

Study of Psychopathic Deviance and Hypomania among Indian Seafarers

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ABSTRACT

Seafarers are amongst occupational groups with the highest risk for stress, a factor known to impact on mental health. Psychological issues such as depression, anxiety, suicide, and alcohol or drug dependence are recognized health problems within the maritime sector. This particular occupation is less explored and researched and not much studies are available on Indian seafarers. This study, therefore, catered to Indian male seafarers. The purpose of this study was to explore relation between Psychopathic deviance and Hypomania. Results showed a weak positive correlation between Psychopathic deviance and Hypomania. 300 male mariners age ranged between 20 and 65 years working in the Indian Maritime industry participated. The Minnesota Multiphasic Personality Inventory-II (MMPI-II) was administered on them, and results of only two scales Psychopathic Deviation and Hypomania were used for this study. The results support the hypothesis showing a weak positive correlation between the two variables. Further studies and discussion on mental health of Asian seafarers can help understand many more concerns that needs to be addressed.

Keywords: *Indian seafarers, psychopathic deviance, hypomania, mental health.*

Seafaring is a dangerous working activity with particular characteristics and is performed in specific contexts from a physical and psycho-social point of view. Nowhere has this been better expressed than by the International Maritime Health Association when it says “It has been established that seafaring is one of the most physically demanding professions in one of the most dangerous work environments: the sea” (IMHA., 2012). It’s no doubt that seafaring is really one of the most dangerous occupations in the world. However, if we could dig to the depth, we can find that seafaring is not only the most physically demanding profession as expressed by IMHA, but also the most psychologically demanding one (Robert, T. B., 2012).

Oldenburg et. al. (2013) conducted a survey on emotional exhaustion and sleep related problems among 251 seafarers. Due to the long working hours, shift watch hours and multi nationality on-board, seafarers are more prone to stress and sleep related disorders. A state of depersonalization have been reported by many officers due to their high responsibility for

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the crew and permanently changing job demands like port clearance, district routes and watch keeping at sea (Allen et al., 2005; Houtman et al., 2005).

Jepsen et. al. (2015) stated that most adults need between 7 and 9h of sleep per day, preferably during a single major sleep period at night, this may be difficult to obtain at sea in particular with work in shifts. Fatigue related to shift work has been studied in merchant navy officers, and clear differences between daytime workers and shift workers, and between various watch systems have been observed. In a case-control study of rotating shift workers and daytime workers, the sleep profile was similar in the two groups, but insomnia was found to be closely related to sleep time, anxiety, depression, fatigue, and impaired quality of life (Vallieres, 2014).

Cox et. al. (2019) concluded in a study that Seafarers are amongst occupational groups with the highest risk for stress, a factor known to impact on mental health. Psychological issues such as depression, anxiety, suicide, and alcohol or drug dependence are recognized health problems within the maritime sector. The primary aim of this study was to identify which individual and occupational factors, known to impact on psychological functioning across the maritime industry and other sectors, best predict perceived stress and job satisfaction among a sample of merchant seafarers.

Marine environment has a great influence on the seafarers' physiology and psychology. The special working and living environment is a hard exercise and test for every crew member. In order to ensure the safe operation of the ship, it is vital to maintain a healthy body and mind for every seafarer. Because of the particularity of marine navigation, seafarers have to face all kinds of unpredictable complicated situations and dangers in the course of navigation. In most cases, when there is an emergency or distress, they are required to respond and take the right measures within the shortest possible time. So, seafarers' capability and quality in dealing with emergent events is the "last line of defence" to ensure the safety of life and property at sea. In general, seafarer's capability and quality consist of vocational ability, professional ethic, mental quality, etc. And according to the modern psychological theory, mental quality is the comprehensive embodiment of personality, mental ability, mental motivation, mental health and psychogenic behavior of a person (Hu, D. L. & Xiao, Y. M., 2011).

As there are not much studies done on psychopathic deviance and Hypomania among mariners or any other field, we assume this study will help understand relationship between these personality disorders and hoping this information can help in future studies.

