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ASSESSMENT OF SAFETY AND HEALTH PROTOCOLS IN ON-SITE CONSTRUCTION WORKERS DURING COVID-19 PANDEMIC IN BULACAN, PHILIPPINES

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ABSTRACT
World Health Organization declared the situation a public health emergency of international concern on January 30, 2020. Between January and February, there was spread of COVID-19 cases in all 31 provinces of mainland China (WHO, 2020). All public and private construction projects shall be allowed in areas under General Community Quarantine (GCQ) and Modified General Community Quarantine (MGCQ). Heads of the Implementing Office will issue the Construction Quarantine Pass to all qualified workers of concessionaires, contractors, subcontractors and suppliers. The Quarantine Pass must clearly state the identification, designation, nature of work, validity, and destination of the worker. Contractors shall provide their personnel and workers continuous supply of vitamins, particularly vitamin C, other over-the-counter medicines, quarantine facilities, and oxygen tanks for emergency purposes. A sufficient number of qualified safety officers must be assigned at all project sites to ensure strict compliance with the DOLE D.O. No. 13, Series of 1998 and the DTI and DOLE Interim Guidelines on Workplace Prevention and Control of COVID-19. Sharing of construction and office equipment is discouraged. However, if necessary, the shared equipment must be disinfected in between transfers among personnel. (DOLE-OSHC, 2020). The study aims to assess if the Safety and Health Protocols set by IATF for the construction project in the area covered by the ECQ, MECQ, GCQ, and MGCQ were properly observed. This study makes use of the descriptive survey method to obtain date and information needed in determining the Safety and Health Protocols in On-Site Construction. Developers, contractors and construction managers should keep abreast of the province's health and safety guidelines they must bring themselves within compliance or shutdown immediately. Developers, contractors and construction managers may choose to accommodate certain cost overruns and delays to achieve compliance as compliance will likely outweigh the risk of being shutdown altogether.
Keywords:
covid-19 pandemic, health and safety, protocol, construction workers

INTRODUCTION

On January 30, 2020, the WHO declared the situation a public health emergency of international concern. Between January and February, there was spread of COVID-19 cases in all 31 provinces of mainland China. Wuhan was the epicenter of the epidemic, with 83 percent of all the cases and 95 percent of the deaths in China on February 21 (WHO, 2020). Wuhan's COVID-19 cases also showed a 100-fold infection rate (per million population) and a four-times-higher CFR (4.2 percent), compared with those in other areas in China. Total Chinese reported case numbers increased from 309 on January 21, 2020, to 76,392 on February 21, 2020 (WHO, 2020). By February 13, 2020, the WHO had recorded 170 cases of COVID-19 that had been reported outside China and had a connection to China. The majority of these cases (89 percent) did not lead to further transmission of the virus, and 19 cases were associated with at least four new infection clusters. The largest cluster involved 20 individuals in six countries (WHO, 2020).

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All public and private construction projects shall be allowed in areas under General Community Quarantine (GCQ) and Modified General Community Quarantine (MGCQ). Any person below 21 years old and above 60 years old, those with immune deficiencies, co-morbidities, or other health risks, pregnant women, and those who reside with the aforementioned, shall not be part of the workforce for construction projects except as may be allowed under the Revised Omnibus Guidelines issued by the IATF. The “Prior to Deployment Procedures” include a 14-day quarantine or Covid-19 testing as prescribed by the Department of Health for all qualified workers. They may also be retested as necessary. Heads of the Implementing Office will issue the Construction Quarantine Pass to all qualified workers of concessionaires, contractors, subcontractors and suppliers. The Quarantine Pass must clearly state the identification, designation, nature of work, validity, and destination of the worker. This pass covers the transit of workers to and from areas under different types of quarantine. Concessionaires, contractors, subcontractors and suppliers shall provide for their workers welfare facilities and amenities which includes accommodation and proper hygiene in compliance to the physical distancing requirements. All projects must be in compliance with DOLE D.O. No. 13, Series of 1998, and the DTI and DOLE Interim Guidelines on Workplace Prevention and Control of COVID-19 (DOLE-OSHC, 2020).

