

SHIP SHAPE – A WORKING ENVIRONMENT ON BOARD

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The life of a seafarer differs from regular work. Hence, the psychosocial working environment is important for a ship's crew, working and living in close proximity to each other and relatively isolated from the rest of society. This study investigates what constitutes a good psychosocial work environment and its potential effect on safety at sea. Two focus groups were performed where participants discussed the question "What is a good psychosocial work environment for you?". The results revealed three categories of factors: colleagues, communication and competence. The three categories were then applied on six Swedish shipping accident investigation reports in order to investigate to what extent these factors existed and were taken into account in the reports. The results showed that questions concerning the psychosocial work environment on board were rarely mentioned in accident reports, when compared to mentions of the technical equipment on board.

Keywords: psychosocial, safety, success factors, communication

1 Introduction

Life onboard a ship has been referred to as "a total institution; a social system, isolated, and geographically separated from the society" (Aubert, 1968). Away from family and friends, from a few weeks to many months (Bailey and Thomas, 2009), there is no doubt about the importance of a good psychosocial work environment, whether you work onboard or ashore (Arbetarskyddsstyrelsen, 1980:14). Working as a seafarer can be risky. The special circumstances, spending day and night with your colleagues, make the psychosocial work environment a particularly important aspect and the only place for privacy is the cabin (Mårtensson, 2006). Areas for social relations are usually the mess room and the day room, often and by tradition divided into separate areas for crew and officers (Eldh, 2004). Today common areas for leisure time are more frequent (Mårtensson, 2006, Suurküla, 2010).

The shipping industry is regulated by national as well as international rules and regulations. International regulations and conventions are managed by the International Maritime Organization (IMO). The document that regulates the work environment on board a ship sailing under Swedish flag is "Arbetarskyddsstyrelsens (1980:14) författningssamling om psykiska och sociala aspekter på arbetsmiljön". It does not state a clear definition of the term 'psychosocial work environment'; on the other hand it states that it is ambiguous (Arbetarskyddsstyrelsen, 1980:14). However, it makes clear that interaction between people is essential for wellbeing, and that the organization does matter. Likewise, "for most people spirit of community with colleagues is important" (Arbetarskyddsstyrelsen, 1980:14 s. 7). Human beings have primary needs that have to be satisfied (Grech, Horberry and Koester, 2008), e.g. sleep,

wellbeing and social interaction. Rubenowitz (1999) refers to factors of importance regarding how psychosocial work environment is perceived: optimal workload and a positive organizational climate. Furthermore, a survey among seafarers shows that interpersonal relationships among colleagues are among the most important constituents for a good working environment along with good communication (Sundgren, 2008). Open communication, organizational support, a healthy relationship between management and employee, a good psychosocial work environment, an engaged leadership and trust are examples of factors that constitutes a good safety climate (Törner, 2010). Further studies show that the better the safety climate of the company, the lower the accident rate (Varonen and Mattila, 2000, Halme, 1992, Seppälä, 1992). Therefore, there is a need to further investigate to what extent these factors exists and are taken into account in accident investigation reports within the maritime domain.

2 Objectives

The aim of the study was to investigate what constitutes a good psychosocial work environment and to what extent this was represented and taken into account in accident investigation reports. The first part was to identify success factors that constitute a good psychosocial work environment and thereafter apply these factors to selected accident reports. The following questions guided the work presented in this article:

1. What success factors characterize a good psychosocial work environment?
2. To what extent do they exist in selected accident reports?

3 Method

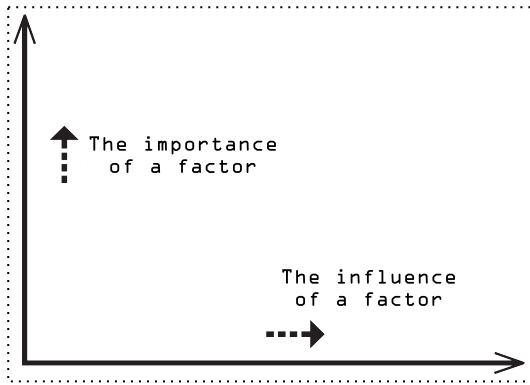
To identify the success factors for a psychosocial work environment, interviews were performed with two unstructured focus groups (Wibeck, 2000). The focus group was divided into two parts. During the first part the participants discussed for 45 minutes the question “*What is a good psychosocial work environment for you?*”. The factors were written down in notes. The second part consisted of a valuation of these factors.

