



WORKSHOP REPORT

Riga, May 28-29, 2004.

WORKING at SEA and PSYCHOSOCIAL HEALTH PROBLEMS

Venue meeting place: Conference hall “Kampenhauzen” of Hotel Konventa Seta building, Kaleju street 9/11, Riga, Latvia

IMHA WORKSHOP

With supporting funding from the ITF Seafarers' Trust

Objectives and main points for discussion

1. Objective: To review information on the psychosocial load on board ship, the consequences for both the seafarer and for the operation of the vessel and possible remedies for them,,
2. Objective: To assess the contribution made to the management of psychosocial problems by health promotion and related interventions in seafarers,
3. Objective: To make recommendations on next steps needed to investigate and resolve any risks identified.

Summary and main conclusions

Rapporteur: Tim Carter

There is growing interest and increasing concern about the effects which psychological and social aspects of work may have on health and well being in shore based occupations. There is also a growing realisation that psychosocial aspects of life outside and within the workplace can be important contributors to safety, performance, morale and attendance at work.

Seafaring has a number of features which may mean that psychosocial issues are even more significant contributors to health and performance than is the case on land. Work and non-work activities are, for the duration of a spell of duty, spent in the same constrained environment with only long term oscillation between home life and life/work at sea. There is a range of constraints at sea which may influence the ability of people to adopt coping skills to reduce or remedy pressures. Also almost all jobs at sea are to a greater or lesser extent safety-critical and so decrements in performance from whatever cause, including psychological ones, may put other seafarers, passengers or the vessel at risk.

The workshop covered a range of topics related to the subject:

- Psychosocial load on board ship
- The validity of the concept of 'burn out' to seafarers
- Responsibilities for handling 'stress related illness' in seafarers
- The effects of psychosocial and related health problems on work capacity
- The inequities of seafaring and their effects on health and well being
- The relevance of formal medical fitness standards in this area
- The place of self assessment of health risks
- The need for research and the scope for using health promotion to address psychosocial issues

Speakers did not draw the overall themes together and so this report provides a synopsis of the material presented and also introduces additional perspectives and an overview of the discussions and conclusions. There are few sound studies on psychosocial health in seafarers and as much of the relevant information is from non- maritime settings and one of the key concerns is the extent to which this is applicable to seafarers.

What are psychosocial health problems?

Health can be seen as the absence of disease, and anyone who has a disease, that is an identifiable pathological process going on in their body, can be seen as less than fully healthy, although they may not feel it. Conversely many people can feel less than fully healthy, or identify that their sense of well being is marred, without any demonstrable pathology. Both disease and perceived unhealthiness sometimes have a single cause like an infection but they often have multiple contributory causes and are the result of

interactions between the individual and their surroundings. These contributory causes may be physical entities such as bacteria, chemicals or diet. They may also be psychological, for instance depression and grieving leading to loss of appetite, sleep and effective functioning in social situations. In turn some social situations, including those at work can themselves contribute to ill health. For instance gross overload, without the means to respond to it and without support from managers or other workers can cause or exacerbate symptoms such as anxiety and create changes in physiological functions such as hormone secretion or blood pressure.

The effects of harmful physical and psychosocial agents can lead to immediate decrements in performance (well seen with a severe cold or depression). There is also increasing evidence that psychological factors, just like other physical risk factors can increase the risk of serious and potentially life threatening diseases such as damage to the arteries leading to heart attack and stroke. One difference is that while physical factors are material and can be measured psychosocial ones cannot always be measured objectively and have to be assessed in terms responses such as mood, feelings and activity levels.

For both physical and psychosocial risk factors there can be wide variations in individual susceptibility. These are only rarely enduring traits (such as psychopathic personality or lifelong immunity to a disease such as measles after a single attack), hence predictive assessment is invalid. In most cases it is the 'present state' of a person which will determine how they will respond to any new challenge. Present state will depend on past experiences and may be altered for the better by training, self-awareness and support or for the worse by a lack of these or by concurrent pressures from say home and family circumstances at a time when work demands change or increase.

Consequences of psychosocial health problems

The consequences in terms of long term health, safety and performance have been studied in onshore populations and presenters referred to a number of examples. The two main concerns for the maritime industry are:

- Do the effects of psychosocial risk factors in seafarers, whether arising at sea or elsewhere, have an adverse effect on safety, performance, crewing costs, or retention of experienced seafarers and if so how large are the effects and how can they be ameliorated?
- Do the demands of work as a seafarer create a risk to the health of seafarers, either in the short or long term, how large are these effects and how can any adverse consequences be reduced?

