

Physical and psychological dimensions of health-related quality of life among Lithuanian seamen

Algirdas Juozulynas¹,

Jonas Sąlyga²,

Regina Malakauskienė³,

Aloyza Lukšienė⁴

¹ Vilnius University, Institute of Experimental and Clinical Medicine, Žygimantų 9, Vilnius, Lithuania
E-mail: algirdas.juozulynas@ekmi.vu.lt

² Klaipėda Seamen's Hospital, Liepojos 45, Klaipėda, Lithuania
E-mail: junet@takas.lt

³ Klaipėda College Health Faculty, Dariaus ir Girėno 8, Klaipėda, Lithuania
E-mail: regmal1951@yahoo.com

⁴ Institute of Oncology, Vilnius University, Santariškių 1, LT-08660 Vilnius, Lithuania
E-mail: aloyza.luksiene@loc.lt

The aim of the study was a questionnaire-based investigation of the physical and psychological dimensions of health-related quality of life among Lithuanian seamen.

Method. The WHOQOL-BRIEF questionnaire, an abbreviated 26-item version of the WHOQOL-100, was developed using data from the field-trial version of the WHOQOL-100. The data were analyzed using the SPSS 12.0.1 and MS Excel computer software. The research group consisted of 500 Lithuanian seamen (males) 20–64 years of age, whose health was examined at the XXX hospital Maritime Centre.

Results. The study was designed to indicate the relations between the physical and psychological dimensions of HRQOL of Lithuanian seamen and their demographic characteristics (age, profession, type of ship). The study shows that physical QOL statistically significantly depends on the age group. The physical QOL is best among the youngest seamen (20–24 years old). Psychological QOL is also dependent on the age group. The psychological QOL is best among seamen aged 20–24 and 25–34 years. The physical and psychological QOL statistically significantly depends on profession: the QOL (according to these dimensions) is best among commanding group members. The physical QOL is worst among engineer ship service members, while the psychological QOL is worst among ship auxiliary service seamen. The third part of the study was dedicated to the relations between the physical and the psychological dimensions of QOL among Lithuanian seamen and the type of ship. Although the data showed that most items were statistically significantly dependent on the type of ship, there was no clear or essential correlation between QOL and the type of ship.

Conclusion: The physical and psychological well-being that partly determines the quality of life is statistically significantly dependent on age group and profession. It is not statistically significantly dependent on the type of ship.

Key words: seamen, fishermen, seafarers, health, health-related quality of life (HRQOL), type of ship

INTRODUCTION

The study was designed to indicate relations between the physical and psychological dimensions of HRQOL among Lithuanian seamen and demographic characteristics (age, profession, type of ship). QOL as a notion is not novel to the last decades. Rather, written concepts of “living well” and “good life” date back at least to Aristotle (384–322 BC) (1). Quality of life within the medical establishment has been around for much of the twentieth century. QOL has been used as an outcome

variable for measurement of disease/illness type (2) and treatment (3). However, in recent years there has been a call for the clarification of this term within the medical context, more specifically health-related quality of life. Today it is recognized that quality of life extends beyond a strict medical discourse into areas such as sociology, psychology, environmental studies, social work and social policy and other dimensions. This study concentrates on the physical and psychological aspects of QOL among Lithuanian seamen.

MATERIALS AND METHODS

The WHOQOL-BRIEF questionnaire, an abbreviated 26-item version of the WHQOL-100, was developed using items from the field-trial version of the WHOQOL-100. The data were analyzed using the SPSS 12.0.1 and MS Excel computer software.

In order to compare the proportions of qualitative characteristics among the groups, the Pearson χ^2 (chi-square test) criterion was used. The following significance levels are used in the study: $p < 0.001$, $p < 0.01$ and $p < 0.05$. This means that p values < 0.001 are highly significant and p values > 0.05 are not significant.

The study group comprised of 500 Lithuanian seamen (males) aged 20–64 years, whose health was examined at the XXX hospital Maritime Centre.

RESULTS

Demographic dimensions: age group

The physical QOL is best among young seamen (20–24 years old): two out of three are very satisfied with their health, four out of five describe their physical energy as unflagging – they say they are never tired, most of them report that they have quite enough energy for everyday life and are satisfied with their sleep.

