

12-1-2022

COVID Segmentation: Important Variables and Their Relationship to Resilience

Derrick Manns
derrick.manns@tsu.edu

Bob Lee

David Groves

Follow this and additional works at: <https://scholarworks.bgsu.edu/visions>

[How does access to this work benefit you? Let us know!](#)

Recommended Citation

Manns, Derrick; Lee, Bob; and Groves, David (2022) "COVID Segmentation: Important Variables and Their Relationship to Resilience," *Visions in Leisure and Business*: Vol. 24: No. 2, Article 5.

DOI: <https://doi.org/10.25035/visions.24.02.05>

Available at: <https://scholarworks.bgsu.edu/visions/vol24/iss2/5>



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

This Article is brought to you for free and open access by the Journals at ScholarWorks@BGSU. It has been accepted for inclusion in *Visions in Leisure and Business* by an authorized editor of ScholarWorks@BGSU.

**COVID SEGEMENTATION: IMPORTANT VARIABLES AND THEIR
RELATIONSHIP TO RESILIENCE**

Derrick Manns, Ph.D.

Guest Editor

Executive Director Curriculum and Graduation Initiatives

Texas Southern University

3100 Cleburne St

Houston, Texas 77004

derrick.manns@tsu.edu

Bob Lee, Ph. D.

Professor

Tourism, Leisure and Event Planning

School of Human Movement, Sports and Leisure Studies

Bowling Green State University

Bowling Green, Ohio 43402

David Groves, D. Ed.

Professor Emeritus

Tourism, Leisure and Event Planning

School of Human Movement, Sports and Leisure Studies

Bowling Green State University

Bowling Green, Ohio 43402

ABSTRACT

Most of the data about the virus views it from a holistic perspective. It must be realized that the data must be segmented. In review of content on the internet and publications, a four COVID category system was developed: Impaired Illness to Death, Bad, Mild to Little or No Effect, No problem. Once these categories were identified the important variables in each of these categories were investigated. These variables were then related to the various dimensions of resilience. This type of information is needed in strategic planning and the development of programs for future crises.

KEY WORDS: COVID categories, variables impact on COVID, resilience and COVID, crisis planning

INTRODUCTION

The last part of this research perspective is the most difficult because it involves both diagnosis as well as prescriptive elements. The two previous parts are obviously the background data for this section. The most critical finding from the first two sections was that most often COVID is conceptualized as one grouping. This population must be segmented by COVID and resilience issues to get a better perspective. The most important element to understanding is the development of distinct groups that have an experiential base. The groups identified were:

Impaired Illness to Death

Bad

Mild to Little or No Effect

No problem

These groupings must be viewed in the context of the individual having the virus and the family and/or social group that directly surrounds the affected individual. This part of the study was examined from a general perspective. The other components of this research project were from a travel and tourism viewpoint. In order to obtain a perspective about resilience, this part of the study had to be generalized because the data source did not exist for just travel and tourism.

METHODS

The method section is in two parts. The first part was a review of data sources, internet, and professional publications, to identify the various COVID categories that exist in terms of individuals who have had an experience with the virus. A Delphi approach was used with three content experts wrestling with the question of theoretical groupings when reviewing the selected content from the data sources. There was then a Focus Group approach that was used to discuss the conclusions from the individual review to finalize the groupings. The idea was to identify categories and some of the characteristics of each of the groups. Results were presented in a Reflection and Summary format. The second part was a theoretical examination of important variables that influence the groups and characteristics of each category as it related to the different components of resilience. The Delphi and Focus Group were also used in this section. There was not any hard data in the second part to review and the conclusions were a speculation based upon experience with the previous data that in the study.

RESULTS

Segmentation: COVID Groupings

Perspective

In the review process, data was studied from an individual and family/social group perspective. Family in this context meant primary blood relatives and social group is inner circle of friends. The items reviewed were medical, attitude, and resilience. These were the significant data categories identified during the review process. The four groups isolated were Impaired Illness to Death, Bad, Mild to Little Effect, and No Problem.

1. Impaired Illness to Death

Example Resources

<https://abcnews.go.com/US/wrecked-lives-families-young-adults-died-covid-19/story?id=74148061>

https://ccp.jhu.edu/2022/02/23/child-mortality-lockdowns-pandemic-covid19/?gclid=EA1aIQobChMIiIfRiczu9gIVBRPUAR1ZTQfIEAMYASAAEgLYxvD_BwE

https://ccp.jhu.edu/2022/02/23/child-mortality-lockdowns-pandemic-covid19/?gclid=EA1aIQobChMI_tT52c7u9gIVXgytBh2KXwXMEAYASAAEgLnrfD_BwE

https://fortune.com/2022/02/01/widows-coronavirus-social-security-benefits/?queryly=related_article

