APORs' Big Five Personality Traits and Mask Effectiveness as Factors Affecting Mask Usage Hesitance amidst the COVID-19 Pandemic

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Abstract: **The COVID-19 pandemic has taken up so much change to the environment, the economy, to relationships, and most especially to people. This event has made people adapt to a new era that accommodates the existence of the virus as well as its variants by wearing masks, face shields, practicing quarantine, and having to receive the vaccines. This study solely focused on Goldberg's (1993) Big Five Personality Theory as it was correlated with Filipino APOR's (Authorized Person of Residence) mask usage hesitancy when they leave the house while also comparing the severity of mask usage hesitancy to the actual effectiveness of the different masks. Using a non-experimental correlational approach, the researchers had 150 respondents, aged 18-64, that were given the instruments via Google Forms to attain the the COVID-19 pandemic Quarantine Order effective in the Philippines at that time. Using One-way ANOVA to test, the researchers were given the ability to determine the variance in its variables and also answer the inquiry of how the Big Five Personality traits can correlate to a person's mask usage hesitancy.**

Keywords: **APOR, Mask Usage, Covid-19, Big Five, Effectiveness.**

I.   INTRODUCTION

Since the start of the COVID-19 pandemic, the usage of masks has been mandated in many countries, prompting research into their efficacy (Clase, et al., 2020; Ju, Boisvert, & Zuo, 2021; Liao et al., 2021; Abboah-Offei, 2021; Chua, et al., 2020), most of which gave a comprehensive review of face masks according to their material, proper usage, and efficacy specific to preventing the spread of SARS-CoV-2 (Chua, et al., 2020). Other investigations focused on the attitude towards face mask usage (Adjodah, 2021; Chen, 2021), specifically the phenomenon of hesitancy and its underlying causes (Al-Ramahi, et al., 2021; Irfan, et al., 2021; Taylor & Asmundson, 2021). Such literature identified the differences between attitudes of face masks as a function of culture (Wei, et al., 2021), perceived effectiveness (Taylor & Asmundson, 2021), feelings of discomfort (Cheok, et al., 2021), and related public discourse (Al-Ramahi, 2021).

Scope and Delimitation

Because of the relative novelty of the pandemic as a worldwide phenomenon, literature is growing but still scarce, and needs to be conducted in varying contexts as the pandemic continues and the situation for each country continuously changes. The present study intends to focus on the variable of vaccine hesitancy among APORs in relation to their Big Five Personality Inventory. The present study is meant to give context to the situation of mask usage hesitancy in Metro Manila, Philippines through the lens of psychological variables - the Big Five Personality Inventory.

However, it will not include other variables related to SARS-CoV-2 that were mentioned in literature (e.g. rate of spreading, economic factors) and will only focus on mask usage hesitancy, while still citing and acknowledging relevant studies pertaining to vaccine attitudes and hesitancy (Al-Sanafi & Sallam, 2021; Murphy, et al., 2021).

Statement of the Problem

The present study aims to contribute to the existing knowledge regarding face mask usage hesitancy and address it as a problem that potentially has many negative repercussions including the spread of SARS-CoV-2. Previous literature had stemmed from the recognition of improper mask usage despite its proven efficacy tested multiple times across multiple studies (Abboah-Offei, et al., 2021;Ju, Boisvert & Zuo, 2021; Liao, et al., 2021). Research had then expanded to investigate the possible

As it will be conducted by psychological researchers, it aims to view the problem of face mask usage hesitancy through a perspective of a personality theory, namely the Big Five Personality Inventory by Goldberg (1993), Fiske (1949), Norman (1967), Smith (1967), Goldberg (1981), and McCrae & Costa (1987).

Significance of the Study

Findings from this study will provide valuable understanding of the underlying reasons of mask usage hesitancy in the Philippine context. Insights from this research will help more effectively promote and encourage face mask usage by providing relevant information that can be used by healthcare providers and advocates, especially in areas where the masses are not aware or uneducated of the importance of face mask usage in preventing the spread and contracting of the virus.

Theoretical Framework

The study is heavily based on Goldberg's (1993) Big Five Personality Theory and its underlying assumptions. The Big Five Personality Theory assumes that there are big five dimensions of personality - Extraversion vs. Introversion, Agreeableness vs. Antagonism, Conscientiousness vs Lack of direction, Neuroticism vs. emotional stability, and Openness vs closedness to experience.

