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Website:
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1. A Study of Perception and Motives Towards Participation in Clinical Research in India ................................................ 1
   Amit Marwah, Neyaz Ahmed, Nidhi, Rajesh Ranjan, Mitasha Singh, Ranabir Pal

2. Assessment of Knowledge Regarding Post Exposure Prophylaxis Following Needle Stick Injury among B. Sc. Nursing Students ................................................................. 6
   Anjana A. P., Gisha Joseph, Revathy A. Valsan

3. Effect of Body Mass Index and Age on Visual Reaction Time in Recreational Badminton Players. A Cross-Sectional Study ...................................................................................... 11
   Rrutu Rajkumar Singhal, Ashish Prabhakar, Shyam Krishnan k, Gopala Krishna Alaparthi

4. Cytomegalovirus Pneumonia in Critically Ill Patients ........................................................................................................... 16
   Gurmeet Singh

5. Knowledge, Attitude and Risk Perception for Diabetes among Pregnant Women with Gestational Diabetes Mellitus ................................................................................................. 19
   Judith A Noronha, Sushmitha R Karkada, Anusuya Prabhu, Shobha, Sonia RB D’Souza, Sweety J Fernandes, Pratibha Kamath

6. Study to Assess the Seizure Severity, Depression and Quality of Life among Patients with Epilepsy at AIMS, Kochi ................................................................. 25
   Antony T, Kanmani J, Anjana A.P

7. Factors Influencing Non-use of Family Planning among Rural Adolescent Girls in Malawi
   Kennedy Machira, Beston B. Maonga

8. Performance Evaluation of Adtree, Functional Tree and LMT Classifiers with CFS Subset Evaluator for Intelligent Heart Disease Prediction ................................................................................................. 37
   Lakshmi Devasena C

9. Assess the Level of Stress among Antenatal Mothers ........................................................................................................... 43
   Linda Varghese, Aswathy Krishnan, Anitha Joseph, Dimna Davis

10. Development and Statistic Analysis of Psychology-Numerology Module for Character Building in Malaysia ................................................................. 48
    Mohammad Aziz Shah Mohamed Arip, Nadratul Shima Salim, Bazlan Mustafa, Fauziah Sa’ad

11. Establishing Internal Consistency of the Attitudes to Back Pain Scale (ABS-mp) in Indian Physiotherapists ........................................................................................................... 54
    Nitesh Bansal, Pujja Chhabra Sharma, Raju K Parasher

12. Knowledge, Attitude and Practice of Tobacco use among Children in a School, Pune: A Cross Sectional Survey ........................................................................................................... 59
    Aditi Mahalle, Mamatha G.S Reddy, Srushti Putta, Nitin Gupta, Supriya Kheur
13. Reproductive Health Problems Associated with Thyroid Disorders among Health Science Students

14. Effectiveness of Short Message Service (SMS) Intervention for Promoting Safe Sex among
   Army Conscripts in a Province in Thailand ................................................................. 69
   P. Eaimkhong, U. Perngpam

15. Work Life Balance among IT Industry-An Empirical Study ...................................................... 75
   R. Amutha

16. Effectiveness of Gooseberry Juice with Honey and Guava Juice with Honey Compared with Control
   on Physiological Parameters among Adolescent Girls Studying in Selected Schools .................. 79
   R. Reeta, R. Vijayaraghavan, Rajeswari Vaidyanathan

17. A Study on Knowledge, Attitude and Practice on the Usage of Edible Salt among the
   Population in an Urban Area ......................................................................................... 85
   A Revanth Kumar, N Partha Sarathy, Chandrasekhar Reddy B, M. Ravikiran

18. A Prospective Study of Clinical Profile and Role of Fiber Optic Bronchoscopy in Patients with
   Sputum Negative for AFB with Undiagnosed Lung Lesions in Chest X-Ray .......................... 91
   Rajesh B P, Saroja C Kamatar, Vijaya Kumar

19. Randomized Control Study of Foley Bulb and Vaginal Misoprostol Compared with Vaginal
   Misoprostol alone in Induction of Labour .......................................................................... 96
   Ashwini M N, Saroja C Kamatar, Deepika Mann

20. Iodine Deficiency Disorder in Rural Population: A Community Based Observational Study on
    Prevalence in Coastal Area of Tamil Nadu State, South India. .............................................. 100
    Senthivel Vasudevan, Priyankaraj CK, Sumathi Senthivel, Jayanthi Sureshbabu

