THE RELATIONSHIP OF KNOWLEDGE, ATTITUDES, AND COMPLIANCE WITH THE USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE) WITH SAFETY BEHAVIOR AMONG SPBE EMPLOYEES IN PANDEGLANG DISTRICT

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ABSTRAK
Perilaku Selamat (Safety Behavior) adalah suatu perilaku yang dilakukan dengan ketertarikan individu dalam usaha untuk memperkecil atau mencegah suatu bencana yang ditakutkan. Safety behavior ini lebih di fokuskan dalam aspek perilaku manusia terhadap terjadinya kecelakaan di tempat kerja. Tujuan dari penelitian ini yaitu untuk mengetahui hubungan pengetahuan, sikap dan kepatuhan penggunaan APD dengan perilaku selamat (safety behavior) pada karyawan SPBE Pertamina Kabupaten Pandeglang. Penelitian ini menggunakan metode kuantitatif dengan desain studi cross sectional dan pendekatan observasional. Sampel pada penelitian ini yaitu seluruh karyawan SPBE sebanyak 40 orang yang bekerja di bagian pengisian elpiji. Teknik pengambilan sampel ini yaitu menggunakan teknik total sampling. Hasil penelitian ini diketahui bahwa terdapat hubungan antara pengetahuan dengan perilaku selamat karyawan SPBE (p-value 0.034) dan terdapat hubungan antara sikap dengan perilaku selamat karyawan (p-value 0.011). Penelitian ini menyimpulkan terdapat hubungan antara pengetahuan dan sikap dengan perilaku selamat pada karyawan SPBE Pertamina Kabupaten Pandeglang. Oleh karena itu disarankan pihak pimpinan SPBE melakukan edukasi kepada karyawan agar pengetahuan dan sikap karyawan meningkat sehingga bisa meningkatkan perilaku selamat yang baik (safety behavior) pada karyawan.

Kata Kunci: Pengetahuan; Sikap; APD; Perilaku Selamat

ABSTRACT
Safety Behavior is a way of behaving that is carried out by individual interest to minimize or prevent potential disasters. Safety behavior in this research focuses on the human behavior aspect in workplace accidents. The purpose of this study is to determine the relationship between knowledge, attitudes, and compliance with the use of Personal Protective Equipment (PPE) with safety behavior among SPBE Pertamina employees in Pandeglang District. This research uses quantitative methods by cross-sectional and observation approach to the study. The sample of this research is all of the 40 employees in SPBE working in charge of Liquefied Petroleum Gas (LPG) filling. Total sampling is used as a sample retrieval technique, and the data retrieval technique used is a questionnaire. The data analysis method used is univariate and bivariate analysis with Chi-Square test analysis. The result of this study shows a significant relationship between knowledge of the safety behavior of SPBE employees (p-value 0.034) and there is a significant relationship between attitude with SPBE employees' safety behavior (p-value 0.011). This study concludes that there is a relationship between knowledge and attitude toward safety behavior among SPBE Pertamina employees in the Pandeglang District. Therefore, it is suggested that SPBE leadership conduct education for employees so that employee knowledge and attitudes increase so that they can increase good safety behavior for employees.

Keywords: Knowledge, Attitude, PPE, Safety Behavior

INTRODUCTION
Industry in Indonesia is currently experiencing very rapid development in line with advances in technology. This rapid industrial development is accompanied by an increase in the risk of danger due to the use of increasingly complex machines and work equipment to support the production process.
This can cause health and safety problems in the workplace. LPG Bulk Filling Station (SPBE) is a privately owned filling plant that transports LPG in bulk form from Pertamina and fills LPG cylinders for agents filling LPG cylinders of 3 kg. One of the hazards that can be caused by SPBE activities is an explosion hazard. This is because LPG is included in the category of gases that are volatile and flammable at ambient temperatures.

Occupational Safety and Health (OSH) is an effort to prevent accidents and protect workers from machines and other sources of danger and work equipment that can cause traumatic injury. Labor which is the most important component in the implementation of project is a decisive asset for the company. Therefore, in running a safe business then implementation of the safety management system and health management system (SMK3) must be implemented consistently, in accordance with Occupational Safety Law No.1 of 1970 and Labor Law No. 13 of 2003 states that employers are obliged to protect workers and the potential hazards they.