Contractors shall provide their personnel and workers continuous supply of vitamins, particularly vitamin C, other over-the-counter medicines, quarantine facilities, and oxygen tanks for emergency purposes. Adequate food, safe/potable drinking water, disinfectants, and hand soaps shall be made available by the concessionaires, contractors, subcontractors, and suppliers to their in-house personnel. A sufficient number of qualified safety officers must be assigned at all project sites to ensure strict compliance with the DOLE D.O. No. 13, Series of 1998 and the DTI and DOLE Interim Guidelines on Workplace Prevention and Control of COVID-19. Sharing of construction and office equipment is discouraged. However, if necessary, the shared equipment must be disinfected in between transfers among personnel. (DOLE-OSHC, 2020).

Objective of the Study

The study aims to assess if the Safety and Health Protocols set by IATF for the construction project in the area covered by the ECQ, MECQ, GCQ, and MGCQ were properly observed.

Statement of the Problem

Construction workers in the construction site requires fresh and substantial amount of air to breath as well as physical contact coordination to execute their work; the study sought to answer the following:
Is the wearing of facemask properly followed at all times?
Is social distancing applicable in construction site?
Is there proper sanitation before and after work?
Is there proper monitoring of body temperature?

METHODOLOGY

Methods and Techniques Used

This study makes use of the descriptive survey method to obtain date and information needed in assessing the condition of the Safety and Health Protocols in On-Site Construction in Bulacan. This survey was devised based upon the criteria formulated by the researcher. Questionnaires were also utilized to gather relevant and pertinent data and information needed to answer the questions of the study.

Population and Sample of the Study

The subjects of the study were the construction works both skilled, laborers, and foreman in construction site in the Province of Bulacan. The researcher involved 16 developers, Architect-Contractors using the random sampling method to answer the survey of the Safety and Health Protocols of the construction workers in On-site

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Construction.

Construction of the Instrument

The construction of the instrument of the Assessment Safety and Health Protocols in On-Site Construction was based on the following criteria to wit:

1.) Wearing of facemask
2.) Social distancing
3.) Sanitation of body
4.) Monitoring of body temperature

The researcher formulated 8 statements. Each item used a four-point Likert scale:

4= Strongly Agree	3= Agree
2= Disagree	1=Strongly Disagree

Statistical Treatment of Data

The Assessment Safety and Health Protocols in On-Site Construction was derived from the respondents using a four-point Likert scale interpreted as follows:

Point Scale		Interpretation
1	-------------------------------	Strongly Disagree
2	-------------------------------	Disagree
3	-------------------------------	Agree
4	-------------------------------	Strongly Agree

After the questionnaires were gathered, they were sorted, tabulated and treated in the following manner. Mean Scores were computed to describe the responses of the respondents on the Safety and Health Protocols in On-Site Construction

