A Qualitative Analysis of COVID-19 Vaccine Hesitancy
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Introduction:
Vaccine Hesitancy is a growing problem throughout the world, with outbreaks of preventable diseases persisting when vaccination rates are not high. The current global pandemic caused by COVID-19 persists while vaccines are being administered to millions of people. However, hesitancy to receive the vaccine and many factors that influence have not been identified. The purpose of this study is to identify factors that have an impact on COVID-19 vaccine hesitancy for providers to use to promote greater vaccine uptake.

- Many current circumstances have created new factors for vaccine hesitancy.
- Low rates of vaccinations may prevent herd immunity to COVID-19.
- SAGE’s 3Cs Model for assessing vaccine hesitancy may be applicable for identifying COVID-19 vaccine hesitancy factors.
- Healthcare Providers are one of the strongest influencers in vaccination decisions.
- Current lack of qualitative data evaluating COVID-19 vaccine hesitancy.

Methods:
- Audio conference, via Zoom, set up in a focus group format to collect qualitative data from participants regarding their opinions about the COVID-19 vaccine.
- Recruitment was carried out via email and posted fliers.
- Study Conducted in the Saint Louis, MO & Edwardsville, IL Regions.
- Demographic Information was not collected.
- Participants were included in the study if they attended the focus group and consented to speaking during the group.
- Audio was recorded from each group and generated by Zoom to be assessed by the investigator.

3 Groups of Participants:
1. College or University Students Group
2. Healthcare Workers & Professionals Group
3. Non-Healthcare Workers & Non-College Student Group

Series of Open-Ended Questions Asked by the Investigator:
- Identifies Current Status of Vaccination
- Identifies Knowledge of the Vaccine
- Identifies Influences Affecting Perception of the Vaccine
- Identifies Factors & Concerns Affecting Vaccine Hesitancy
- Open ended nature of questions allows for participants to explain their perspectives.

Focus Group

<table>
<thead>
<tr>
<th>Focus Group</th>
<th>Number of Participants</th>
<th>% of Vaccine Hesitant Participants (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>College or University Students</td>
<td>9</td>
<td>5 (55.6%)</td>
</tr>
<tr>
<td>Healthcare Workers/Professionals</td>
<td>5</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Non-Healthcare Workers/Non-College Students</td>
<td>9</td>
<td>4 (44.4%)</td>
</tr>
<tr>
<td>All Groups (Combined)</td>
<td>23</td>
<td>9 (39.1%)</td>
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</tbody>
</table>

Results:

- 39.1% of Participants reported a delay in acceptance or refusal of the vaccine.
- None of these were in the healthcare worker/professional group.
- Factors affecting confidence for receiving the COVID-19 vaccine:
  - Rapid development of the vaccine (< 12 months)
  - Negative healthcare experiences
  - Adverse effects from the vaccine & perceived vaccine efficacy
- Factors affecting convenience of receiving the COVID-19 vaccine:
  - Lack of available vaccines
  - Lack of eligibility to receive the vaccine
  - Transportation issues
  - Access to the internet
- Many participants reported a perceived low risks of COVID-19 infection and transmission which may develop complacency towards the vaccine.
- All participants acknowledged that the COVID-19 vaccine is important for at least some people to receive.
- 7/23 participants stated that it is not important to receive the vaccine for themselves currently (4 College Students & 3 Non-Healthcare Worker/Non-College Students)
- Sources of Influence/ Information regarding the COVID-19 Vaccine:
  - FDA/CDC/Dr. Fauci and other government agencies
  - Research Publications from medical journals
  - Political Figures & Social Media (Facebook)
  - Education History & Career Field
  - Family, Friends, and Co-Workers
  - Prior Experiences and beliefs about the healthcare system

Discussion:
- Providers should be properly educated about the vaccines they administer and confident when sharing information about vaccines with their patients. The ability to identify hesitancy factors from this study allows for the provider to properly address these factors and promote greater COVID-19 vaccine uptake.
- Factors influencing COVID-19 vaccine hesitancy are impacted by unique circumstances that developed during the global pandemic. It is crucial for providers to understand these changing factors.
- Adverse effects and the rapid development of the vaccine were frequent concerns reported in this study. Therefore, providers should be able to educate patients about the likelihood and severity of adverse effects and the development process of the vaccine.
- More research is required in order to fully understand COVID-19 vaccine hesitancy and to properly address it.

Study Limitations:
- Small Sample Size
- Lack of Comparable Data
- Questions Used in the Study Did Not Undergo Pilot Testing
- No Demographic Information was Collected
- Qualitative Nature of Data
- Only 1 Geographical Region Assessed
- Potential for Bias within the Focus Groups