ORIGINAL ARTICLE

Exposure Level Risk in Covid-19 Among Elementary School Students During the Pandemic in East Java Based on New Normal Activity

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ABSTRACT

Introduction: This research is quite important to mapping the potential risks faced by students during COVID-19 pandemic. Moreover, this research using quantitative approach research that utilizes descriptive analysis and tests of differences between several question indicators in the questionnaire, including: age, class, gender, district/city, risk level, and score. Methods: This research using a descriptive research method with quantitative analysis approach that utilizes descriptive analysis and data collection using a closed questionnaire arranged in such a way on the google form. Accidental purposive sampling technique was used in this research which combines accidental data collection techniques with data collection techniques for a specific purpose. It was noted that a number of 585 elementary school students wich is 301 of them were boys and 284 of them were girls were approved by the related teachers and principals who were willing to become respondents in this study. Mann-Whitney t-test was carried out to conclude the collected research data. Results: 86.8% of respondent students were included in low risk category and 8.9% of respondents are in the moderate risk category also 4.3% students turned out to be in the high risk category exposed by COVID-19 infection based on the self-assessment they filled in as research data which showed that the student response was quite high in adjusting to the health protocol. Conclusion: This is concluded that the majority of students has low risk level category to exposed by COVID-19 infection from the health protocols they maintain during activities based on self-assessment instruments.

Keywords: COVID-19, SARS-CoV-2, Self-Assessment, Students, Schools.

INTRODUCTION

The source of the origin of the COVID-19 zoonotic disease is still uncertain, but the sequence- Based on the analysis of related research it is suggested that bats have become the key reservoir (1). Based on this, the conclusion of the first appearance of the virus from the bat is still uncertain as long as there is no valid evidence of this statement. In addition, the transmission of the virus has spread in the first place, infecting the people, especially in crowded places, thereby raising awareness to find out how fast the virus is spreading in public places during daily activities. The median serial interval estimate that COVID-19 has a rapid cycle of transmission of 4 days from case to case (2). In this rapid cycle of virus transmission, attention to activities in the public area needs to be reformed and enter into new normal activities to match the conditions we face together. COVID-19 has become a pandemic since its massive spread throughout the world that it has an impact on various fields in society, from health, social, education to the economy, so that various adaptations need to be made by the community to adapt. Humanity is witnessing a time of unprecedented global health
uncertainty and crisis (3). Those who are exposed to several classifications can be threatened with health ranging from mild to death, so this pandemic needs special attention both through government policies and community adjustments. COVID-19 which has been declared the current COVID-19 pandemic affects more than 2.5 million people and more than 170,000 have also reported deaths worldwide (4). Various prevention measures based on the results of local government policies and a good public understanding of health protocols are the main keys in overcoming the ongoing pandemic. Preventing the spread of the virus in public areas, a good public understanding of COVID-19 and social distancing are the three main keys in preventing the high risk of spreading so fast (5). Regarding the very fast transmission and the announcement of COVID-19 as a pandemic, a number of social changes must be implemented in many countries to prevent further spread and control the situation, including social distancing, to self-quarantine and self-isolation (6).

Recent research shows that many people nowadays implemented various health protocol by wearing standardized mask, also applying social distancing or physical distancing and applying cough etiquette properly (7). Health is maintained by exercising to increase body immunity so that it is hoped that it can prevent the emergence of health problems that will arise and threaten an increased risk of more severe health problems if exposed to COVID-19. Everyone must maintain physical health to avoid physical problems that may arise after infection by increasing immunity and implementing ethical activities and having proper health protocols outside the home as a preventive activity to minimize spread of the virus (8). New normal life as today’s society is to adapt to the habits and activities of each individual community has occurred as a result of the spread of the virus and various related government regulations. New Normal describe as a new social habit in the society and everyone behavior changed after COVID-19 (9). Various countries have also responded to the transition of new habit in life to change form of investment in v by their countries so that the development of health facilities is more adequate to deal with the further effects that occur after the pandemic. The world has processed a transition to the ‘new normal’, there are opportunities to capitalize on health and goodwill investments for the development of emergency care (10).