RESULTS AND DISCUSSION

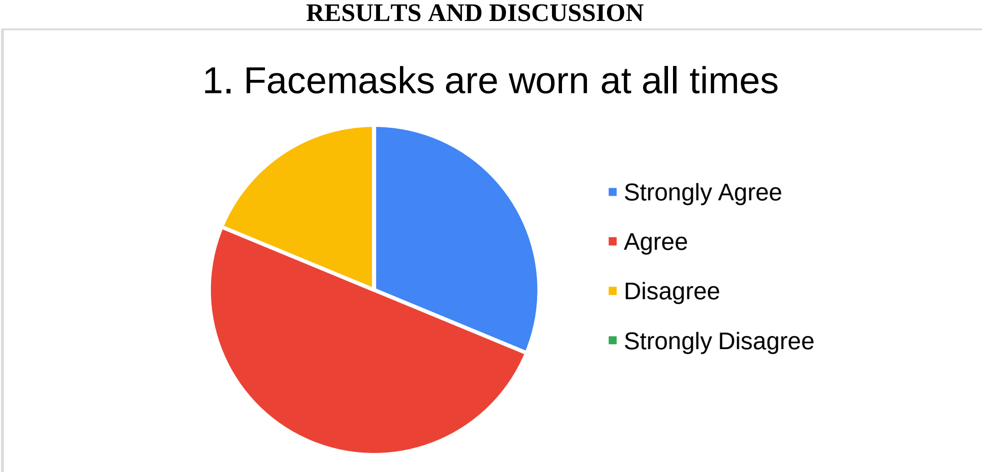

Chart No. 1 wearing of facemask

Graph shows that 50% of the respondents agreed that facemasks are worn by the construction workers at all times, while 18.8% of the respondents disagreed that facemasks are worn by the construction workers at all times. 31.3% of the respondents strongly agreed that construction workers wear facemask all the time on-site.

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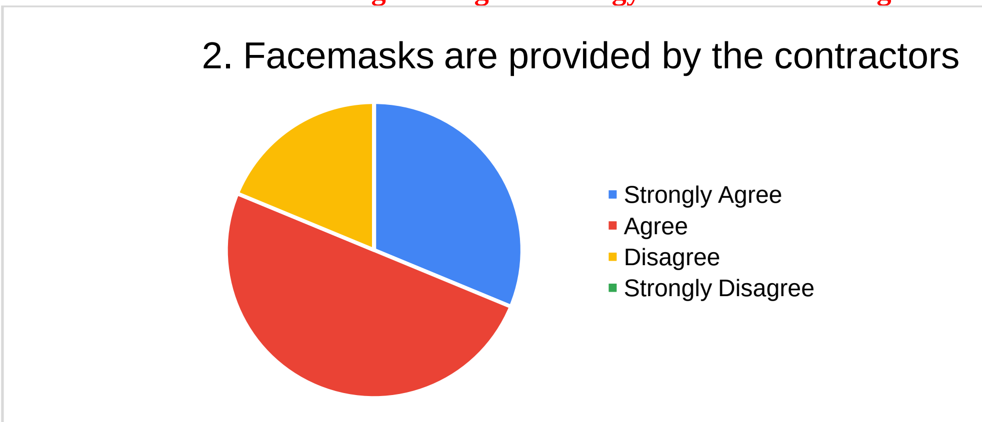

Chart No. 2 provider of facemask

50% of the respondents agreed that contractors are providing facemask for the workers, while 18.8% of the respondents believe that facemask worn by the workers are not supplied by the contractor. 31.3% of the respondents strongly agreed that contractors are supplying facemask for their workers.

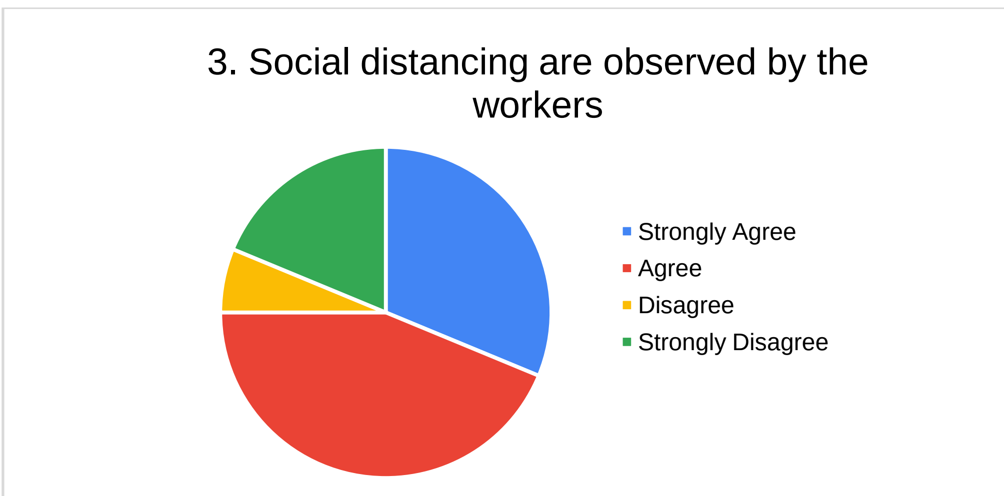

Chart No. 3 social distancing

Respondents strongly agreed (31.3%) and agreed (43.8%) that social distancing are observed by the workers while 18.8% of the respondents strongly disagreed and 6.3% disagreed that workers are observing social distancing while working.

