AN OVERVIEW ON STRESS MANAGEMENT PRACTICES FOR MARINE AND NAUTICAL CADETS UNDER MARINE INDUSTRY

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Abstract - This study aims at investigating the overall process of evolution and management of stress for marine industry with special reference to Marine and Nautical cadets under marine engineering college. Managing stress is all about taking care of our feelings, emotions, plans surroundings, and the way we handle our problems and issues. Some of the major stress factors are considered to be the lack of inspiration to carry out a particular job, boring and routine work tasks, working with seafarers of different nationalities, excessive or unsatisfactory duties, job shift etc which eventually leads to severe health hazards. The final aim is a balanced life which consists of time management for study, occupation, relationships, entertainment, and fun plus the flexibility to grasp up under pressure and also meet challenges which are encountered. In this study the main concern is for marine and nautical cadets’ fulfillment towards education with lower level of stress. In this study questionnaire method and survey was used to collect the required data.

Index Terms - Marine cadets, stress management, marine industry, stress impacts, stress management practices.

I. INTRODUCTION

The Indian ports and shipping industry plays an essential role in sustaining growth in the country’s trade and commerce. India is the sixteenth largest maritime country in the world, with a coastline of about 7,517 km. The Indian Government plays an important role in supporting the ports sector. According to the ministry of shipping around 95% of Indian trading by volume and 70% by value is done through maritime transport. Approximately 12,000 jobs and projects were created and get initiated for the past four years. Now the Marine industry becomes to be one of the major economies in the world hence our country will need energetic and well-built mariners. Formation of several jobs in this marine field increases stress amid the mariners. We often experience stress more frequently by all invariant of the age and gender. Moreover stress affects an individual’s efficiency, success, personal health and excellence of their work. Stress in Marine industry is crucial and it should be observed or ignored.
The life at sea for mariners be an extremely tricky when working on board ships and a long space between the families and relations, restricted access to public life, increased pressure on both physiological and psychological factors must leads to severe health conditions or lack of interest at work. On the full stress affects the normal happiness of the seafarers which may be the dynamic factor which leads to psychological inequality between team members. In this article stress management tools, measures and stress management methods of the problems were addressed provided they won’t affect our daily routine work. Identify the major sources and corrective actions for management of stress in marine industry is very much important.

Stress management begins with spotting the main sources of stress in our life but it seems as easy as it sounds because the real causes of stress aren’t clear and it’s also not simple to ignore our own stress thoughts, opinions and behaviours. We are always anxious about our work deadlines. But it may be due to our procrastination which slightly more than the real project demands hence that leads to time limit stress. So to avoid our correct sources of stress closely watch our lifestyle approach, and excuses: Until accept the duties and responsibly for our role which also continue to maintaining it our level of stress will stay outside our control. This study aims at investigating the overall process of evolution and management of stress for marine industry with special reference to Marine and nautical cadets of marine engineering college.

**Aim of the study:** To suggest various stress management practices for marine and nautical Cadets under marine industry.

**Objectives of the study:**
1. To study the factors causing stress among seafarers.
2. To study the factors causing stress among mariners and nautical cadets.
3. To study the level of emotional stress among the mariners and nautical cadets.
4. To study the effect of stress among the mariners and nautical cadets.
5. To recommend the managing strategies to handle stress

**II. LITERATURE REVIEW**

A review on the previous studies on stress among the employees is necessary to know the areas already covered. This will help to find our new areas uncovered and to study them in depth. After understanding the concept of stress, we need to study the previous studies in order to have a larger view of various effects of stress on employees. This will surely lay down the scope of the topic for further research. The earlier studies made to avoid stress among mariners were briefly reviewed here.

**Robbins, 2011** - Defined stress as a dynamic condition in which the individual is confronted with an opportunity, constraint, or demand related to what he or she desires and for which the outcome perceived to be both uncertain and important.

**Antoniou et al., 2016** - Found that female teachers experienced significantly higher levels of organisational stress as compared to their male counterparts.

**Swanson and Power, 2019** - They reiterated that the relationship between the demands of work and home is an important source of occupational stress. Past studies have shown that multiple role demands of work and home domains are additive, with combined overload leading to increased job stress, strain and illness.

**Gladises J. J. & Kennedy V, 2017** - Author revealed a significant correlation between Organizational Climate and Job Stress among the women working in IT companies of India. According to him, learning how to manage stress is a very crucial issue that should be developed in IT companies so that they can reduce or eliminate the causes of stress and poor working environment.