Australia, for example, has begun to make various adjustments they need in preparing various carrying capacities to face the lives of its people after the spread of the COVID-19 pandemic. Furthermore, Australia have made a great improvements in every emergency development in design and project, even more staffing or processing facilitate safety, effective and also ethical care that will happen after post-COVID era (10). Even so, on several occasions, there are still differences of opinion and differences in understanding regarding how society should act in the face of the new normal, but the most important thing is that now people need to dynamically adjust to the disruption of social conditions that are being faced. Predicting how “new normal” can be applied in daily activity and prevent something that we don’t know or perhaps more less confusing way to expressing the ideas (11).

The new normal life for school students is of course not only limited to how learning is carried out during the pandemic, but how they also understand what health protocols they need to prepare in the face of the post-COVID-19 era. Much policy has been done about how “recovery” will be look like and also what cross-sectoral that need to occur, including the capacity-building, information sharing has prompted a greater collaboration to maintaining the ‘new normal’ (12). Research related to the level of risk of being exposed to COVID-19 is one of the steps needed as an early warning for the public about how normal activities that have just started running after COVID-19 with various community characteristics up to different age levels and geographical locations that show how people behave and act in adapting post COVID-19. According government standard in health, all health personnel that entering various zones could be evaluated the exposure risk level (13). Need to be more concern for children who have less discipline level than adults where the lack of discipline in maintaining this health protocol will make them have a similar risk to the COVID-19 infection. Children also has infection risk based on the data in general population, and although it is confirmed for them will have less some severe symptoms but still they should considered the analyses of the transmission and control (14).

MATERIALS AND METHODS

This research was a descriptive research study that using a quantitative research approach that utilizes descriptive analysis through the conclusions of various characteristics of the data collected to conclude a phenomenon that occurs in society, especially related to the risk level of elementary school students in East Java to be exposed to COVID-19. Descriptive research method was believed by the researcher can be used to conclude the research subject in risk level of the student exposed by COVID-19 during the pandemic.

Data collection is carried out using a closed questionnaire arranged in such a way on the google form so that in use it will have high mobility, can be collected quickly, according to physical distance during the pandemic and save research costs. With the various efficiencies offered in data collection using Google Form, it is hoped that the research carried out will require fewer resources but can cover a large enough area so that the conclusions to be generated are better in describing the phenomenon
under study. Research conducted to examine the phenomenon of adjusting the activities carried out or faced by elementary school students in East Java is expected to be able to conclude the habits of society, especially in the home environment, where elementary school students certainly cannot make their own decisions so that they are influenced by their parents.

**Ethnic**

This research has gone through an ethical test conducted on the ethics committee of the University of Nahdlatul Ulama, Surabaya where the process was carried out for 2 weeks. Through this process, it has been stated that this research has passed the ethical test with the number 147/EC/KEPK/UNUSA/2021 issued on June 25, 2021. After this research has passed the ethical feasibility test, it can be assumed that this research has complied with ethical requirements and rules of scientific research.

**Participants**

A total of 585 samples in this study were collected using accidental purposive sampling technique which combines accidental data collection techniques with data collection techniques for a specific purpose. It was also noted that there were 10 districts/cities which were the origin of the primary school students who were sampled in this study so that it is expected to be representative of the population of primary school students in East Java.

Meanwhile, if it is seen based on the age of the respondents in this study, from the data Table 1 that it is recorded from the ages of 6 to 14 years. It is also noted in the table above that the largest number of respondents came from students aged 11 years, about 160 respondents participated in this study. So that based on the table Table I, the difference in the number of respondents at each age seems very varied.

Furthermore, based on the data Table I, it can be seen that the number of respondents who were sampled in this study based on male and female gender. It was noted that about 284 female respondents and 301 male respondents participated in this study. Based on the table, it appears that there are more male respondents than female respondents.

Based on the origin of the district/city, the elementary level students who were the respondents in this study came from 10 districts/cities in East Java Province with the number of respondents varying from one regency/city to another. In Table I, it can be seen that Kediri Regency has the largest number of respondents compared to respondents from other districts/cities. Meanwhile, the table above also shows that Bojonegoro Regency has the fewest respondents among others. A total of 10 districts/cities of origin of primary school students who were respondents in this study were expected to become a sample of the population of elementary school students in East Java as a population.

The sampling procedure using accidental purposive sampling utilizes cooperation with related teachers in each school that is offered to be partners in the implementation of research, especially in permitting data collection at schools and distributing data collection instruments to students in primary schools where they teach respectively. Accidental sampling is used to take part of population that the researcher can approach, even so this sample can represent a picture of a population. With the permission of the school principals who are willing if students in their schools become samples in data collection, research and sampling in related schools can be carried out. Purposive sampling represented by the selection of related elementary school students.