21. The Study of the Relationship between Normative and Informative Identity Styles with
    Differentiation of Self and Psychological Well-being of the Students ................................. 106
    Parvin Ghader, Fatemeh Moradi

22. Study of Management Programmes in “Benign Paroxysmal Positional Vertigo” .......................... 112
    Shilpi Jindal, Rajendra Sharma

23. Knowledge and Attitude about Internet Resources among Physiotherapy students in Mangalore
    Vijay Kumar, K, Shreekanth D. Karnad

24. Study of Correlates of Infertility among Females Attending Infertility Clinic in Tertiary Care Centre
    Shweta N. Salphale, Vinod D. Mundada, Ganesh S. Lokhande, B. M. Kuril, Mohan K. Doibale

25. Depression and its Risk Factors among Patients Waiting for Solid Organ Transplantation
    Attending Selected Units of a Tertiary Hospital, Kochi .................................................. 124
    Sreedevi PA, Shakey William, Shania Mathew, Sandhya P Sudhakar

26. Exploratory Study on Experience of Domestic Violence among Women .................................. 129
    Raveesh Kaimal, Sreedevi P. A., Febu Elizabeth joy

27. Effect of Quality of Antenatal Care and Perinatal and Postnatal Outcomes among Women Availing
    Routine Antenatal Services in a Primary Health Care Setting in a Rural Area of South India
    Avita Rose Johnson, Sarekh A. Suguna A, Twinkle Agrawal, Naveen Ramesh, Sulekha Thimmaiah

28. Noncompliance and its Contributing Factors among Patients with Tuberculosis ...................... 141
    Thanu K. M., Maya M. S., Nimmi Francis
29. The Determinants of Safety Behavior in Hospital .......................................................... 147
   Tri Martiana, Suarnianti

30. Relationship Between Nutrition, Socioeconomic Status and Fitness in Elementary School Children:
    A Review of the Literature .......................................................................................... 154
   Kshitija Patki, Barkha Bhatnagar, Raju K. Parasher

31. A Study of Coffee Addiction in the Medical College, Engineering Students and in
    General Population of in and around Pondicherry .................................................. 160
   E. Prabhakar Reddy, R. Senthil Kumar, S. Arun, R. Srikumar, R. Chidambaram

32. Biological War and Chemical Warfare-Status of AIDS .............................................. 165
   T. Mohana Lakshmi, B. Sai Ravi Kiran, E Prabhakar Reddy

33. Evaluation of Total and Conjugate Bilirubin Levels Before and After Phototherapy ........ 170
   E. Prabhakar Reddy, B. Muthukumaraswamy, S. Paneerselvam, B. Sai Ravi Kiran

34. Macronutrient Status in Children Aged 1-6 Years in and around Pondicherry ............... 174
   E. Prabhakar Reddy, R. Geetharani, K. M. Roop Kumar, T. Mohana Lakshmi, Rajini

35. Evaluation of Vitamin A and E Levels in Chronic Renal Failure .................................. 179
   Salma Mahaboob, R. Geetharani, T. Mohana Lakshmi, E. Prabhakar Reddy

36. Tender Coconut Water Uses, Health Benefits, Good Nutritive Value and Antioxidant Capacity ...... 184
   E. Prabhakar Reddy, K. M. Roop kumar, T. Mohana Lakshmi, Sai Ravi Kiran

37. The Strategy in Improving Quality of Health Services for Patient Satisfaction in
   Community Health Clinic (Puskesmas) North Jayapura, Jayapura City ......................... 189
   Vince Tebay

38. Effect of Nutrition Peer Counseling and Breastfeeding the Improvement in Exclusive Breastfeeding
    and Infant Nutrition Status in Sub LubukPakam and TanjungMorawa, Deli Serdang ........... 194
   Mahdiah, Albiner Siagian, Evawany Y Aritonang, Namora Lumongga Lubis

39. Relationship of Employee Ethnic Background in Validation of Situational Leadership Theory .......... 200
   Fitriani, Philipus Betaubun, Ermelinda A.G. Pure, Dedy Tikson, Edoardus E. Maturbongs, Theresia
   Widi asih Cahyanti, Ruloff Fabian Waas

40. The New Spesies Anopheles aitkeni as the Threat of Malaria in Indonesia ..................... 206
    Mursid R, Yusniar HD, Praba G

41. Self-Care Activity Determination of Diabetes Mellitus Type-2 Patient in Labuang Baji Hospital ........ 211
    Ida Leida Maria, Natalia Paskawati Adimunja, Ridwan Thaha, Nurhaedar Jafar, Anwar Mallongi

