 4) disagree and 5) strongly disagree. The interdependent questions were designed to gauge an overall assessment of a specific cabin crew member's mental health and past experiences. Furthermore, the questions addressed both good and bad experiences and how they turned out to effect the cabin crew behavior. The survey (see Appendix C) also asked the participants about the relationship between stress and workplace, workload and sleep factors and was based on the ISMA questionnaire mentioned previously. There were a total of 45 questions in the survey. The first page mentions the informed consent where the participant can decide if he or she would want to carry on with the survey. The questions on page 2 of the survey gathered general information regarding the demographics and experience of the participants. The questions on page 3 focused on the ISMA based questions, and were all 'yes' or 'no' answers. The questions on page 4 of the survey focused on the cabin crew experiences specific to on-board anxiety as well as Likert scale questions that asked about the workplace and workload of the airline. The questions on page 5 and 6 asked

about any previously known mental health conditions of the individual. This continued to explore if anyone with previous experiences has had their cabin crew work effected by anxiety.

### **Data Analysis**

The following guidelines explain the scoring scheme for the survey. For each 'yes' response, the question was assigned 1 point; and for each response of 'no', 0 points were awarded. These scores were out of the 32 questions adapted from the ISMA questionnaire on page 3 of the online survey. The scale was used to analyze the stress levels of the cabin crew.

The following were the total points and their scenarios-

**(5) Points or less:** Individuals are least likely to suffer from stress-related illness.

**(6-17) Points:** Individuals are more likely to experience stress related ill health either mental, physical or both. They would benefit from stress management / counseling or advice to help in the identified areas.

**(18) Points or more:** Individuals are the most prone to stress showing a great many traits or characteristics that are creating un-healthy behaviors. This means that they are also more likely to experience stress & stress-related illness e.g. diabetes, irritable bowel syndrome, migraine, back and neck pain, high blood pressure, heart disease/strokes, mental ill health (depression, anxiety & stress). It is important to seek professional help or stress management counseling.

## Interviews

Interviewing 5-10 cabin crew and finding some commonality between their stress factors also helped with answering the research questions. This was done to strengthen the research and was conducted through face-to-face meetings. This provided an opportunity for the crew members to express whatever they thought is important instead of giving them a choice to choose from. The interviews took place with crew of different experience levels, gender and age. The questions that were asked in the interview are:

- Do you think that Emirates Airlines provides appropriate/any measures to help you relieve your work stress?
- Do any of Emirate Airlines policies cause you extra time/pressure to complete your job? If so, what are these policies?
- Do you have any peer pressure from your colleagues? If so, please explain what this pressure is with regards to.
- Do you think the cabin work brings you more stress than other previous jobs you've had? If so, please explain.
- Does the chief flight attendant typically cause additional stress for you, or typically work to alleviate stress for you?
- What do you personally think would be the best way for you and your colleagues to reduce stress? (any changes in the workload, workplace or personal lifestyle?)

The qualitative data analysis included, observing similar patterns among each interviewees answer. Any interviewee that had something unique to say was also outlined. Both similarities and differences were observed and analyzed from each

interview. Along with the questions, body language of the cabin crew was also observed. Specifically observing anxiousness while answering specific questions. Most of the answers are grouped in both positive and negative experiences.

Surveys were administered through the internet via the Survey Monkey website. The participants were able to answer questions directly on Survey Monkey and the data was gathered automatically. The interviews were done face-to-face with a handful of cabin crew separately. No personal information was disclosed in either the survey or the interview. The questions in both the survey and the interview were designed to answer all the research questions of this study.

### CHAPTER III – DATA ANALYSIS

There were a total of 378 responses obtained from the online survey. Out of the 378 responses, 375 were acquired through the web link and only 3 were directly done through a Facebook post at the initial stages of the data gathering. The web link was copied to various Facebook pages and groups as well. The surveys were all done on SurveyMonkey.com. Out of the 378 responses, 371 participants agreed to take the survey whereas 7 declined. However, out of the 371 who agreed only 240 had fully completed the survey. These 240 responses were what was used for the data analysis, as the most accurate representation of participant responses. In addition to the survey, there were five interviews which were conducted for a qualitative analysis. The results will be later discussed in this chapter and compared to the survey data. Each response was a critical part of the study in understanding the factors that caused stress amongst cabin crew. By combining the results of each survey question with the qualitative understanding provided by the interviews, a clearer picture will be generated to answer the key research questions of the study.

#### **Demographic Information**

The first part of the survey focused on the demographics of the participants. Below are the tables of each demographical representation that was used. It is very important to understand and analyze the demographics of the participants as they have a direct relationship to the main research questions asked. Furthermore, the demographics, as characteristics of the sample, will give a good general understanding of the organization which was the main research vehicle for this study.

Table 1 breaks down the age groups of the participants. The majority of the participants fell in the age group of 21 to 30 years old. Out of the 240 participants who did complete the survey, only one was in the age group of 41-50. There were a total of 43 individuals who were part of the age range of 31-40.

Table 1

*Participants age count*

Age Groups	Total	Percentage (%)
21-30	196	81.67
31-40	43	17.92
41-50	1	0.42
Total	240	100.00

Table 2 shows the gender ratio of the participants at Emirates Airline. Approximately 83% of the total participants were female while just 40 out of the 240 were male (17%) and one person identified as 'other'.

Table 2

*Participants gender count*

Gender	Total	Total Percentage
Female	199	82.92%
Male	40	16.67%
Other	1	0.42%
Total	240	100.00%

Table 3 shows the total number of years of experience participants had with Emirates Airlines. The majority of the cabin crew are reasonably new. Around 66% of the total participants have been with the airline for 0-3 years. The highly experienced cabin crew, ranging from 9-15 years in service, make up around 6% of the total

population of the participants. The rest, who fell in the category of 3-9 years of experience, made up around 28 % of the population that participated in the study. Lastly, a very small percentage of the population, 0.83% specifically, had experience of over 15 years with Emirates Airline.

Table 3

*Years of experience with Emirates Airline*

Years of Experience	Total	Percentage (%)
0-1	77	32.08
1-3	83	34.58
3-6	48	20.00
6-9	18	7.50
9-12	7	2.92
12-15	5	2.08
15	2	0.83
Total	240	100.00

Table 4 below shows the reasons participants indicated that they chose to become cabin crew.

Table 4

*Reasons why participants chose to become Emirates Cabin Crew*

Reasons of why participant chose to become cabin crew	Total	Percentage (%)
As a temporary job	11	4.58
For the excitement of the aviation industry	40	16.67
To travel	122	50.83
To make money	49	20.42
Other	18	5.63
Total	240	100.00

Table 4 shows that the majority of the reasons the participant indicated choosing to become cabin crew was that they wanted to travel. More than 50% of the participants chose the option to travel. Furthermore, only a handful of participants chose the options for “making money”, “doing the job as a temporary move”, “for the excitement of the industry” or “other”. Within the choices of “other”, participants were allowed to type what may have been a reason for them to join as a cabin crew that was not specified in the options. Many of them typed a combination of options given, for example, to make money and to travel. Four out of the 18 people who chose “other,” typed “all the above.”

