

ORIGINAL ARTICLE

Socio-demographic and Institutional Policy Factors towards Attitude and Behavioural Prevention to COVID-19 among Worker in East Java Province

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ABSTRACT

Introduction: The world is still experiencing the COVID-19 pandemic. In Indonesia, confirmed positive cases are still increasing day by day. The aim of this study was to analyze the relationship between social demographics and company policies with the behavior of preventing COVID-19 workers in East Java Province. **Methods:** This study was a survey research with a cross-sectional design. The sample of this research was 248 people. Collecting data using instruments through the google form application which was distributed via WhatsApp group, Facebook and email. The variables studied were age, gender, level of education, type of work, company policy, level of knowledge, attitudes and behavior of respondents. **Results:** The research's result showed that most of the respondents were female, aged 29 to 39 years, with a bachelor's level education. Most of the respondents in this study have good knowledge and attitudes towards COVID-19 prevention efforts. While all respondents have a good attitude towards COVID-19 prevention. There was a relationship between age, gender, level of education and attitudes with the COVID-19 prevention behavior of workers in East Java Province ($p < 0.005$). There is no relationship between variables of work types and company policies related to COVID-19 prevention and worker behavior regarding COVID-19 prevention. **Conclusion:** : So there is a need for a supervisory role and support from fellow workers to remind each other in efforts to prevent COVID-19 for older workers with a lower level of education.

Keywords: COVID-19, Knowledge, Policy, Practice, Socio-demographics

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INTRODUCTION

The world is currently facing a COVID-19 pandemic. The plague emerged from China and spread throughout the world to this day. Data collected until early November 2020, WHO states that there have been 448,118 confirmed cases with a death toll of 14,836 cases in Indonesia and the data continues to increase until early December 2020. Early December it was recorded that there were 598,933 confirmed positive cases and 18,336 deaths. (1),(2)

Almost all fields of work have also been affected because of this pandemic. The International Labor Organization in 2020 stated that there were about 94% of workplace closures in countries in the world. In developing

countries, about 70% were in strict lockdown measures. Whereas in low-income countries, measures for workplace closure are more relaxed even though the COVID-19 cases is still increasing (3).

A person's behavior does not automatically occur, but several factors influence it. Health behavior is affected by predisposing, enabling and reinforcing factors. Predisposing factors include knowledge and attitudes possessed by a person. Enabling factors, among others, are the rules set by the policy holders. Meanwhile, the reinforcing factor is the existence of a role model in an area. Knowledge and attitude factors can be affected by socio-demographic factors such as the level of education, age, gender, learning experience and so on(4).

Low personal hygiene and poor sanitation indicate that Indonesia has challenges in controlling COVID-19. Hygiene and sanitation are factors that are needed by policyholders to control COVID-19. Hygiene behavior such as wearing masks and washing hands are two of

the efforts needed to prevent COVID-19 because the transmission can occur directly through droplets or indirectly through touching contaminated surfaces (5). Apart from controlling efforts, namely by implementing personal hygiene and sanitation, other efforts need to be made by each country. Each country has endeavored to issue appropriate policies, designed to reduce and prevent an enhancement in the number of extreme cases. One of the ways to prevent transmission is by applying social boundaries, which is also known as social distancing (6).

For this reason, the International Labor Organization has guided employers to restrain the spread of COVID-19 in the workplace. Efforts determined include hygiene, cleaning of workplaces, work equipment and facilities, ventilation, and use of personal protective equipment. Besides, the behavior of workers before leaving home, on transportation when going to and from work. Entrepreneurs need to provide handwashing facilities such as running water, hand washing soap, paper towels for drying hands, alcohol-based hand sanitation, and placing health promotion posters regarding coughing/sneezing behavior and avoiding contact with objects. Work operators are also required to implement daily hygiene protocols to ensure workplaces, work areas, work equipment, and facilities (3). The Indonesian government through the Ministry of Health also issued a Regulation of the Minister of Health of the Republic of Indonesia regarding guidelines for the prevention and control of COVID-19 in office and industrial workplaces (7).

A study of health workers applying health protocols when they go to work in the new habit era in Mamuju District shows that most of these health workers have implemented health protocols. The application of these health protocols includes the behavior of using masks, the behavior of carrying a hand sanitizer, the behavior when feeling sick (coughing, colds, and fever), the behavior of maintaining distance in public transportation, and the use of cash when paying for public transportation (8). Because of the problems and data mentioned above, it is important to study the relationship between socio-demographic factors and institutional policies on worker's knowledge, attitudes, and behavior towards COVID-19 prevention in the workplace.

