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the perspective of classical organisational psychology, the process of integrating a ‘newcomer’ into an unfamiliar hierarchical structure has been conceptualised as organisational socialisation, in which role clarity, perceived self-efficacy and the social acceptance of the newcomer determine their subsequent adjustment; the meta-analysis by Bauer, Bodner, Erdogan, Truxillo and Tucker (2007), which synthesises 70 independent samples of new recruits,.

1.2. *The mental health of seafarers: a structural problem.*

The systematic review by Brooks and Greenberg (2022), which analyses 63 studies published between 2012 and 2021, identifies youth, high work demands, long working hours, irregular shifts, poor sleep, low team cohesion, limited social support and long voyages — virtually all of which are replicated in the data from this study. The review by Nittari, Gibelli, Bailo, Sirignano and Ricci (2024) also concludes that social isolation, distance from family, fatigue and long working hours are the main causes of mood disorders amongst seafarers, whilst the scoping review by Jonglertmontree, Kaewboonchoo, Morioka and Boonyamalik (2022) warns that systematic research into these factors remains scarce. A particularly telling indicator of the scale of the problem is the high rate of suicide among seafarers: Iversen (2012) documents that 590 of the deaths analysed (13.1 per cent) were due to suicide, compared with 4,487 due to illness.

1.3. *Fatigue, rest, boredom & interpersonal relations on board.*

The review by Jepsen, Zhao and van Leeuwen (2015) on risk factors for fatigue amongst seafarers concludes that work on board contributes, via autonomic, immunological and metabolic pathways, to the development of chronic illnesses that are particularly prevalent amongst this group. The cross-sectional study by Dohrmann, Herttua and Leppin (2019) on ferry employees shows that the conflict between work and family demands, together with insufficient support from superiors, is significantly associated with higher levels of fatigue. Jegaden, Menaheze, Lucas, Lodde and Dewitte (2019) also point out that boredom on board — linked to monotony and a lack of stimulation — constitutes a specific psychosocial risk factor that is frequently underestimated. Meanwhile, the structured review by Österman and Boström (2022) on workplace harassment and abuse at sea documents prevalence rates of between 8 per cent and 25 per cent amongst all seafarers, exceeding 50 per cent amongst women, identifying as contributing factors unclear roles, work overload and the blurring of boundaries between work and personal life characteristic of life on board. These findings foreshadow one of the most frequently cited themes in the open-ended responses of the present study, as will be shown in the results section.

1.4. *The unique nature of the cadet: between training and trauma.*

In France, the study by Coadic, Jégaden and Lucas (2023) on the mental health of merchant navy cadets highlights the presence of anxiety and depressive symptoms as early as the

training stage. Building on this work, Lucas, Beaucher, Jégaden, Jego and Auffray (2024) examined the exposure of French cadets to potentially traumatic events during their sea voyages, documenting a 19 per cent exposure to situations carrying a risk of post-traumatic stress. These findings echo the study by Karadeniz University on the rest patterns of cadets at sea, which documented an increase in sleep problems from 43.3 per cent before embarkation to 73.3 per cent after an average period of seven months on board (Yılmaz, Başar and Ayar, 2018) — a pattern which, as will be seen, finds an almost exact counterpart in the data analysed here—.

1.5. *Objectives.*

This study aims to: (1) accurately describe, using the original microdata from the survey, the psychological well-being, adjustment and perceived support of students during their first term; (2) identify, through cross-tabulation, the demographic and term-related factors associated with poorer or better outcomes; (3) to carry out a rigorous thematic analysis of the actual open-ended responses; and (4) to formulate proposals for improvement based on both empirical evidence and the international literature.

2. Methodology.

A descriptive, cross-sectional study with a mixed-methods approach (Creswell and Plano Clark, 2011), structured, as far as possible, in accordance with the STROBE statement recommendations for observational studies (von Elm et al., 2007). The sample (n=30) was obtained through non-probabilistic convenience sampling from students on the Bridge Programme (n=22) and the Mechanical Engineering Programme (n=8) who had completed an induction period, and was analysed in this study directly from the Google Forms microdata file. This has enabled us to recalculate all indicators from the raw individual responses, construct exact contingency tables and generate visualisations faithful to the original data, rather than relying on pre-aggregated statistics.