### **Level of Stress**

The stress related questions began in the online survey from question 6 through question 37. These 32 crucial questions that required a yes or no answer gave an overall score for each individual person who completed the survey. This score represented a certain level of stress for the participants. The scores were based on the ISMA questionnaire from which the majority of the questions were obtained.

Before the analysis could be carried out, there was a slight error discovered that was made in the questionnaire as mentioned before. The calculation of the “level of stress” was based on the international stress management association questionnaire/survey. The criteria mentioned in the methodology is that a 'Yes' will be 1 point (meaning yes as in the point goes towards a stressful situation) and 'No' will be 0, meaning it is not perceived as a stressful situation. There were a few more crew specific questions in the survey added, for this study. Specifically, for 3 questions the answers

were reversed so a 'Yes' did not indicate a stressful situation and instead a 'No' would indicate a stressful situation. The questions which were reversed included:

1. I am always able to obtain a full 8 hours of sleep before I begin a trip (i.e.) 'YES' would be equal '0' point as the participant is actually obtaining a full 8 hours of sleep, however a 'NO' would be equal to '1' point due to the lack of sleep)
2. I am always able to obtain a full 8 hours of sleep each night that I am on a trip.
3. I feel able to cope with and handle a medical emergency on the aircraft.

For these specific questions the answers were reversed to give a correct representation for the analysis. This did not affect the study in any manner. The results illustrated in the tables and graphs are with the correctly reversed answers for those 3 questions. The current level of stress scores are shown in the figure below:

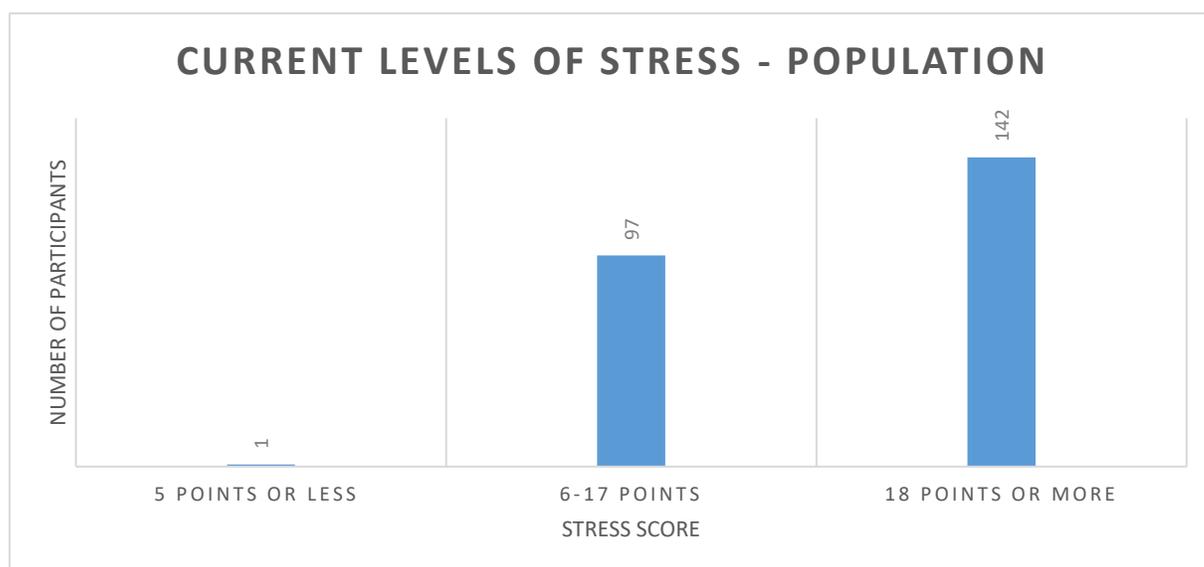


Figure 1 : *Current stress level scores of the participants*

There was only 1 participants who had a score which was less than 5 points. This meant that only 1 person out of the 240 that were surveyed was very unlikely to suffer from stress-related illnesses. The 97 participants out of the 240, roughly 40 % of the participants, fell under the category of people who scored 6-17 points. This percentage of the overall participant population is more likely to experience stress related health illnesses, which can be either mental or physical and may require advice for such issues. Lastly, the majority of the participants were part of the stress score from 18 points and onwards. This meant that 142 out of 240, which is 59% of the population of the participants, is prone to stress showing in many ways, especially creating unhealthy behaviors. This score shows that cabin crew stress levels are high, which could cause both mental and physical problems.

The average stress score for all the participants was 17.98. This number seems quite high. Rounded up to 18, it can easily be said that the majority of the cabin crew experience high stress, that can lead to many physiological and psychological problems.

As mentioned earlier, the age groups were split into three groups. – First, 21 to 30 years of age in which the minimum age for cabin crew recruitment is 21, second, 31 to 40 and last, 41 to 50. The average stress scores for each group was also at the higher end. The average scores are listed in table 5 below.

Table 5

*Stress score for each age group*

Age Groups	Total	Average Stress Score
21-30	196	17.94
31-40	43	18
41-50	1	26

These stress scores are high throughout each age group. There was only one person above the age of 41, and the score for that individual was 26, which itself is an extremely dangerous level of stress.

### **Factors That Cause Stress**

In order to see what are some of the factors that specifically cause stress among cabin crew, the questions with the most 'Yes' answers were examined from the survey (see figure 2). The question which had to be reversed received the most answers for yes. This particular question stated: I am always able to obtain 8 hours of sleep. The majority of the participants, specifically 221, answered 'No.'