Work accidents are generally caused by 2 main factors, namely unsafe behavior (Unsafe Action) and unsafe work environment. Safety behavior is an approach designed to directly improve work safety phenomena so as to prevent accidents. Face According to data from the International Labor Organization (ILO), every year there are more than 250 million accidents in the workplace and 1.2 million of them die as a result of work accidents and workplace illnesses. Based on BPJS Employment data quoted by DataIndonesia.id, there has been a trend of increasing work accident rates over the last 5 years. Since 2017 the number of work accidents had been recorded at 123,040 then increased by 40.94% to 173,415 cases in 2018. Then it increased by 5.43% to 182,835 cases in 2019.

The main cause of work accidents is the lack of knowledge and awareness of the importance of implementing OSH among industry and society. Based on data from Manpower and Transmigration Office, Banten Province there were 6,819 work accident cases recorded in 2021, but as of mid-October 2022 there were 5,980 work accident cases.

Research conducted by Siagalan in Suriani (2013) on PT EGS Indonesia workers in November 2009 found that 94% of respondents were included in the good safe behavior category. In addition, a significant relationship was found between knowledge, motivation, perceptions, the role of colleagues, and safe behavior. In Pandeglang Regency there are two SPBE Pertamina and until now the safety behavior of employees has not been known. In addition, the education level of Pandeglang’s human resources is still low. Based on BPS data in 2021, the average length of schooling in this area only reached 7.11 years, which means that it only graduated from elementary school (SD). So that this affects the behavior of the community, especially safety behavior. Therefore, researchers are interested in knowing the relationship between knowledge, attitudes, and compliance with the use of Personal Protective Equipment (PPE) with safety behavior on SPBE Pertamina employees.
METHOD

The type of research used is a quantitative approach using the observational method and a cross-sectional study design. The population in this study were all employees of the LPG filling section of 40 employees at two locations of SPBE Pertamina in Pandeglang Regency. The population in this study are all employees of the LPG filling section (SPBE) because LPG is included in the category of gas which at ambient temperature is volatile and flammable so that a total population of 40 employees was obtained at two Pertamina SPBE locations in Pandeglang Regency.

Data was collected in December 2021 using a questionnaire that had been used in previous studies and had been tested for validity and reliability. The research data obtained was then processed using univariate and bivariate analysis using the Chi-Square test.

RESULTS AND DISCUSSION

Univariate Analysis

Based on the mean value (17) of the respondent's safety behavior, the safe behavior was categorized into good safe behavior and poor safe behavior. Based on Table 1, it is known that out of 40 respondents, the majority of employees have good safety behavior, namely 33 people (82.5%) and 7 employees (17.5%) have poor safety behavior.

Based on the mean value (5) of the respondent's knowledge, knowledge is categorized into low knowledge. Based on Table 1, it is known that out of 40 respondents, obtained majority of employees have high knowledge namely 31 people (77.5%), and 9 employees (22.5%) have low knowledge.

Based on the mean value (18) of the attitude of the respondents, the attitude is categorized into Based on Table 1, it is known that out of 40 respondents, the results obtained were that 22 employees had positive attitudes (55.0%) and 18 employees had negative attitudes (45.0%).

<table>
<thead>
<tr>
<th>Safety Behavior</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>Good</td>
<td>33</td>
<td>82.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td>High</td>
<td>31</td>
<td>77.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attitude</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>18</td>
<td>45.0</td>
</tr>
<tr>
<td>Positive</td>
<td>22</td>
<td>55.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Compliance with the use of PPE</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disobedient</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td>Obedient</td>
<td>23</td>
<td>57.5</td>
</tr>
</tbody>
</table>

Compliance with the use of PPE is categorized into two, namely, it is said to be obedient if it uses PPE completely and it is said to be disobedient if it does not use PPE completely. Based on Table 1, it is known that out of 40 respondents, 23 people (57.5%) are obedient to the use of PPE and 17 people (42.5%) are disobedient to the use of PPE.
Bivariate Analysis

Relationship of Knowledge, Attitudes, and Compliance with the Use of PPE on Safety Behavior of SPBE Employees in Pandeglang District.