3.1 Participants

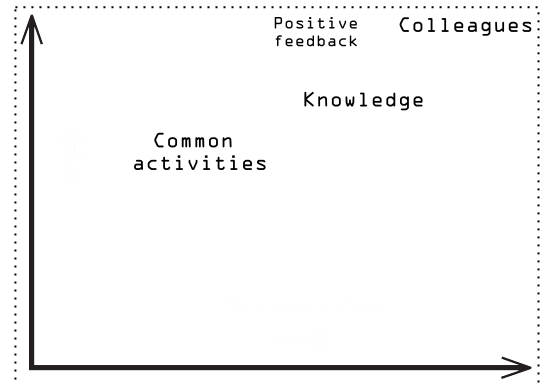
Group 1 consisted of three senior officers from the deck department with at least 20 years experience as seafarers. Group 2 was supposed to include three students from the Master mariner program at Chalmers University of Technology with at least six months experience as deck cadets. One student did not show up so the interview was performed with the two students present. All the participants were informed that the discussion was recorded and that their participation was confidential.

3.2 Procedure: The valuation of success factors

To value the success factors an analog method using a diagram was developed. A carton measuring 50 *70 centimeter was used as a board. The Y-axis represents the importance of a factor and the X-axis represents its influence on the psychosocial work environment (Figure 1).



(Fig. 1, diagram of valuation of the success factors)



(Fig. 2, illustration of valued success factors)

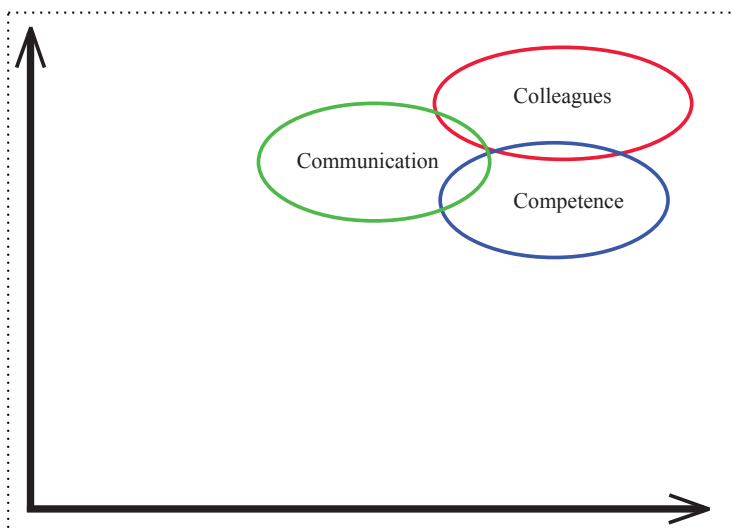
The participants told the moderator where in the diagram they wanted the factor to be placed. A factor of both high importance and influence will consequently be placed in the upper right corner of the diagram (Figure 2). When all the factors were placed, the bystander photographed the diagram for analysis. These factors were then interpreted and categorized regarding their conceptual context.

3.3 The accident reports

The accident investigation reports were collected from the Swedish Transport Agency (Transportstyrelsen 1a, 2011). The criteria to be fulfilled in the report were accidents occurring during the past five years (2006-2011), minimum five persons in the crew, collision, aground and/or lost and no personal injury. A total of six reports were found that fulfilled the chosen criteria.

4 Results

This study identified three categories of success factors for a good psychosocial work environment: colleagues, communication and competence. Figure 2 shows how the different categories are located and related to each other, based on how the participants valued the included success factors.



(Fig. 2, the location of the categories related to each other, based on the included success factors.)