<table>
<thead>
<tr>
<th>Table I: Raw Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>by sex</td>
</tr>
<tr>
<td>Boys</td>
</tr>
<tr>
<td>Girls</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>by age</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>by city</td>
</tr>
<tr>
<td>Bangkalan</td>
</tr>
<tr>
<td>Banyuwangi</td>
</tr>
<tr>
<td>Surabaya</td>
</tr>
<tr>
<td>Gresik</td>
</tr>
<tr>
<td>Bojonegoro</td>
</tr>
<tr>
<td>Tuban</td>
</tr>
<tr>
<td>Jombang</td>
</tr>
<tr>
<td>Kediri</td>
</tr>
<tr>
<td>Lumajang</td>
</tr>
<tr>
<td>Malang</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
scattered in various districts and cities in East Java was carried out evenly according to the capabilities of the research team based on the availability of time and money. Meanwhile, accidental sampling is represented by a note that of the 12 targeted schools only 10 schools were willing to allow students in the relevant primary school to participate as sampling in this study. It was recorded that as many as 585 elementary school students (301 male and 284 female) were willing to be samples in this study according to the approval and direction of the school principal and related teachers.

Materials and apparatus
The data collection instrument used in this study was a data collection instrument that had been used in previous studies (15) that had passed the validity and reliability tests in accordance with the standards for determining the data collection instruments that could be used in research. This data collection instrument, which consists of 15 questions, has passed the validity test on the previous 35 students using the Coefficient of Reproducibility which shows a value of 0.91238 and the Coefficient of Scalability which shows a value of 0.82476 where the number indicates the instrument used is guaranteed to be valid, Meanwhile, in the reliability test using the Kuder-Richardson20, it was found that the value was 0.6645 which indicates that the instrument used in this study is reliable. The instrument for collecting data on the level of risk of exposure to COVID-19 based on this health protocol activity is the FSCovid-19 independent assessment instrument compiled by researchers with an education expert and a health doctor also has been used in previous research (15) as we can look at the Table II. The data collection instrument consisting of 15 statements with the agreement “yes” or “no” is a closed questionnaire with a Guttman scale used to summarize new normal life adjustments that have been made by related primary school students based on their family environment. This instrument has been declared valid and reliable based on previous research that has been used by calculating the reproducibility coefficient and the scalability coefficient to determine whether the instrument is valid for use. Meanwhile, in the next stage, the Kuder-Richardson test was also carried out to prove that the instrument used had the reliability that met the requirements. From the results of the reliability test, it was found that the FSCovid19 instrument had a reproducibility coefficient value higher than 0.9 with a scalability coefficient higher than 0.6 and a Kuder Richardson result that was greater than 0.6, so the instrument used could be declared valid and reliable (15).

Procedures
The data collection procedure was carried out by going through various stages of preparation, implementation and documentation of the data shown in various tables in this study. At the preparation stage, the research team conducted permission to collect research data from related elementary school students by contacting physical education teachers at their respective schools. Furthermore, the related teachers will coordinate with their respective principals regarding the implementation of collecting research data from respondent students at their schools. After carrying out coordination with the principal, the related physical education teacher confirmed to the research team for the technical implementation of data collection on their students so that the google form link used as a distribution tool for data collection instruments was submitted by the research team. The google form link that has been obtained by the related physical education teacher is then distributed to elementary school students and then filled in according to the circumstances of each student. In filling out the data collection instruments on google form, elementary school students can be assisted by their respective parents so that elementary school students can be well guided and there are no difficulties in filling in to really fill in according to the circumstances they are experiencing. The research data that has been collected from the results of filling in the students on the