MATERIALS AND METHODS

This research method was survey research conducted from October to November 2020. The population in this study are people who work in various fields, namely civil servants, the private sector, teachers/lecturers, entrepreneurs, TNI / Polri, entrepreneurs, and others. Who works and lives in East Java Province. The sample size was obtained by simple random sampling with an infinite population. The confidence level used was 95%, with a margin of error of 5% and the proportion of the

population by 20%. So that the obtained sample size of 248 people. Collecting data using an instrument through the google form application whose link was distributed via WhatsApp group, Facebook, and email. The data obtained from the questionnaire is in the form of socio-demographic data, namely age, gender, education level, and type of work. In addition to socio-demographic data, the data collected is data on the level of knowledge, attitudes, and behavior of workers towards preventing COVID-19 in the workplace. The level of knowledge was measured using the Guttman scale with true or false answers with questions about physical distancing and handwashing habits. Meanwhile, attitudes and behavior were measured using a Likert scale. The attitude was measured by the answers strongly disagree, disagree, agree, and strongly agree. Behavior is measured by answering never, rarely, sometimes, often, and always. Respondents also asked about policy data on COVID-19 prevention in the workplace to find out whether their place of work had implemented laws and regulations related to COVID-19 prevention, namely in the form of workplace socialization. In addition to socialization, prevention efforts at work include providing handwashing facilities, work from home, disinfection in every room in the workplace, provision of hand sanitizers, provision of masks, and working distance control. Data were analyzed using SPSS 19.0 using the bivariate test that was the Pearson relationship test.

ETHICAL CLEARANCE

This study was approved by Research Ethics Committee, Faculty of Nursing Airlangga University No. 2103-KEPK

RESULT

Social demography is an important factor and is related to a person's behavior. In this study, the socio-demographic factors studied were age, gender, educational level, and types of work. Table 1 shows the descriptive statistics of the respondents' social-demographic variables. The most of the respondents are 29-39 years old, with the majority being female. Respondents with undergraduate education level are the dominant respondents in this study. Most of the respondents work in the private sector. Knowledge level, attitudes, and behavior of workers in this study are divided into 2 categories, namely good and bad. Table I also shows descriptive statistics of knowledge level, attitudes, and behavior of workers towards physical distancing and hygiene and healthy living habits. Most of the workers have a good level of knowledge and behavior. The attitudes of all workers are in a good category.

Table II shows that the policies of agencies/companies in East Java in this study are divided into 2, namely socialization and prevention efforts in the workplace. The socialization used uses several media, namely social media (WhatsApp group, Facebook, website) pamphlets, posters, flyers, and others. Meanwhile, prevention efforts

Table I. Social-demographics (Age, Gender, Educational Level and Type of Job) of Workers in East Java Province, Indonesia in 2020

	Variables	N	%
Age (year)	18-28	94	37,90
	29-39	105	42,34
	40-50	40	16,13
	50-60	9	3,62
	Total	248	100,00
Gender	Male	81	32,66
	Female	167	67,34
	Total	248	100,00
Educational Level	Junior High School	3	1,21
	Senior High School	19	7,66
	Diplome	22	8,87
	Bachelor Degree	148	59,68
	Master Degree	54	21,77
	Doctoral Degree	2	0,81
Type of Job	Total	248	100,00
	Private	77	31,05
	Civil servants	71	28,63
	TNI / Polri	1	0,40
	Entrepreneur	11	4,43
	Lecturer / teacher	28	11,29
	BUMN	8	3,23
	Others	52	20,97
	Total	248	100,00
Worker's Knowledge Level	Good	238	95,96
	Poor	10	4,04
	Total	248	100,00
Worker's Attitude	Good	248	100,00
	Poor	0	0,00
	Total	248	100,00
Worker's Behaviour	Good	223	89,92
	Poor	25	10,08
	Total	248	100,00

Table II. Institution / Company Policies among Workers in East Java Province, Indonesia on COVID-19 Prevention in 2020

	Variable	N	%
Socialization	Yes	236	95,16
	No	12	4,84
	Total	248	100,00
Prevention	Yes	243	97,98
	No	5	2,02
	Total	248	100,00

in the workplace include setting the working distance between workers, providing handwashing facilities, providing masks, enforcing work from home, carrying out lockdowns, providing hand-sanitizers in each room, and carrying out regular disinfection.