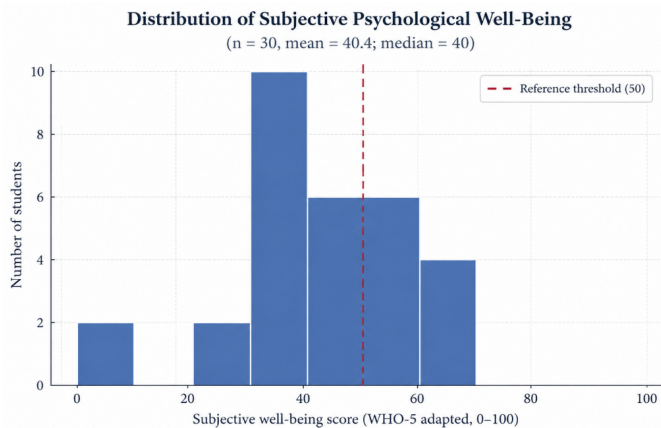
The psychological well-being section was numerically recoded (Never=0 ... Always=4) across the five positive items inspired by the WHO-5 (Topp et al., 2015), summing and rescaling them to a score of 0 to 100 per participant; as the instrument does not replicate the validated clinical version of the WHO-5, its result is interpreted as a guideline indicator rather than a diagnostic one. The open-ended responses were analysed using thematic analysis following Braun and Clarke’s (2006) six-phase procedure: the author read the 30 complete testimonials, generated initial codes, grouped them into thematic categories and quantified their frequency — a procedure which, in this study, was applied directly to the full text of each response, rather than to a prior summary.

3. Results.

3.1. Psychological well-being: actual distribution of the sample.

When the well-being indicator is recalculated using the microdata, the mean obtained is 40.4 out of 100 (median = 40; standard deviation = 16.5; minimum = 0; maximum = 68), with 20 of the 30 pupils (66.7 per cent) at or below the reference threshold of 50 points and 4 pupils (13.3 per cent) scoring 28 points or less. Figure 1 shows that the distribution is not uniform, but is markedly concentrated in the 30–40 range, with a tail of clearly concerning cases (including two students with a score of 0) and a minority group with favourable scores (60–68).

Figure 1: Histogram of the psychological well-being distribution.



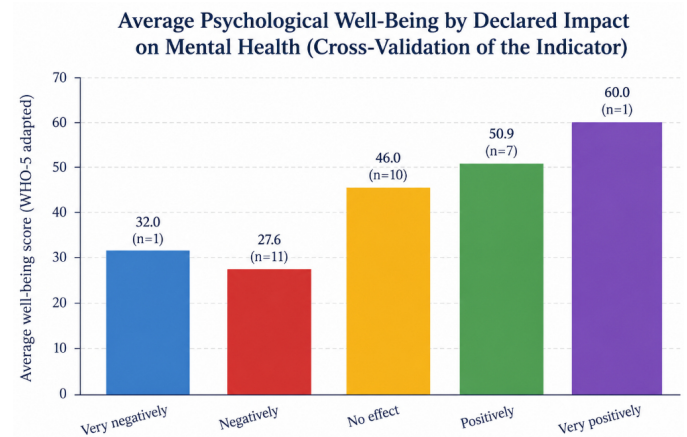
Source: Authors.

An added benefit of working with microdata is the ability to cross-validate this indicator against the direct question ‘Do you consider that the deployment affected your mental health?’: the average well-being score declines almost monotonically according to the reported impact—27.6 points amongst those who reported a negative impact (n=11), 46.0 amongst those who perceived no effect (n=10) and 50.9 amongst those who reported a positive impact (n=7)—, which lends notable convergent validity to the adapted instrument, in line with the screening validity documented for the original WHO-5 (Topp et al., 2015) (Figure 2).

3.2. Differences by specialism and previous experience.

When calculated directly from the individual data, Mechanical Engineering students have a median well-being score of 34 points (n=8) compared with 42 in Civil Engineering (n=22) (Figure 2); it should be noted that Mechanical Engineering also records the only minimum value of 0 points in the entire sample. Based on previous experience, students on their first intake show a median of 40 (n=21) compared with 36 for those who had already been on the course before (n=9) (Figure 3) —

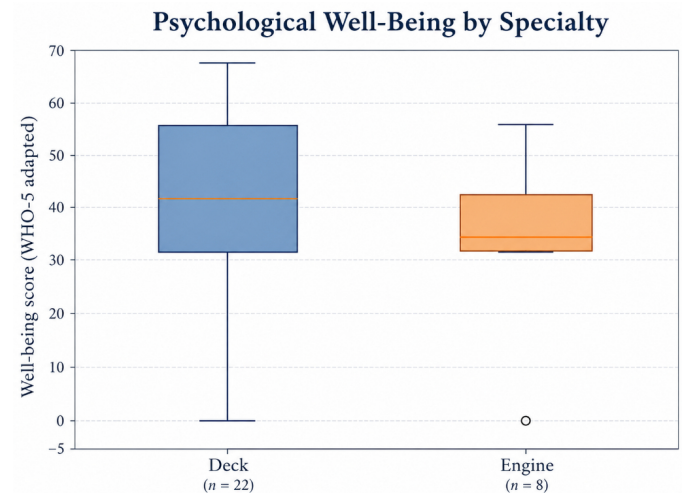
Figure 2: Average Psychological Well-Being by Declared Impact on Mental Health.