The physical QOL is worst among Lithuanian seamen 55–64 years old: about two of three are dissatisfied or very dissatisfied with their health; more than a half of the oldest age group get tired at a moderate rate. About 1/12 of them think that they get tired very easily, nine out of ten (55–64-year age group) have little or moderately enough energy for their daily life, they also have problems with their sleep – almost four out of five are very dissatisfied with their sleep.

The psychological QOL is best among the youngest group of seamen aged 20–24 and 25–34 years; they tend to rate their QOL best – good (two out of three and almost one out of four) or very good (more than one out of three and one out of four). All of the 20–24-year-old seamen enjoy their life very much or moderately; the same answers were given by nine out of ten men 25–34 years old. About three out of five seamen 20–24 years old rate their life as very meaningful and the same number of them are able to concentrate very well; almost 2/3 and 1/3 of 20–24 and 25–34-year-old seamen tend to accept their bodily appearance in full, two out of three are very satisfied with themselves.

The worst psychological QOL rate was reported by the oldest group of seamen (55–64 years): they rate their QOL as poor or very poor – nearly 2/3 of them tend to enjoy their life less than do young seamen, 2/3 of seamen from this group rate the meaningfulness of their life as very poor, 1/20 of men say they are unable to concentrate at all; more than two out of three

tend to accept their bodily appearance a little. More than a half of seamen are neither satisfied nor dissatisfied with themselves, 3/20 of seamen from this age group have negative feelings (blue mood, despair, anxiety) very often.

Sleeping disturbance was related to stress symptoms among fishermen. It can be deduced that sleeping disorders resulted from stress, which is a sign of a bad psychological condition.

Neurotic disturbances are getting more intense with age and employment period. Scientific articles confirm the results of our empirical study: age is correlated with the poor psychological QOL among Lithuanian seafarers.

Demographic dimensions: profession

The physical QOL is best among the commanding group – about 1/5 of them are very satisfied with their health; the same results are among deck service (about 1/5 of them give this answer); almost a half of commanding group members say that they don't get tired at all; two out of five think that they have quite enough energy for everyday life; a half of the members of this group are satisfied with their sleep.

The worst physical QOL is reported by engineer ship service members: 1/25 of them are very dissatisfied and almost 1/3 are dissatisfied with their health; more than 1/10 of engineer ship service and 1/10 of ship auxiliary service members get easily tired; about a half of the members of engineer ship service have moderately enough energy for everyday life; but even 1/4 of them think they have only a little energy for their daily life; the least satisfied seamen belong to engineer ship service and ship auxiliary service – almost 1/10 of each group are very dissatisfied with their sleep.

A great number of scientific articles show that factors concerning physical QOL are more favourable to the commanding group (captains, etc.). The same conclusion can be drawn from the results of the present study. This study showed that seamen were exposed to vapours from volatile chemicals during several working operations, such as loading, unloading and cleaning the tanks. Captains experienced almost no chemical exposure.

The physical QOL is worst among Lithuanian ship engineers. According to Hansen et al. (12), ship engineers are subject to a high number of accidents. Most of open fracture cases occur among engine room crew members. This type of injury occurs more frequently among young and inexperienced seamen than among those with a long period of service at sea. It can be deduced that seamen working on deck, such as part of the auxiliary ship service members, also are at an increased risk of injuries and accidents that affect their physical QOL. Deck crew involved in heavy work on deck and in holds are at the highest risk of being involved in an accident. Walking from one place to another aboard the ship causes serious accidents. The most serious accidents also happen on deck.

DISCUSSION

According to Neutel (4), mortality in fishermen under 55 and older is high from all causes and non-accidental causes too. The same pattern was shown for death from specific causes such as ischemic heart disease, accidents and cancer. The high death rates for fishermen under 55 has a socioeconomic component.

The studies of Jeremin et al. (5) also showed that the risk of death was particularly high in persons above 40 years of age. Age was a major risk factor for accidents causing permanent disability (6).

According to Brandt et al. (7), the analysis of mortality among Danish merchant seamen showed that the overall mortality was strongly dependent on age and marital status. The highest mortality ratios were found among young seamen and unmarried seamen. Thus, that marital status correlates with the psychological condition.

The popular image of life at sea is one of stress: often difficult physical conditions, dislocation, isolation and less than ideal personal habits (8).

Ólafsdóttir (9) described the relationship between fishermen's health and sleeping habits. Many fishermen on Iceland ships have sleep disturbances and too many of them have to cope with 'stress depression'.