4.1 Colleagues

In this study, *colleagues* were identified as the main contributor to a good psychosocial work environment. Friendship between colleagues offers social relations as well as the possibility of privacy. A leadership that realizes the importance and advantage of a coherent crew, and a meaningful leisure time, increases the feeling of togetherness.

Examples of factors included in this category were *colleagues, friends, coherence, understanding between the departments and common activities*.

4.2 Communication

The analysis of the factors composing the category *communication* shows a need for clarity; clarity concerning information exchange, internal as well as external. The feeling of knowledge about what is going on creates a feeling of participation, the feeling of being a part of the organization. With an *allowing climate*, the individual is given the possibility to challenge and question. Within an open-minded atmosphere it is easier to give and take criticism in a constructive manner. A *positive attitude* is contagious, and it is easier to *take command over the dialogue*: a way to stop destructive and routine-like opinions.

Examples of factors included under this category were *open climate, dare to talk, appreciation and positive response*.

4.3 Competence

The individual's qualifications, meaning the knowledge that the person contributes to the group has to be accounted for. This includes their factual knowledge as well as *ambition* and expectations. *The group's capacity to give the individual a chance to grow*, in combination with the individual's *ambition* to develop, results in creating a confidence in one's position. This may to some extent contribute to an increase of *professional skills*.

Examples of factors included in the category competence were *confidence in one's position, ambition and knowledge*.

4.4 Result from the accident reports

Results from applying the success factors to the accident reports is shown in Table 1.

Accident	<i>Colleagues</i>	<i>Communication</i>	<i>Competence</i>	Note!
C		!	!	
F		X		<i>Deficiencies in communication on the bridge.</i>
G		X		<i>Why is the Master signed on 12 months?</i>
I	X			<i>Why are the colleagues not facing problem with alcohol?</i>
J	X			<i>Why are the colleagues not facing problems with alcoholic?</i>
K	X	X	X	<i>Obvious problems with the work environment.</i>

(Table 1, results from the accident reports.)

Report C explicitly mentioned factors related to the categories *Competence* and *Communication*, marked with a "!" in Table 1. The other reports did not mention or pay any attention to any of the facts or circumstances connected to the success factors, nor the categories. However, they contain facts and circumstances that could be interpreted as related to the success factors, or the categories. These reports are marked with an "X" regarding the category and also by a comment in the column "Note!".

5 Discussion

In line with a previous study and regulations, the results show that colleagues are an important contribution to a good psychosocial work environment (Sundgren, 2008, Transportstyrelsen, 1980:14). The three constituent categories, colleagues, competence and communication, found in the results are all dependent on the prevailing leadership climate on board, and will have an effect on the psychosocial work situation on board (Törner, 2010). Healthy relations among the crew, as well as within the organization, can support the crew in situations when workload is varying and the number of crew is constantly decreasing – frustrating factors that usually are difficult to control onboard. This condition also seems to be close to contributors for a good safety climate (Törner, 2010). Support and feedback are not just ways to criticize in a constructive way in the daily work. They can also give the feeling of being seen; as an individual, and for the work you are doing – even if it is just your ordinary work. This may give you a feeling of wellbeing, which together with social interaction represents primary needs (Grech, Horberry and Koester, 2008).

The category *Competence* in the result addresses these matters as the participants raised issues such as feeling confident in one's work position.

Adding the demanding situation onboard, e.g. isolation and monotony mentioned by Mårtensson (2006), the importance of good leadership is even further accentuated. This is supported by a culture on board, which allows challenge and questioning as a part of communication (Törner, 2010). Previous research also emphasizes the connection between a good psychosocial work environment, a better safety climate and a lower accident rate (Törner, 2010, Varonen and Mattila, 2000, Halme, 1992, Seppälä, 1992).

6 Conclusions

Questions concerning the psychosocial work environment on board are rarely raised in accident investigation reports. Instead they put most of the emphasis on aspects related to the technical equipment on board, even though there are circumstances related to the work environment. The sample included in this study is relatively small but the results can still be of interest as the three categories can all be connected to successful leadership. A skilled leader on board could contribute to maritime safety by creating a good psychosocial working climate. Hence, it should be of interest to study the impact of the psychosocial work environment onboard further.

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