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I use public transportation: online transportation, buses, taxis, motorcy-</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>cle taxis, trains and others</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I don’t wear a mask when hanging out with other people</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>I shake hands with other people</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>I don’t keep 1.5 meters away from other people when: shopping, working,</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>worshiping, studying</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I eat outside the house (warung / cafe / restaurant)</td>
<td>Yes</td>
</tr>
<tr>
<td>6</td>
<td>I don’t drink warm water and wash my hands with soap after arriving at</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>my destination</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I was in the urban ward where the patient was infected</td>
<td>No</td>
</tr>
<tr>
<td>8</td>
<td>I didn’t wash my hands with soap after i got home</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>I do not provide: wet / antiseptic tissue, masks, antiseptic soap for</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>the family at home</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>I didn’t wash my hair immediately after i got home</td>
<td>Yes</td>
</tr>
<tr>
<td>11</td>
<td>I do not socialize this personal risk assessment check list to families at</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>home</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>I am not exposed to sunlight for at least 15 minutes a day</td>
<td>Yes</td>
</tr>
<tr>
<td>13</td>
<td>I don’t walk/ exercise for at least 30 minutes every day</td>
<td>Yes</td>
</tr>
<tr>
<td>14</td>
<td>I rarely take vitamins C &amp; E and has a lack of sleep</td>
<td>Yes</td>
</tr>
<tr>
<td>15</td>
<td>I touch objects/money that other people touch too</td>
<td>Yes</td>
</tr>
</tbody>
</table>
that about 95 students who were in grade 4 elementary
respondents in this study. Furthermore, it was also noted
grade level of elementary school also participated as
in this study. For grade 1 elementary school students, 51 students participated
as respondents. Likewise for grade 5 elementary school student who participated in this
study with the number of respondents as a sample of
172 students, which is the largest number of students at
the grade level who participated as respondents in this
study. Until grade 6 students at the primary school level,
163 students participated in completing the sample as
respondents in this study. As well as a general description
of the distribution of respondents in this study based on
elementary school grade levels can be seen in the bar
chart image in Figure 1.

From the bar chart image above, it can be seen that the
distribution of data is quite varied when viewed
based on the grade level of the elementary school
who is the respondent in this study. The number of
respondents varied in each class with different numbers
because this study used accidental purposive random
sampling technique where the number of samples was
not determined and the samples in this study were
respondents (students) appointed by each elementary
school teacher.

From the results of the normality test in table III with
the Kolmogorov-Smirnov test contained in the table III,
it can be seen that the six indicators in this study have
a significance value below 0.05, and with that result
now we can be stated the data that we have were not
normally distributed. With the evidence that the data
were not normally distributed, the analysis stage can be
continued into the nonparametric test with descriptive
analysis stage and different tests carried out on the six
indicators in this study.

From the data based on the scores achieved by
respondents, it appears that the highest number of
respondents has a score of 0 as many as 245 respondents,
namely 41.9 & of the total respondents. While the
second highest number of respondents achieved a score
of 1 as many as 103 respondents, namely 17.6% of
the total participating respondents. As well as for the
lowest number of respondents recorded achieving a score of 11 as much as 1 respondent or 0.2% of the total
respondents. Based on the data tabulation, it can also

Design or data analysis
The design of this descriptive research is to observing
and describing student risk level to be exposed with
COVID-19 based on their daily activity, Based on that
reason than each student in this study was observed
their daily activities using self-assessment instruments
without any prior special treatment from the researcher
where the data collection was done online. The research
data normality test used the Kolmogorov-Smirnov
normality test with the SPSS 16 computer device so that
data analysis was more efficient in its implementation.
It is known that in this study there are 6 main variables
that will be discussed, namely age, class, city, gender,
score and risk level. After the data analysis is stated to
be normally distributed, the next data analysis stage can
be continued, namely the descriptive analysis stage.
At the data analysis stage, descriptive analysis will be
carried out based on the respondent’s score instrument,
the respondent’s risk level, cross tabulation between the
age and risk level of the respondent, cross tabulation
between the score and age of the respondent, the average
difference test between male and female respondents’
scores, cross tabulation between gender and risk level,
as well as a test for differences in risk levels based on the sex
of the respondent. The Mann-Whitney U test was used in
this study to determine the differences risk between boys
and girls used in this study because the data were found
to be not normally distributed, The Mann-Whitney U
test is often considered the nonparametric alternative to
the independent t-test. The use of this type of analysis
by utilizing SPSS 16 was carried out because different
tests were carried out on samples with two independent
groups with nominal, ordinal and interval data types.

RESULT

Based on the data Table I, it can be seen the number
of samples based on the grade level of the elementary
schools that participated in this study. For grade 1
elementary school students, 51 students participated
as respondents in this study. Furthermore, it was also
recorded that 38 students from grade 2 elementary
schools involved in this study participated as respondents.
In addition, about 66 students who were at the 3rd
grade level of elementary school also participated as
respondents in this study. Furthermore, it was also noted
that about 95 students who were in grade 4 elementary
school participated as respondents. Likewise for grade
5 elementary school student who participated in this
study with the number of respondents as a sample of
172 students, which is the largest number of students at
the grade level who participated as respondents in this
study. Until grade 6 students at the primary school level,
163 students participated in completing the sample as
respondents in this study. As well as a general description
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chart image in Figure 1.