<https://khn.org/news/300000-lives-lost-covid-pandemic-families-grieve-doctors-nurses-tell-stories/>

<https://people.com/tag/lost-to-covid-19/>

https://usafacts.org/articles/top-causes-death-united-states-heart-disease-cancer-and-covid-19/?utm_source=google&utm_medium=cpc&utm_campaign=ND-COVID&gclid=EAiaIQobChMI_tT52c7u9gIVXgytBh2KXwXMEAMYASAAEgKxEvD_BwE

<https://www.cbsnews.com/news/covid-19-deaths-families-60-minutes-2021-07-18/>

<https://www.cnn.com/2021/06/20/health/supernatural-encounters-pandemic-loved-ones-blake/index.html>

<https://www.mprnews.org/health/covid-19/parting-thoughts-minnesota-coronavirus-deaths>

<https://www.nbcnews.com/news/obituaries/coronavirus-deaths-60-stories-victims-around-country-n1194396>

<https://www.npr.org/2021/08/14/1026366979/have-you-lost-someone-to-covid-19-we-want-to-share-their-story>

<https://www.npr.org/2021/08/14/1026366979/have-you-lost-someone-to-covid-19-we-want-to-share-their-story>

<https://www.nytimes.com/2020/04/01/obituaries/coronavirus-victims.html>

<https://www.nytimes.com/2020/04/01/obituaries/coronavirus-victims.html>

<https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2022/01/10/kids-who-lost-parents-to-covid-deserve-help-advocates-say>

<https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2022/01/10/kids-who-lost-parents-to-covid-deserve-help-advocates-say>

<https://www.thecity.nyc/2021/1/17/22235947/watch-new-yorkers-share-stories-of-those-lost-to-covid-19>

<https://www.wxii12.com/article/more-young-people-among-those-lost-as-covid-19-deaths-rise-again/37310127>

<https://www.yahoo.com/video/new-yorkers-remember-loved-ones-lost-to-covid-19-i-wasnt-able-to-be-there-when-she-needed-me-the-most-213722791.html>

Reflection

This was the easiest group to classify but there were two different issues: one was where there was death and the other was where there was impaired illness. The issue of the death obviously was the concern, but the primary issue was how family and friends dealt with the passing and the potential influence of COVID upon them.

When the medical component for death was examined, the primary subject with the family was obviously extreme sadness because of their loss. There was fear about the possibility of other family members dying. The sadness and fear directly was influenced by the number of deaths in the family.

If there was an impaired illness, there was joy that there was no death and a concern about how long recovery would be needed to achieve functionally in their life, if possible because there may be permanent disability and this would require adjustment. There was also worry about the impact of permanent disability and how the family and friends would handle this problem.

The medical condition and attitude overlapped. A common attitude was sadness to defeatism, depression, and joy depending upon the degree of the illness. In this category, there was a great psychological adjustment from the normal life that the individual knew in the recent past. This took a great adaptation and was very difficult. In many instances, there was not any type of adjustment and this negative condition caused by COVID continued through the present into the future. A significant amount of assistance may be needed to help impaired individuals achieve a degree of normalcy given their experiences.

In this category, resilience was difficult to assess. After the COVID experience, resilience was low to nonexistent. There was no way to accurately determine the level of resilience, before COVID. The only relevant issue was that because of the negative experience with the virus, resilience was indeed destroyed. This begs the question of how to establish a strong challenge to conditions that exist or how to restore resilience once an individual has a very negative experience based upon environmental conditions. The critical factor was the impact upon lives in the present and in the future because of the devastating effect of the disease. There is not a natural process to the restoration of resilience. Some form of intervention will be needed to bring

back some degree of normalcy. There is not an exact definition for normalcy other than a comparison upon an personal basis of where an individual was before the experience. Normalcy in this case is defined as returning to a similar life style before the COVID experience. There are obviously individuals who have adjustment mechanisms that allow them to achieve positive opposition through time, but there are others who do not have such adjustment methods and need significant assistance. An important question is for those that do have strong adjustment procedures how did they develop and how can these processes be established in those that do not have such mechanisms.

Summary

Medical

Death

Family and Friends- fear/cautious/anxious /depends upon the number of deaths

Overcome

Impaired Illness-temporary/joy at recovery/inpatient about time to get back to normal

-permanent disability/adjustment

Attitude

Sad to Defeatism

Depression

Joy

Resilience

Low to nonexistent

2. Bad

Example Resources

<https://abc11.com/covid-19-bills-treatment-costs-hospital-martin-taylor/10932580/>

https://activ6study.org/?utm_source=googlesearch&utm_medium=click&utm_campaign=activ6googlesearch

<https://casereports.bmj.com/content/14/3/e239631>

<https://consumer.healthday.com/1-26-survivors-of-severe-covid-face-higher-odds-for-another-hospitalization-soon-after-2656440539.html>

