Pakistan Journal of Professional Psychology: Research and Practice Vol. 13, No. 1, 2022

# Personality Traits, Locus of Control and COVID-19 Reported Behaviors in Housewives

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The current study assessed the relationship amongst personality traits, locus of control and COVID-19 reported behaviors in housewives. The study design was co-relational with snowball sampling. A sample of (N= 172) housewives was defined with an age range between 18-60 (*M* =38, *SD* = 10.79). The questionnaires used were Coronavirus Anxiety Scale (Lee, 2020), the Big Five Personality Inventory-K (Rammstedt & John, 2005), Levenson Multidimensional Locus of Control Scale (Levenson, 1973), Protective Behaviors towards COVID-19 Scale (Riad et al., 2020). Correlation analyses revealed extraversion, agreeableness and conscientiousness correlated positively, whereas neuroticism had a significant negative relationship with COVID-19 reported routine protective and post exposure risky behaviors. A significant positive relationship of internal locus of control with all of the COVID-19 reported measures was found. Power other form of locus of control and chance related locus of control correlated negatively with all of sub-dimensions of COVID-19 reported behaviors. Hierarchical linear regression indicated conscientious as a positive predictor of routine protective and post exposure risky behaviors related to COVID-19. Neuroticism was a significantly negative predictor of post exposure protective behaviors related to COVID-19. Openness and chance locus of control were identified as significant negative predictors of post exposure risky behaviors related to COVID-19. Internal locus of control and power other locus were significantly positive predictors of both routine protective and post exposure protective behaviors. Thus present study highlighted the importance of personality traits and locus of control in housewives for predicting their COVID-19 reported protective behaviors.

*Keywords:* COVID-19, personality traits, locus of control

A pandemic acknowledged as COVID-19, first appeared as an epidemic in the Wuhan city of China, in December 2019. Then it was officially confirmed by World Health Organization (WHO, 2020) as a pandemic. According to WHO (2020) COVID-19 is an illness which refers to Severe Acute Respiratory Syndrome (SARS), this disease can cause cough and high grade fever, while severe cases can be deadly involving complications in breathing and eventually pneumonia.

Individuals are getting infected by this novel virus on a daily basis. But studies demonstrated that mainly women and older people are at a greater risk of being infected by this contagious disease and children are carriers of this ailment. As this is an emerging illness so no medically proven vaccines are available, so focusing on some COVID- 19 related protective behaviors can overcome its spread (WHO, 2020). According to the latest update of Government of Pakistan (2020), a total 54,706 corona virus cases have been suspected so far, out of which 4695 have been diagnosed with corona, among them 727 corona positive patients have been recovered (15.5%), 66 deaths have been reported while 1% individuals are in a critical condition (Abid et al., 2020). According to WHO (2020), people should adopt corona related protective measures to be healthy either physically and psychologically.

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Although COVID-19 is fatal, it can be prevented by following some guidelines of protective behaviors. Particularly, COVID-19 reported protective measures are those behaviors which individuals do on a regular basis and after contact with this virus (Riad et al., 2020). There are three dimensions of COVID-19 related measures (Riad et al., 2020). First of all, routine protective behaviors involving those behaviors which individuals practice in their daily life during pandemic circumstances, such as, hand cleansing, cancelling parties, avoiding gatherings or visits to relatives, wearing masks and covering the nose etc (Riad et al., 2020). According to Carvalho et al. (2020) routine protective behaviors of washing hands on a daily basis and avoiding social events are mostly revealed in individuals with a conscientious personality. Moreover, during COVID-19, avoiding social gathering and parties can be seen in individuals with introverted personalities (Zack, 2019).

Secondly, post-exposure protective behaviors are those behaviors which individuals perform after probable contact with the contagion, for example, individuals might engage in socially solitary behaviors after probable viral infections. In case of any infection or suspicious symptoms to family members or oneself, individuals might report to subsequent authorities, go in quarantine or even consult a doctor (Riad et al., 2020). Thirdly, post-exposure risky behaviors are those risk related behaviors which individuals perform after most likely contact with an infection, and which have negative health outcomes. It includes reducing the duration of quarantine in case of minor ailment, avoiding professional medical help when no serious condition of ailment is there, and using supplements without doctor's permission. It also involves not focusing on the negative consequences of these behaviors to any family member (Riad et al., 2020). Haupt et al. (2020) demonstrated in a research that extraversion as well as risk taking behaviors are interlinked, such as low pro sociality of extraverted individuals during corona contagion (Carvalho et al., 2020).