42. The Keiki Formation and the Flowering of Pseudobulb of Dendrobium johannis Rchb. f. .......... 216
    Ni Luh Sri Suryaningsih, La Hisa, Amelia Agustina Limbongan, Anwar Mallongi

43. Risk Analysis of Dengue Fever Occurrence in Bone Province Sulawesi South Using
    Temporal Spatial Geostatistical Model ......................................................................... 221
    Stang Abdul Rahman, Amran Rahim, Anwar Mallongi

44. Analysis of Risk on the Incidence of Scabies Personal Hygiene in Boarding School
    Darul Arqam Gombara Makassar .................................................................................. 227
    Anwar Mallongi, Ayu Puspitasari, Muhammad Ikhtiar, Arman, Arsunan, A. A.
45. Feasibility Analysis of Facilities and Hygiene Workers and Firms in UPTD Cattle Slaughter of Kendari City in 2017
Yusuf Sabilu, Jafriati, Farit rezal, Andi Faisal Fachlevy, Fifi Nirmala, La Ode Ahmad Saktiansyah, Syawal Kamiluddin Saptaputra

46. Behavior of Tuberculosis Pulmonary Disease Prevention in South Sulawesi, Indonesia
Herman, Edi Sukamto, Syahida Djasang

47. Evaluation of Irrigation Performance in Semangga, Merauke Regency, Indonesia
Yosehi Mekiuw, Diana Sri Susanti, Jayadi, Anwar Mallongi

48. Effectiveness of Non Pharmacologic Therapy through Surveillance Approach to Blood Pressure Degradation in Primary Hypertension Patients, Indonesia
Masriadi, Rahmawati Azis, Eha Sumontri, Anwar Mallongi

49. Expression of Foxp3 mrna on Preeclampsia with Adaptation Theory
Yudit Patiku, Rosdiana Natzir, Mochammad Hatta, Ariyanti Saleh, Elly Syattar, Yusmina Hala, Salmah Arafah

50. Lived Experiences of Patients with Chronic Obstructive Pulmonary Diseases (COPD)-Qualitative Review
Flavia Castelino, Mukhyaprana Prabhu, Mamatha Shivananda Pai, Asha Kamath, Aswini K Mohaputra, Elsa Sanatombi Devi

51. Worker Personality as a Predictor in Compliance Model on Work Safety Regulations
Hadi Prayitno, Heru Santoso Wahito Nugroho

52. Effectiveness of Mindfulness Based Cognitive Therapy (MBCT) on Self-Efficacy Enhancement of the War Wounded
Mohammad Ebrahim Hokmabadi, Abbas Kalantar, Mohammad Javad Asghari Ebrahimabad, Sepideh Rezapoor Lakani, Hossein Khosrosabadi, Shamin Razaghi Kashani, Seyed Mohammad Mahdi Moshirian Farahini

53. Age Related Changes in Proximal Femoral Morphometry: A Cross Sectional Study on Eastern Odisha Population
Lopamudra Nayak, Pratima Baisakh, Susmita Senapati, Prafulla Kumar Chinara

54. Effectiveness of an Awareness Programme on Exclusive Breastfeeding for the ASHA Workers of Udupi District
Shashidhara YN, Ansuya, Celastin, Anice George

55. Increasing Inpatient Service Quality of Using Quality Function Deployment Method in Nene Mallomo Hospital of Sidrap Regency, Indonesia
Darmawansyah, Muhaiminah Said, Rahmatia Yunus, Sukri Palutturi

56. Determination of Birth Weight from Placental Morphometry
Senapati Susmita, Shashi Shankar behera, Lopamudra Nayak, Prafulla kumar chinara

57. Testing the Level of Awareness on Testicular Cancer among the UAE Residents
Elizabeth Topolskaya, Iqra Ghani, Jessica D'Silva, Abdulrahman Abdulwahab, Siraj AlAbayechi, Rami El Khatib

Renjulal Yesodharan, Vishnu Renjith, Tessy Treesa Jose

59. A Three Year Review of Uterine Rupture in Tertiary Hospital: Lessons for Obstetric Care
Parveen Rajora, Amanjot Rajpal
60. Sensory Motor Stimulation and Weight Gain among Preterm Newborns .................................................. 312
    Maheswari.G., N. Ganapathy, Radha Kumar