The workshop reviewed current knowledge on these aspects and identified both the areas where concern should now be focussed and the gaps in knowledge which need to be

filled in order to improve the assessment and management of psychosocial risks to health, performance and well being.

The psychosocial load on board ship (F Knudsen)

Analysis of problems is usually done in a reductionist way, looking at single components, where possible quantitatively. The assessment of psychosocial issues requires a holistic approach and one that will often rely on qualitative methods of investigation.

Seafarers feel different from other workers because of the pattern of their work and life, which has been equated with the regulated, restricted and secluded world of the prison or asylum by some investigators. While there is a seafaring identity there is rarely a common identity within a crew because of its divisions by rank, department, country and watch. This can result in considerable isolation, where defence against the demands of the master or senior officers is lacking. There is a perception of stratification by country of origin on many vessels, with the race to the lowest cost source of labour seen as a threat by all.

Other important stressors include the constant need to incorporate and adapt to new crew-members, an average of one new one every eight days in a study of cargo vessels. Also there is a pattern of constant or intermittent time pressure, usually dependent on the trade followed and the frequency of docking. Perhaps the most significant disturbance, shared with some other groups of workers is the need to adapt from life at sea to life on shore at the end of each period of service. Thus there are two identities, one as a working member of a crew and the other with unstructured time during leave with family and friends. This will, where crewing is casual, also be associated with concern about the next contract and future income. These pressures often bears down unequally on different members of a crew, where senior officers are permanently employed but junior officers and ratings have no such security.

While the master and senior officers may create a climate at sea which is either comfortable or distressing they are themselves also isolated and subjected to the direct pressure of the owners, port operators and authorities. Increasingly systems of management and audit introduced from on-shore have to be followed by officers, and any incidents or damage are seen as their personal responsibility, irrespective of whether the imposed workload is a tolerable one. This may pose an identity crisis, where a person whose pride is in their seamanship sees themselves as a floating clerk and scapegoat.

Crew social activities and coping strategies, even including limited use of alcohol when not on watch, can help to minimise the psychosocial stresses. However the right paradigm for prevention and intervention is also needed. In this respect seafaring is lagging behind other related activities, such as aviation where organisational factors in safety and performance are taken into account in training, rostering and investigation of incidents. A 'medical model' based on diagnosed illness and an assumption of fitness in the absence of such a diagnosis is not a sound basis for considering psychosocial load and its adverse effects. Investigation needs to be concerned with both the organisation of

work and with the motivations, resilience and coping strategies of the crew, while intervention will seek to modify these, with additional support and counselling if the early stages of distress and impairment are identified.

The relevance of 'burn out' syndrome to seafarers (G Ancane)

Burn out is an extensively investigated phenomenon in health care workers. It is a condition where chronic distress from work, whether from the emotional tensions of dealing with others, especially those in distress, or from the miss-match of expectations and realities about work (shattered dreams or ideals about a career) lead to symptoms. These include emotional exhaustion or general fatigue, attitudinal hardening (lack of empathy) to the problems and needs of others, or withdrawal from social contact. In the groups studied the consequences have been found to include reduced performance, increased absence from work, often attributed to symptoms of illness, and a search for alternative work to avoid the distressing circumstances. Predisposing factors have been found to include loneliness, homesickness and disturbed circadian rhythms. 'Strong professions' with a tradition of service, stoicism and little sympathy for the person who cannot make the grade seem particularly prone. All these are features of seafaring as well as of health care, but it is not clear whether the pattern of distress and its consequences is found in this group, indeed there are only two published studies which include seafarers.

The question of whether 'burn out' is an unrecognised problem in seafarers, does not occur, or is harshly eliminated by chosen or imposed decisions about continued employment at sea was the subject of discussion. Two groups were seen to be potentially particularly at risk: masters and senior officers, and the customer service staff on cruise ships. Burn out was not a condition specifically associated with decisions to consider seafarers unfit at their medical assessments. However a number of harmful forms of coping behaviour, such as alcohol and drug misuse, reactive mental health problems such as impairing depression or anxiety states, as well as a range of conditions which could reflect somatisation (the presentation of mental distress as symptoms of physical illness) were common. These had been associated with burn out in other professions. There were no reliable studies on the reasons for cessation of careers at sea and it was considered that burn out could be an important drain on senior and experienced human resources in the maritime industry.

Stress determined illnesses of seafarers: whose problem? (discussion led by B Rikken)

Tension and stress are neither new problems nor ones specific to seafarers. Risk factors may be personal, social or occupational and only some are amenable to prevention. Prevention at work has been shown to require a managerial and organisational rather than a clinical approach. The multi-causal origins and varying attitudes to the reality of stress as an occupational risk mean that there is frequently a reluctance to put rational and proven organisational preventative measures in place.