Table 2. Bivariate Analysis of Knowledge, Attitude, and PPE Compliance on Safety Behavior of SPBE Employees in Pandeglang Regency

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Poor N</th>
<th>Poor %</th>
<th>Good N</th>
<th>Good %</th>
<th>Total N</th>
<th>Total %</th>
<th>OR (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>4</td>
<td>57.1</td>
<td>5</td>
<td>15.2</td>
<td>9</td>
<td>100</td>
<td>7.467</td>
<td>0.034</td>
</tr>
<tr>
<td>High</td>
<td>3</td>
<td>42.9</td>
<td>28</td>
<td>84.8</td>
<td>31</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>54.5</td>
<td>26</td>
<td>100</td>
<td>1.467</td>
<td>0.011</td>
</tr>
<tr>
<td>Positive</td>
<td>7</td>
<td>100</td>
<td>15</td>
<td>45.5</td>
<td>32</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance with the use of PPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disobedient</td>
<td>2</td>
<td>28.6</td>
<td>15</td>
<td>45.5</td>
<td>17</td>
<td>100</td>
<td>-</td>
<td>0.677</td>
</tr>
<tr>
<td>Obedient</td>
<td>5</td>
<td>71.4</td>
<td>18</td>
<td>54.5</td>
<td>23</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the results obtained from Table 2, it is known that respondents who had good safety behavior were more likely to be found at a high knowledge level of 28 people (84.8%), compared to respondents who had a low knowledge level of 5 people (15.2%). Respondents who had poor safety behavior were more likely to be found at a low knowledge level of 4 people (57.1%), compared to respondents who had a high level of knowledge of 3 people (42.9%). From the results of bivariate analysis using the chi-square test, the p-value = 0.034 is less than the value a (<0.05), which means that there is a significant relationship between knowledge and safety behavior. With a value of OR = 7.467 (CI = 1,267-44,002) which means that respondents with a low level of knowledge have a 7.4 times greater risk of negative behavior compared to respondents who have a high level of knowledge. This shows that the higher a person's knowledge, the higher the safety behavior carried out by a worker and the lower a person's knowledge, the less likely it is to behave K3 (Aeni, 2015). Safety behavior according to Heirinch in Ariyana (2019) is the action or actions of a person or several employees that reduce the possibility of accidents to employees.

Knowledge is the result of knowing and this occurs after someone senses a certain object. Without knowledge, a person has no basis for making decisions and taking action on the problems at hand. Based on the results of this study, it is known that there is a relationship between knowledge and safety behavior among SPBE employees in Pandeglang Regency. This research is in line with research conducted by Dzulfiqar (2016) regarding factors related to Safety Behavior showing that the results of the study between knowledge and Safety Behavior obtained a p-value of 0.008 which means that there is a significant relationship between knowledge and Safety Behavior. A person's behavior can be realized if it is supported by a positive attitude about the behavior he must do. Most of a person's knowledge is obtained through the sense of hearing (ears) and the sense of sight (eyes). A person's knowledge of objects has different intensities or levels. Knowledge of safety behavior is an antecedent or internal trigger for behavior change. Internal triggers are things that can
trigger someone to behave that come from within that person. Knowledge is the main thing needed to adopt a behavior because to adopt a behavior one must know the behavior first. From high knowledge, workers understand the purpose of implementing OSH policies, workers also understand when to behave safely, so that can reduce accident rates and improve productivity. In this study, it was found that respondents who had high knowledge, namely 28 people (84.8%) had good safety behavior compared to respondents who had low knowledge, namely as many as 5 people were prone to poor safety behavior (15.2%). This shows that the higher the knowledge of SPBE employees, the better the safety behavior will be, and vice versa, the lower the low knowledge, the poor safety behavior will be.

Then, from Table 2 it is also known that respondents who have good safety behavior are found more in respondents who have a negative attitude, namely 18 people (54.5%), compared to respondents who have a positive attitude, namely 15 people (45.5%). The researcher assumed this happened because workers obeyed existing regulations regarding safety behavior at work despite having negative attitudes. Respondents who had poor Safety Behavior were found more in respondents who had a positive attitude, namely 7 people (100%), compared to respondents who had a negative attitude, namely 0 people (0.0%). To realize an attitude into a real action requires a factor that refers more to readiness and willingness to act, and not the executor of certain motives. This is because there are many factors that influence supporters or enabling conditions, including facilities. In addition, support from other parties is also needed, for example from family, friends, or other fellow workers. From the results of bivariate analysis using the chi-square test, it was obtained that p-value = 0.011 is smaller than the value α (<0.05), which means that there is a significant relationship between attitudes and safety behavior. With OR = 1.467 (1.102-1.951) which means that respondents with a negative attitude level have a 0.6 times greater risk of behaving negatively compared to respondents who have a positive attitude.