61. Is Really Prefeeding Sensory Motor Stimulations had Significant Impact on Feeding Parameters in Premature Infants?–An Evidence Based Report ......................................................... 315
    Maheswari.G., N. Ganapathy, Radha Kumar

62. A Study to Assess Functional Assessment and Lived Experiences of Cervical Cancer Patients Admitted to a Tertiary Level Hospital of Udupi District, Karnataka-a Mixed Method Protocol ............... 321
    Sonia R.B D’Souza, Ranjani P, Sweety Fernandes, Pratibha, Judith Noronha, Sushmitha Karkada, Shoba Kamath

63. Influence Perceived Benefit and Perceived Self Efficacy with Intention of Adolescent Girls in Consuming FE Tablet .................................................................................................. 326
    Faradina Nur Annisa, Ira Nurmala

64. The Level of Environmental Sanitation and the Incidence of Tuberculosis in Jember and Situbondo, Indonesia ........................................................................................................ 330
    Isa Ma’rufi, Abu Khorir, Khaidar Ali, Heru Santoso Wahito Nugroho

65. Analysis of Interest in the First Health Facility to Refer Patients to Jombang General Hospital as Advance Health Facility and the Influence Factors ......................................................... 336
    Sandu Siyoto, Rosa Indrawati
Worker Personality as a Predictor in Compliance Model on Work Safety Regulations

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ABSTRACT

The high incidence of workplace accidents in industry at both the global and national levels is closely associated with the worker behavioral factors, particularly those related to the worker personality factor. This study aims to analyze worker personality factor that affects worker compliance with work safety regulations in the industrial sector. This research employed a quantitative approach using analytical observation with cross sectional study. The data was gained through standardized questionnaires. The population involved all workers of PT. X from which 210 workers of manufacturing division were chosen as research sample by using purposive sampling technique. For descriptive statistical test, SPSS program was used to analyze the data, while for the statistic test, SEM test was chosen by using AMOS program. The results showed that worker conscientiousness traits through organizational commitment and occupational safety culture were the predictors of worker compliance with work safety regulations, that worker agreeableness traits through occupational safety participation were the predictors of worker compliance with safety regulations, and that worker neuroticism traits through occupational safety participation were the predictors of worker compliance with work safety regulations.

Keywords: Workers, Workplace accidents, Personality factors, Compliance, Work safety regulations, Industry

INTRODUCTION

In the last five decades every 15 seconds there has been one worker died and 160 workers were injured due to work-related accident(1). In 2014 the total compensation paid in relation to accident cases reached 118.8 US $, representing the highest amount to be paid compared to other types of industries(²,³). The International Labor Organization reported that the severity of work accidents in Indonesia was quite high(⁴). From every 100,000 workers who experience accidents, 20 of whom are classified fatal. Among the employee actions that directly cause workplace injuries, up to 29.8% of which are caused by the use of faulty or defective equipment, non-compliance with safety instructions or regulations applicable to companies in which they work, and less cautiousness or over confidence when working. The occupational insecurity factor will affect worker compliance on safety(⁵). The main causes of occupational accidents are prone to worker behavioral aspects (⁶). This statement reinforced the opinion by Cooper which pinpointed that 80% - 95% of all work accidents were caused by unsafe behavior.⁷ One of the most generally accepted personality taxonomies today is the personality traits.⁸ Seibokaite, et. al. demonstrates that personality trait research is crucial in regulating performance and predicting work motivation and the perceived security climate in high-risk firms.⁹ Pervin. et. al. stated that human personality factors consisted of openness to experience, conscientiousness, extraversion, agreeableness and neuroticism.¹⁰ The purpose of this study was to analyze worker personality factor that can affect compliance with work safety regulations in construction industry.

MATERIAL AND METHOD

This research employed quantitative approach using analytical observation and the design was cross sectional
The research site was PT. X a company in East Java Indonesia. The sample of the study was workers in the production division. Using purposive sampling technique 210 workers were selected as samples. This research used confirmatory factor analysis, descriptive analysis and SEM (Structural Equation Modeling) analysis. Data analysis technique was carried out by administering descriptive analysis test using SPSS program, while the statistical test employed SEM test by AMOS program.