An empirically proven evidence showed that individuals adopted protective behaviors after the outburst of pandemic because they have internal narrative of risk perception (Bish & Michie, 2010). Literature suggests the link of various behaviors and personality traits, such as, personality characters have influential role on deviant behavior like violating the rules of an organization (Salgado, 2002). Moreover, housewives adapt different behaviors owning to dire circumstances of pandemic (Balinska & Rizzo, 2009) and their adaptation to different behaviors depends upon their personality (Dey & Ghosh, 2017).

Personality involves those cognitions, emotional patterns and behaviors which are evolved from biological and environmental factors, both learned as well as innate behavioral characteristics, which discriminates individuals from each other through their ways of interacting with other individuals in any environment (Corr et al., 2009). Costa and McCrae's (1992) OCEAN model of personality traits comprises five personality factors of an individual firstly, individuals with openness to experience personality characteristics are generally open to new experiences and are highly inclined to explore new things (Costa & McCrae, 1992). Individuals with open traits have high scores on motion behaviors even during this COVID situation (Chan et al., 2020). Secondly, individuals with a conscientious personality are highly alert and conscious about their health, listen to their conscience and are highly alert about their health (Costa & McCrae, 1992). Reluga (2010) explored that while considering circumstances of pandemic individuals are observed to be more inclined to protective behavioral practices of washing hands regularly and avoiding massive gatherings, and these behaviors are mostly seen in persons with conscientious traits throughout (Carvalho et al., 2020).

Thirdly, extraverted individuals are highly energetic, outgoing, talkative and interactive (Costa & McCrae, 1992). As Carvalho et al. (2020) explained that those who are highly extrovert scored lower on the pro sociality because they don't avoid massive rallies, but they are much inclined towards corona related protective measures of hand washing. Fourthly, agreeableness is a personality characteristic, in which individuals a face changes with a smile, are friendly, and tend to be adjusting in almost all situations (Costa & McCrae, 1992). A study explored that corona related preventive behaviors are positively predicted by agreeableness, moreover, individuals with such traits are more prone to doctor visits during COVID-19 situations (Qian & Yahara, 2020). Fifthly, individuals with neurotic personality traits are prone to negative thoughts such as anxiety, guilt, anger, resentment and generally do not enjoy their life and have difficulty in coping with stress (Costa & McCrae, 1992). Neuroticism has also been associated with negative health outcomes (Appel et al., 2007). Hence, individuals who have high neurotic traits are behaviorally and emotionally more vulnerable to COVID-19 (Kroencke et al., 2020). Researchers suggest that personality traits also have an association with Corona anxiety, as individuals with neurotic dispositions are more prone to Corona anxiety (Liu & Yuan, 2020).

There is also an association between locus of control and corona reported behaviors (Lake, 2020). According to Rotter (1966), all the life events of an individual are controlled by either some internal or external forces, which determine an individual's locus of control. So, individuals with inner control have a strong belief in themselves that they can control the situations by behaving in an appropriate way (Levenson, 1973). Whereas, according to Levenson (1974), those individuals who have external control have perceptions that their life events are controlled by powerful others or by fate or chance.

The individual's locus of control and Covid-19 reported behaviors can be explained by leveraging the locus of control theory. This theory holds that individuals who are internally strong are more resilient in the time of drastic conditions and as a result they have better psychophysical quality of life and can adopt those beliefs and behaviors which can reduce the likely spread of this infectious disease of COVID-19 (Lake, 2020). However, individuals who have a strong external locus of control, consider that the outcome of corona either depends on others or on chance and adopt risky behaviors of not following social distancing practices etc. (Naviaux, 2020).