The majority of respondents answered that the company/ agency they worked for had carried out socialization about COVID-19 and had made prevention efforts. Only about 4.84% of workers answered that in their workplace there was no socialization about COVID-19 and around 1.21% of workers answered that there were no efforts to prevent COVID-19 at work.

The results showed that age and educational level had a significant relationship with attitudes related to COVID-19 prevention in workers. While variables that were gender, age, educational level, and attitudes of workers had a relationship with COVID-19 prevention behavior, namely physical distancing and clean and healthy living habits which can be seen in table III. The clean and healthy lifestyle referred to in this study is personal hygiene, namely wash hands with soap. Table 3 also displayed the data normality test which shows that sig > 0.05 which means that the data in this study are all normally distributed.

Table III. Relationship between Socio-demographic and Institutional Policy with Behavior among Workers in East Java Province, Indonesia in 2020

Variable	p-value	r	Lower-Upper
Socio-demographic			
Age	0,001	0,205	0,078-0,340
Gender	0,070	0,212	0,070-0,322
Educational Level	0,018	0,151	0,037-0,265
Type of Job	0,902	-0,080	-0,133-0,106
Knowledge Level	0,922	0,064	-0,113-0,134
Attitude	0,000	0,512	0,378-0,610
Institutional Policy			
Socialization	1,000	0,000	-0,133-0,157
Prevention	0,259	0,072	-0,027-0,157

DISCUSSION

The majority of workers in this research were under 40 years old. The age variable has a relationship with the behavior towards COVID-19 prevention. Age affects a person's perception and mindset. One factor that affects the level of handwashing compliance is the factor of age, an increase in age, decreased adherence to hand washing (9). This proves that the younger the age the more obedient to do handwashing behavior. As we all know that one of the preventive behaviors against COVID-19 is to wash hands.

However, a study proves that in the United States it shows that in the first 3 months of the COVID-19 pandemic, behavioral responses and behavior changes from time to time differ according to age. When COVID-19 was declared a pandemic in March 2020, older and younger people were both involved in the prevention and control of COVID-19. In the first and second months, older people tend to be more obedient than young people. However, there was no difference between younger and older one in risky behaviour related to COVID-19 after two months. People could comply with health protocols and not engage in risky behavior in the transmission of COVID-19 in a short time but it tends to be difficult if this is done in a long period of time. Because this pandemic event did not happen briefly, people appear to be loosening restrictions on interacting with family and friends. Some behaviors that are judged to be risky such as visit by non-household relatives or colleagues may be behaviors that cannot be prevented for months regardless of age (10). It should be noted that perhaps now the working community in Indonesia, especially in the Province of East Java, obeying health protocols in the workplace does not mean it will last in the long term. Most of the workers who were respondents in this study had an education level on bachelor level. Only a small proportion of respondents have a higher or lower education. Education can assist in maintaining healthy lifestyles and positive choices, nurturing relationships and improving personal, family, and community well-being. Education can increase attention to preventive care, which, although beneficial in the long term, increases health care costs in the short term. (11). Based on research conducted on residents aged 10-24 years, the relationship between education level and healthy living behavior shows that there is a significant relationship between education and healthy life behavior (12).

The above results are in line with the results of the study showing that gender has a relationship with the physical distancing behavior of students of UIN Syarif Hidayatullah Jakarta. Besides, female students tended to apply physical distancing behavior both 3.4 times compared to men (95% CI 2.037-5.804). This is because women generally emphasize the notion of health-related to relaxation, rest, feeling well, and nutrition, while men emphasize the state of not being sick. Therefore, women

are more careful, tend to adopt healthy behaviors (13) (4). Women tend to take more precautions than men. However, they do not differ in risky behavior except for close contact with non-family members in one household (10). This is reinforced by the fact in this study that the majority of respondents who filled out or answered survey questions were female.

