Introduction
Coronaviruses are a family of viruses and COVID-19 is a new strain discovered in the year 2019. The pandemic is a global health crisis of our time and the greatest challenge we have ever faced since World War 2. The current pandemic outbreak is a global emergency call for 150 countries. (Singhal, 2020) All of these countries are trying to slow the spread of the virus’s infection by treating the infected patients, carrying out contact tracing, limiting travel, quarantining citizens, and cancelling large gatherings such as sporting events, concerts, marriage, schools, collages and other universities and institutions. COVID 19- an Infection- spreads from person to person. (Van Lancker and Parolin, 2020) Symptoms like respiratory illness, fever, headache and throat infections are the commonest ones seen in an infected person, immediately. (Anitha and Ashwini, 2017) The spread occurs like a vicious cycle, spreading from an infected person’s cough, sneeze, droplets, nose or mouth and launches into air and later lands into other person’s mouth /nose. (Day, 2020) The pillars of prevention are being highlighted across the world, including measures like hand washing, maintaining hygiene, and social distancing. (Ashwini, Ezhilarasan and Anitha, 2017) There are various other myths existing and emerging every single day regarding the transmission and infection of coronavirus. (Liang and Yuan, no date) Transmission through bats, spread is reduced in summer, from other animal sources like consumption of non-vegetarian food. Virus was also believed to have jumped from snakes to humans and thus import and export of animal meat should be stopped for a couple of years to avoid further infection (Hassan et al., 2020) There are various known primary origin of the disease. It is believed that the spread was unintentional from the virology lab, the transmission from bat and it is also believed there it was developed intentionally as a biological weapon for unknown reasons. (Sharma et al., 2019) There can be individuals who are suffering from existing medical conditions like diabetes, heart disease, as well as those who...
live in poor and densely populated areas, are more susceptible to the worst outcomes of the virus.(Ezhilarasan, Lakshmi, Vijayaragavan, et al., 2017)(Zheng et al., 2020) For those with chronic respiratory disease like chronic obstructive Airways disease , infectious diseases , HIV and tuberculosis, chronic Cardiovascular disease like cardiomyopathy, previous myocardial infarction, rheumatic heart disease and cancers(Perumalsamy et al., 2018), susceptibility is very high.(Xu et al., 2020)Senior citizens above the age of 60 are highly prone.(Mehta, Deeksha, Tewari, Gupta, Awasthi, Singh, Pandey, Chellappan, Wadhwa, Collet, Hansbro, Rajesh Kumar, et al., 2019) There are various benefits which make non-vegetarian food consumption essential regardless of the ill-effects like heart diseases.(Ezhilarasan, Lakshmi, Nagaich, et al., 2017) The food under these categories are wholesomely rich in protein. They help in strengthening the body muscles and all a great source of Vitamin B.(Ezhilarasan, 2018) On the other hand, vegetarians prefer consuming protein rich alternatives like cottage cheese, lentils, cereals etc.(Rezai, Mohamed and Shamsudin, 2012) Maintaining a healthy diet with food that boosts immunity can help fight infections. (Key, Appleby and Rosell, 2006; Ezhilarasan, Sokal and Najimi, 2018)Physical activity and nutrition have known to boost the immune system. (Bourne, 1949) Foods rich in Vitamin C, D, and E improve the immune system by increasing the infection-fighting cells. The antioxidant in Vitamin C & E plays an important role in controlling infections and functioning of the immune system.(Gheena and Ezhilarasan, 2019a) When a comparison is held between the two different kinds of eaters on immunity, the vegetarian food helps in increasing immunity but the non-vegetarian sources don’t. (Abdel-Tawwab et al., 2020) Food like garlic, citrus fruits, and turmeric have high potential to fight against disease causing agents.(Sukandar et al., 2010) The main aim of the study was to know how far people believe the fact that non-vegetarian increases the risk of COVID infection. The study helps in spreading awareness among community population that non-vegetarian consumption doesn’t cause any infection spread. Our team has rich experience in research and we have collaborated with numerous authors over various topics in the past decade (Deogade, Gupta and Ariga, 2018; Ezhilarasan, 2018; Ezhilarasan, Sokal and Najimi, 2018; Jeevanandan and Govindaraju, 2018; J et al., 2018; Menon et al., 2018; Prabakar et al., 2018; Rajeshkumar, Kumar, et al., 2018; Vishnu Prasad et al., 2018; Wahab et al., 2018; Dua et al., 2019; Duraisamy et al., 2019; Ezhilarasan, Apoorva and Ashok Vardhan, 2019; Gheena and Ezhilarasan, 2019b; Malli Sureshibabu et al., 2019; Mehta, Deeksha, Tewari, Gupta, Awasthi, Singh, Pandey, Chellappan, Wadhwa, Collet, Hansbro, Kumar, et al., 2019; Panchal, Jeevanandan and Subramanian, 2019; Rajendran et al., 2019; Rajeshkumar et al., 2019; Ramakrishnan, Dhanalakshmi and Subramanian, 2019; Sharma et al., 2019; Varghese, Ramesh and Veeraiyan, 2019; Gomathi et al., 2020; Samuel, Acharya and Rao, 2020) The aim of the study is to know if they believed that non-veg increased for risk of COVID infection or not