Attitude is an important determinant of human behavior because the formation of attitude does not happen by itself. The formation of attitude always takes place in human interaction, namely whether they are happy or not happy, support, stay away from, or approach. In this study, the results of bivariate analysis using the chi-square test obtained p-value = 0.011 which is less than the value of α (<0.05), which means that there is a significant relationship between attitudes and safety behavior. This research is in line with the research conducted by Septiani regarding the factors related to Safety Behavior, the results show that there is a strong relationship between attitudes and Safety Behavior. Research that is in line with Maulidhasari, et al (2014) based on the results of the correlation analysis obtained a p-value of 0.001 which means that there is a relationship between attitude and dangerous behavior (unsafe action).

Attitude is a person’s response to a certain stimulus or object, then applied through action. So if the attitude is good then the behavior will also be good, and vice versa if a person's attitude is bad then the behavior will be bad too. According to Notoatmodjo, attitude is a reaction or response of someone
who is still close to a stimulus or object. Attitudes can be formed in individuals because they believe in the consequences of a behavior. The attitude that is formed can be positive and negative depending on the amount of knowledge, so the higher the level of knowledge possessed, the more it will affect the formation of attitudes and will be manifested in the form of action.\(^{14}\)

In addition, based on Table 2 it is also known that respondents who had good safety behavior were found more in the group that complied with the use of PPE, namely 18 people (54.5%), compared to respondents who had a level of disobedience to the use of PPE of 15 people (45.5%). However, respondents who had poor safety behavior were found more in the group that complied with the use of PPE, namely 5 people (71.4%), compared to respondents who did not comply with the use of PPE, which were 2 people (28.6%). The results of bivariate analysis using the chi-square test obtained a \(p\)-value = 0.677 greater than the value of \(a\) (> 0.05) which means there is no significant relationship between compliance with the use of PPE and safety behavior.

In this study, the results showed that there was no significant relationship between compliance with the use of PPE and safety behavior. This research is in line with research conducted by Dzulfiqar in 2016. The results of Bivariate analysis between the use of PPE and safety behavior obtained a \(p\)-value of 0.096, which means that there is no significant relationship between the use of PPE and safety behavior.\(^{13}\) The results of this study are also in line with research conducted by Isnaeni (2014), which shows that there is no significant relationship between the use of PPE and safety behavior. The use of PPE (Personal Protective Equipment) is an extension of other accident prevention measures or when no other methods or practices are possible.\(^{19}\) Compliance with the use of PPE as a response to a recommended order or recommendation through a concrete activity. Compliance is also a form of obedience to rules or discipline in carrying out established procedures.\(^{20}\)

In this study, it was found that 18 respondents (54.5%) who complied with the use of PPE had safety behavior compared to 15 respondents (45.5%) who did not comply with the use of PPE. However, most workers obedient with wearing PPE because there are regulations that require wearing PPE and are supervised in its use, but the safe behavior of workers during work is not fully supervised. Researchers assume that there is no relationship between compliance with the use of PPE and safety behavior. This is because even though PPE is available, there are still many workers who do not use PPE. After all, it makes them uncomfortable and interferes with work activities. In addition, some use complete and good PPE if there are only safety members. This is in line with Roughton's opinion in NVMFKD (2010), some workers refuse to use PPE because the PPE causes discomfort and adds stress to the body, this stress may cause discomfort or difficulty at work. In line with Halimah's research (2010), there was no significant difference between availability of PPE with safe behavior. This is because even though wearing PPE make them uncomfortable, interfere with work activities, and there
are some who use PPE completely and well if there is only supervision. use PPE completely and well if there is only supervision.21

CONCLUSION AND SUGGESTIONS

This study concludes that there is a relationship between knowledge and safety behavior among SPBE employees in the Pandeglang Regency. In addition, it is also known that there is a relationship between attitude and safety behavior among SPBE employees in Pandeglang Regency. Therefore, it is suggested that SPBE leadership conduct education for employees so that employee’s knowledge and attitudes increase and it can improve good safety behavior for employees.

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