To mitigate the probability of COVID-19, individuals are adapting COVID-19 related protective measures (Carvalho et al., 2020). But these behavioral requirements have resulted in a great rise in the burden on females since their household chores have increased dramatically. This can have an adverse impact on housewives in the form of negative outcomes, which will consequently affect their families for many years (Power, 2020). This study investigates the combined relationship of personality traits, locus of control and Covid- 19 reported behaviors in housewives. Furthermore, neurotic personality traits which involve excessive news searching related to corona virus could result in a dramatic rise of worry and fear related to Covid (Kroencke, 2020). Due to fear of corona, parents avoid doctors and delay their children's medical checkup thus, as a result they are at a greater risk of this deadly disease (Hoffman, 2020; Power, 2020) and it could have negative psychological consequences in future (Jungmann & Witthoft, 2020). Moreover, research also highlights that many people have a negative view and are fearful regarding Covid-19 vaccination, resultantly they are hesitant to get vaccination shots (El-Elimat et al., 2021). Covid -19 reported actions are advantageous for public health, but among these behaviors social distancing (if continued over longer duration) can have an adverse impact and may

trigger mental health problems (Gupta, 2020). Furthermore, there is also a exists connection between COVID-19 reported behaviors of hand washing and obsessive compulsive disorder, OCD (Kumar & Somani, 2020). Therefore, excessive hand washing behavior due to Covid-19 can result in a psychological crisis of OCD which can be managed through counseling and reaching out to mental health professional. Considering the uncertain status of Corona, until advanced treatment, there is a dire need to learn adaptive protective behaviors.

This study has social and clinical significance as it raises the awareness of locus of effective control and protective behaviors in daily practice. The findings also suggest to focus on counseling guidelines for vulnerable personality traits and maladaptive locus of control and help learn helpful preventive behaviors.

## Method

Correlational research design was used in current study. Through snowball sampling a sample of (N= 172) housewives was determined for this study. Participants had age between 18-60 and mean age, *M*= 38.

### Participants

A total 178 housewives participated in this study, out of which 172 fulfilled the inclusion criteria. Six questionnaires were discarded as responses of participants on these forms did not fulfil the criteria. The mean age of participants was 38 (SD= 10.79). Frequencies of participant's responsibility was calculated as a result of which 161 participants reported their responsibilities on all household chores and 11 participants reported their responsibility of cooking. Regarding their education, the maximum participants have completed graduation (63.9%). When asked questions regarding if they disinfect their grocery or not, 135 reported yes, and 37 reported no. Out of 172 participants, 56 experienced corona virus anxiety. Participants of age range between 18-60 years were selected for this study. However, working women and those with any serious physical/psychological illness or diagnosed with corona virus were not selected for this study.

### Assessment Measures

#### *Coronavirus Anxiety Scale (CAS; Lee, 2020)*

This tool assesses physiologically based, dysfunctional anxiety symptoms associated with the coronavirus. It comprises five items and five-point Likert type scale where nearly every day over the last 2 weeks=4, more than 7 days=3, several days=2, less than a day or two=1and not at all=0. Cronbach alpha of this screening tool is 0.92. The Urdu version of this tool provided by original author was used.

#### *The Big Five Inventory-K (BFI-K; Rammstedt & John, 2005)*

This measure contains twenty-one items which measures personality traits of neuroticism, openness to experience, extraversion, agreeableness and conscientiousness. Each item is rated on five-point liker type scale ranging from (1) strongly disagree to (5) strongly agree. Overall Cronbach's Alpha of the tool ranged from .76 to .94. Urdu translated version of BFI-K (Yousaf et al., 2020) was used in this study.

***Levenson Multidimensional Locus of Control Scales (LMLOC; Levenson, 1973)***

It consists of 24 items with 6 point Likert type scale, ranging from strongly disagree = -3 to strongly agree =3. It consists of two dimensions which measure the internal and external locus of control. The external Locus of control further consists of powerful others and chance sub dimensions. Cronbach alpha of this tool ranged from 0.75 to 0.8. The Urdu translated version of this tool was used.

***Protective Behaviors towards COVID-19 Scale (PBCS; Riad et al., 2020)***

It is a 5-point Likert type scale with 14 items, where 1 refers to "Not at all like me" and 5 refers to "Just like me" which measures three dimensions of protective behaviors: Routine Protective Behaviors (RPB), Post-exposure Protective Behaviors (PPB), and Post-Exposure Risky Behaviors (PRB). The internal consistency of PBCS is 0.85. For the study, after taking permission from the respective author, this tool was translated into Urdu, for administration to the targeted population. Questionnaires were translated according to the guidelines provided by MAPI research institute to meet the requirement of the study (Beaton et al., 2000).