**FINDINGS**

The demography of the respondents in this study covers age, education level, length of service and type of training that workers have participated in the last 3 years, as outlined in table 1 below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>137 (64.8%)</td>
<td>210</td>
</tr>
<tr>
<td>30-39</td>
<td>66 (31.5%)</td>
<td></td>
</tr>
<tr>
<td>&gt; 39</td>
<td>74 (35.2%)</td>
<td>(100%)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior High/Equal</td>
<td>8 (3.8 %)</td>
<td>210</td>
</tr>
<tr>
<td>High School/Equal</td>
<td>129 (61%)</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>73 (35.2%)</td>
<td>(100%)</td>
</tr>
<tr>
<td><strong>Years of Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9</td>
<td>86 (40.8 %)</td>
<td>210</td>
</tr>
<tr>
<td>10–19</td>
<td>98 (46.5 %)</td>
<td></td>
</tr>
<tr>
<td>20–29</td>
<td>26 (12.7%)</td>
<td>(100%)</td>
</tr>
<tr>
<td><strong>Job-related Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 type</td>
<td>129 (61%)</td>
<td>210</td>
</tr>
<tr>
<td>2 types</td>
<td>69 (32.9 %)</td>
<td></td>
</tr>
<tr>
<td>3 types</td>
<td>12 (6. 17%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

Table 1 shows that the majority of respondents as many as 137 people (64.8%) are classified very productive (20-29 years of age). The majority of respondent’s education is middle category which is up to 129 people (61%). The middle education category is due to the minimum requirement for workers in the industrial sector. From the respondent’s years of service, the majority of respondents have been in this industry for 10-19 years as many as 98 people (46.5%) indicating that they have sufficient years of service to master the details of the work field. From the type of job-related training, the majority of respondents as many as 129 people (61%) have participated in one type of job training in the industrial sector.

The results of the calculation of direct, indirect and total personal traits of the worker compliance with work safety regulations are outlined in table 2.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscientiousness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational Commitment</td>
<td>0.204</td>
</tr>
<tr>
<td></td>
<td>Safety Participation</td>
<td>0.335</td>
</tr>
<tr>
<td></td>
<td>Safety Culture</td>
<td>-0.130</td>
</tr>
<tr>
<td></td>
<td>Compliance with Work Safety Regulations</td>
<td>0.000</td>
</tr>
<tr>
<td>Agreeableness</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organizational Commitment</td>
<td>0.140</td>
</tr>
<tr>
<td></td>
<td>Safety Participation</td>
<td>0.302</td>
</tr>
<tr>
<td></td>
<td>Safety Culture</td>
<td>0.156</td>
</tr>
<tr>
<td></td>
<td>Compliance with Work Safety Regulations</td>
<td>0.000</td>
</tr>
<tr>
<td>Neuroticism</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety Culture</td>
<td>-0.240</td>
</tr>
<tr>
<td></td>
<td>Compliance with Work Safety Regulations</td>
<td>0.000</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td></td>
<td>0.852</td>
</tr>
<tr>
<td></td>
<td>Compliance with Work Safety Regulations</td>
<td>0.435</td>
</tr>
<tr>
<td>Safety Participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compliance with Work Safety Regulations</td>
<td>0.455</td>
</tr>
</tbody>
</table>
Table 2 informs the results of direct, indirect, and total effects of the personality trait indicators on worker compliance with work safety regulations through organizational commitment, safety participation and occupational safety culture.

Worker conscientiousness indirectly affects worker compliance with work safety regulations through organizational commitment with the structural coefficient of 0.21 and worker organizational commitment affects worker compliance with work safety regulations with the structural coefficient of 0.44. On the other hand worker conscientiousness indirectly affects the formation of worker compliance with work safety regulations through safety participation with the structural coefficient of 0.34 and safety participation affects worker compliance with work safety regulations with the structural coefficient of 0.46.

Worker agreeableness indirectly affects the formation of worker compliance with work safety regulations through organizational commitment with the structural coefficient of 0.14 and organizational commitment affects the worker compliance with work safety regulations with the structural coefficient of 0.44. Agreeableness indirectly affects the formation of worker compliance level with work safety regulations through safety participation with the structural coefficient of 0.31 and safety participation affects worker compliance with work safety regulations with the structural coefficient of 0.46.

Worker neuroticism indirectly affects the formation of worker compliance with work safety regulations through organizational commitment with the structural coefficient of 0.53 and organizational commitment affects the formation of worker compliance with work safety regulations with the structural coefficient of 0.44.

Two personality indicators considered invalid are openness to experience indicator with $p=0.51$, while $p\delta=0.00$ and extraversion indicator with $p\lambda$ value of 0.41 and $p\delta=0.00$. Both indicators are then not taken into account.