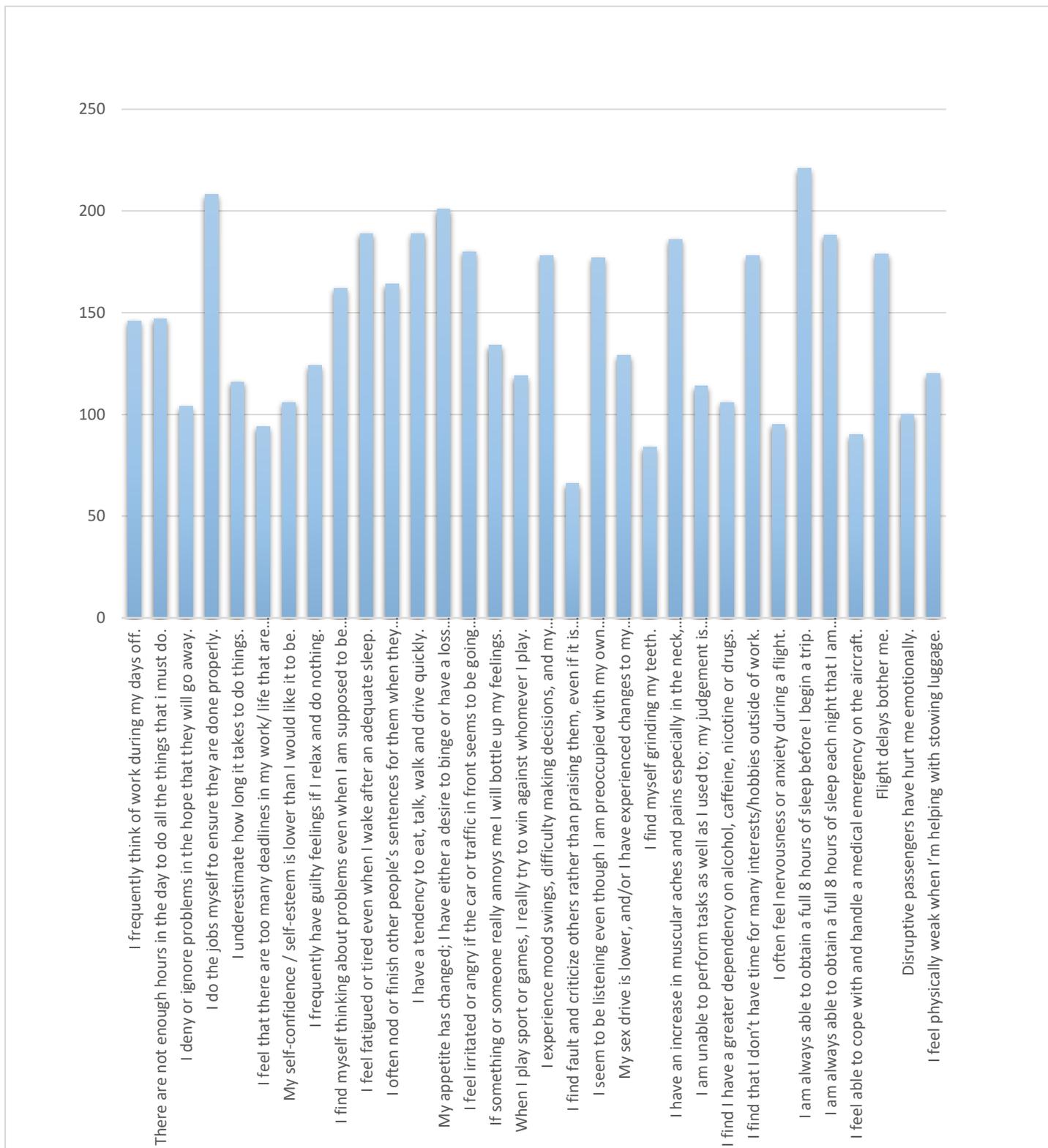


Figure 2 : Intensity of each stress factor

Another key factor that had the highest stress score in the responses was appetite. The question states: “My appetite has changed; I have either a desire to binge or have a loss of appetite or may skip meals”. A number of cabin crew have had their appetite changed. This is a factor that can induce more stress or can be caused directly by stress at work. There were, a few other high scores on questions regarding fatigue and physical pain. For example, question 10 mentioned “I feel fatigued or tired even when I wake after an adequate sleep.” This received around 186 ‘Yes’ out of the 240. This along with question 22 which states, “I have an increase in muscular aches and pains especially in the neck, head, lower back, and shoulders.” scored highly. It is also important to observe the factors that had the lowest stress scores. The question that had the lowest stress score was “I find fault and criticize others rather than praising them, even if it is deserved.”

For ease of comparison, the top 5 stress factors from the survey are shown in Table 6 below with their corresponding scores.

Table 6

*Top stress factors*

Stress Factors	Stress Score
I am not always able to obtain a full 8 hours of sleep before I begin	221
I do the jobs myself to ensure they are done properly.	208
My appetite has changed; I have either a desire to binge or have a loss of appetite or may skip meals.	201
I have a tendency to eat, talk, walk and drive quickly.	189
I feel fatigued or tired even when I wake after an adequate sleep.	189

Figure 3 shows how relationship amidst the top 5 stress factors:

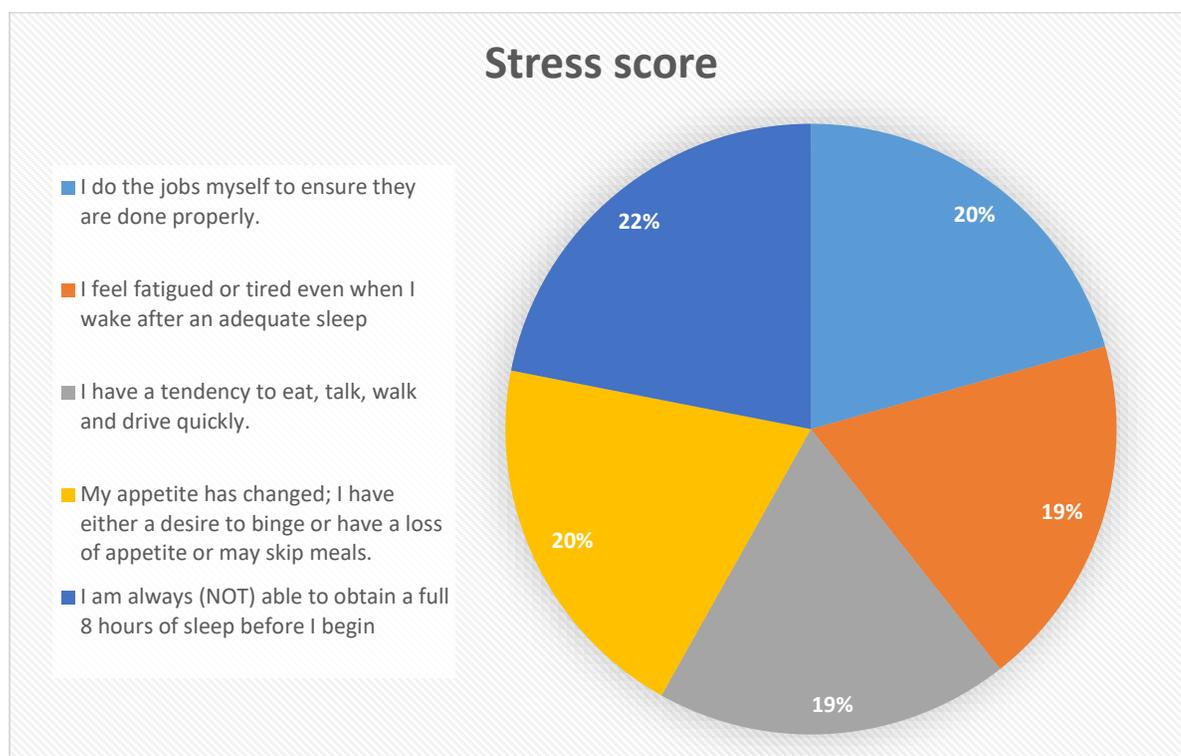


Figure 3 : *Top stress scores percentages*

Figure 3 also illustrate that each stress factor is also closely related to each-other. For example, appetite changes can occur due to lack of sleep along with being fatigued. All stress factors are inter-relatable.