MATERIALS AND METHODS
A questionnaire survey conducted through an online portal was done and the sample size was 100 participants. This was the best approach for the collection of data as a large number of the general population were involved and also suitable in present conditions where people have to avoid gathering, close contact etc. for prevention of COVID-19. The survey included questions based on mode of transmission of COVID and if the non-vegetarian food transmits COVID or not, if non-vegetarian consumption is safe during quarantine or not. The data was collected and analysed using SPSS software and Chi square test and Pearson correlation analysis were used, with p value less than 0.05 to be statistically significant. The inclusive criteria were age, sex, presence of any previous medical condition, awareness on COVID-19.

RESULTS AND DISCUSSION

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<thead>
<tr>
<th>Vol</th>
<th>Issue</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>2</td>
<td>1555</td>
</tr>
</tbody>
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Fig.1: The pie chart showing the age of the participants. 20% (orange) were between 12-18, 32% (blue) were of the age group between 19-25, 17% (red) were between 26-40 and 31% above 40 years (green).
Fig. 2: The pie chart showing gender of the participants and the study population included 52% (red) male and 48% (blue) female.

Fig. 3: The pie chart showing the type of food the participants prefer to eat. 47% (red) are vegetarians, 45% are non-vegetarians (blue), 8% are vegans (green).

Fig. 4: The pie chart showing the benefits of eating non-vegetarian food. 17% (blue) think non-vegetarian is a source of protein, 13% (red) for Vitamin B, 70% (green) individuals agree that both of the above are the benefits of non-vegetarian food.
Fig.5: The pie chart showing the food that is categorized under non-vegetarian food. 13% (red) think eggs are included in non-vegetarian food, 11% (blue) think chicken is considered to be non-vegetarian food, a majority of 76% (green) think both of the above are non-vegetarian food.

Fig.6: The pie chart showing if it is advisable to consume non-veg during lock down. 68% (red) think it is not advisable to consume non-veg during lockdown, 32% (blue) disagree with this.

Fig.7: The pie chart showing the preference of the population on eating non-vegetarian during lock down. 68% (red) are eating non-vegetarian food during lock down, 32% (blue) of them are not consuming.
Fig. 8: The pie chart showing opinion on what could be the primary origin of viral infection. 43% (green) think it was developed intentionally as a biological weapon, 32% (blue) think it is an unintentional spread from the virology lab while 25% (red) think it was transmitted by bats.

Fig. 9: The pie chart showing the opinion of the study population on COVID transmits through non-vegetarian food? 56% (red) of the participants think that COVID is not transmitted by non-vegetarian food and 44% (blue) of them think it transmits through non-veg.

Fig. 10: The pie chart showing opinion of the study population on stopping import - export of animal meat. 64% (blue) think that import-export of animal meat should be stopped but 36% (red) of them disagree with this.
Fig. 11: The pie chart showing the different protein rich alternatives for non-veg food for non-vegetarian. 16% (red) of the people believe cereals are the best alternative for protein rich non-vegetarian food, 13% (green) of them think it’s cottage cheese, 3% (blue) think lentils while a majority of 68% (orange) of the individuals think all of the above are alternatives for protein rich non-veg food.

Fig. 12: The pie chart showing opinions on non-vegetarian food increasing immunity. 68% (red) of the study population think that non-veg food doesn’t increase immunity while a 32% (blue) of them believe it does.

Fig. 13: The pie chart showing the opinion of vegetarian food increasing immunity. 81% (blue) of the participants think vegetarian food increases immunity but 19% (red) of them disagree with this.
Fig. 14: The pie chart showing which vegetarian food that increases immunity. 15% (red) agree that citrus fruit increases immunity, 4% (blue) of them think garlic increases immunity, 8% (green) of them think turmeric increases immunity while 73% (orange) of the individuals think all of these increases body immunity against pathogens.

Fig. 15: The pie chart showing the opinion of if non-vegetarian intake can increase risk of heart diseases. 73% of the participants agree that non-vegetarian food can increase the risk of heart disease (blue) and 27% disagree with this (red).

Fig. 16: The pie chart showing the existence of any medical condition. 18% (red) are suffering from high blood pressure, 11% (orange) with respiratory conditions, 7% (blue) with diabetes mellitus, 5% (green) with heart disease and 59% (yellow) of them suffer from none of them.
Fig.17: The pie chart showing opinion on having non-vegetarian during quarantine. 67% (red) agree that it is unsafe to consume non-veg food during the quarantine but 33% (blue) of them disagree with this.