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who is the respondent in this study. The number of
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indicators in this study.

From the data based on the scores achieved by
respondents, it appears that the highest number of
respondents has a score of 0 as many as 245 respondents,
namely 41.9 & of the total respondents. While the
second highest number of respondents achieved a score
of 1 as many as 103 respondents, namely 17.6% of
the total participating respondents. As well as for the
lowest number of respondents recorded achieving a score of 11 as much as 1 respondent or 0.2% of the total
respondents. Based on the data tabulation, it can also
be concluded that most of the respondents have scores smaller than 10 points.

From the data results in Table IV we can conclude that 4.3% of the samples have a high risk activity that can be exposed by COVID-19 transmission that reflect a small part of the samples in this risk level category, then 8.9% of the samples have a medium risk and 86.8% of the samples have a low risk activity that can be exposed by COVID-19 transmission that reflect the biggest part of the samples in this risk level category. Within this information based on data we can assume that the majority of the samples count of 508 students have a low risk activity that can be exposed by COVID-19 transmission based on their own opinion and then there just a minority of the samples count of 25 students have a high risk level that can exposed by COVID-19 transmission. Furthermore, we also found the level of risk faced by elementary school students based on their age. The highest percentage of high risk occurred at age 9 years which indicates that children in that age have a high risk level of 7.1% among their ages. It is assumed from a data that compares the percentage data with age levels, so that the comparison between each age level has a homogeneous list of data with one another. Furthermore, at the moderate risk level our data table concludes that the highest percentage of the intermediate risk level is between the ages of 13 and 20% among their ages, and then in the table above the risk level concludes that students aged 14 are counting about 100% but only in 1 student. If we take a closer look at the table, we can see that 11-year-olds had the largest sample size but not the largest percentage at the low risk level.

By looking at the cross tabulation on gender and level of risk, it can be concluded that at the high risk level, male primary school students have the highest percentage of their gender compared to female primary school students. It was noted that at the high risk level, male students had a percentage of 5% compared to the total participants for all males, while at the same risk level female primary school students only had a percentage of 3.5%. Furthermore, at a moderate risk level, it was noted that male primary school students had a higher percentage than primary students as a whole. Judging from the percentage at the moderate risk level, it can be seen that male primary school students have a percentage of 8.3% while female has a percentage of 9.5% compared to their respective genders. Meanwhile, at the low risk level, it appears that female primary school students have a higher percentage than male primary school students. From the figure in the table above, it can be seen that at a low risk level, female students have a percentage of 87% while male students have a percentage of 86.7%. From the calculation results in the table above, it can be concluded that male primary school students has higher risk exposed by virus in their daily activities after implementing health protocols during the new normal period.

Based on the result in Table V that consist of Mann-Whitney U test Based on Sex and Score, it concluded that no significant difference in the men and women based on their independent assessment scores, so that both boys and girls in this case have the same level of risk in caring health protocol activities they do. Based on this conclusion, the same portion of supervisory treatment for boys and girls should be carried out by teachers and parents at home so that efforts to maintain health protocols to prevent transmission of COVID-19 during this pandemic can be carried out properly.

Table III: Kolmogorov-Smirnov data normality test

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>Class</th>
<th>Sex</th>
<th>City</th>
<th>Risk Level</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>585</td>
<td>585</td>
<td>585</td>
<td>585</td>
<td>585</td>
<td>585</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td>10.10</td>
<td>4.35</td>
<td>1.51</td>
<td>6.26</td>
<td>1.17</td>
<td>2.30</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>1.644</td>
<td>1.565</td>
<td>.500</td>
<td>3.518</td>
<td>.479</td>
<td>3.409</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>.184</td>
<td>.234</td>
<td>.349</td>
<td>.176</td>
<td>.510</td>
<td>.250</td>
</tr>
<tr>
<td>Positive</td>
<td>.097</td>
<td>.145</td>
<td>.334</td>
<td>.136</td>
<td>.510</td>
<td>.243</td>
</tr>
<tr>
<td>Negative</td>
<td>-.184</td>
<td>-.234</td>
<td>-.349</td>
<td>-.176</td>
<td>-.358</td>
<td>-.250</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.