The high demand and low control features of work at sea were seen to be classic predisposing factors to stress and its consequences. The conflicts between their perceived

role as seafarers who navigate and sustain a vessel in often difficult circumstances and the demands from on shore for paper work and excessive accountability were seen as potent stressors. They are seen to safeguard owners and insurers against liability more than the ship against the vagaries of the sea. Possibly they even contributed to incidents through stress and fatigue rather than preventing them. A paradoxical example noted was the demands of the International Safety Management protocols, which do not equate with most seafarer's perceived safety priorities. Specific instances of overload, leading to casualties, were cited by those present who had recent seagoing experience.

The cycles of seafaring, between sea and harbour and between ship and shore were also identified as risk factors, especially where there was the insecurity of single voyage contracts and many dependents to support. In addition this resulted in the costs of distress and impairment created by work at sea falling not on the employer or owner but on the, usually poor, communities from which single contract seafarers are recruited. This may have been a contributory cause in some cases of suicide at sea.

It was recognised that prevention and response to distress were shared responsibilities. Provision of facilities for mental, social and physical stimulation on board in order to ameliorate the passivating effects of institutional living have been found to be effective. Initiatives sometimes need to be culture specific, both at sea and onshore in terms of welfare centres and associated supporting activities. Training in risk and overload management of the sort used in aviation can bring benefits, especially to the health of officers, as well as to maritime safety. All the above depend on adequate crewing levels, well designed cycles of work and rest and perceived equity. It was noted for instance that studies in Australia had shown that periods of duty over three months were associated with increased stress. Steps had been taken to put shorter periods at sea in place for Australian seafarers, while many seafarers from major crewing countries were working continuously for periods of nine months. Traditional medical assessments were not considered to play a major part in the management of stress in seafarers.

Work conditions at sea – a challenge for equity (discussion led by O. Jensen)

Several of the themes discussed in the earlier sessions were reconsidered. Key potential sources of inequity are: hours worked, length of tour, the link of senior posts to nationality, different pay rates for the same job, age discrimination in recruitment, access to health care during employment and between contracts. There were few specific studies on these topics, but data on the age and gender structure of different seafaring populations is available and can provide useful information.

Inequity is readily seen as a form of neo-colonialism with OECD countries exploiting those with less economic strength. However even seafarers from rich regions feel under threat because attempts to reduce costs have progressively moved jobs to places where pay rates are lower. This can create attitudes which foster inequity and stress. For instance by disparaging the competence of those from low wage countries working on the same vessel. Many of the inequities cannot be isolated as solely occupational as they are grounded in the social conditions of seafarers' home countries and in the mix of

economic and career motives which the seafarer has. They come into particularly sharp focus at sea because of the proximity of living and the organisational structure of the vessel.

Seafarers with health problems and reduced work capacity (E. Knudson)

There is increased emphasis in countries with developed social security systems on maintaining people in work, while employers are concerned about the level of performance at work as well as in minimising the penalties of ill health in their staff. At sea the concept of sick leave is not valid and there is no scope for immediate replacement of anyone who is unwell. The need for fitness standards and the limited scope for job adaptation also mean that proportionately more seafarers have to terminate their careers for health reasons than is the case in most on shore occupations.

The pressure to stay on duty and to ignore any health related impairment can create psychological problems for the seafarer, as well as creating potential risk for the vessel and for other crew members. The normal medical assessment procedures for seafarers concentrate on the application of criteria for fitness in relation to specific diagnostic categories of illness. They were not developed to evaluate 'level of health' The limitation of duties for medical reasons can of itself either result in stresses on other crew members or in what is in effect a certificate of unfitness for the casually engaged individual. As a consequence decisions of an examining doctor or uncertainties while they are awaited can themselves be potent stressors, especially as they often carry big financial implications in terms of current pay and future pension.

A particular problem arises where payment is by results and there is job insecurity, as in fishermen who work on a catch share basis, where payment depends on the price obtained for the fish. A different but not dissimilar pressure arises in customer service staff on cruise liners where very low wages are made up by tips but where only the basic wage is paid if unwell and where providing attentive service may be difficult in the presence of illness.

The current systems of medical assessment, of crewing and of payment do not recognise what is a well-defined issue on shore: the need to respond to short-term illness and longer-term disability. This gap is potentially a major cause of psychological and social pressure on seafarers and one which also has important consequences for safety.