Under each dimension lies several facets and their correlated trait adjective - the first having gregariousness, assertiveness, activity, excitement-seeking, positive emotions, and warmth; the second having trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness; the third having competence, order, dutifulness, achievement, self-discipline, and deliberation; the fourth having anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability; and the final dimension having ideas, fantasy, aesthetics, actions, feelings, and values.

The study will investigate levels of face mask usage hesitancy in correlation of the Big Five Personality Theory; that is, if these five dimensions are related to a person's willingness to wear a face mask.

II.   REVIEW OF RELATED LITERATURE

Studies pertaining to face mask attitudes

Association between COVID-19 outcomes and mask mandates, adherence, and attitudes

(Adjodah et al., 2021)

Mask mandates being introduced on day zero and being tested on COVID-19 effects was how the test experiment started. This was tested three times, and the outcome of the three showed that mask mandates actually reduce COVID-19 cases, hospitalizations, and even deaths.

Community practice of using facemasks for the prevention of COVID-19 in Saudi Arabia

(Al Naam et al., 2021)

This research focused on the mask usage of respondents knowing well how it can prevent COVID-19 transmissions. Respondents gave different reasons for why they do not want to wear face masks even with the virus spreading. Factors such as their appearance, their facial expressions, and miscommunication were discussed as some of the reasons they give for not wearing face masks.

Public discourse against masks in the COVID-19 Era: Infodemiology study of twitter data

(Al-Ramahi et al., 2021)

The article showed how social media greatly affects people's thinking, decisions, and opinions. People who refuse to wear masks use the law as a way to prevent them from using face masks, explaining that it is their own right to decide what they prefer, and whoever questions their decisions will violate their human rights.

The dilemma of masks during the COVID-19 outbreak

(Chen et al., 2021)

The population of the world is never equal to the production and quantity of masks. Cheap masks sold by boxes always run out in drug stores and groceries, leaving people without masks or giving them no choice but to stay home instead. Because of this, expensive masks are the only ones available for the people, which is never really worth it given that masks are supposed to be thrown out after each use.

Assessing public willingness to wear face masks during the covid-19 pandemic: Fresh insights from the theory of planned behavior

(Irfan et al., 2021)

In this article, the researchers found out that wearing masks actually have an effect on people by helping them become more knowledgeable and more careful about any virus spreading around. Seeing other people wear face masks helped them realize that wearing those masks in fact reduces the passing of viruses and bacteria in their areas.

Mask Wearing as Cultural Behavior: An Investigation Across 45 U.S. States During the COVID-19 Pandemic

(Kemmelmeier et al., 2021)

People who were said to be conservative were the ones who had issues wearing face masks, saying that this new addition of accessories on their faces will greatly affect their well-being and public image.

Appropriate attitude promotes mask wearing in spite of a significant experience of varying discomfort

(Lepelletier et al., 2020)

Respondents in this research complained about the discomfort of wearing face masks with a level of 4 out of 10. Discomfort explained were sweating in females than in males, and dermatological issues in youth.

Mask or no mask for COVID-19: A public health and market study

(Li et al., 2020)

The impact of masks were talked about in this article, excluding homemade face masks as they are not guaranteed for safety and protection given the difference in the materials used from the ones made in factories.

Negative attitudes about face masks during the COVID-19 pandemic: The dual importance of perceived ineffectiveness and psychological reactance

(Taylor et al., 2021)

Getting vaccinated is said and is proven to be one of the things which will mostly contribute to prevent the spreading of viruses. However, face masks are still advisable for public awareness and as policies given by the government.

Why does the spread of COVID-19 vary greatly in different countries? Revealing the efficacy of face masks in epidemic prevention

(Wei et al., 2021)

The volume distribution of droplets of different particle sizes is important to know to ensure that the face masks being produced are appropriate for the type of virus being prevented. In correlation with this, it shows the effectiveness of wearing face masks as it is negligent to not be cautious with other people around.

Studies pertaining to face mask efficacy

A rapid review of the use of face mask in preventing the spread of COVID-19

(Abboah-offei et al., 2020)

Face masks have an impact of preventing further respiratory virus transmission especially among health care workers, patients, and the general population. Findings of this research explain that whatever brand, type, color, setting, or whoever wears the face masks, it serves a purpose of preventing viruses from spreading any further.

Downsides of face masks and possible mitigation strategies: A systematic review and meta-analysis

(Bakhit et al., 2021)

This research discusses the said harm of using face masks on a daily basis. Discomfort and irritation are one of the main reasons that respondents give in line with wearing masks.