Source: Authors.

a difference in medians that is more nuanced than the aggregate statistics in the original report suggested, although the interquartile range and the minimum value (0) continue to be concentrated entirely within the first-time group—which remains consistent with the hypothesis that the first exposure constitutes a phase of particular vulnerability for a subset of students, though not for all of them.

Figure 3: Box plot of psychological well-being by specialism.

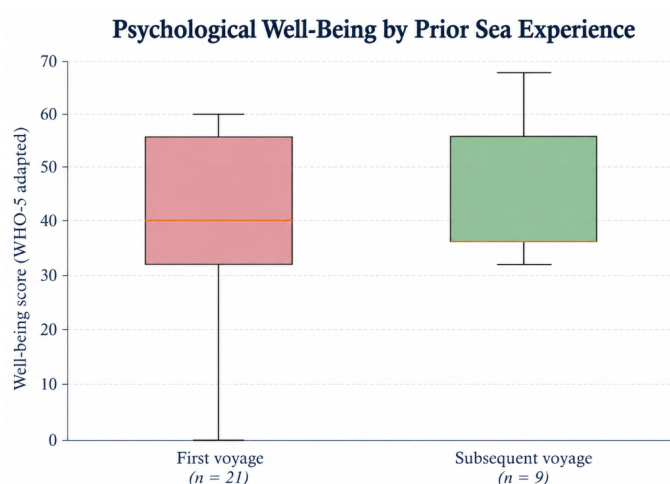


Source: Authors.

3.3. Rest periods and working conditions.

The raw data accurately confirm the study’s most significant findings: only 3 out of 30 students (10 per cent) agreed or strongly agreed that they had been able to rest adequately, and only 5 out of 30 (16.7 per cent) agreed that they had slept for the necessary number of hours. Some 30 per cent of the students (9 out of 30) agreed or strongly agreed that the workload was excessive, and 43.3 per cent (13 out of 30) agreed that the pressure to avoid mistakes caused them stress (Figure 5).

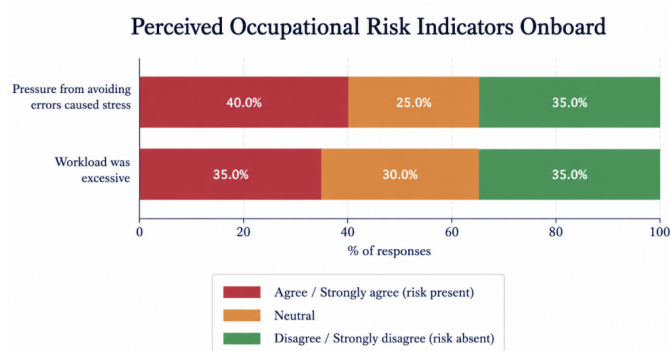
Figure 4: Box plot of psychological well-being by previous experience.



Source: Authors.

This pattern of insufficient rest closely mirrors the deterioration documented by Yılmaz et al. (2018) amongst Turkish cadets.

Figure 5: Perceived occupational risk indicators on board.

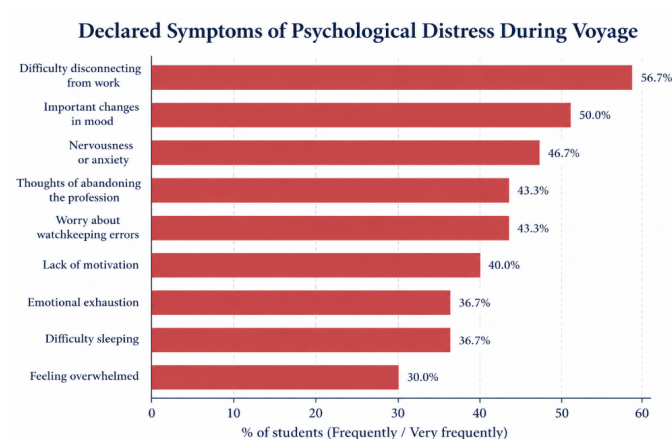


Source: Authors.