Absolute and relative criteria when evaluating the fitness of seafarers (F.B Schepers)

The ability of medical assessment procedures to take due account of psychosocial health problems was reviewed in terms of the overall design of such systems and the constraints imposed on them by the regulatory framework within which they operate. There are absolute criteria for only a few medical conditions and most are handled using decision making processes which depend on a structured set of judgements made by the

examining doctor. Most derive from ILO conventions and align with the ILO/WHO guidelines on medical examination.

The essence of such judgements is assessment of any current impairment and knowledge of the prognosis of the condition. This is viewed in terms of the tasks to be done and the consequences of impairment or incapacity on performance at them. Decisions taken on this basis have to be robust enough to withstand challenge by the seafarer or the employer. Because of this valid and consistent outcomes are desirable both locally and internationally. A limited list of competent assessors is the norm in most maritime states but international agreement on specific standards/decision taking processes or on the required competencies of assessors has yet to be established. This is a topic being addressed by IMHA.

The implication of the presentation was that psychosocial factors and their disease consequences did not form part of the current fitness standards and this was discussed in more detail. It was recognised that within company judgements could be more sensitive if taken ethically. However the company would always be more concerned about risk management than about employment opportunity and this would be even more so where employment was casual and there were no costs to the employer from long term illness or ill health retirement. The lack of sound studies exploring the contributing factors to illness at sea was noted, without this it was impossible to close the circle and evaluate the role of psychosocial factors. A number of cases were presented which illustrated the contribution of such factors to illness as well as the unreliability of judgements about future fitness based on clinical assessments of ability to cope with the pressures of work at sea. It was also noted that several studies had identified that those working as seafarers were a population that had specific attributes and that the extrapolation of norms from onshore working populations was not necessarily valid. Thus there was no validation of psychological test methods as predictors of risk at sea, although they had been widely used in some countries for a number of years. Studies on defence force naval recruits were not considered to be relevant to merchant seafarers, as there were major differences in organisational structure, oversight, financial pressures and crewing levels. Several speakers emphasised the importance of experience based clinical judgement and considered that rigorous evidence on prediction was an unachievable goal.

Risk self-evaluation in seafarers (H Saarni)

The results of a Finnish study on seafarers self evaluation of risk were presented. Participants were asked to evaluate both their current state of health and their current working ability. Many more reported limited working ability than poor health. The contributions of health to overall working ability was small, with age, motivation, the condition of the ship, food on board, work, skills, leadership, future stability of employment, home and lifestyle as other determinants. As a consequence improvements in working ability need to be addressed across many areas and the contribution of health improvement alone may not be large. Personal well being itself contributes to health: being part of a prospering trade or enterprise, with support which can be mobilised to

assist the individual and good working conditions will all be indirect contributors to health as well as directly improving working ability.

Knowledge of what companies and trade unions want, what is required for legal purposes and what is the contribution of a range of services, including those providing occupational health advice, is needed to define priorities and catalyse action. The needs may vary for different groups of seafarers, with mental work pressures on officers and more physical demands on ratings. Self-evaluation of risks, identification of the actions needed to remedy them and access to the support required to do so can be an effective way of motivating and then achieving benefits tailored to the person and to their working group. Self identified needs are more likely to be met than imposed ones as they will be seen to bring desired benefits, this also shifts the locus of control to the individual and so will inherently reduce the passivating influence of work at sea and be a potent motivator.

The role of maritime health promotion and research in addressing psychosocial problems (D.E Lucero-Prisno III)

A structured approach to promotion of health in Philippines seafarers was presented. Actions needed to be based on valid studies of effectiveness and directed at significant problems. The relatively equivocal attitude of international bodies (WHO, ILO, IMO) was noted. The exceptions to their inactivity on seafarers' health were in the fields of HIV/AIDs, international spread of infections and drug misuse. For any particular group of seafarers programmes needed to be culturally appropriate in terms of language, social values and the pattern of disease in the group.

The research needed to underpin prevention and promotion programmes was discussed and the limitations of current studies both on risk and on intervention in seafarers were noted. It was often possible to use the results from other sectors and apply these to seafarers, taking account of the particular features of and pressures on seafarers.