### **Workplace Environment**

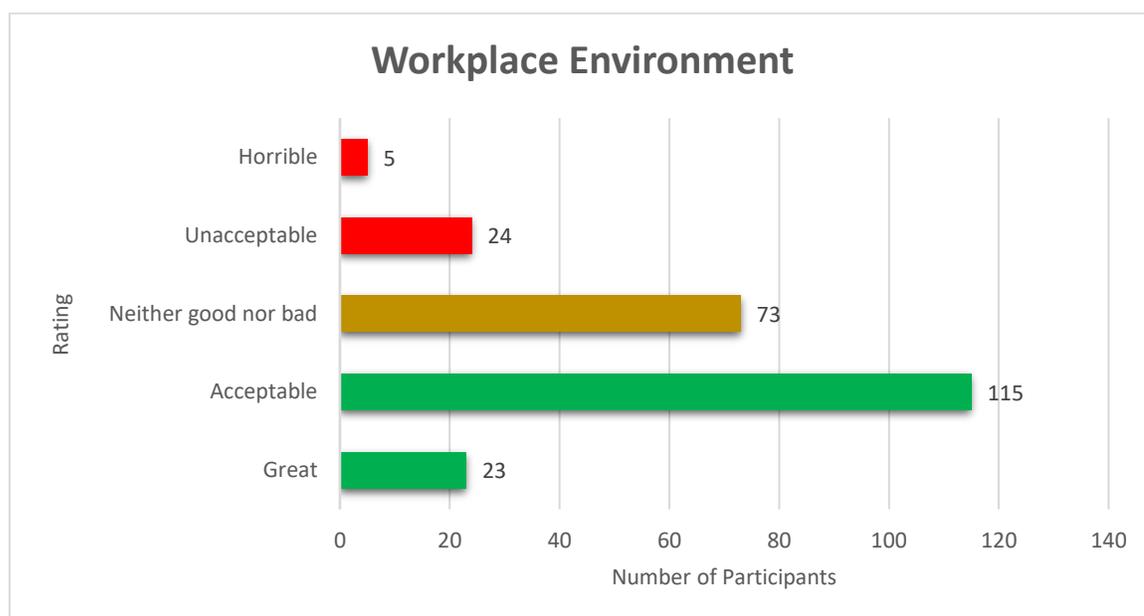
Table 7 indicates what the cabin crew thought of workplace environment at Emirates Airlines. Table 7 also shows the number of responses for each Likert option regarding the workplace environment at Emirates Airline, along with the percentages. According to the survey, the highest number of responses was “acceptable” followed by “neutral.”

Table 7

*Workplace environment for cabin crew*

Please indicate which best describes the workplace environment for cabin crew of Emirates Airlines:	Total	Percentage (%)
Great	23	9.58
Acceptable	115	47.92
Neither good nor bad	73	30.42
Unacceptable	24	10.00
Horrible	5	2.08

Figure 4 further illustrates how satisfying the cabin crew find their workplace conditions at Emirates airline. Only 12% of the participants find the workplace condition horrible and unacceptable. More than half of the participants surveyed find the workplace acceptable and great.

Figure 4 : *Workplace environment rating*

This identified that the workplace environment was, in general, acceptable and there was not much impact in its effect on the stress scores.

### **Workload at Emirates Airlines**

Table 8 shows the total number of answers for each description of workload conditions at Emirates. The most frequent response of table 8 was ‘acceptable’ with around 37% of the cabin crew answering for this choice. But, Table 8 also illustrates that there was a high number of neutral responses (27%) and unacceptable response (25%). Comparing workplace environment to workload conditions, there appears to be a considerable difference.

Table 8

#### *Workload conditions for cabin crew*

Please indicate which best describes the workload condition for cabin crew of Emirates Airlines: -	Total	Percentage (%)
Great	15	6.25
Acceptable	89	37.08
Neither Good nor Bad	66	27.50
Unacceptable	59	24.58
Horrible	11	4.58

Figure 5 further illustrates the workload conditions at Emirates Airlines.

Once again, the overall rating that was ‘horrible’ or ‘unacceptable’ was low. However, much higher than in the Workplace condition figure.

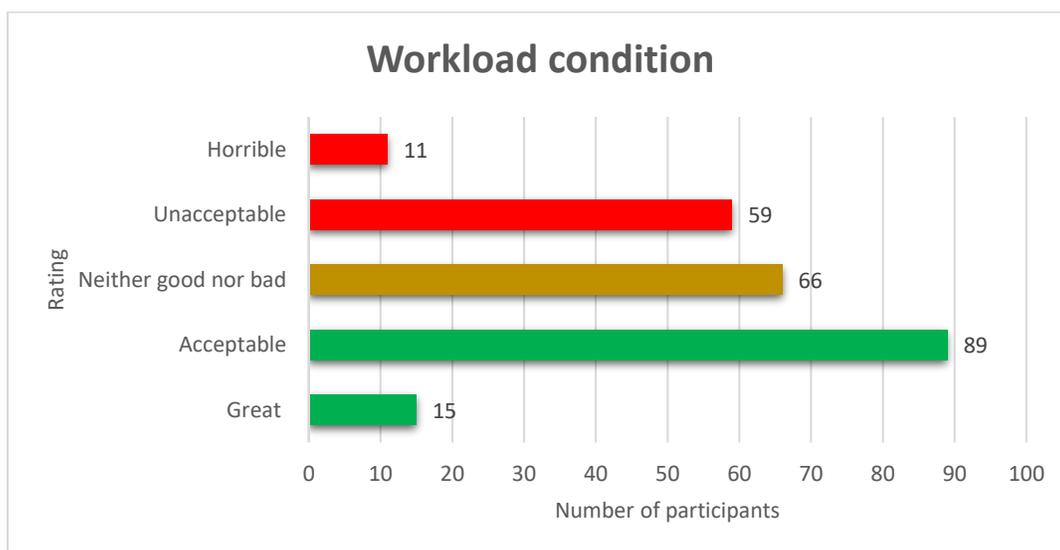


Figure 5 : *Workload condition rating*

### **Difference between Male and Female Participants**

From the data analysis the mean male stress score calculated was 15.93 while the mean female stress score was 18.40 (see table 9). A T-test for the differences in the means was run, and a significant difference was found between the two groups. ( $p = .0062$ ) at the 95% confidence interval ( $t = 2.8509$ ). Statistically, the male cabin crew had a lower rate of stress for the questions answered regarding the 32 related stress levels. There were a range of different factors and their significance was compared between the male and female participants.