**Sharma S., Sharma J. & Devi A., 2012** - The level of stress within a role varies because of individual differences in mindset, age, gender, and their performance in job. However, various factors that influence stress are age where the younger employees are more stressed as compared to other employees, level of qualification, pay, authorities of control, awards, word of praise, improved designations and working couples. The study recommended a reinforcement approach that should be positive in nature so as to reduce the degree of stress at the workplace.
III. CAUSES OF STRESS IN MARINE INDUSTRY

The aim of stress management is to handle the stress of our day to day life among other people. Various methods are suggested such as biofeedback, meditation and exercise. The mentors and counsellors work along with different persons in order to decide the level of their stress and stress management methods for them which work best for that person. A variety of parameters which leads increase in the stress levels in marine industry such as deep work load, panic towards job promotion, maltreatment and fault culture. The heavy workloads under pressure are inundated. Insufficient workloads, making people feel that their skills are being underused. Whereas the reduced control on job activities, be short of interpersonal help, poor operational relationships which also leads to social separation among the persons. Harassment in work place and ineffective work management may cause the mariners feeling such that they are not having any motivation. Over-management, which causes mariners feeling, under estimated and affects their self-confidence. A poor working atmosphere for example extreme heat, cold and noise, insufficient lights, rough seating arrangements, broken equipments etc. disagreement at work places can also be a normal cause of stress. The stress is the main cause which exerted on a body. Hence in this situation force measures “mental pressure” and our body show “human brain”. Because all the humans are all well intended to handle some degree of work pressure. Suppose if it increases due to some reasons then the pressure affects our brain and boost the stress cells which may cause to different cerebral attacks. Similarly, the marine field also consists of various levels of stress or psychological drawbacks

3.1. Loneliness

The Sea farers rottenly feel and suffer far away from home because they are fresh to this marine field. These home sick issues may cause and create stress for nearly 6 to 8 months huge impact on the mariners. They should live for such a lengthy period of time on a ship far away from home also from the busy feeling back in their home and visiting some new countries. This will create a severe shock to the fresher’s hence the cadets feel that very hard to carry on and lead a new life. This factor creates huge mental sadness for the seafarer and they may have lack of concentration on ship board which may cause many serious and terminal accidents may happen.

3.2. Ragging

On board the cadets may encounter some types of ragging from their senior officials. In such conditions the senior officers will allocate the cadets to try out some sort of strange stuff in order to get pleasure from themselves because this is a severe problem and can lead to lack of confidence sometime and cadets get panic. This creates depression among the cadets as well as mental shock within the sufferers.

3.3. Social issues

The Sailors always face huge number of common disputes among with fellow mates. Since the sailor stay far away from their home and his family his only life depends on the members who are there on board throughout his journey. If any problem occurs, it should affect their state of mind and get fear or aggression. In this condition, they become unhappy due to this lack of sociality among his fellow mates. They may feel drop in confidence and their voyage will be bust totally.

3.4. Frustration

Frustration plays a vital role in detoriating someone’s mental behavior. This may happen because of extreme work pressure, unfriendly working environment, commencing same mistakes, fear, etc. This is also cause due to unavailability of essential condition, long working hours, reminiscence, not relieved on time by the company, etc.

3.5 Ego

The Ego is one of the major emotional drawbacks in marine field and On board this may happens between always the Master and the Chief engineer. The cadets as well as other higher officials experience a lot because of ego clash. It may leads to stress, worry, fury, panic, etc. Due to this ego class one will show dominance or bossy approach to the other sailors.

3.6. Lack of communication

Normally sailors always suffer incredible short of communication skills during their sailing. They are not able to converse with their families and friends. This may results in severe depression, anxiety, lack of job interest and homesickness. During family emergency the sailors didn’t get proper communication on correct time.
3.7 lack of sleep

Insufficient sleep is a most common disadvantage of this marine field. Whenever the ship will be rolling and pitching, the sailors cannot sleep as well as eat properly. This cause insomnia, lack of interest in work, repetition of same mistakes, lack of concentration and anxiety.