In discussion the need for small well-defined projects which were directed at priority topics and were designed to be evaluated was noted. The dissemination of available information was limited and proposed IMHA initiatives on the development of a database on maritime health information was welcomed. The fact, noted in other discussions, that medical skills were only one contributor to health improvement was again raised. The implication being that a major task was the motivation of other groups such as employers, trade unions and welfare services to see improving seafarer health and in particular its psychosocial determinants as part of their activities. The importance of the benefits would vary between groups. These would include:

- Improvements in performance of seafarers
- Better maritime safety
- Less ill health while at sea
- A positive and cohesive industry
- Retention of experienced seafarers

- Less loss of seafarers by ill health retirement and hence reduced pension costs
- A more attractive career
- Improvements in the image of the industry

Discussion

There are a number of reasons why seafaring can be expected to be an occupation where there is a high risk of psychosocial factors contributing to poor performance and risk but there is little specific data on seafarers. In the main the evidence of risk comes from studies in on shore populations which identify the importance of specific risk factors. Many of these are present in seafarers because of the nature of the tasks they do and the living conditions at sea. More and better studies are needed to investigate whether this extrapolation to seafarers is justified.

The casual nature of many jobs at sea means that such studies would be methodologically difficult. Those on casual terms of employment may be particularly at risk because of the pressures created by the lack of a stable career.

The nature of psychosocial risks is such that the risk factors are likely to vary with the rank and duties of a seafarer as well as with the pattern of voyages. Senior officers may be a particularly high-risk group because of their job demands and also because they make the majority of decisions which can put a vessel at risk. Overload and lack of support are seen as major risk factors and some of these stem from what are presented as compliance with safety systems, where there are insufficient resources to handle both these and the day to day operations of the vessel.

One of the major features of work at sea is a degree of institutionalisation. Self-assessment of personal risk factors and the ability to take action to address these have been shown to be effective ways to shift control to the individual and empower them to help themselves. Such approaches require an attitude by employers that recognises the nature of health risks, sees seafarers as an asset not a cost and is prepared to invest in this view. Better supporting material and validated methods of intervention using it are needed to demonstrate that such approaches are feasible and to assess their benefits.

There is little evidence that the formal medical assessment of fitness, as currently practiced, is a significant contributor to minimising psychosocial health risks. To be more effective medical assessors would need to be able to liaise closely with maritime employers and trade unions. They would need to have the ability to look at groups of seafarers rather than just at individuals, with lines of communication and respect which enable potential problems to be identified and acted on at an earlier stage. This does not fit well with a system that is often seen by seafarers as primarily aimed at depriving those with diagnoses or disabilities which are seen as unacceptably risky of their employment.

Reducing the risks and impact of psychosocial factors on the health of seafarers requires a collaborative approach. Careful thought is needed whenever efficiency increases are

sought about their consequences for those at sea and, given the world wide competitive nature of the industry, co-operation and action is needed at international level by the major UN bodies concerned with maritime health and safety. Forward looking maritime employers and operators and the maritime trade unions would need to actively support and push for such action. It is acknowledged that current approaches to seafarers health can do only a limited amount to create the changed attitudes to employment and working conditions needed to secure such improvements. The expertise of IMHA and its members both in studying the health and well being of seafarers and in developing health promotion initiatives is available to assist in this area.

Recommendations and suggested action points

Given the strong evidence from studies in other working groups, but only limited indications specific to seafarers, that psychosocial factors are important determinants of health and performance the following steps need to be considered by the maritime industry and its regulators.

1. Good quality investigations among current seafarers and those who have left the industry are required to identify both the conditions of work as a seafarer which may lead to psychosocial health problems and the risks consequent on such problems in the maritime environment
2. Practicable and evidence based means to identify and remedy such risks need to be developed and made available within the industry.
3. In the interim a precautionary policy is recommended.

For the industry:

- a) Considering how to reduce overload by simplifying procedures and ensuring that crewing levels are sufficient to handle those tasks that are required.
- b) Giving particular attention to the scheduling and task demands of work where these can put the vessel directly at risk
- c) Review of the periods of maximum continuous service at sea, given evidence of increased risk with length of tour of duty
- d) Seeking to improve security of employment, with emphasis on the requirement to secure a full career at sea
- e) Ensuring that quality assured and cost-effective treatment for medical conditions arising at sea is available in foreign ports
- f) Considering the means by which seafarers, including masters, can be made aware of the contribution of psychosocial factors to poor health and impaired performance and are enabled to discuss and resolve such problems as far as is possible on board. This could include the approach of self-assessment pioneered in Finland.

For health and welfare services, with industry support:

- g) Provision of accessible health, rehabilitation and welfare services
- h) The development of health and well being educational programmes which address psychosocial aspects of health
- i) Advice to employers and owners on health related aspects of working conditions and task demands on board ship
- j) Advice and support for individuals who are identified as having or at high risk of developing psychosocial health problems. This needs to be associated, where indicated, with recommendations to employers.