Face Masks in the New COVID-19 Normal: Materials, Testing, and Perspectives

(Chua et al., 2020)

Various types of tests and experimentations were done to the different varieties of face masks being used by the general population everyday. Further studies are being done to make sure that face masks will be effective against almost any kind of virus like SARS-CoV-2 Virus.

Forgotten Technology in he COVID-19 Pandemic: Filtration Properties of Cloth and Cloth Masks A Narrative Review

(Heckman et al., 1967)

The effectiveness of wearing face masks is based mainly on the material being used to manufacture the masks. According to this research, cotton or flannel is the most recommended material to be used in manufacturing masks. 3 or 4 layers is advisable as it will increase infiltration and will prevent further passing of viruses.

Face masks against COVID-19: Standards, efficacy, testing and decontamination methods

(Ju et al., 2020)

Factors such as fabric materials, number of layers, thread counts, and other properties are important in making face masks because it is not only another piece of clothing but it will serve as protection from deadly diseases and viruses. Decontamination methods have been greatly studied during the pandemic to ensure the safety it will bring the users.

A technical review of face mask wearing in preventing respiratory COVID-19 transmission

(Liao et al., 2020)

The development of reusable or washable masks is a way to find a solution for the shortage of medical masks. In addition to that, face masks being thrown out also caused a big problem in terms of the environment.

Studies pertaining to vaccine hesitancy

Psychological determinants of covid-19 vaccine acceptance among healthcare workers in kuwait: A cross-sectional study using the 5c and vaccine conspiracy beliefs scales

(Al-Sanafi et al., 2021)

A satisfactory level of COVID-19 vaccine acceptance was said to be seen in Kuwait, reporting the highest rates reported globally. Higher levels of vaccine hesitancy were found in females, and frontliners which meant they should be the ones more targeted to get vaccinated.

Psychological characteristics associated with COVID-19 vaccine hesitancy and resistance in Ireland and the United Kingdom

(Murphy et al., 2021)

Vaccine hesitancy was found in big percentages in countries such as the U.K. and Ireland. People who hesitated getting vaccinated were found out to be people who were not that knowledgeable about the virus and the pandemic. In addition to that, these people also mistrusted the vaccines as there were not that many reliable resources for them to read.

Synthesis and Research Gap

Previous studies influenced this research by providing the researchers with reliable information especially in terms of the effectiveness of face masks and COVID-19 vaccines with the pandemic happening. As the related studies were only done during the COVID-19 pandemic, the results only show effectiveness to that certain virus. Further studies can prove its effectiveness through experimenting with other viruses as well. Improvements can be done by reviewing these given articles in order to test the different factors of masks and vaccines.

Research Questions:

1. How does mask usage hesitancy among APORS vary according to their Big Five Inventory?

2. How does the severity of mask usage hesitancy compare to the actual effectiveness of masks?

3. How can mask usage hesitancy be reduced among APORs?

Hypotheses:

Hypothesis 1:

APORs' mask usage hesitancy will vary according to their Big Five Personality Inventory.

Hypothesis 2:

The severity of mask usage hesitancy among APORs is contradictory to their effectiveness.

Hypothesis 3:

Proving, promoting, and educating properly about the identified factors will effectively reduce mask usage hesitancy.

III. METHODOLOGY

Research Design

This study will follow the non-experimental correlational approach where the researcher measures two variables and assesses the statistical relationship (Chiang et al., 2015). We consider this design due to how it can correlate the variable included in this study at an accurate rate to be then given the possibility to be published and referred to. Another consideration is that a statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible, impractical, or unethical. Therefore, there is a zero tolerance for any kind of manipulation with this study, no matter how it is measured or recorded because this kind of study is meant to act as a recorded understanding of what is meant to be factual. The usage of such a quantitative approach sets a path for the generalization of the researchers' findings (Daniel, 2016).

Setting

(Due to the situation of the COVID-19 pandemic with the Quarantine order (R.A. no. 11469), the researchers opted to conduct and reach out to the respondents online.)

Within the initial journal article dated July of 2020, the Philippines, inclusive of its people, were subjected to quarantine order (R.A. no. 11469) to date has shown consistent support of face mask use to limit the spread of COVID-19 among those who are not medically diagnosed with COVID-19 (Marasinghe, 2020). Therefore, a descriptive study that observed the face mask usage, among other medical precautions, was decided by the researchers to be performed within the limitations of the Philippine setting of Quezon City to determine and test for the present study to determine if the intended hypothesis within the present study both applies to and can be attributed to accounts related to mask usage hesitancy, effectiveness, and the big five personality and it's conforms given this present information. Quezon City to date has tallied among the highest recorded cases for COVID-19 recorded cases in the Philippines (Statista, 2021) and is considered under the researcher's judgement for candidacy and completion of the present study and it's tests within to judge measures in regards to the outcome of the study and present information.