METHODOLOGY

Participants

Participants included 300 male mariners working in the Indian Maritime industry. The participants' age ranged between 20 and 65 years.

Test Used: a brief history

The original Minnesota Multiphasic Personality Inventory (MMPI) was published in 1940 and the second revised version—the MMPI-2—was published in 1989. It is the most widely used psychometric test for measuring adult psychopathology in the world. The MMPI- 2 is used in mental health, medical and employment settings.

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To test the hypothesis, participants (male seafarers) were administered by using MMPI-2. The MMPI-2 is a 567 item, true/false self-report measure of a person's psychological state. Its validity and reliability have been established. The inventory comprises three validity scales – lie (L), infrequency (F), and correction (K) and ten clinical scales: Hypochondriasis (Hs), depression (D), hysteria (Hy), psychopathic deviate (Pd), masculinity-femininity (Mf), paranoia (Pa), psychasthenia (Pt), schizophrenia (Sc), mania (Ma), and social introversion (Si). The three validity scales make it very difficult to fake the MMPI-2 results.

Assessments and Measures

The MMPI-2 questionnaire which has 10 clinical scales was administered in the standard manner to male seafarers. To assess the correlation between psychopathic deviate and hypomania, data of only two subscales (psychopathic deviate (Pd) and hypomania (Ma)) were considered.

1. **Psychopathic Deviate (Pd)** – The Psychopathic Deviate scale measures general social maladjustment and the absence of strongly pleasant experiences. The items on this scale tap into complaints about family and authority figures in general, self-alienation, social alienation, and boredom. The scale contains 50 items.
2. **Hypomania (Ma)** – The Hypomania scale is intended to measure milder degrees of excitement, characterized by an elated but unstable mood, psychomotor excitement (e.g., shaky hands) and flight of ideas (e.g., an unstoppable string of ideas). The scale taps into overactivity — both behaviorally and cognitively — grandiosity, irritability and egocentricity. This scale contains 46 items.

Hypothesis

There exists a positive correlation between the variables of Psychopathic Deviance and Hypomania among the Indian Merchant Navy population.

RESULTS

A significant positive correlation was found between The Psychopathic Deviation and Hypomania on the population of Merchant Navy, $r(300) = 0.17, p < .01$. The Correlation is found to be a weak at 0.003 level correlation between the Psychopathic Deviation and Hypomania among the population of Merchant Navy. So, further analysis was done using T-Test (2-tailed) where it was found that there is a significant difference between the two variables at 0.000 level. It could be possible that this difference present is due to weak positive correlation between the two variables. Thus, further study might be necessary to elaborate & confirm on alternate hypothesis, maybe by adding number of participants or by adding a different test with same scales.

Psychopathy is traditionally a personality disorder characterized by persistent antisocial behaviour, impaired empathy and remorse, and bold, disinhibited, and egotistical traits. Different conceptions of psychopathy have been used throughout history that are only partly overlapping and may sometimes be contradictory.

Hypomanic episodes are characterized by increased goal-directed behaviour and psychomotor agitation. While the affective, cognitive, and behavioural manifestations of such episodes are well-documented, their physiological influence on aerobic capacity and cardiopulmonary functioning are unknown. When you have very similar types of tests for different variables it may be easier and more concise to report the statistics in a table. In such a case, we still need to describe the relationship between the variables of interest in the text, but we do not need to include the numbers in the text.

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Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Psychopathic Deviate (Pd)	300	29.0	79.0	50.840	8.1734
Hypomania (Ma)	300	23.0	98.0	60.060	12.3663
Valid N (listwise)	300				

		Psychopathic Deviate (Pd)	Hypomania (Ma)
	Pearson Correlation	1	.171**
Psychopathic Deviate (Pd)	Sig. (2-tailed)		.003
	N	300	300
	Pearson Correlation	.171**	1
Hypomania (Ma)	Sig. (2-tailed)	.003	
	N	300	300