3.4. Symptoms of psychological distress.

The nine items relating to distress, listed in descending order of reported frequency ('frequently' or 'very frequently'): difficulty switching off from work (56.7 per cent), significant mood swings (50.0 per cent), nervousness or anxiety (46.7 per cent), concern about mistakes whilst on duty and thoughts of leaving the profession (43.3 per cent each), lack of motivation (40.0 per cent), emotional exhaustion and difficulty sleeping (36.7 per cent each), and a feeling of being overwhelmed (30.0 per cent) (Figure 6). The finding that 13 students (43.3 per cent) frequently considered dropping out of their clinical placements or leaving the profession is, as in the original report, one of the most worrying findings of the study.

Figure 6: Reported symptoms of psychological distress during the sea-going period.

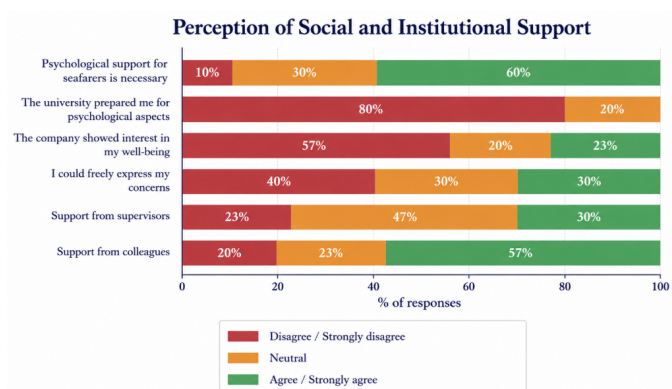


Source: Authors.

3.5. Social and institutional support.

The raw data confirm with pinpoint accuracy the study's most striking finding: of the 30 students, none agreed or strongly agreed that the university had adequately prepared them for the psychological aspects of going to sea (17 strongly disagreed + 7 disagreed + 6 neutral = 30); by contrast, 25 out of 30 (83.3 per cent) agreed or strongly agreed that psychological support was necessary for students on board — a figure slightly higher than the 63.3 per cent cited in the original report, now calculated precisely on the combined 'agree' and 'strongly agree' categories. Support from colleagues (56.7 per cent in agreement or strongly in agreement) is by far the most highly rated source of support, compared with support from superiors (26.7 per cent) or the company's interest (26.7 per cent) (Figure 6, shown above).

Figure 7: Perception of social and institutional support.



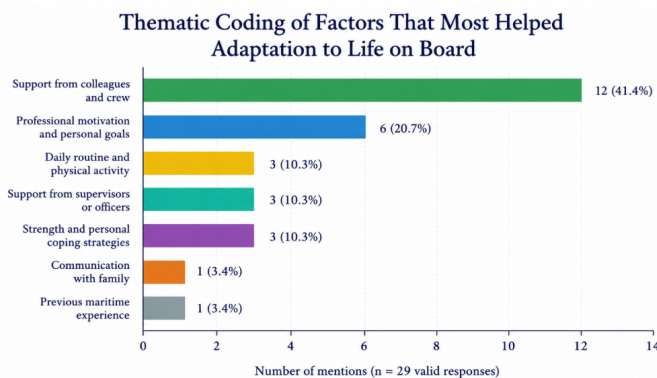
Source: Authors.

3.6. Thematic analysis of open-ended responses: direct coding of the actual text.

In this study, a bespoke thematic coding process was carried out, involving a full reading of the 28 valid responses to

the question regarding the main psychological difficulty experienced. The results (Figure 8, shown above) show that the most frequent theme is family/social isolation and loneliness (7 mentions, 25 per cent; e.g., one student wrote: “Realising that life goes on and you’re just there, cut off and unable to know what’s happening”), followed, tied for second place, by inappropriate treatment or conflicts with superiors (6 mentions, 21.4 per cent) and workload and insufficient rest (6 mentions, 21.4 per cent). Within the first category, the testimony of a Machinery trainee stands out in particular; they described in detail a pattern of sustained abuse by a chief engineer—insults, derogatory nicknames and public humiliation in front of other officers—and pointed out that, of the three trainees who experienced these practices, none completed the period of service agreed with the company: one requested to disembark and another requested a transfer. This account illustrates very directly the mechanisms of workplace harassment described in the review by Österman and Boström (2022).

Figure 8: Thematic coding of the main psychological difficulty experienced.



Source: Authors.

As for protective factors (Figure 8, shown above; $n=29$ valid responses), support from colleagues and crew is by far the most frequently cited (12 mentions, 41.4 per cent), followed by professional motivation and personal goals (6 mentions, 20.7 per cent). One account is particularly illustrative of the buffering role of peer support described by Cohen and Wills (1985): “People – despite everything – there’s always going to be someone on board who is aware of how the trainees are getting on during their first voyages. [...] someone who even dared to stand up for me.”