Participants

Participants for the present study are to be gathered using weblinks provided on social media platforms as distributed by the researchers encompassing the accompanied tests; Big Five Personality Inventory (BFI), and the Oxford Covid Vaccine Hesitancy Scale (OCVHS) (modified to Vaccine Hesitancy Scale at the deliberation of researchers and overseeing subject professor to fit for the aims of the present study), Participants involved in the study are to answer the questions provided by the researchers in an online setting provided via google docs, a web platform intended to be used by the researchers for the purpose of receiving respondent data and data collection to be used and treated solely for the extent and purpose of the intended present study. Participants to be considered for the present study are to be of or between the ages of 18-64 years of age in compliance with those considered APOR's or "Authorized Persons Outside of

Residence" to maintain ethical standards in requirement of the study. Other inclusive criteria for respondents within the present study to be tested are as follows; (1) Reside within the parameters of Quezon City; (2) Capable of accessing a mobile or electronic device with reliable internet connection; (3) Answer all questions to the best of ability and leave no questions unanswered; (4) Meet the agr requirements necessary to take part in the present study. All other participants to take part in the present study that do not follow these guidelines or meet the requirements needed for the present study will be considered part and process of the exclusion criteria and will be removed from final data interpretations.

The goal of this study is to get 150 respondents, this number was decided upon due to the fact that it would be difficult to find more people for the study because of the current pandemic. It was decided that it would be wise to find more than a hundred respondents for it to be easy to tally and calculate along the way of the study.

Sampling Techniques

For this study, the researchers are to follow the simple stratified sampling technique. This is because the population of the intended setting (Quezon City) is too large, the implementation of a stratified sampling would lead to the priority of dividing the population according to the demographic needed, and then randomly getting participants from that group.

Instrumentation

In order to collect the acquired data by the researchers, a 50-item questionnaire called "The Big Five Personality Inventory" is to be provided to the participants for gathering data for the research. The Big Five Personality Inventory evaluates a person's personality by measuring five personality traits, namely: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism, each on a single and continuous scale (Goldberg, 1992; Open-Source Psychometrics Project, 2019)

The third instrument to be used is for a person's hesitancy to use a mask. Oxford has come up with a scale that measures covid vaccine hesitancy, and since there are no scales that can measure hesitancy specified to masks, this instrument by Oxford will be used with the modification of some words to make it custom for mask hesitancy.

1. The Big Five Personality Inventory (Goldberg, 1992; Open-Source Psychometrics Project, 2019)

It is a fifty (50)-item questionnaire that is measured and scored through a five (5)-point Likert scale (1 being the lowest and 5 being the highest). There are then ten (10) specific items that accommodate the five (5) personality traits. Each is then calculated through a specific combination of addition and subtraction which could score between zero (0) and forty (40). The highest would be the accounting personality that the individual would have.

2. Oxford Covid-19 Vaccine Hesitancy Scale (Modified) (Freeman et al, 2020)

This is a seven (7) item scale that is encoded from a one (1) to five (5) with given specific responses and an "I Don't Know" option which is then to be omitted from the entire score. The higher the score is, the higher the hesitancy that person has for the vaccine (mask usage). The reason why it is modified is because the researchers will be adjusting it to the needed hesitancy (mask hesitancy) prior to distributing it to the respondents.

Procedure

Once the researchers have gathered the right number of respondents that have the correct and accepted demographics needed, they will then proceed to obtaining consent from the respondents before they proceed to virtually complete the first assessment (The Big Five Personality Inventory) to determine the individual's category with the Big Five Personalities. The respondents will also reveal the kind of mask they wear when they go out. Lastly, the respondents will virtually answer the Oxford Covid-19 Vaccine Hesitancy Scale (Modified) to measure their hesitancy to wear their mask. It must be understood that the assessments will be given through the use of the internet due to the ongoing pandemic.

All gathered information will be kept anonymous and will not be manipulated in any way. The researchers will then correlate the Big Five Personality Inventory results with the Oxford Covid-19 Vaccine Hesitancy Scale (Modified) to see their possible relations. Data about the masks used by the respondents will then be tallied and ranked according to most to least used. The results of this will then be matched to the research on the various types of masks and their recorded effectiveness. The tally and effectiveness of the masks used will then be put up against the hesitancy scale for its respective correlation.