**Procedure**

A pilot study was conducted to assess the relevance and time duration of questionnaires. Data was collected from eight participants through google forms. After a pilot study, the main study was conducted. Information sheet, informed consent, demographic sheet and questionnaires were given to the participants and they were informed about the nature and procedure of the research through an online informed consent form. The participants were also informed that they could leave the research at any time if they needed. Data is self- reported and all of the participants filled out the questionnaire through the online survey. The study was approved by the Departmental Doctoral Programme Committee of Centre for Clinical Psychology, University of the Punjab, Lahore, Pakistan. After approval, permission from the original author, as well as from the translators of the tool to use the Urdu version of the tool was taken. Participants were informed about the aims of the study and their role through the online google form. Informed consent was taken prior to conducting research through the same form. The results were reported without any fabrication of data.

## Results

Table 1 shows the Cronbach alpha calculated for each questionnaire and was found to have an adequate internal consistency.

**Table 1**

*Psychometric Properties of Scales*

| | | *K* | *M* | *SD* | *Potential* | *Actual* | *A* |
|---|---|---|---|---|---|---|---|
| | CA | 5 | 1.24 | 1.57 | 0-20 | 0-18 | .95 |
| Personality traits | | 21 | 3.17 | 1.68 | 21-105 | 50-91 | .72 |
| | Extraversion | 4 | 2.93 | 1.76 | 4-20 | 4-20 | .93 |
| | Agreeableness | 4 | 3.36 | 1.74 | 4-20 | 4-20 | .91 |
| | Conscientiousness | 4 | 3.40 | 1.58 | 4-20 | 5-20 | .92 |
| | Neuroticism | 4 | 2.72 | 1.79 | 4-20 | 4-19 | .91 |
| | Openness | 5 | 3.38 | 1.56 | 5-25 | 7-25 | .77 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Locus of control | | 24 | .10 | 3.38 | 0-144 | 2-143 | .79 |
| | Internal LOC | 8 | .20 | 3.28 | 0-48 | 2-47 | .96 |
| | Power others LOC | 8 | .12 | 3.58 | 0-48 | 1-46 | .96 |
| | Chance LOC | 8 | .22 | 3.29 | 0-48 | 4-47 | .96 |
| PBC | | 14 | 3.52 | 1.27 | 14-70 | 27-66 | .77 |
| | RPB | 5 | 3.40 | 1.88 | 5-25 | 5-25 | .95 |
| | PPB | 6 | 4.10 | .65 | 6-30 | 7-30 | .85 |
| | PRB | 3 | 2.58 | 1.49 | 3-15 | 3-15 | .89 |

*Note.* CA= Corona Virus Anxiety, LOC=Locus of Control, RPB=Routine Protective Behaviors, PPB=Post Exposure Protective Behaviors, PRB= Post Exposure Risky Behaviors, PBC= Protective Behaviors Related to COVID-19. K= No. of items, M=Mean; SD= standard deviation; Pote= potential values; Actual= Actual value; α=Cronbach's Alpha

Table 2 refers to the findings related to the correlation between personality traits, locus of control and COVID -19 reported behaviors. Results demonstrate that corona virus anxiety had a significant negative relationship with COVID-19 reported routine protective and post exposure risky behaviors. Among the main five personality traits, extraversion, agreeableness and conscientiousness had a significant positive relationship with COVID reported routine protective actions and post exposure risky behaviors. Neuroticism had a highly significant negative relationship with COVID-19 reported routine protective behaviors, and Corona related post exposure risky behaviors. Openness had a highly significant positive relationship with COVID-19 reported routine protective behaviors.

Among the locus of control, results showed that internal locus of control had a significant positive relationship with Corona reported routine protective behaviors, post exposure protective behaviors and post exposure risky behaviors. Power other locus of control had highly significant negative relationship with COVID-19 reported routine protective behaviors and COVID-19 reported post exposure risky behaviors. Chance locus of control had highly significant negative relationship with COVID reported routine protective behaviors and Corona reported post exposure risky behaviors. Power other locus of control also had highly significant negative relationship with Corona reported behaviors.