Table 9

#### *Male and Female comparison of stress scores*

Group	Male	Female
Mean	15.93	18.40
Standard Deviation	5.01057800	4.94748500
SEM	0.79224194	0.35071791
N	40	199

The null hypothesis is that male average equals to female average and the hypothesis is that the male average does not equal female average. In order to get a better understanding of the relationship between the male and the female participants, a handful of factors were statistically analyzed to show the significance.

There is a significant difference in Self-esteem of females when comparing their ages. The proportion of females aged 21-30 who claim their self-esteem is lower than they would like it to be is lower than the proportion of females aged 31+ who claim the same thing. This also correlated into the next factor, where the difference in appetite between males and females showed that females had a higher tendency to binge eat than men, as the significant level was observed at 0.05 and the  $p$ -value for the difference in appetite was at 0.014.

For the difference between males and females when comparing their lowered sex drives or changes in menstrual cycle the  $z$  value was calculated to be 3.132 and the  $p$  value was at 0.002 showing significant difference. The females felt a greater decrease or change in their sex drive and/or menstrual cycle.

Another factor observed was the differences between males and females when it came to their experiences with disruptive passengers. There was a significant difference as females experienced more emotional damage than men when faced with disgruntled passengers. The  $p$  value was calculated to be 0.031 which is lower than 0.05 significance level.

Overall, there were many significant differences in factors that were analyzed in this study between male and female participants. Of course the overall population ratio of the participants differed considerably between males and females, as well.

### **Qualitative Analysis**

There were 5 interviews conducted for this study, with 6 questions asked in each interview. There were a variety of different answers by each of the interviewees. Along with the differences in experiences that were answered, there were also quite a few similarities. The five cabin crew who were interviewed were all female. Each question from the interview is analyzed with both the similarities and differences indicated. Body language was observed for each interviewee but no real outliers existed.

#### Interview Question - 1

##### Similarities

For the first question, which stated ‘Do you think that Emirates Airlines provides appropriate/any measures to help you relieve your work stress?’ all the cabin crew mentioned the amount of benefits they receive really helps. The benefits included staying at luxurious hotels wherever they fly, their personal accommodation and travel benefits within Dubai, and also the discounts they receive at numerous places around the world. Each person interviewed had mentioned the benefits of discounts was a huge plus point of being part of Emirates Airlines.

##### Differences

The one major difference was that two out of the five cabin crew interviewed mentioned that days off were a benefit, however one of the cabin crew mentioned that

rostering was an issue and the days off were not enough to be a benefit. In fact, the lack of days off adds to the stress for that specific cabin crew member. Another unique response by one of the interviewee was that airline has different events, seminars and socials. Things like cooking lessons and gatherings that are more lifestyle related that helped the crew as a benefit in overcoming general stress.

#### Interview Question -2

Question 2 stated ‘Do any of Emirates Airlines policies cause you extra time/pressure to complete your job? If so, what are these policies?’ The one point which was almost replicated with every crew was rostering policies. Each interviewee complained about how tough it gets to schedule and organize their own lives around the schedule given by the crew scheduling department. One crew mentioned that they knew the nature of work would require working at odd times to different places, but it is a policy that does indeed cause extra pressure to complete the job. Another interviewee mentioned that the roster planning policies de-standardization makes it tough to do things on time and the fact that sometimes crew have to be on stand-by can just add to the pressure as they would not know where they will be flying to (long haul or turn around) on the day of the standby.

#### Differences

One of the crew mentioned that security checks are rushed, along with the whole process of boarding the aircraft; this system to her is extremely inefficient and also risky. The rest did not mention anything about the policies or procedures of boarding the aircraft or security as an issue. Another crew mentioned that policies focused on beauty

and health can be a little intimidating. She mentioned that being weighed is a normal check to see if they are within a standard. Also uniform policies can be stressful because weight checks and beauty checks can happen before any flight and some people may even get warnings.

### Interview Question – 3

#### Similarities

The question stated “Do you have any peer pressure from your colleagues? If so, please explain what this pressure is with regards to.” According to all the interviewees, peer pressure did exist depending on the flight and seniority of certain peers. This was a repetitive issue in each of the interviews. Some of the crew mentioned that problems were simply intensified due to the difference in seniority. Some peers felt more powerful and picked on trivial issues like the color of the lipstick. However, according to a few cabin crew, peer pressure exists in any place of work and due to the size and magnitude of work at Emirates Airlines peer pressure becomes an issue. There were surprisingly not many differences amongst each of the interviewee.

There was one interviewee who mentioned that peer pressure can also be an issue when it came to sharing accommodation. Just like college, cabin crew have to share accommodation unless they pay more for a single room. Sometimes conflict can occur and can be a stressful situation.

### Interview Question – 4

#### Similarities

Question 4 stated, "Do you think the cabin work brings you more stress than other previous jobs you've done? If so, please explain." Due to the differences in each cabin crew background there were a range of answers from each interviewee. Most of them agreed that the cabin work brings more stress. One of the crew mentioned that it is stressful due to 'no running away' from the job. The crew member, comparing it to her previous job, mentioned that it 'sometimes feels like getting stuck into a metallic tube... almost claustrophobic.' This point is similar to another interviewee who mentions that sometimes during work you have to physically be with someone for a long haul flight who may not appreciate what you are doing and might even cause issues inflight (whether it's a passenger or a fellow crew). Even though crew are given rest periods, if they flight is fully booked, they can be called up at any time for assistance. This is technically not allowed, but has become the norm to assist people during personal break times inflight.

One of the interviewees mentioned that the job expects a cabin crew to know how to do everything from being a chef, nanny and even a firefighter during an emergency. The roles are unique and comparing it to another job is not even fair. According to the interviewee, it is one of the toughest jobs that she has ever done.

#### Interview Question - 5

Question 5 asked about the chief flight attendants. The question stated, 'Does the chief flight attendant typically cause additional stress for you, or typically work to alleviate stress for you?' The answer for this question was consistent amongst each interviewee. They all agreed that chief flight attendants typically cause additional stress

by giving more work to do on the flight. Then again, they also mentioned that each person has a different approach. Even though the workload keeps creeping up, some chief flight attendants lead by example, and some just sit there and think they are the boss. Overall, the workload given by the chief flight attendant adds to the stress levels and this was consistent amongst each interviewee. Adding to the answers, a mild form of anxiety was seen amongst a few cabin crew when asked the question about their chief flight attendant. The body language suggested that it was rarely a case where the chief flight attendant would be alleviating stress.