The final results will then be recorded honestly and then interpreted by the researchers for the results at the end of the study.

Data Analysis

The study will utilize a One-way ANOVA to test if the respondents' different BFI results show variation in their level of mask usage hesitancy, that is - if, for example, respondents who have a high score on the Openness trait are more willing to wear face masks than those who score low on this and lean more towards the Closedness trait.

Ethical Considerations

To comply with the ethical standards that need to be considered and acknowledged over the course of the present study, the following will be included and upheld to abide by any and all ethical considerations that need to be addressed while undergoing any of the tests, procedures or otherwise to maintain the integrity of the test without compromising any ethics that would go against participants that wish to take part in the test.

(1) Researchers within the present study are to attain full informed consent of participants who wish to volunteer to take part prior to initiating any form of inclusivity within and any and all involvement related to and overseen by present researchers within the course of the present study.

(2) Over the course of the present study it's to be noted that any and all participants gathered and to take part in the present study will be notified and acknowledged of their position within the study being of a voluntary one and no participant is to be forced to take part within any inclusion present in the study, participants may stop at any time and refusal to participate any further or no longer wanting to be part of the present study will not be held against the.

(3) Within the course of the present study it is to be noted that no participant within any context is to be harmed at any time in any manner and all participants will be properly notified and briefed regarding this.

(4) All information gathered by researchers on behalf of the participants is to be held under strict confidentiality and anonymity in view of the participants to uphold ethical standards and all information gathered by researchers on behalf of the participants is to be used for assessing the needed and necessary components of the study only and for no other use. All information gathered, once treated, and measured accordingly for its intended purpose will be abolished in relation to any and all information that may violate the confidentiality and anonymity of the participants.

(5) All information gathered will be strictly used for assessing relevant components of the present study and only be inclusive of components within the present study.

(6) Finally, Content validity will be measured to represent an accurate representation of the factors included in any of the tests included in the present study which is to undergo inspection and approval of the overseeing accredited professor of the current subject for confirmation of validity.'

IV. RESULTS & DISCUSSION

Discussed in this section are the results of the data gathering process wherein the researchers distributed both the BFI questionnaire and the Vaccine Hesitancy Scale, modified to evaluate mask usage hesitancy instead.

Table 1: Frequency and percentage of participants' age.

Age	Frequency	Percentage
18-25	36	78.30%
26-35	5	10.90%
36-45	4	8.70%
46-55	0	0%
56-65	1	2.10%
TOTAL	46	100%

Research Question 1. How does mask usage hesitancy among APORS vary according to their Big Five Inventory?

First, the respondents' BFI was taken according to the scale used. Participants showed results as seen below:

Table 2: Frequency and percentage of participants' BFI.

Personality Type	Frequency	Percentage
Extroversion (high)	12	26.09%
Extroversion (low)	34	73.91%
Agreeableness (high)	41	89.13%
Agreeableness (low)	5	10.87%
Conscientiousness (high)	33	71.74%
Conscientiousness (low)	13	28.26%
Neuroticism (high)	15	32.61%
Neuroticism (low)	31	67.39%
Openness (high)	38	82.61%
Openness (low)	8	17.39%

The table above illustrates the traits as a result of the BFI test given to the APOR respondents. Among the sample surveyed, most showed High Agreeableness (89.13%), followed by High Openness (82.61%), Low Extroversion (73.91%), High Conscientiousness (71.74%), and Low Neuroticism (67.39%). The other results were High Neuroticism (32.61%), Low Conscientiousness (28.26%), High Extroversion (26.09%), Low Openness (17.39%), and Low Agreeableness (10.87%). Participants who qualified for High in more than one personality type were accounted for in the data analysis of One-way ANOVA, as displayed in Table 3.

The questionnaire also included questions concerning what type of masks the respondents used and their experience with these masks. Among the respondents in this study, it was found that APORs favor using different masks as illustrated below according to material and what they thought were the disadvantages they experienced with using masks of this material. For the masks they were given the options of disposable, N-95, cloth, air purifier/smart masks, copper masks, and KN94 masks. To assist the participants in accurate selection, the researchers also included a photo example of the respective masks. Respondents were also asked for the disadvantages they experienced while wearing their selected masks. The choices of the disadvantages given - discomfort, argument of preference, obstruction of breathing, appearance, price, and miscommunication problems - were taken from literature (Al Naam et al., 2021; Al-Ramahi et al., 2021, Chen et al., 2021; Lepelletier et al., 2020).