According to Jeebhay et al. (10), seafaring is a risky occupation for seamen's musculoskeletal system, oral health, hearing and eyes.

According to Moen et al. (11), employment as a captain on tankers showed no significantly increased mortality.

The psychological QOL is best among the commanding group members: about 1/5 of them tend to rate their QOL as very good; almost seven out of ten are satisfied with their life very much; almost 1/10 rate their life as extremely meaningful (the best result in this scale); three out of five commanding group members are able to concentrate very well; 1/3 of commanding group seamen never have negative feelings (blue mood, despair, anxiety).

The worst psychological QOL is among ship auxiliary service seamen (more than 1/10 of them rate their QOL as very poor) and engineer ship service (almost a half of them rate their QOL as poor); the same group members are the least happy with their life: members of engineer ship service and ship auxiliary service (about 1/10 of each group) say that they do not enjoy their life at all; seamen the least satisfied with their bodily appearance belong to engineer ship service – 1/5 of them are only a little satisfied with their appearance; 1/5 of respondents belonging to engineer ship service very often have negative feelings (blue mood, despair, anxiety).

A study dedicated to stress among seamen (13) showed that the main psychological problems encountered were loneliness, homesickness, and "burn-out" syndrome. The problems were primarily caused by long periods of away from home, social isolation and its

effects on a seafarer, the low number of seamen per ship, and by increased automatization.

Demographic dimensions: type of ship

The third part of the study was dedicated to find out a relationship between the physical and the psychological dimensions of QOL among Lithuanian seamen and the type of ship. Although the data show that most items were statistically significantly dependent on the type of ship, it can be concluded that there is no clear or essential correlation between QOL and the type of ship.

CONCLUSIONS

1. Our empirical study has shown that the physical and psychological QOL among Lithuanian seamen is poor or moderate. It is dependent on the age and professional group, but less dependent on the type of ship.

2. The worst physical and psychological QOL was found among engineer ship service members aged 55–64 years, auxiliary ship service and deck service members, and the QOL was best among members of the commanding group and seamen 20–24 years old.

3. Although the data show that some items are statistically significantly dependent on the type of ship, it can be concluded that there is no clear or essential correlation between the QOL and the type of ship.

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**Algirdas Juozulynas, Jonas Salyga,
Regina Malakauskienė, Aloyza Lukšienė**

FIZINĖ IR PSICHOLOGINĖ LIETUVOS JŪRININKŲ GYVENIMO KOKYBĖS DIMENSIJA

S a n t r a u k a

Lietuvos jūrininkų (kaip ir kitų šalių) gyvenimo kokybė yra nauja tyrimo sritis. Tyrimo tikslas – pasitelkus klausimyną

ištirti su sveikata susijusią Lietuvos jūrininkų gyvenimo fizinę ir psichologinę kokybę. Tyrimui buvo panaudota PSO gyvenimo kokybės klausimyno sutrumpinta versija, kurią sudarė 26 gyvenimo kokybę atspindintys klausimai ir trys sociodemografiniai klausimai (amžiaus grupė, profesinė grupė ir laivo, kuriame dirba jūrininkas, tipas). Tyrime dalyvavo 20–64 metų 500 Lietuvos jūrininkų. Duomenys buvo analizuoti „SPSS 12.0.1“ ir „MS Excel“ kompiuterinėmis programomis. Atsižvelgiant į jūrininkų amžių, profesiją ir laivo tipą, kuriame jie dirba, tyrimais buvo nustatyta fizinė ir psichologinė Lietuvos jūrininkų gyvenimo kokybė. Rezultatai buvo statistiškai patikimi, t. y. statistiškai reikšmingai priklausė nuo amžiaus ir profesinių grupių. Analizuojant laivo tipą, statistiškai reikšmingos priklausomybės nenustatyta, nors daugelis atskirų klausimų atsakymų (rezultatų) buvo statistiškai reikšmingi (išskyrus keturis klausimus). Galima teigti, kad Lietuvos jūrininkų gyvenimo kokybė yra prasta arba vidutinė; ji statistiškai reikšmingai priklauso nuo amžiaus ir profesinės grupės, bet mažiau nuo laivo tipo, kuriame jūrininkai dirba.

Raktažodžiai: gyvenimo kokybė, su sveikata susijusi gyvenimo kokybė, jūrininkai, sveikata