#### Interview Question – 6

Question 6 asked ‘What do you personally think would be the best way for you and your colleagues to reduce stress? (Any changes in the workload, workplace or personal lifestyle?). Question 6 was an open question and each interviewee had a different perspective and solution. The first interviewee mentioned that physical activity as part of a person’s daily routine was important and helped reduced stress. Furthermore, trying to be proactive and organizing your whole week (depending on the roster) was helpful. The second interviewee mentioned that meditation helped out with stress. Also, to constantly be positive and think positive under tough circumstances within a flight could result in a more optimistic mind. The third interviewee mentioned that in order to reduce stress, it would be a good idea to somehow close the communication gap that exists between the cabin crew and the upper management. There are many areas where the crew will never be able to report a serious problem if it keeps getting turned down. The fourth interviewee also had a similar stance, stating “there is a lot of time wasted

with unnecessary checks. The best way would be to construct a better management system for crew in which the negatives that are unfortunately sensationalized in the organization come to an end and the positives should be appreciated more.” Lastly, the fifth interviewee mentioned that workload is the only thing that needs to be changed at the organization. Either more crew needs to be hired or the rostering system has to be more civilized and appreciative of the amount of effort put in by each cabin crew.

## CHAPTER IV - DISCUSSION

The primary goal of this thesis was to identify the level and effects of mental health issues and stress faced by cabin crew at Emirates Airlines. Along with identifying the level of stress faced by the cabin crew, it was also crucial to determine some of the factors that caused the heightened level of stress. These factors and issues were addressed through the research questions. The relationship between these factors were analyzed after data collection and significant results were found.

The demographics of this study were reflective of another study done on cabin crew by Kelleher & McGilloway. The general industry norms according to this study shows a higher number of female cabin crew when compared to male. The participants of the current study showed a similar pattern, with the percentage of females at 83%. The majority of the participating cabin crew were in the experience group of 0-6 years, and the age group with the most participants was 21-30. The most popular reason for cabin crew to have chosen this job was simply to travel. This all adds up to the conclusion that people who choose this job appear to do it temporarily so they can travel the world for a few years before they eventually settle down. According to the results, not many cabin crew work beyond 6 years in this position. This is also supported by the qualitative analysis, where the cabin crew were asked about the airline providing services to reduce their stress levels. All of the cabin crew interviewed mentioned positively the travel benefits they receive and especially the high quality of the stay in each place they fly to.

Discussing the first research question, the current levels of stress that were reported by cabin crew were high. The required average point for a low stress score was easily surpassed by the majority of the participants. Looking at the average stress score number for all the participants, it can be said that stress levels are high among cabin crew. The average stress score for all genders was 17.98, which was towards the higher end of the scale. The scale states that anyone with the score between 6 to 17 points is likely to face stress issues that may need counselling and anyone with 18 points or more are more likely to suffer from stress related issues and even illnesses that may require professional help. There was a slight difference in stress scores between the male participants when compared to the female participants. Determining what caused these high numbers was the next step of the investigation and the answer to the second research question. The second research question focused on the factors with the highest stress scores. The highest stress factors were related to the amount of sleep received, appetite changes, and having to do jobs themselves in order to do it properly. There is no doubt that many other factors were also contributors when it came to analyzing the stress scores. The consistency in the answers from the qualitative interviews showed that unique instances and situations on board during a flight or even on ground can also be factors that add to stress, besides just the general workload or irregular lifestyle patterns. The pressures on cabin crew, especially females (the majority) were noticed in the qualitative analysis as well. There are many physical attributes that an Emirates Airline cabin crew has to fulfill. They are constantly checked for appearance and weight, which can demoralize and make an individual feel insecure as well as stressed. The stress is far greater because the cabin

crew are representing a whole airline and in fact a whole country, especially when it comes to the Gulf carriers. Even though Emirates Airlines is not the national carrier of the United Arab Emirates, it's one of the leading and most well-known airlines around the world, and connects hundreds of destinations from all over originating from Dubai. Overall, the stress scores appear to represent what each cabin crew goes through on a daily basis. The lack of rest and the unconventional sleep patterns caused by constant jet-lag can be a nerve-wracking experience if not dealt with correctly. There also seems to be a fear among cabin crew of the management, or anyone who is in a position of power. During the qualitative research, the crew was asked about their peers and head flight attendants. Almost all of them had heard of, if not personally, experienced abuse. This sort of behavior by people who oversee rostering, mentoring or even advising cabin crew can add to the stress factors faced. There is no doubt that the job must be done in a professional manner, but having to deal with limited support (as indicated by participants in the qualitative analysis) can create a great issue for the well-being of cabin crew.

In order to answer the third research question, which looked at jet-lag, workload and workplace conditions, the cabin crew were asked to give a rating. The Likert style ratings were utilized to determine workload and workplace conditions. The jet-lag issue was investigated through the qualitative analysis. There was a positive relationship found between cabin crew and their workplace conditions, however the same could not be said for the workload conditions. This shows that Emirates Airlines has the capability and expertise to provide a world class workplace environment. Everything, including the Dubai Airport Emirates terminal and the latest and youngest aircraft fleet, form a pleasant

place from which to work. Workload, however, as mentioned earlier, is intense. The hours, and constant flying with limited rest becomes one of the biggest stress factors for cabin crew. Jet-lag is another factor that simply adds to cabin crew stress. The qualitative analysis indicated that the lack of rest and jet-lag combined becomes an issue and the days that are given for rest are usually just days to recover from the jet-lag.

As mentioned earlier, there were far more female participants that took the survey, and this reflected the general cabin crew population at Emirates Airlines. The fourth research question was in regards to the female and male population stress levels. According to the analysis there was a higher average stress score among the female cabin crew members than the male crewmembers. Having said that, in order to get a better understanding, a higher number of male participants would have been required. Regardless, the study showed that female cabin crew did have differences, even within specific questions that were designed to obtain the levels of stress. It was found that there was a statistically significant difference between genders in questions that dealt with self-esteem, appetite, sex-drives and how disruptive passengers were handled. The data indicated there is more stress absorbed by female cabin crew than male cabin crew.

### **Limitations**

One of the difficulties experienced was that it was extremely difficult to get cabin crew to complete the survey. This was because of the strict nature of employee protection at the airline; there are many rules and regulations that are established by the airline and many of the cabin crew were hesitant in giving out information even though they would have stayed anonymous. The cabin crew are not easily allowed to discuss issues that may

include possibly giving out information, or specifically negative information, about the airline. This also caused a limited number of interviews to be able to be conducted. A higher number of interviews would have given a better qualitative understanding, which would have been used to compare with the survey data. Another limitation was the gender imbalance among the participants. There are certainly more cabin crew who are female than male, but in order to compare and contrast their stress scores more precisely, it would have been better to have a more equal representation be part of the survey.

A few questions that could have been asked would be in regards to comparing the job at Emirates to any other airline. There may have been cabin crew who had previously worked for another airline. It would have been interesting to see what their opinions would be, on working conditions.