**DISCUSSION**

The result of the analysis indicates that there is a significant influence of worker conscientiousness towards organizational commitment with the structural coefficient of 0.208. This finding is consistent with the results of Kumar & Bakhshi showing that conscientiousness is a predictor that has a very strong influence on indicators of affective commitment as well as indicators of continuous commitment of workers. The individual’s commitment to an organization found that the individual’s commitment to the organization was influenced primarily by personality. Worker conscientiousness significantly influences the work safety culture with the structural coefficient of -0.132. The descriptive analysis of associations between variables shows the influence of worker conscientiousness indicator on worker safety culture at company. The personality aspect of the worker is a dominant aspect that may affect the worker safety culture. Worker conscientiousness influences the safety participation in low position that equals to 81.3%. The final result of coefficient test of worker compliance model on work safety regulations showed that worker conscientiousness has a positive and significant effect on work safety participation seen from path coefficient as much as 0.34. Workers are familiar with their area of work in relation to the equipment and machines they use, and then they are the first to recognize the emergence of new dangers and potential problems that will arise.

Worker agreeableness has a positive and significant effect on worker’s organizational commitment seen from the path coefficient of 0.14. Robbins states factors that affect the worker’s organizational commitment such as personal factors in which one of them is the personality. Worker agreeableness has a positive and significant effect on work safety culture seen from the path coefficient of 0.15. Worker agreeableness has a positive and significant effect on safety participation seen from the path coefficient of 0.30 and probability significance (p) of <0.001. Geller stated that there were 5 matters that could support the participation of work safety, namely: a) The contribution of workers to accident prevention, b) The involvement of workers in the safety promotion, c) The idea, knowledge and experience of workers in finding the solution to the emergence of health problems and work safety, d) Industrial democratization, and e) Cooperation climate between employers and workers. Individuals with low agreeableness are usually less able to work with others, less helpful, and more egoistical resulting the tendency to have a higher risk of workplace accidents at workplace.

Worker neuroticism affects the safety culture with the structural coefficient of -0.24 and the p value of 0.002. Neuroticism is defined as an individual who has personality characteristics associated with negative
emotions such as worry and insecurity.\textsuperscript{(15)} This suggests that neuroticism, which has been connoted negatively as an individual character, does not always mean negative in reality, precisely in the context of certain types of work related to the construction sector that has a high accident risk as well as high level of complexity of problem. This condition requires a worker to have dominant neuroticism in order to be able to add compliance with the regulations in his work environment, one of which is compliance with work safety regulations strictly set by the company. The goal is no other than for the creation of workplace safety which is ultimately expected to increase work productivity.

The intermediate variables that bridge variables between the three factors of the worker personality are conscientiousness, agreeableness and neuroticism for the formation of the worker compliance with work safety regulations in the construction industry including organizational commitment variables, safety culture variables and safety participation variable which vary from one variable to another.

The influence of worker organizational commitment on work safety culture with the structural coefficients of 0.85 and the probability significance (p) of <0.001 indicates the strong influence of the variable. Worker organizational commitment related to safety culture has the same goal of creating character, values, and attitudes that shape the behavior of organizations and individuals to achieve professionalism with a high level of effectiveness. Worker organizational commitment partially has an effect on worker safety culture. The company that provides good lighting during work time has biggest mean of health work variable. On the other hand, the organizational commitment of worker simultaneously has a significant effect on the worker safety culture.\textsuperscript{(16)} Organizational commitment has a positive and significant impact on compliance with work safety regulations. This can be seen from the path coefficient of 0.44 and the probability significance (p) of <0.001. Masial and Pienar found that the worker organizational commitment had a significant effect on worker safety compliance.\textsuperscript{(5)}

CONCLUSION

The study found three factors of worker personality as predictors in shaping worker compliance with work safety regulations through the following five paths:

1. Worker conscientiousness is the predictor of compliance with work safety regulations through worker organizational commitment variable.
2. Worker conscientiousness is the predictor of compliance with work safety regulations through worker safety participation variable.
3. Worker agreeableness is the predictor of compliance with work safety regulations through worker organizational commitment variable.
4. Worker agreeableness is the predictor of compliance with work safety regulations through worker safety participation variable.
5. Worker neuroticism is the predictor of compliance with work safety regulations through worker organizational commitment variable.

Conflict of Interest: The authors declare that there is no conflict of interest related to this research.

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Ethical Clearance: Ethical clearance taken from Health Research Ethics Committee, Faculty of Public Health, Airlangga University with number “492-KEPK”.

REFERENCES