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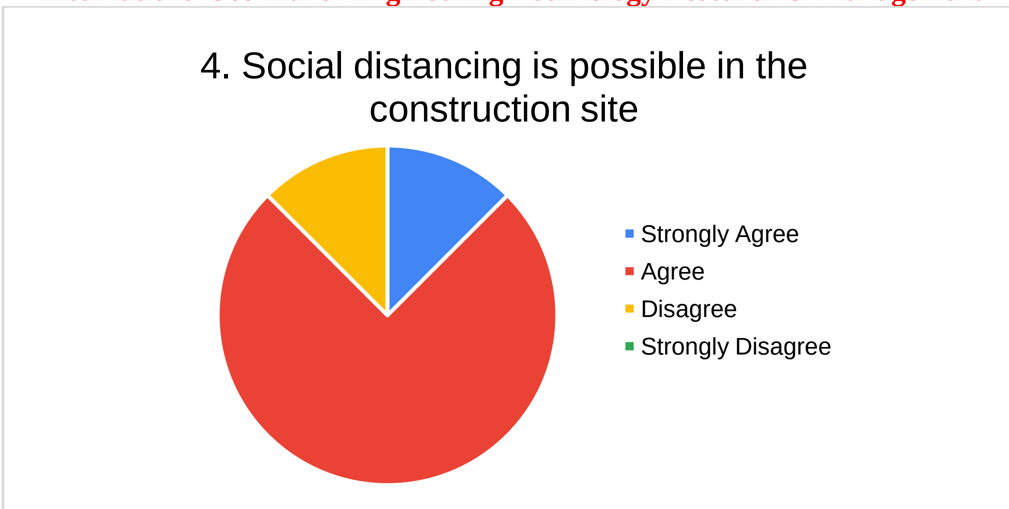

Chart No. 4 social distancing

75% of the respondents agreed and 12.5% of the respondents strongly agreed that social distancing is possible in construction site, while the remaining 12.5% disagreed that social distancing is possible on-site.

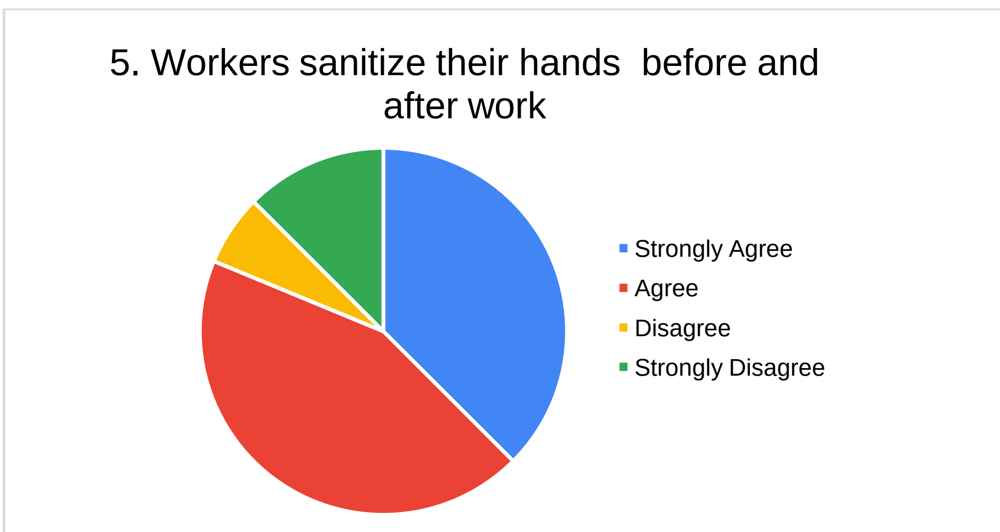

Chart No. 5 hand sanitizing

Respondents agreed (43.8%) and strongly agreed (37.55) that workers are sanitizing theirs hands before and after work while the remaining 12.5% of the respondents strongly disagreed as well as the 6.3% of the respondents disagreed that workers sanitize their hands before and after work.