### **Recommendations**

After examining the stress levels and effects of mental health through this research, it is highly recommended that Emirates Airlines consider raising the awareness of mental health issues with their employees, especially cabin crew. It is not easy to pinpoint what a mental health issue may be, but after conducting this research it appears there are strong factors that can make a big difference in cabin crews' lifestyle. For example, simple negativity from employees who overlook crew well-being can cause extra stress for the cabin crew.

Furthermore, it was learned that a lot of the Emirates' cabin crew have problems with their rostering. Each cabin crew who was interviewed as part of the qualitative analysis complained about the rosters being quite tough on their lifestyle. Many of them

had experienced back to back turn around flights (with no rest at the destination) followed by several long-haul flights. It is recommended that there be a system put in place in which each cabin crew can get ample rest before each flight. It is also recommended that each cabin crew focus more on a healthier lifestyle, which means pushing for the required amount of sleep and also exercising regularly to maintain a positive well-being. It is understandable that there may be a crew shortage for Emirates Airline, which is constantly opening new routes and buying new aircraft to satisfy the growing passenger traffic from Dubai. However, in order to match the growth, the airline needs to hire more cabin crew, as well as focus on factors that the cabin crew can use to their advantages. Implementing a system in which there is more equal amounts of rest among the cabin crew along with limited turn around flights per month can be challenging, but it will save the cabin crew from a stressful lifestyle that may even turn out to be a risk for the airline. The last thing the airline would want is a cabin crew with an unstable mental illness which can bring risk to the passengers or even the flight crew during the flight.

Another recommendation is to constantly monitor cabin crew behavior. Cabin crew are monitored for their weight and physical appearances, which they find uncomfortable, according to the interviews conducted. If the focus was more on cabin crew health rather than appearance, there would be less stress channeled towards the crew. As a matter of fact, the airline might actually be able to help the cabin crew alleviate problems that may arise in regards to stress or anxiety. This may not be an easy process due to the cost and perhaps even the need to hire a specialized psychologist, but

this would allow there to be a focus on the cabin crew and their mental health. The airline already has a clinic with plenty of doctors, however; a more routine check for mental health would be recommended.

### **Future Studies**

After conducting this study on the mental health of cabin crew, there are many different factors that need to be taken into consideration for future studies. It would be interesting to go deeper into understanding each gender and how they deal with stress. There seems to be a lot of significant differences and yet at the same time some similarities. In order to conduct this research, a larger number of participants from both genders should be used. Furthermore, with the constant changes in technology in the aviation industry, it would be interesting to conduct research on actual aircraft interior experiences and how interiors are designed to reduce stress for both passengers and crew. New airliners are believed to have a quieter cabin, along with a lower pressure altitude that may reduce the effects of jet-lag. Along with focusing on the newer technologies for future studies, it would also be interesting to expand into different airlines and evaluate how the stress scores of their cabin crew members compare. A comparison of a large international airline compared to a smaller domestic airline would also give a better understanding of how stress scores may vary in each company and what the procedures are to reduce or eliminate these. One final aspect that could be studied is the effects of long-haul flights versus numerous turn arounds. The cabin crew interviewed found both scenarios unique and equally challenging due to the lack of rest. It would be interesting to see how much difference each type of flight may have on the stress levels of the cabin

crew. As mentioned previously, a study on the stress scores for each gender for each type of flight would be interesting as well.

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**APPENDICES**

## APPENDIX A – IRB APPROVAL



3/22/2016

Investigator(s): Syed Hammad Mumtaz; Dr. Wendy Beckman  
Department: Aerospace  
Investigator(s) Email: [shm2y@mtmail.mtsu.edu](mailto:shm2y@mtmail.mtsu.edu); [wendy.beckman@mtsu.edu](mailto:wendy.beckman@mtsu.edu)

Protocol Title: "Analysis of Mental Health Issues and its Implications on Cabin Crew at Emirates Airlines"

Protocol Number: 16-2211

Dear Investigator(s),

The MTSU Institutional Review Board, or a representative of the IRB, has reviewed the research proposal identified above. The MTSU IRB or its representative has determined that the study poses minimal risk to participants and qualifies for an expedited review under 45 CFR 46.110 and 21 CFR 56.110, and you have satisfactorily addressed all of the points brought up during the review.

Approval is granted for one (1) year from the date of this letter for 420 participants.

Please note that any unanticipated harms to participants or adverse events must be reported to the Office of Compliance at (615) 494-8918. Any change to the protocol must be submitted to the IRB before implementing this change.

You will need to submit an end-of-project form to the Office of Compliance upon completion of your research located on the IRB website. Complete research means that you have finished collecting and analyzing data. **Should you not finish your research within the one (1) year period, you must submit a Progress Report and request a continuation prior to the expiration date.** Please allow time for review and requested revisions. Failure to submit a Progress Report and request for continuation will automatically result in cancellation of your research study. Therefore, you will not be able to use any data and/or collect any data. Your study expires **3/22/2017**.

According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to complete the required training. If you add researchers to an approved project, please forward an updated list of researchers to the Office of Compliance before they begin to work on the project.

All research materials must be retained by the PI or faculty advisor (if the PI is a student) for at least three (3) years after study completion and then destroyed in a manner that maintains confidentiality and anonymity.

Sincerely,

Richard C. Meeks DNP, RN, COI  
Institutional Review Board  
Middle Tennessee State University

## APPENDIX B – ISMA QUESTIONNAIRE

		Yes	No
1	I frequently bring work home at night		
2	Not enough hours in the day to do all the things that I must do		
3	I deny or ignore problems in the hope that they will go away		
4	I do the jobs myself to ensure they are done properly		
5	I underestimate how long it takes to do things		
6	I feel that there are too many deadlines in my work / life that are difficult to meet		
7	My self confidence / self esteem is lower than I would like it to be		
8	I frequently have guilty feelings if I relax and do nothing		
9	I find myself thinking about problems even when I am supposed to be relaxing		
10	I feel fatigued or tired even when I wake after an adequate sleep		
11	I often nod or finish other peoples sentences for them when they speak slowly		
12	I have a tendency to eat, talk, walk and drive quickly		
13	My appetite has changed, have either a desire to binge or have a loss of appetite / may skip meals		
14	I feel irritated or angry if the car or traffic in front seems to be going too slowly/ I become very frustrated at having to wait in a queue		
15	If something or someone really annoys me I will bottle up my feelings		
16	When I play sport or games, I really try to win whoever I play		
17	I experience mood swings, difficulty making decisions, concentration and memory is impaired		
18	I find fault and criticize others rather than praising, even if it is deserved		
19	I seem to be listening even though I am preoccupied with my own thoughts		
20	My sex drive is lower, can experience changes to menstrual cycle		
21	I find myself grinding my teeth		
22	Increase in muscular aches and pains especially in the neck, head, lower back, shoulders		
23	I am unable to perform tasks as well as I used to, my judgment is clouded or not as good as it was		
24	I find I have a greater dependency on alcohol, caffeine, nicotine or drugs		
25	I find that I don't have time for many interests / hobbies outside of work		
A <b>yes</b> answer score = 1 (one), and a <b>no</b> answer score = 0 (zero).		<b>TOTALS</b>	