**Table 2**

*Relationship between personality traits, locus of control and COVID-19 related behaviors*

| Measures | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *M* | *S.D* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.CA | -.15* | -.85** | -.85** | .82** | -.47** | -.54** | .63** | .75** | -.76** | .12 | -.47** | 6.19 | 5.79 |
| 2.Extraversion | | .19** | .20** | -.15* | .12 | .39** | -.47** | -.14* | .15* | -.08 | .42** | 11.74 | 4.82 |
| 3.Agreableness | | - | .92** | -.90** | .53** | .59** | -.66** | -.85** | .82** | -.03 | .57** | 13.47 | 4.70 |
| 4.Conscientiousness | | | - | -.89** | .56** | .63** | -.63** | -.82** | .86** | .02 | .56** | 13.63 | 4.55 |
| 5.Neuroticism | | | | - | -.45** | -.58** | .59** | .86** | -.81** | -.06 | -.59** | 10.89 | 4.80 |
| 6.Openess | | | | | - | .72** | -.65** | -.43** | .49** | .10 | .08 | 16.91 | 4.50 |
| 7.InternalLOC | | | | | | - | -.71** | -.46** | .62** | .24** | .32** | 22.33 | 12.95 |
| 8.PowerothersLOC | | | | | | | - | .67** | -.52** | .19** | -.46** | 25.00 | 13.69 |
| 9.ChanceLOC | | | | | | | | - | -.71** | .08 | -.64** | 22.23 | 12.84 |
| 10.RPB | | | | | | | | | - | .29** | .51** | 17.02 | 6.35 |
| 11.PPB | | | | | | | | | | - | .00 | 24.63 | 3.71 |
| 12.PRB | | | | | | | | | | | - | 10.24 | 3.33 |

*Note*. **p<.01 (one tailed) *p<.05 (one tailed), CA= Corona Virus Anxiety, PT= Personality Traits, LOC=Locus of Control, PBC= Protective Behaviors Related to COVID, RPB=Routine Protective Behaviors, PPB=Post Exposure Protective Behaviors, PRB= Post Exposure Risky Behaviors, M=Mean; SD= standard deviation

Table 3 reveals the results of hierarchical linear regression predicting protective behaviors related to COVID-19 among housewives run separately for each of three subscales of COVID -19 reported behaviors. For COVID-19 reported routine protective behaviors, model 1, was significant with covariate corona virus anxiety, $F$ (1,170) = 241.68, p<.001. Covariate corona virus anxiety was significant negative predictor of routine protective behaviors related to corona. The final model was significant, $F$ (9,162) = 63.05, p<.001. After controlling corona anxiety, conscientiousness personality trait identified as a positive predictor of routine protective behavior. Internal and power others locus of control identified as a positive predictor of routine protective behavior.

For COVID-19 reported post exposure protective behaviors, model 1, was significant with covariate corona virus anxiety, $F$ (1,170) = 241.68, p<.001. Corona virus anxiety was identified as positive predictor of post exposure protective behaviors. The final model was significant, ($F$ (9,162) = 11.4, p<.001). Neuroticism was seen as a significant negative predictor of Post Exposure Protective Behaviors. Internal LOC and Power others LOC emerged as highly significant positive predictors of post exposure protective behaviors.

Model 1, was significant negative predictor with covariate corona virus anxiety, $F$ (1,170) = 241.68, p<.001, for COVID-19 reported post exposure risky behaviors. Corona virus anxiety was identified as negative predictor of post exposure risky behaviors. The final model was significant, $F$ (9,162) = 27.49, p<.001. After controlling corona anxiety, openness and chance LOC emerged as highly significant negative predictors of post exposure risky behaviors. Extraversion and Conscientiousness as highly significant positive predictors of post exposure risky behaviors.

For overall COVID-19 reported protective behaviors, model 1, was significant with covariate corona virus anxiety, $F$ (1,170) = 241.68, p<.001. The final model was significant, $F$ (9,162) = 34.99, p<.001. After controlling corona anxiety, conscientiousness and internal LOC emerged as highly significant positive predictors of total Protective behaviors related to COVID. Power others LOC emerged as a highly significant negative predictor of total protective behaviors related to COVID-19. Chance locus of control predicted significant positive relationship with total protective behaviors related to COVID-19.