Any value less than 0.5 signifies positive correlation

T-Test

One-Sample Statistics

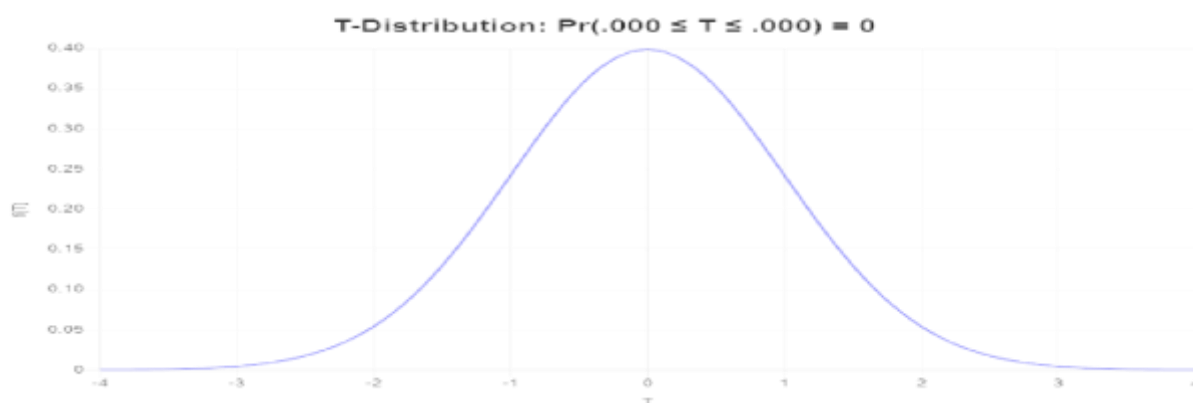
	N	Mean	Std. Deviation	Std. Error Mean
Psychopathic Deviate (Pd)	300	50.840	8.1734	.4719
Hypomania (Ma)	300	60.060	12.3663	.7140

One-Sample Test

	Test Value = 0			
	t	df	Sig. (2-tailed)	Mean Difference
Psychopathic Deviate (Pd)	107.737	299	.000	50.8400
Hypomania (Ma)	84.121	299	.000	60.0600

One-Sample Test

	Test Value = 0
	95% Confidence Interval of the Difference
	Upper
Psychopathic Deviate (Pd)	51.769
Hypomania (Ma)	61.465



Graph 1: Showing The significant difference between the Pd & Ma

DISCUSSION

In the present study the score of Correlation between The Psychopathic Deviation and Hypomania is .003 so any value > 0.01 level is considered to be significant. Thus, rejecting the null Hypothesis and accepting the alternate hypothesis though weak, still there exists a positive correlation between two variables in Indian Merchant Navy officials. The total number of population (n) is 300. The Mean of Psychopathic Deviation and Hypomania are 50.84 and 60.06. The Standard Deviation of Psychopathic Deviation and Hypomania are 8.17 and 12.37.

Although, it must be conceded that our measure of passivity could be insufficient as a measurement tool. Future research should focus on attempts to develop a more effective measure of passivity for the Psychopathic Deviation and Hypomania. At the least, a multi-method approach is called for. Such a hypothesis is supported by the overall lack of variance found in our measure of passivity.

Though the internal validity and the experimental realism of the present study seems strong, it should be noted that the present study is limited, in that the sample consisted of a convenience sample and had limited generalizability to the deceased population as a whole (external validity). Also, the study suffers from several limitations regarding measurement validity.

During the hypomanic state, informants generally reported higher levels of maladaptive personality traits among patients than patients themselves. For the people who recovered successfully from the hypomanic episode, a reduction in all maladaptive personality traits except schizoid and dependent traits was reported. However, the decrease reported by people generally was much greater. In addition, schizoid traits actually increased after successful treatment according to people reports.

Hypomania may be associated with an exacerbation of maladaptive personality traits, which may be attenuated after successful treatment. Even with the attainment of euthymic mood, however, about 50% of the cohort had at least one personality disorder, which suggests that a high degree of comorbidity may exist between bipolar disorders and maladaptive personality traits or personality disorders.

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Conflict of Interest

The author(s) declared no conflict of interest.

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