Table 3: Mask preferences of the respondents and their perceived disadvantages

Material	Frequency	Percentage	Disadvantage	Frequency	Percentage
Air Purifier Masks/ Smart Masks	1	2.17%	Discomfort	1	25%
			Appearance	0	0%
			Argument of preference	1	25%
			Price of masks	0	0%
			Miscommunication	1	25%
			Obstruction of breathing	1	25%
Disposable Masks	8	52.18%	Discomfort	19	32.20%
			Appearance	3	5.08%
			Argument of preference	2	3.39%
			Price of masks	6	10.17%
			Miscommunication	11	18.64%
			Obstruction of breathing	18	30.52%
Copper Masks	0	0%	Discomfort	0	0%
			Appearance	0	0%
			Argument of preference	0	0%
			Price of masks	0	0%
			Miscommunication	0	0%
			Obstruction of breathing	0	0%

Cloth Masks	**7**	**15.22%**	**Discomfort**	**5**	**31.25%**
			Appearance	**1**	**6.25%**
			Argument of preference	**0**	**0%**
			Price of masks	**1**	**6.25%**
			Miscommunication	**4**	**25%**
			Obstruction of breathing	**5**	**31.25%**
N95 Masks	**13**	**28.26%**	**Discomfort**	**8**	**29.63%**
			Appearance	**1**	**3.70%**
			Argument of preference	**2**	**7.41%**
			Price of masks	**2**	**7.41%**
			Miscommunication	**8**	**29.63%**
			Obstruction of breathing	**6**	**22.22%**
KN94 Masks	**1**	**2.17%**	**Discomfort**	**11**	**91.67%**
			Appearance	**0**	**0%**
			Argument of preference	**0**	**0%**
			Price of masks	**0**	**0%**
			Miscommunication	**0**	**0%**
			Obstruction of breathing	**1**	**8.33%**

Table 2 above shows which types of masks the respondents most often used when going out of the household. A majority answered disposable masks (52.18%), followed by N95 Masks (28.26%), cloth masks (15.22%), and an equal percentage (2.17%) for both smart masks and KN94 masks. None of the respondents opted to use coppe r masks. Among those who opted for disposable masks, they identified experiencing most disadvantages of discomfort (32.20%) and obstruction of breathing (30.52%). Discomfort was also the most commonly chosen disadvantage for N95 mask users, having 29.63% of them identifying this as the problem of miscommunication, followed closely by obstruction of breathing at 22.22%.

Cloth masks, the third most commonly chosen type of mask by respondents, showed similar results of having the disadvantage of discomfort and obstruction of breathing both at 31.25%. Meanwhile, KN94 masks had an overwhelming vote for discomfort at 91.67%. Smart masks had 25% each for discomfort, miscommunication, and obstruction of breathing.

A visible pattern seen throughout the data is the encounter of discomfort, miscommunication, and obstruction of breathing as the most commonly cited disadvantages according to the participants no matter what kind of mask they preferred to use.

Lastly, the researchers measured the participants' mask usage hesitancy from the modified scale, which used a Likert scale scoring of 1-5, 5 for the options indicating low mask usage hesitancy to 1 indicating high mask usage hesitancy. These results were then compared with the participants' highest BFP, taking into account those participants with multiple high BFPs, and getting the average mask usage hesitancy according to these categories.

Table 4.1 Average mask usage hesitancy according to the highest BFP.

HIGHEST BFP	**AVE**
Agreeableness	**1.65**
Extroversion	**1.6**
Openness	**1.71**
Conscientiousness	**1.6**
Ave. across sample	**1.64**