**Table 3**

*Hierarchical linear regression predicting protective behaviors related to COVID-19 among housewives*

| | COVID-19 Related Protective Behaviors | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | RPB | | PPB | | PRB | | Total PBC | |
| Variables | $\Delta R^2$ | B | $\Delta R^2$ | B | $\Delta R^2$ | B | $\Delta R^2$ | B |
| Model 1 | .58 | | .01 | | .22 | | .35 | |
| CA | | -.76*** | | .12*** | | -.47*** | | .59*** |
| Model 2 | .19 | | .37 | | .37 | | .30 | |
| Extraversion | | -.008 | | -.02 | | .30*** | | .08 |
| Agreeableness | | .18 | | -.22 | | -.05 | | .01 |
| Conscientiousness | | .45*** | | .02 | | .29* | | .39** |
| Neuroticism | | -.07 | | -.40* | | -.10 | | -.23 |
| Openness | | -.01 | | .09 | | -36*** | | -.10 |
| Internal LOC | | .25** | | .70*** | | .06 | | .07*** |
| Power others LOC | | .21* | | .71*** | | -.03 | | -.61*** |

| | | | | |
|---|---|---|---|---|
| Chance LOC | -.06 | -.11 | -.52*** | .52* |
| *Total $R^2$* | .77 | .38 | .60 | .65 |

*Note.* CA= Corona Virus Anxiety, LOC=Locus of Control, RPB=Routine Protective Behaviors, PPB=Post Exposure Protective Behaviors, PRB= Post Exposure Risky Behaviors, Total PBC= Total Protective Behaviors Related to COVID-19, *p<.05; **p<.01; ***p<.001; β = Standardized Co efficient; $\Delta R^2 = R_{\text{Square change}}$; $R^2 = R_{\text{Square}}$

**Discussion**

Keeping in mind the psychological and physical benefits of personality traits and locus of control, predictive role of personality traits and locus of control on Corona reported behaviors were investigated. The purpose of the present study was to assess the relationship between personality traits, locus of control and COVID-19 reported behaviors in housewives.

Results of the findings supported the hypothesis that there was likely to be a relationship between personality traits, locus of control and COVID-19 reported behaviors. The present research shows positive relationship of personality traits (extraversion, agreeableness, openness and conscientiousness) with COVID-19 reported routine protective. A study also supports this notion that those individuals who are highly conscious about their health mostly report as maintaining social distance and daily use of hand sanitizers and hand wash (Abdelrahman, 2020).

This research also highlights the positive relationship of Personality traits (extraversion, agreeableness and conscientiousness with COVID-19 reported post exposure risky behaviors. It indicates that those housewives who were more outgoing and sociable, reported that they would not take care about their health even they could be infected by this virus. Housewives with such personality traits need to be impacted an awareness regarding the negative consequences of this viral ailment.

According to Costa and McCrae's (1992) concept of extraversion, agreeableness and conscientiousness, the present research findings infers that those housewives who are outgoing and agreeable towards different circumstances, yet conscious about their health are more likely to avoid doctors and follow their perceptions and less probable to inform higher authorities if any of their family members or person known to them gets infected with this virus. This maybe on account of the higher concerns about their health, they would think that informing doctors would be harmful for them during these circumstances as they are highly sociable and friendly so for maintaining that friendship they would avoid telling higher authorities about their relatives' health. This study showed a negative correlation of the neuroticism personality trait with COVID-19 reported routine protective behaviors and post exposure risky behaviors. A study suggested that those people who have high neurotic traits experience problems in coping with stressful circumstances (Szewczyk & Terelak, 2013). Thus, it depicts that housewives with these traits had difficulty coping with stressful situations like Corona. As a result, they did not fully follow routine protective behaviors of corona virus due to their difficulty to cope with this condition. Moreover, a negative correlation between neuroticism and COVID-19 post exposure risky behaviors was also found. This infers that those housewives who were likely to get nervous easily, were more prone to contacting health professionals and following their prescriptions**.** There is other research evidence concluding that neuroticism was positively correlated with doctors' visits (Hajek et al., 2017). The present study found a significant positive relationship of internal locus of control with all of the COVID reported measures (i.e., routine protective behaviors, post exposure protective behaviors and post exposure risky behaviors). Researchers concluded that individuals who have strong internal control are more likely involved in COVID-19 reported preventive measures (Lim, 2016). It was found that power other and chance locus of

control correlated negatively with Corona reported routine protective behaviors. A study found that external locus of control is negatively correlated with health-related behaviors (Cepni & Kitis, 2016). Moreover, it was found that power other and chance locus of control correlated negatively with COVID reported post exposure risky and protective behaviors. It infers that those housewives who believed that other individuals were controlling their life (Levenson, 1973), were less likely to indulge in post exposure protective behavior, they would be less likely isolate themselves and go in quarantine because they would believe that what was happening depended on chance and fate.