3.8 Covid - 19 pandemic

In India, around 260 million students were affected due to lockdown which was induced by COVID-19 pandemic and this pandemic imposed many challenges for public and educational institutions. Hence this will rise in dropouts, culture losses and also increase in digital partition. Some general causes of stress during the corona period are such as ambiguity, lack of routine and social help. These findings exposed that the COVID-19 epidemic which increased the levels of anxiety and depression among the students. This pandemic may have worsened the students’ mental health issues severely and it may leads to disruptions in routine works and social isolation. The various stress parameters encountered by the marine industry cadets both studying at Marine College and working on board ship were discussed and tabulated in the Table 3.1. From this table it will be clearly understood that the leading stress parameters are Academic risks and pressures, Poor school-work/ life balance, Funds or debt also Depression and Anxiety. The above data’s can be obtained by conducting surveys among the marine students. According to the multiple responses the rank has been allocated for each category.

Table 3.1 Stress Parameters Faced by Marine Cadets

<table>
<thead>
<tr>
<th>Stress Parameters</th>
<th>Multiple Response</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic tasks or pressures</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>Poor school-work/ life balance</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>Funds or debt</td>
<td>33</td>
<td>3</td>
</tr>
<tr>
<td>Depression and Anxiety</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>Physical and Mental health issues</td>
<td>29</td>
<td>5</td>
</tr>
<tr>
<td>Stress or sympathy exhaustion</td>
<td>27</td>
<td>6</td>
</tr>
<tr>
<td>Professional loneliness or lack of social support</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>Teachers’ factor</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Family problems</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td>Marital/relationship issues</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>Death, loss or grief</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Other personal issues</td>
<td>18</td>
<td>12</td>
</tr>
</tbody>
</table>

IV. EFFECTS OF STRESS

Stress causes a variety of mental problems like anger, depression, anxiety, irritability and tension. Stress is also be considered as an significant fact which affecting the marine industry and also the physical health of a mariner. It has far reaching impact on motivation and satisfaction of mariners. The seafarers are normally considered as the most remote people in the world due to their very less contact with other people until they reach out the port. Hence this isolation leads to various psychological problems such as depression some time leads to suicide. For a moment the seafarers may work for long time and lack of this sleepiness may cause many health related issues like blood pressure, diabetic, cardiac problem etc. The other environmental factors of ship such as noise, shaking, and poor weather conditions can also disturb the sleep of the seafarers. This sleeping disorder leads to stress and these situations lead to increase the risk of accidents.

V. STRESS MANAGEMENT PRACTICES FOR MARINE INDUSTRY

The study is concerned about the factors that lead to stress among Nautical and Marine cadet comes under descriptive research category. Cadets’ satisfaction is commonly being classified as the main contributor in the creation of wealth in the marine college. Hence, the cadets in the marine engineering college are expected to meet all the expectations by the college. In such a scenario a cadet needs to stretch beyond the daily routine. Number of additional factors like parade, wake up early, watch keeping, food, hostel, PT, fall in, lack of leave, lack of outing, lot of assignment, test, living conditions in college, affect the mental state of a cadet. The
effects of these factors are taken into account by means of stress management and a suitable life balanced environment is aimed to be provided to the cadets of marine college. The following Fig 5.1 indicates some of the important stress management practices by the marine students.

![Stress Management Practices](image)

**Figure 5.1 Stress Management Practices [7]**

5.1 Communicate with family and Friends

Now a day’s seafarers are very lucky once because of the availability of internet facility on board ship. Seafarers are always in touch with their friends and families more frequently. To get in contact with their family members at least once in a while during the day by means of any facility such as it may be a fast telephone call or a short email. This daily routine of involving with our loved family ones can go a long way in keeping their mind set at peaceful.

5.2 Appreciation for good work

In the case of top qualified work atmosphere in which the human interaction take a back seat and a very few words also expressions of admiration can be a high encouragement to an individual. It is really essential that it involves impressive words of praise for example a simple word ‘thank you’ or ‘good job’ can make the seafarers feel immense value about their work they did hence routinely rising eagerness towards work and also increase work efficiency.

5.3 Eliminate the Rat Race Mentality

This factor is most likely one of the main aggregators for the cause of stress along with seafarers. It frequently happens that when discussing about the nature of the work, talk about being in a rat race. Seafarers habitually get overwhelmed when they frequently transit between various companies the higher ranks and even by discussing about their salaries in common. It is somewhat easily evident, that persons who are in stable rat race are very easily worried get frightened, and feel irritated, and become passive also they are exceptionally dejected with their sea careers.