A study in Wonosobo states that the high knowledge of the people of Wonosobo Regency about Covid 19 has an effect on the incidence and prevention of Covid-19. Good knowledge can be supported by acceptance of information circulating in the community about COVID-19.(14) The majority of workers in this study have a good level of knowledge. However, the results show that there is no relationship between the level of knowledge of workers and COVID-19 prevention behavior. This is in line with the results of research on UIN Syarif Hidayatullah students with a bivariate analysis test showing that there is no relationship between knowledge related to COVID-19 and physical distancing behavior.(13) In this study, the level of knowledge identified was the level of knowledge of workers regarding efforts to prevent COVID-19 in the workplace. Workers may get knowledge about COVID-19 not only from their workplace but also in print, electronic media or socialization in their neighborhood.

A study in Saudi Arabia knowledge, attitudes and behavior towards COVID-19 in society shows that the most of respondents have a high level of knowledge of COVID-19 and have an optimistic attitude. With a higher level of knowledge and an optimistic attitude, it turns out that the practice of preventing COVID-19 also shows in a good category. Men show low knowledge, less optimistic attitude and poor practice. Meanwhile, in terms of age, older people tend to have better knowledge and practices than younger people. The results of other studies on people on the island of Java also show that women and late adult groups (≥ 61 years) tend to have good knowledge and practices for COVID-19 prevention (15) (16).

The results of a similar study in Iran also show a significant correlation between gender (female), older age, and higher education level with knowledge, attitudes and practices related to COVID-19 at the time of the outbreak. People with the male gender, with non-health professions, are not married, and have lower levels of education are significantly associated with lower knowledge scores (17).

Socialization and prevention efforts have been carried out by many agencies and companies where the workers who were respondents in this study worked. The majority of workers answered that there were socialization and prevention efforts against COVID-19 in the workplace. The socialization was through various channels, the majority of companies or agencies use the

WhatsApp group, Facebook, and website. Meanwhile, prevention efforts include regulating work distance between employees, providing handwashing facilities, providing facilities in the form of masks, and enforcing work from home. However, the unique findings of this study indicate that there was no relationship between policies made by companies related to socialization and efforts to prevent COVID-19 in the workplace and workers' behavior towards COVID-19 prevention.

This is in line with research conducted on employees of PT SIM Plant Tambun which states that safe behavior in employees is not influenced by knowledge, age, gender, company regulations related to safety, safety promotion and training. However, the factors that influence safe behavior are the role of supervision and the role of coworkers. However, other research on employees at PT Aneka Gas Industri, Sidoarjo states that there is an adequate relationship between tenure, knowledge, and support from colleagues. As for age, education level and attitude have a low relationship with safety behavior. Other factors that are related, namely the availability of facilities and infrastructure, policies, company sanctions and support from leaders and supervisors have a very low relationship with safe behavior (18) (19).

Similar research on employees at a company in the oil and gas sector found that most employees have behaved safely. This safe behavior is guided by the knowledge possessed by workers who are quite good about Occupational Safety and Health and safe behavior. The attitude of workers towards safe behavior is also quite good. Another thing that has a positive impact on safe behavior is the provision of rewards and punishments by companies that also motivate workers to behave safely (20). So it can be concluded that the role of socialization for increasing knowledge and the role of company policies related to behavior in this case is that efforts to prevent COVID-19 could be no better than the role of supervision, co-workers and the existence of rewards and punishments.

CONCLUSION

Most of the respondents were female, aged 29 to 39 years, with a bachelor's level education. Most of the respondents have good knowledge and attitudes towards COVID-19 prevention efforts. While all respondents have a good attitude towards COVID-19 prevention. Age, gender, level of education and attitudes factors have a significant relationship with the COVID-19 prevention behavior of workers in East Java Province. The drawback of this study is that it uses an online survey method so that we can directly observe the conditions in each company, especially related to institutional policies related to COVID-19 prevention.

Recommendations that can be given in addition to socialization and preventive efforts to influence worker

behavior towards preventing COVID-19 in the company include the role of supervision, co-workers and the provision of rewards and punishments. However, this requires further research. In addition, there is a need for direct observation at the company regarding the implementation of preventing the spread of COVID-19 in the company.
improved sleep habits.

ACKNOWLEDGEMENTS

We thank to all respondents who spent their valuable time in participating this study. This research was funded by Airlangga University, Rector's decree number 446/UN3/2020 about Implementation of internal research grant scheme special mandate research Covid-19 Universitas Airlangga in 2020. There was no conflict of interest in this study..

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