Findings of hierarchical linear regression analysis revealed that corona virus anxiety was significantly a negative predictor of COVID-19 reported protective behaviors (routine protective behaviors, post exposure protective behaviors and post exposure risky behaviors). According to DSM-5 (APA, 2013), individuals who experience an anxiety or panic like situation adopt avoidant behaviors. So, housewives adopted avoidant behaviors instead of following COVID related protective behaviors to overcome their Corona virus anxiety. Conscientious emerged as a positive predictor of routine protective behaviors and post exposure risky behaviors related to Corona. Individuals who are extremely conscious about their health adhere more to health related behaviors (Costa & McCrae, 1992). Hence, the present findings inferred that those housewives who were highly conscious about their health reported their concerns more on COVID-19 reported routine protective behaviors (i.e., daily hand washing, wearing face masks, using sanitizers and maintain social distance) due to their higher health concerns. Carvalho et al. (2020), also suggested that conscientiousness is positive predictor of social distancing, using sanitizers and masks in corona. But, when asked if they would encounter this disease what they would do, then due to their concerns about their health and owing to rumors related to corona, they answered they would avoid doctors and prescriptions. Neuroticism was significantly a negative predictor of post exposure protective behaviors related to COVID-19. A study also supports this evidence suggesting that neuroticism is negatively correlated with Corona related precautionary actions (Aschwanden et al., 2020). Openness and chance locus of control were identified as significant negative predictors of post exposure risky behaviors related to COVID-19. By following Costa and McCrae's (1992) idea of openness and Levenson (1973) notion of chance locus of control, it depicts that those housewives who were open to novel circumstances and believed in luck, they were less likely to indulge in risky behaviors related to corona and hence due to their trait of being open to new experience they would experience more doctors visit if they would encounter with this illness. In this study, the internal locus of control and power other locus were significantly positive predictors of COVID-19 reported routine protective behaviors. The study highlighted that those people who have strong internal control are more likely involved in COVID-19 preventive measures (Lim, 2016). It depicts that those housewives who had strong internal narratives and believed in the significant influence of media, adhered to these routines more effectively. Internal locus of control and power other locus were significantly positive predictors of COVID-19 post exposure protective behaviors. According to Lim (2016), individuals with internal control, would more adhere to precautionary measure after getting exposed to pandemic like situation. It infers that those housewives who were internally strong and even believed in the influence of significant individuals' influence were more serious regarding preventive measures, in case of exposure to this illness.

## Conclusion

The findings have led to the conclusion that personality traits are an important determinant of COVID reported protective behaviors. Housewives who are extrovert, conscientious and open are tend to indulge in post exposure risky behaviors. Women with neurotic traits succumb to post exposure protective behaviors. Routine protective behaviors are practiced by women with conscientiousness. Women with internal and power other locus of control are more engaged in routine protective and post exposure protective behaviors. Findings also suggested that women with chance locus of control adopt post exposure risky behaviors.

## Implications of the Study

This study is beneficial as it emphasizes the significant role of personality traits and locus of control in determining the protective behaviors of housewives to prevent exposure to COVID-19. The findings can bring awareness to minimize risky behaviors and sensitize common persons about the responsible careful protective behaviors to prevent themselves and others instead of avoidance and fearful disposition related to COVID-19.

## Limitations and Suggestions

There was no direct interaction with participants and results were gathered through online google forms, so this many have an effect on the results. Limited data was gathered due to online data collection, and due to time constraints as well. The study included only house wives and limited the generalization. Working women specifically working from home could bring useful comparisons of the impact of corona virus as well as difference of personality dimensions and locus of control in dealing with Corona related situations and respective responsibilities. Similarly, gender difference might facilitate a comparison of personality traits and locus of control in adopting protective behaviors depicting their response to COVID-19.

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