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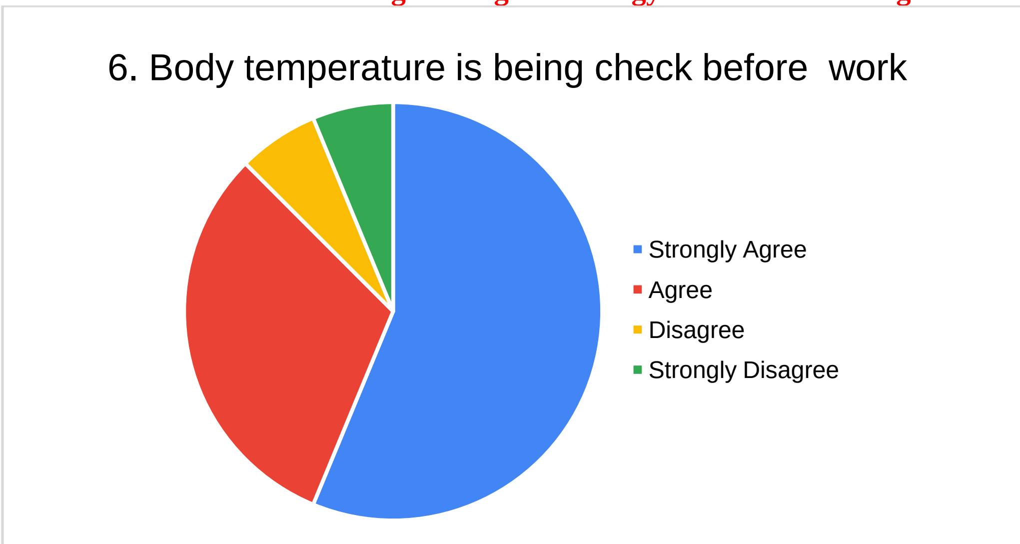

Chart No. 6 body temperature check

56.3% of the respondents strongly agreed that body temperature of the construction workers is checked before the work starts while other respondents strongly disagreed and disagreed with equal percentage of 6.3% that body temperature are being checked.

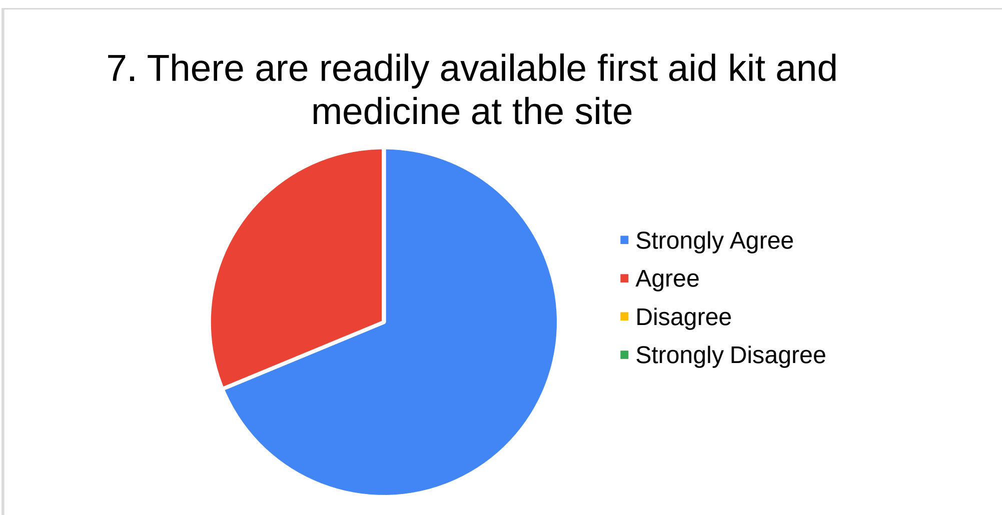

Chart No. 7 availability of first aid kit/ medicine

68.8% of the respondents strongly agreed and 31.3% agreed that there is readily available first aide kit and medicine on-site.