**APPENDIX C – MENTAL HEALTH ANALYSIS ONLINE SURVEY****Mental Health Analysis of Cabin Crew**

## Welcome to My Survey

**Informed Consent**

You have been invited to participate in a survey as part of a research study. The study is designed to determine the effect of serving as a cabin crew member at Emirates Airlines on mental health issues and levels of stress. Determining ways of reducing work-related cabin crew stress will also be addressed. The results of this study will contribute to a master's thesis project. Please read this carefully so that you understand what your participation will involve. You will answer several questions about stress during work and its effects on your lifestyle, including any prominent experiences that you may have encountered. Your responses will be recorded, but no identifying information will be indicated on the regarding your responses. Taking part in this research is wholly voluntary and you may withdraw anytime if you'd like to. The survey will take around 10 minutes to complete. If you have any questions in regards to this research study, please contact Syed Hammad Mumtaz at [shm2y@mtmail.mtsu.edu](mailto:shm2y@mtmail.mtsu.edu), my faculty advisor Dr. Wendy Beckman at [wendy.beckman@mtsu.edu](mailto:wendy.beckman@mtsu.edu), or the Middle Tennessee State University Institutional Review Board at [compliance@mtsu.edu](mailto:compliance@mtsu.edu).

\* 1. Do you agree to take part in this survey?

- Agree
- Disagree

## Mental Health Analysis of Cabin Crew

### Introductory questions

2. How many years have you been with Emirates Airlines?

- 0-1
- 1-3
- 3-6
- 6-9
- 9-12
- 12-15
- 15+

3. Age

- 21-30
- 31-40
- 41-50
- 51-60
- 61+

4. Gender

- Male
- Female
- Other

5. Why did you choose to be a cabin crew member?

- To travel
- To make money
- As a temporary job
- For the excitement of the aviation industry
- Other (please specify)

**Mental Health Analysis of Cabin Crew**

## Stress related questions

Please answer either yes or no

6. I frequently think of work during my days off.

- Yes  
 No

7. There are not enough hours in the day to do all the things that i must do.

- Yes  
 No

8. I deny or ignore problems in the hope that they will go away.

- Yes  
 No

9. I do the jobs myself to ensure they are done properly.

- Yes  
 No

10. I underestimate how long it takes to do things.

- Yes  
 No

11. I feel that there are too many deadlines in my work/ life that are difficult to meet.

- Yes  
 No

12. My self-confidence / self-esteem is lower than I would like it to be.

- Yes  
 No

13. I frequently have guilty feelings if I relax and do nothing.

- Yes  
 No

14. I find myself thinking about problems even when I am supposed to be relaxing.

- Yes  
 No

15. I feel fatigued or tired even when I wake after an adequate sleep.

- Yes  
 No

16. I often nod or finish other people's sentences for them when they speak slowly.

- Yes  
 No

17. I have a tendency to eat, talk, walk and drive quickly.

- Yes  
 No

18. My appetite has changed; I have either a desire to binge or have a loss of appetite or may skip meals.

- Yes  
 No

19. I feel irritated or angry if the car or traffic in front seems to be going too slowly/ I become very frustrated at having to wait in a queue.

Yes

No

20. If something or someone really annoys me I will bottle up my feelings.

Yes

No

21. When I play sport or games, I really try to win against whomever I play.

Yes

No

22. I experience mood swings, difficulty making decisions, and my concentration and memory is impaired.

Yes

No

23. I find fault and criticize others rather than praising them, even if it is deserved.

Yes

No

24. I seem to be listening even though I am preoccupied with my own thoughts.

Yes

No

25. My sex drive is lower, and/or I have experienced changes to my menstrual cycle.

- Yes  
 No

26. I find myself grinding my teeth.

- Yes  
 No

27. I have an increase in muscular aches and pains especially in the neck, head, lower back, and shoulders.

- Yes  
 No

28. I am unable to perform tasks as well as I used to; my judgement is clouded or not as good as it was.

- Yes  
 No

29. I find I have a greater dependency on alcohol, caffeine, nicotine or drugs.

- Yes  
 No

30. I find that I don't have time for many interests/hobbies outside of work.

- Yes  
 No

31. I often feel nervousness or anxiety during a flight.

- Yes  
 No

32. I am always able to obtain a full 8 hours of sleep before I begin a trip.

- Yes  
 No

33. I am always able to obtain a full 8 hours of sleep each night that I am on a trip.

- Yes  
 No

34. I feel able to cope with and handle a medical emergency on the aircraft.

- Yes  
 No

35. Flight delays bother me.

- Yes  
 No

36. Disruptive passengers have hurt me emotionally.

- Yes  
 No

37. I feel physically weak when I'm helping with stowing luggage.

- Yes  
 No

## Mental Health Analysis of Cabin Crew

### Experience based questions

38. Have you had any in-flight experiences that may have caused a great deal of stress? If yes, please explain the circumstances.

Yes

No

If Yes please explain the circumstances

39. How often has a disruptive passenger been a part of a flight in the last month?

40. Please indicate which best describes the workplace environment for cabin crew of Emirates Airlines:

Great

Acceptable

Neither good nor bad

Unacceptable

Horrible

41. Please rate the workload you experience as a cabin crew member at Emirates Airlines:

Great

Acceptable

Neither good nor bad

Unacceptable

Horrible

**Mental Health Analysis of Cabin Crew**

## History of Stress / Anxiety

42. Do you have a personal history of experiencing stress and anxiety?  
(before becoming a cabin crew)

Yes

No

**Mental Health Analysis of Cabin Crew**

## History of Stress / Anxiety continued

43. How does this personal history impact your experience in the workplace now?

Large negative impact	Some negative impact	Neutral impact	Some positive impact	Large positive impact
<input type="radio"/>				

44. Do you take medication to assist you with stress and/or anxiety? If yes, please indicate how often:

Not at all	Daily	Weekly	Bi-Weekly	Monthly	Once in a while
<input type="radio"/>					

45. Have you ever taken sick leave due to stress? If yes, please indicate how often

- Less than the 15 sick days allotted each year
- All 15 sick days allotted in a year
- Even more than the 15 days allotted

## Mental Health Analysis of Cabin Crew

Thank you for taking part in this survey

If you'd like a copy of the research once it's complete please send an e-mail to [shm2y@mtmail.mtsu.edu](mailto:shm2y@mtmail.mtsu.edu)

Below is a link that takes you to a 'stress management' website:

<http://www.helpguide.org/articles/stress/stress-management.htm>

The website gives great tips in order to reduce and eventually eliminate stress.

Thank you once again for your input to this survey. Hope you have a stress-free and wonderful flight ahead!