Because the researchers intended to compare the variance of mask usage hesitancy according to respondents' BFP, a One Way ANOVA was used in analyzing the data (see Table 4.2). There was not much variance in the mask usage hesitancy between groups, and none of the groups had particularly low or high mask usage hesitancy. Those with High Openness scored an average of 1.71, followed by High Agreeableness at 1.65, and High Conscientiousness and High Extroversion both at 1.60. The overall average across the sample regardless of BFP was 1.64, indicating that APORs in Quezon City have average mask usage hesitancy, not straying from the mean of 1.6-1.7 out of 2.4.
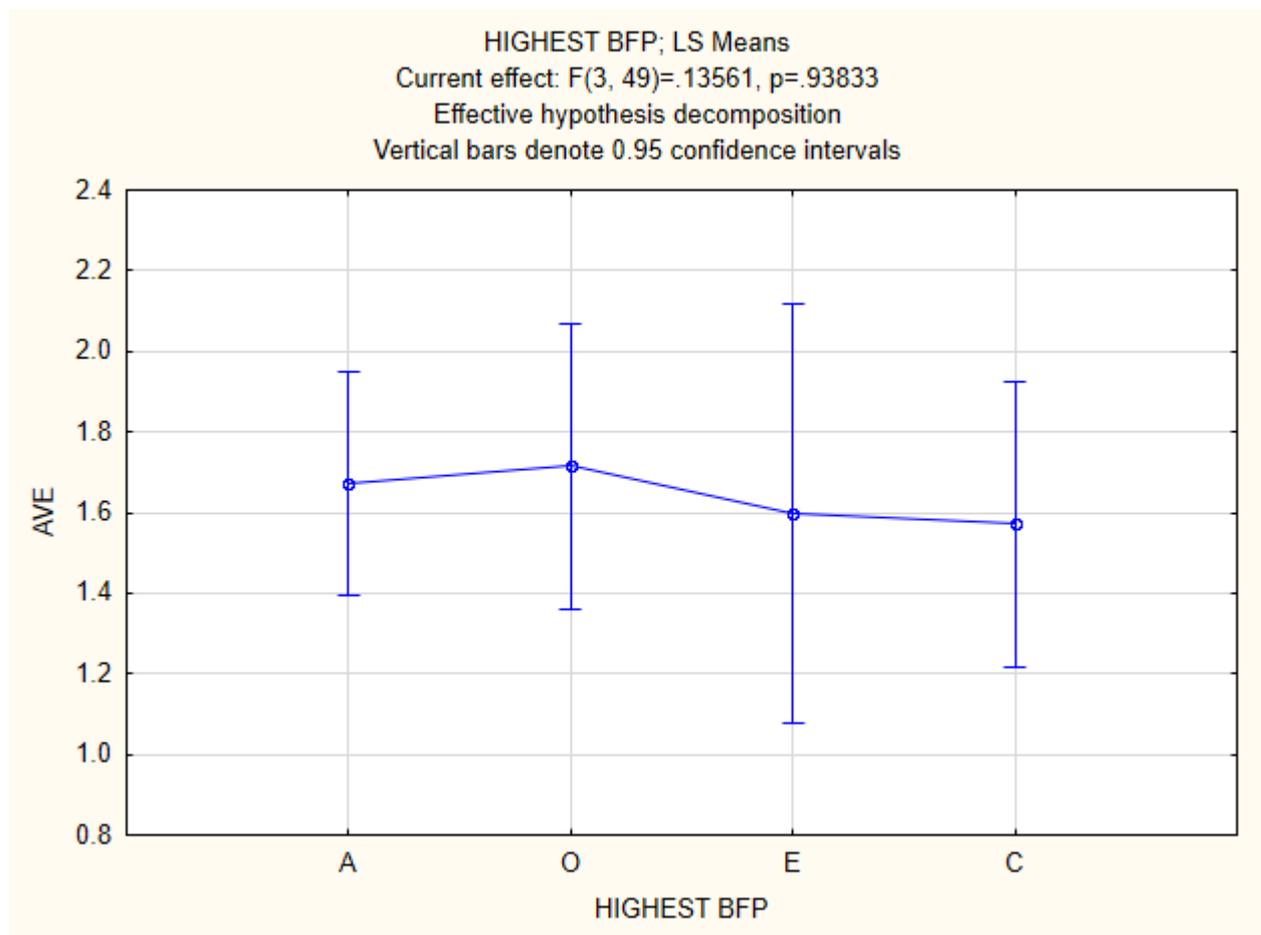
Table 4.2: Average mask usage hesitancy according to the highest BFP.

The results of Research Question 1 show that there is little variance of mask usage hesitancy based on BFP. Hypothesis 1 is rejected.

Research Question 2. How does the severity of mask usage hesitancy compare to the actual effectiveness of masks?

The most common reasons people give for not wearing masks are the discomfort, appearance, and how it gives them trouble breathing. Although, the only harm masks cause each individual is the discomfort it gives (Bakhit et al., 2021), and since the pandemic started, many articles have been saying that the discomfort of wearing masks is much better than actually having trouble breathing because of the virus. Further studies have done tests on masks which prove its efficiency when it comes to the spreading of virus, especially whenever a person using the mask coughs or sneezes. According to (Abboah-offei et al., 2020), masks surely prevent the further transmission of disease no matter what the type, brand, or material is used. On the other hand, (Heckman et al., 1967) states that masks are only effective when the right materials are used such as cotton, flannel, etc. In addition to this, the number of layers is also significant as it adds protection both from spreading virus and from inhaling the virus. So although wearing masks is not completely comfortable for everyday living, it is much better to stay protected to prevent yourself from inhaling the virus.