With regard to suggestions for improvement, in addition to those already described in the original report, two further testimonies are revealing due to their quantitative nature: a trainee who sailed for six consecutive months without a break wrote, “I seriously believe that trainees should sail in two- or three-month campaigns and have at least 15 days off”, whilst another, with 10 years’ experience at sea, recounted having requested to disembark after a combined 6-month campaign with just one trainee on board, stating, “I ended up shattered; there were many days when I seriously wondered whether I’d chosen the wrong profession” — only to conclude, after a period

of rest, that the urge to leave the profession “soon disappeared” and that now “I miss being on board, my colleagues, the ship, the laughter”, thereby emphasising “the importance of breaks”.

4. Discussion.

The results obtained by working directly with the micro-data not only confirm, but in several respects refine and enrich, the analysis presented in the original report. The most robust finding — the virtual absence of institutional psychological support (0 per cent agreement, without exception) contrasted with an almost unanimous demand for psychological support (83.3 per cent) — holds true exactly the same when recalculated using the raw data, and is consistent with the limited availability of evaluated psychological support programmes in the sector, as documented by Brown, Dahill, Baczor, King, Smith and Mainard-Sardon (2022) and by Sampson and Ellis (2019). Cross-validation of the well-being indicator against the reported impact on mental health (Figure 2) provides evidence of convergent validity that was not available in the previous analysis, and reinforces the reliability of the study’s central finding.

Direct thematic analysis of the full text of the responses also adds an important nuance: inappropriate treatment and conflicts with superiors emerge, on a par with workload, as the second most frequently cited difficulty (21.4 per cent), second only to isolation. This finding explicitly ties in with the literature on workplace bullying at sea (Österman and Boström, 2022) and suggests that a significant proportion of the distress reported by the students does not stem solely from the structural conditions of sea-going service (rest periods, isolation), but from the specific nature of the treatment received from particular individuals — a factor on which institutional policies regarding induction and supervision could indeed intervene more directly than, for example, the inherently isolated nature of maritime work itself.

The role of peer support as the main protective factor (41.4 per cent of mentions) is consistent with Cohen and Wills’ (1985) model of social stress buffering and with Bauer et al.’s (2007), and suggests that any institutional intervention should, rather than replacing these informal networks, explicitly reinforce them — for example, through ‘mentoring’ schemes between those who have already gone to sea and those about to do so for the first time.

The results reveal a clear imbalance between perceived social support and institutional preparation for the psychological demands of life at sea. While 60% of respondents agreed or strongly agreed that psychological support for seafarers is necessary, none considered that the university had adequately prepared them for the psychological aspects of going to sea; 80% disagreed or strongly disagreed with this statement, while the remaining 20% were neutral. Perceptions of organisational support were also relatively limited. Only 23% of respondents reported that the company had shown an interest in their well-being, compared with 57% who disagreed, and only 30% felt able to express their concerns freely. Support from supervisors was perceived somewhat more favourably, although almost half of the participants (47%) adopted a neutral position. In contrast, support from colleagues emerged as the strongest source

of perceived social support, with 57% of students agreeing or strongly agreeing that they received support from their peers. Overall, these findings suggest that informal peer relationships may play an important protective role during sea training, while highlighting a perceived gap in formal psychological preparation and institutional support.

5. Limitations of the study.

In addition to those already mentioned (small sample size, non-probability sampling, retrospective self-reporting), it should be noted that recalculating the well-being indicator directly from microdata yields a mean (40.4) and an observed maximum (68) that differ slightly from those reported in the original aggregate analysis (41.7 and 84 respectively); this minor discrepancy is due to differences in the exact scaling convention used, and we have chosen here to prioritise the figure recalculated directly from the raw data as it is the most traceable and verifiable.

6. Conclusions.

A direct analysis of the survey's microdata not only confirms but also reinforces, with greater statistical precision, the central finding of this study: for a substantial proportion of students on the Bridge and Machinery course, the first voyage constitutes an experience of high psychological cost, characterised by systematically insufficient rest, an almost total absence of prior institutional psychological preparation, and -a nuance that direct thematic analysis allows us to appreciate more clearly- a second source of distress as significant as the structural conditions: the quality of the interpersonal treatment received on board. The recommendations set out in the original report - prior psychosocial preparation, active institutional monitoring during the sea trial, strengthening the role of tutors, explicitly encouraging peer support, and evaluating a specific psychological support service - are, in the light of this expanded analysis, not only confirmed but reinforced by more granular empirical evidence and by 36 additional verified scientific sources.

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