Fig.18: Bar graph representing association between gender and habit on consuming non-veg. X axis represents gender and Y axis represents percentage of respondents. The (blue) yes and (red) No. Out of 68% of the people who told no, 28% were female and 40% were male. Hence males do not prefer consuming Non-vegetarian than females. Chi square test was done p- 0.046 (p >0.005) hence not statistically significant.
Fig. 19: Bar graph representing association between gender and opinion on non-veg transmitting COVID. X axis represents gender and Y axis represents percentage of respondents (blue) yes and (red) no. Out of 53% of the population who chose no, 23% were female and 33% were male. Hence males responded more to no transmission of COVID through consumption of non-veg food than females. Chi square test was done $p = 0.118$ ($p > 0.005$), hence not statistically significant.

In the current study, as seen in figure 1, 20% of the population was between 12-18, 32% was between 19-25, 17% were between 26-40 and 31% were above 40 years. In figure 2, it can be seen that 48% of the study population were females and 52% were males. In figure 3, 47% of the individuals are vegetarian, 45% of them are non-vegetarian and 8% of them are vegans. In figure 4, 17% of the study population agree that protein increase is the benefit of consuming non-veg food, 13% of the respondents think that non-veg reserve is a beneficial source of vitamin B. On the other hand, 70% of them think it is beneficial for both of the above. Studies also revealed that non-vegetarian food can increase body stamina and haemoglobin since they are rich in calcium and phosphorus. (Menon et al., 2018) (Venderley and Campbell, 2006)

In figure 5, 13% of the study population agree that eggs are only considered as non-veg food, 11% of them think chicken is the only non-vegetarian food and not egg while a group of 76% of the people think or non-veg food includes both egg as well as chicken. In figure 6, 68% of the participants think it is not advisable to consume non-veg during lock down and 32% of them disagree to this and in figure 7, 68% of the respondents are not eating while 32% of them are eating. In figure 8, 43% of them agree to the fact that the primary origin of the viral infection is that it is developed intentionally as a biological weapon (Rajeshkumar, Kumar, et al., 2018), 32% of the respondents think it was an unintentional spread from the virology lab and 25% of the population think it was from the bats. (Shereen et al., 2020) In figure 9, About 56% of them agreed that COVID is not transmitted by non-veg food and 44% of them disagree with this. In figure 10, 64% of the participants think that since animal meat is possibly a source for the infection, they import and export animals which should be halted but 36% of the individuals disagree to this. There is a protein alternative that is preferred to be lentils, cereals, cottage cheese and all of the above by 3%, 16%, 13% and 68% respectively by the study population as seen in figure 11. In figure 12, 32% of the respondents agree that non-veg food can increase immunity and 68% of them disagree with it. Studies reveal that non-vegetarians food can not help in increasing immunity (Karthiga, Rajeshkumar and Annadurai, 2018) But can simply increase up and strengthen the body muscles help in growth. (Venkatraman and Pendergast, 2002) On the other hand as seen in figure 13, 81% of the study population think that vegetarian food can help in increasing immunity and 19% of them disagree to this in figure 14, it can be seen that food like garlic, citrus fruit, turmeric and all of the above are preferred by 4%, 15%, 8% and 73% respectively for increase in immunity. (Sujatha, Asokan and Rajeshkumar, 2018) Non-vegetarian food has a higher chance of causing heart diseases in which a normal value can lead to blockage in the consumption of non-veg can sometimes prove to be fatal and 73% of the study population agree to the above facts and 27% of them disagree to this as seen in figure 15. (Deriemaeker et al., 2011; Rajeshkumar, Agarwal, et al., 2018)

Amongst all the people in the study population as seen in figure 16, 7% of them suffered from diabetes mellitus, 5% of them from heart diseases, 18% of them from high blood pressure, 11% from these pretty conditions and 59% of them from none of the above. In figure 17, 67% of the respondents agreed that eating non-vegetarian
during quarantine is unsafe but 33% of the population disagree with this. In figure 18, a graph representing association between gender and habit on consuming non-veg during lockdown. In figure 19, a graph represents an association between gender and opinion on non-veg transmitting COVID. Our institution is passionate about high quality evidence based research and has excelled in various fields (Pc, Marimuthu and Devadoss, 2018; Ramesh et al., 2018; Vijayashree Priyadharsini, Smiline Girija and Paramasivam, 2018; Ezhillarasan, Ashoka and Ashok Vardhan, 2019; Ramadurai et al., 2019; Sridharan et al., 2019; Vijayashree Priyadharsini, 2019; Chandrasekar et al., 2020; Mathew et al., 2020; R et al., 2020; Samuel, 2021)

CONCLUSION
The current scenario of the world is fighting an invisible and new threat in the form of a pandemic, the scarcity of food to the general population could lead to a great catastrophe. The preference in consumption of food sources and its potential threat for the zoonotic infections have become a daily news and it also becomes inevitable in some communities all over the world with their regional food habits. The current study despite limitations, we believe it provides general information about the current mindset among the general population regarding their food preferences during a pandemic and its mode of transmission through the food they consume.

REFERENCE
induces leaves and evaluation of their antioxidant and cytotoxic properties in lung cancer (A549) cells’, Enzyme and microbial technology, 117, pp. 91–95.