Research Question 3. How can mask usage hesitancy be reduced among APORs?

The previous literature reviewed in Chapter II shows that face masks have been tested to be effective in preventing the spread of COVID-19 in several countries - reducing the number of cases leading to hospitalization and death (Adjodah et al., 2021). However, previous research had also found their respondents to have hesitancy with regards to wearing a face mask, citing several reasons including discomfort, appearance, argument of preference, price of masks, and miscommunication (Al Naam et al., 2021; Al-Ramahi et al., 2021, Chen et al., 2021; Lepelletier et al., 2020). Studies have also proven the efficacy of these face masks. Abboah-offei et al., (2020) cited how face masks have an impact of further preventing transmission of respiratory viruses not only in the healthcare sector but also for the general population. But

Page | 111

despite their efficacy, face masks are not often worn even as mandated by local governments. Based both on literature and the results of mask preference and their related disadvantages experienced (see Table 2) and mask usage hesitancy (see Table 3.1) in this study, it is most important to address the issue of discomfort, miscommunication, and obstruction of breathing.

This can be done by clear education and awareness of the importance of wearing a mask to prevent contracting and spreading the virus, especially when one is outdoors. Full knowledge of how a face mask helps and why it is essential to wear one could be helpful. A local government can utilize its resources to not only ensure the full awareness of the citizens, but also to actively provide them with the proper masks as to safeguard quality and consequently, efficacy. This approach can also address the less common disadvantages cited by the respondents (e.g. price).

V. CONCLUSION & RECOMMENDATION

Conclusion

After investigating the efficacy of face masks, the hesitancy of APORs as the most vulnerable population in using them, and relating these to the psychological variable of BFP, the researchers found that (a) face mask usage hesitancy does not differ among APORs with varying high BFPs; (b) face mask usage hesitancy is not consistent with how effective previous studies have proven them to be, implying that the reason for this hesitancy does not lie in its perceived efficacy, but rather what the researchers found as factors of discomfort, obstruction of breathing and miscommunication; and (c) considering these factors, it may help reduce overall face mask usage hesitancy by addressing these through approaches of providing easily obtainable face masks to all and educating on the importance of wearing them - for example, citing how the discomfort of a face mask is less than that of actually contracting the virus (Bakhit et al., 2021) - as well as upholding strict and fair rules to ensure the regular practice of wearing face masks, especially in public spaces. Although it is a different area of study, it is also important to note that these measures should be taken alongside widespread vaccination and a general effective pandemic response.

Recommendations for Research

As per the limitation of the present study, the researchers recommend expanding or changing the demographic to other respondents as to gain more perspective in the matter. The researchers chose the sample of APORs as they are the people per household who most frequently go out even in quarantine, therefore making their input valuable to the study's goals.

However, future researchers may also look into other factors for consideration such as age and location, as well as form hypotheses based on other psychological theories; for example, future researchers could hypothesize perceptions of mask usage efficacy according to what type of media is consumed by the respondents or from where they get their news. Another example of a psychological factor would be overall awareness and perception of severity of the pandemic as a whole.

Studies can also branch away from the topic of mask usage and hesitancy and extend to vaccine hesitancy or whatever the future researchers deem necessary and important in contributing to the existing knowledge about pandemic practices and how, if they are detrimental, people can correct these accordingly to have a better overall pandemic response. It should also be noted that the sample in the present study consists of APORs located in Quezon City. Other locations may also be viable, after which a cross-analysis can be confirmed.

Considering how studies in this area are relatively new due to the start of the pandemic in 2019, there are varying methods in which researchers may approach this topic. It is always encouraged to explore these to guide both other researchers and policy makers to ensure a more effective and positive response to the COVID-19 pandemic by preventing its spread and consequent negative effects in everyday lives.

Recommendations for Practice

As a practical issue, it reasons to stand that mask usage is critical in lessening the severity and number of cases of COVID-19 in a particular area. As discussed in Research Question 3, everyone will be able to contribute to a community's positive pandemic response if proper masks are worn. The study cited several literatures regarding the efficacy of face masks, which have shown use in preventing the spread of COVID-19. The research then recommends promotion of awareness and proper accessibility of face masks to everyone.

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