Table IV: Data based on level of risk

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Low Risk</td>
<td>508</td>
<td>86.8</td>
<td>86.8</td>
</tr>
<tr>
<td></td>
<td>Medium Risk</td>
<td>52</td>
<td>8.9</td>
<td>95.7</td>
</tr>
<tr>
<td></td>
<td>High Risk</td>
<td>25</td>
<td>4.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>585</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table V. Mann-Whitney Independent Sample t-test Based on Sex and Score

<table>
<thead>
<tr>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
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<tr>
<td>Wilcoxon W</td>
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<tr>
<td>Z</td>
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<tr>
<td>Asymp. Sig. (2-tailed)</td>
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</table>

a. Grouping Variable: Sex
Based on the data analysis compares the frequency of risk levels that arise between boys and girls, the resulting significance value is 0.875 which has a value greater than the probability 0.05. Based on the results of this calculation, it is concluded that no significant difference level of risk faced by boys and girls based on their independent assessments. The results of this different test add to the conclusion to the previous calculation table which shows that male primary school students are more at risk of being exposed to COVID-19 in implementing their health protocols than primary school students with female gender. Based on the results of this difference test, although in the previous descriptive analysis there was a difference in which primary school students with male gender had a higher risk, however, in this difference test it appeared that the differences were not significant.

Based on the data Table I, it can be seen the number of samples based on the grade level of the elementary schools that participated in this study. For grade 1 elementary school students, 51 students participated as respondents in this study. Furthermore, it was also recorded that 38 students from grade 2 elementary schools involved in this study participated as respondents. In addition, about 66 students who were at the 3rd grade level of elementary school also participated as respondents in this study. Furthermore, it was also noted that about 95 students who were in grade 4 elementary school participated as respondents. Likewise for grade 5 elementary school student who participated in this study with the number of respondents as a sample of 172 students, which is the largest number of students at the grade level who participated as respondents in this study. Until grade 6 students at the primary school level, 163 students participated in completing the sample as respondents in this study. As well as a general description of the distribution of respondents in this study based on elementary school grade levels can be seen in the bar chart image in Figure 1.

From the bar chart image above, it can be seen that the distribution of data is quite varied when viewed based on the grade level of the elementary school who is the respondent in this study. The number of respondents varied in each class with different numbers because this study used accidental purposive random sampling technique where the number of samples was not determined and the samples in this study were respondents (students) appointed by each elementary school teacher.

From the results of the normality test in table 3 with the Kolmogorov-Smirnov test contained in the table 3, it can be seen that the six indicators in this study have a significance value below 0.05, and with that result now we can be stated the data that we have were not normally distributed. With the evidence that the data were not normally distributed, the analysis stage can be continued into the nonparametric test with descriptive analysis stage and different tests carried out on the six indicators in this study.

From the data based on the scores achieved by respondents, it appears that the highest number of respondents has a score of 0 as many as 245 respondents, namely 41.9 & of the total respondents. While the second highest number of respondents achieved a score of 1 as many as 103 respondents, namely 17.6% of the total participating respondents. As well as for the lowest number of respondents recorded achieving a score of 11 as much as 1 respondent or 0.2% of the total respondents. Based on the data tabulation, it can also be concluded that most of the respondents have scores smaller than 10 points.

From the data results in Table IV we can conclude that 4.3% of the samples have a high risk activity that can be exposed by COVID-19 transmission that reflect a small part of the samples in this risk level category, then 8.9% of the samples have a medium risk and 86.8 % of the samples have a low risk activity that can be exposed by COVID-19 transmission that reflect the biggest part of the samples in this risk level category. Within this information based on data we can assume that the majority of the samples count of 508 students have a low risk activity that can be exposed by COVID-19 transmission based on their own opinion and then there just a minority of the samples count of 25 students have a high risk level that can exposed by COVID-19 transmission. Furthermore, we also found the level of risk faced by elementary school students based on their age. The highest percentage of high risk occurred at age 9 years which indicates that children in that age have a high risk level of 7.1% among their ages. It is assumed from a data that compares the percentage data with age levels, so that the comparison between each age level has a homogeneous list of data with one another. Furthermore, at the moderate risk level our data table concludes that the highest percentage of the intermediate risk level is between the ages of 13 and 20% among their ages, and then in the table above the risk level concludes that students aged 14 are counting about 100% but only in 1 student. If we take a closer look at the table, we can see that 11-year-olds had the largest sample size but not the largest percentage at the low risk level.