5.4 Implementing Effective Listening as a Tool to Reduce Stress

Listening effectively is measured as one of the most vital component in private as well as professional life. It is also a weakness for most of us seafarers, and enhancing this skill even the slightest ways possible could certainly prove a lot more beneficial. This not only benefits our work culture in general but also is a great tool to use to build relationships and better one’s performance. Here are many reasons why effective listening could prove stress reducing. Firstly, individuals who are good listeners are highly respected and admired. There is a certain feel good factor when you come across such individuals. It helps you become a better person by solving conflicts smoothly and encourages hearing before speaking strategy. It acts as a self infused solution to the pestering inconsistencies onboard.

5.5 Stop Procrastinating

One of the most dominant tools which attribute towards increasing the stress level is Procrastination. Before we learn to evade the procrastination one can think about the root cause for it. We are not to suppose stop procrastinates what we enjoy in everyday life. Hence it was clear that there was entirely no thrill in delaying the shipboard everyday jobs such as monthly paperwork, overhauling machinery, shipping out or concluding a project by waiting till the deadline. It not only puts more stress on an individual mariner but force them to make feel valueless if they are not able to finish it within the deadline. It becomes a constant discrepancy of delay the work and doing it at the right time.
5.6 Meditation

According to Melgosa (2012) the meditation is a mental condition which allows the person to separate himself from every day commitments and makes us to focus on a point of to reduce stress. Meditation may be the oldest process but still in continuation and undeniably it is one of the most professional coping strategies for acquiring mental peace and reducing stress levels and tension.

5.7 Exercise

Almost everyone is agreed that doing exercising is the best way to reduce the level of stress and stay motivated. But normally the public told that they do not have time to do all these things and by exercising we do not mean that one needs to expend the working hours at on board gym and build 17 inch biceps. Doing Exercise can be anything that makes us sweat outside of the work. A quick exercise of 20 minutes run on the treadmill may do the ruse for someone while pumping iron for 25 minutes could work too.

5.8 Sleep

Most of the seafarer looks frontward to the right time where they can go back to their cabin after a hard day and night work needs for some rest and recovery. All the seafarer can ever reject that the most valued asset in the battery is a sound. They overworked most of the times and in need of some rest. Those who work onboard will know most of the times, going to the cabin unintentionally means going off to sleep. There barely need most energy and wish to watch a film or to read a book for their wish. A trip to the smoking room after the deck work is just a precursor to doze off gradually into a few hours of bliss.

5.9 Parties

The frequent parties conducted on ship board are the reasons for every seafarer love. Whether this may Christmas, New Year or someone’s birthday party they celebrated in a good way and this makes everyone on the board happy stress free. Also every sailor on the deck celebrates and dances their heart out hence the stress levels may be reduced. During the party time when companionship and mutual love reaches great height. Apart from other officers on board they may watch almost everyone drops their hair down in those few hours and it was not our regular party out at night on shore, stinking cologne all over outlet and general revelry. Some of the stress management tools which has been used by the marine cadets under college and also on board ship were listed in the following Table 5.1 From this table it is clearly evident that communication with their family members and Meditation/ Exercise are the leading coping mechanisms used by the cadets.

<table>
<thead>
<tr>
<th>Strategies / Tools</th>
<th>Frequency</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate with family and friends</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Meditation and Exercise</td>
<td>51</td>
<td>2</td>
</tr>
<tr>
<td>Stop Procrastinating</td>
<td>48</td>
<td>3</td>
</tr>
<tr>
<td>Effective Listening</td>
<td>44</td>
<td>4</td>
</tr>
<tr>
<td>Sufficient Sleep</td>
<td>43</td>
<td>5</td>
</tr>
<tr>
<td>Parties</td>
<td>40</td>
<td>6</td>
</tr>
<tr>
<td>Appreciation for good work</td>
<td>38</td>
<td>7</td>
</tr>
<tr>
<td>Eliminate the Rat Race Mentality</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>Think positive and Take a break</td>
<td>29</td>
<td>9</td>
</tr>
<tr>
<td>Pamper yourself</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Rest if ill and Manage time</td>
<td>23</td>
<td>11</td>
</tr>
</tbody>
</table>

VI. CONCLUSION

An overview on stress management techniques for marine industry were discussed in this article. The causes and impact of stress among the cadets under marine industry was also discussed. Though various training programmes for stress organization and coping strategies must be included for the marine students. This can be achieved by make the students to participate in various seminars and also conduct orientation courses as a
preventive and remedial measures which help them to diminish the level of stress among marine cadets. This will improve the practical and functional delivery in maritime educational programme.

REFERENCES
[6] Research Methodology and Review of Literature - Chapter No. 02, A Study on Stress Management of Employees