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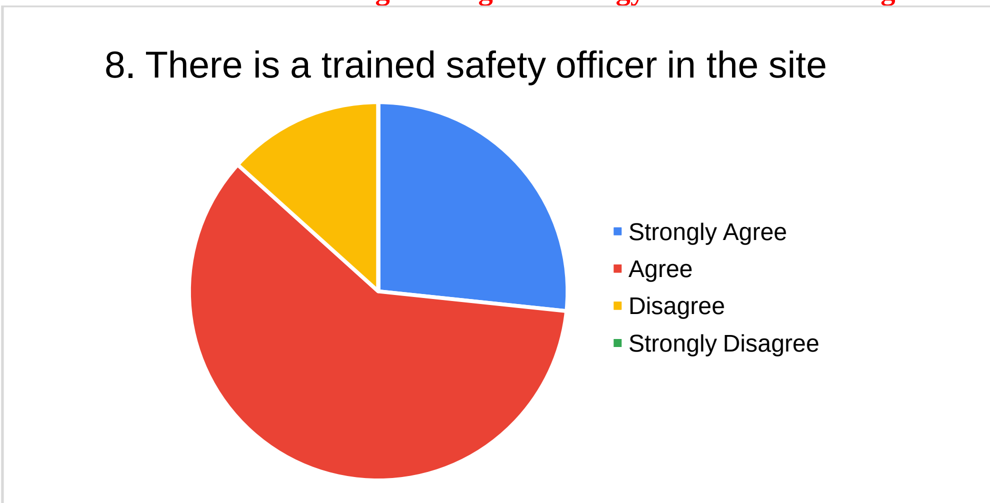

Chart No. 8 on-site trained safety officer

Respondents agreed (56.3%) that there is trained safety officer in the site, while 6.3% of the respondents strongly disagreed that there is trained safety officer on-site.

CONCLUSION

COVID-19 is, first and foremost, a humanitarian crisis. Many people and families have suffered and will suffer from the unexpected losses around the world. It will have a profound impact on the world's social and political environments and on its economy. All industries are facing an ongoing and fluid landscape amid the COVID-19 pandemic. Workplaces are temporarily shutting down, or have moved towards unprecedented work-at-home procedures. However, many construction jobsites remain open (Wilson, 2020).

50% of the respondents agreed that facemasks are worn by the construction workers at all times and another 50% agreed that contractors are providing facemask for the workers. Majority of the respondents agreed and strongly agreed that social distancing is possible in construction site, that social distancing is observed by the workers. Construction workers are sanitizing theirs hands before and after work and body temperature is checked before the work starts. 68.8% of the respondents strongly agreed that there is readily available first aid kit and medicine on-site. Respondents agreed (56.3%) that there is trained safety officer in the site.

On the other hand, results show that there are who observed that workers are not observing social distancing while working and there are some who do not sanitize their hands before and after work. Body temperature are not being checked all the time and not all construction site have trained safety officer on-site.

RECOMMNEDATIONS

Developers, contractors and construction managers should keep abreast of the province's health and safety guidelines, they must bring themselves within compliance or shutdown immediately once risk arises. Developers, contractors and construction managers may choose to accommodate certain cost overruns and delays to achieve compliance as compliance will likely outweigh the risk of being shutdown altogether (Wilson, 2020). It is highly recommended that the following be observed in the construction site:

1. No more than 50 people in the same space (space is not defined).
2. Ensure distance of at least two meters between workers
3. Avoid large-group meetings and conduct meetings electronically if possible.
4. Conduct briefing and orientation in an open air.
5. Increase the number of handwashing stations and post signage that identifies their location.
6. All common areas and surfaces should be cleaned at the end of each day.
7. Maintain a list of current employees and update daily.

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8. Do not permit anyone to enter a jobsite if they have travelled outside the country within the past 14 days, or who have exhibited symptoms of COVID-19 within the past 14 days.
9. With or without a history of travel, employees with respiratory symptoms must self-isolate at home for at least 10 days after onset of symptoms. Employees can return to work after 10 days, if they feel well and have a normal temperature.

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