Based on the result in Table V that consist of Mann-Whitney U test Based on Sex and Score, it concluded that no significant difference in the men and women based on their independent assessment scores, so that both boys and girls in this case have the same level of risk in caring health protocol activities they do. Based on this conclusion, the same portion of supervisory treatment for boys and girls should be carried out by teachers and parents at home so that efforts to maintain health protocols to prevent transmission of COVID-19
During this pandemic can be carried out properly.

By looking at the cross tabulation on gender and level of risk, it can be concluded that at the high risk level, male primary school students have the highest percentage of their gender compared to female primary school students. It was noted that at the high risk level, male students had a percentage of 5% compared to the total participants for all males, while at the same risk level female primary school students only had a percentage of 3.5%. Furthermore, at a moderate risk level, it was noted that male primary school students had a higher percentage than primary students as a whole. Judging from the percentage at the moderate risk level, it can be seen that male primary school students have a percentage of 8.3% while female has a percentage of 9.5% compared to their respective genders. Meanwhile, at the low risk level, it appears that female primary school students have a higher percentage than male primary school students. From the figure in the table above, it can be seen that at a low risk level, female students have a percentage of 87% while male students have a percentage of 86.7%. From the calculation results in the table above, it can be concluded that male primary school students have higher risk exposure to virus in their daily activities after implementing health protocols during the new normal period.

Based on the data analysis compares the frequency of risk levels that arise between boys and girls, the resulting significance value is 0.875 which has a value greater than the probability 0.05. Based on the results of this calculation, it is concluded that no significant difference level of risk faced by boys and girls based on their independent assessments. The results of this different test add to the conclusion to the previous calculation table which shows that male primary school students are more at risk of being exposed to COVID-19 in implementing their health protocols than primary school students with female gender. Based on the results of this difference test, although in the previous descriptive analysis there was a difference in which primary school students with male gender had a higher risk, however, in this difference test it appeared that the differences were not significant.

**DISCUSSION**

Even though in this study most elementary school students were included in the low risk category for being exposed to COVID-19 based on the self-assessment risk they had done in this study, it still appeared that the figure of 4.3% of students was at high risk and 8.9% was at moderate risk, which, of course, also needs more attention. Particular attention can be made to various policies and directives carried out by the government through several regulations that support the implementation of health protocols that must be run by students. The focus of every government policy in overcoming the challenges faced by children during the pandemic must be an effort to minimize the risk of adverse effects on children's health and psychological well-being (16).

Reform of the world of education seems to need to be done with various adjustments that must be made to face the adjustment to the new normal life. In the previous few years, new learning models and strategies have been developed that seem suitable when applied in a pandemic like today and are supported by the rapid development of the digital world making online learning easier to implement and develop as needed. The advantage of applying blended learning that is more specific in its development is that it allows students to be able to develop theoretical and practical competences independently in accordance with online teacher directions and practical in class (17). Blended learning, which is also the same as hybrid learning, has offered various things according to the needs of students and teachers to continue carrying out educational activities during this pandemic by reducing the number of face-to-face meetings.

The low level of risk of COVID-19 exposure to students based on their daily activities to maintain health protocols can be used as a basis for the world of education to start developing learning models that adapt to new normal lives. Blended learning or hybrid learning can be used in school activities as an adjustment according to the current situation needed to provide education with the limitations of physical activity in collaboration with online learning. In education, hybrid learning found as an answer to that face-to-face learning must be reduced because of limitations that needed for implementing protocols according to the health, with this method the physical education learning still can held during COVID-19 pandemic (18). Blended or hybrid learning that combine face to face and online learning can be used in this circumstance according to the need of education, adaptation of new normal life, health protocol and safety of the children with reducing physical interaction.

**CONCLUSION**

Based on the results of the analysis above, it can be concluded that elementary school students in the province of East Java who were the respondents in this study mostly had a low risk level of being exposed to COVID-19 based on the self-assessment risk instrument they filled out. Moreover, male students have a higher percentage of risk at high risk levels, while primary school students with female gender have a higher percentage of risk at low and medium risk levels. However, in further analysis through the Mann-Whitney U test based on Table V it is found that although there are differences in the level of risk between primary school students and the genders of boys and girls, the difference is not
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REFERENCES