<https://coronavirus-stories-of-loss-and-recovery-giscorps.hub.arcgis.com/>

<https://khn.org/news/article/hospital-acquired-covid-nosocomial-cases-data-analysis/>

<https://kutv.com/news/coronavirus/i-was-so-close-to-death-says-utah-woman-still-recovering-from-covid-19>

<https://labblog.uofmhealth.org/rounds/first-10-days-after-leaving-hospital-carry-high-risk-for-covid-19-patients>

<https://labblog.uofmhealth.org/rounds/life-after-covid-19-hospitalization-major-lasting-effects-on-health-work-and-more>

<https://www.acpjournals.org/doi/full/10.7326/M20-5206>

<https://www.baltimoresun.com/coronavirus/bs-md-johns-hopkins-maria-young-ecmo-covid-20211012-7v5divanp5gpjoqg6xgocqyhzi-story.html>

<https://www.baystatehealth.org/patients/stories/covid/anthony-damato>

<https://www.cbs7.com/2021/12/28/father-3-narrowly-survives-covid-19-has-extended-hospital-stay-coma-during-vacation/>

<https://www.cdc.gov/nchs/covid19/nhcs/hospital-mortality-by-week.htm>

<https://www.dallasnews.com/news/2022/03/09/why-was-i-the-one-chosen-to-survive-plano-dad-recovering-after-197-day-covid-19-hospitalization/>

<https://www.denverpost.com/2021/12/02/denver-covid-patient-swedish-medical-center/>

<https://www.deseret.com/utah/2021/9/2/22654517/utah-coronavirus-pandemic-after-223-excruciating-days-in-the-hospital-this-covid-19-survivor-returns>

<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/coronavirus-recovery-after-a-hospital-stay>

<https://www.nbcnews.com/news/us-news/67-year-old-woman-survives-covid-19-after-196-days-n1243769>

<https://www.news-leader.com/story/news/local/ozarks/2022/02/13/springfield-woman-hospital-108-days-covid-19-credits-ecmo-device/6736036001/>

<https://www.nm.org/healthbeat/covid-19/emotional-health-covid-19/what-happens-after-you-survive-COVID-19>

<https://www.nuffieldtrust.org.uk/resource/chart-of-the-week-how-long-do-covid-19-patients-spend-in-hospital>

<https://www.nytimes.com/2020/10/08/well/live/covid-19-hospital-rehabilitation.html>

<https://www.pennmedicine.org/news/news-blog/2021/august/supporting-long-haul-covid19-survivors-who-struggle-with-symptoms-months-after-leaving-the-hospital>

<https://www.sciencedirect.com/science/article/pii/S1201971221007268>

<https://www.statnews.com/2020/11/23/hospitalized-covid-19-patients-surviving-at-higher-rates-but-surge-could-roll-back-gains/>

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01755-4/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01755-4/fulltext)

<https://www.today.com/health/man-survives-62-days-hospital-coronavirus-gets-1-1-million-t184348>

https://www.usglc.org/coronavirus/?gclid=EAIAIqObChMI_tT52c7u9gIVXgytBh2KXwXMEA_MYAyAAEgK0v_D_BwE

<https://www.usnews.com/news/health-news/articles/2022-01-26/survivors-of-severe-covid-face-higher-odds-for-another-hospitalization-soon-after>

<https://www.washingtonpost.com/health/2021/11/12/covid-icu-intensive-care-syndrome/>

<https://www.wbaltv.com/article/covid-19-medical-bills/36588017>

https://www.who.int/emergencies/diseases/novel-coronavirus-2019/media-resources/science-in-5/episode-47---post-covid-19-condition?gclid=EAIaIQobChMI5KXH5cyA9wIVuT6tBh28zg6CEAMYAyAAEgISPvD_BwE

Reflection

An examination of the category involving individuals who had a bad case of COVID, indicated that there was a concern that the illness would turn worse. These individuals are the ones that were hospitalized or had to have intense care. There was an uncertainty that often depended upon the quality of the medical care received.

The medical assessment was the primary worry. Some of the individuals were quite impatient and the primary issue was the time for recovery. Others were more patient and understood the possibility of the worsening effect of the virus. Both groups had a degree of frustration and anxiety. The results were concerns about recovery time and return to normality, and eventually returning to work. There was a fear whether there was going to be any permanent damage from the disease. The overall position was relief because their outcomes were much less when compared to others illness.

The attitude again was very closely associated with medical condition. There was a certain degree of thankfulness for sustaining life. A complete understanding of what could have happened was a critical issue but the fate of recovery allowed the individual to maintain health. There was hope that the recovery would be complete and there would be a bright future. A certain amount of frustration was a concern because of the uncertainty of recovery and medical condition seriousness through time. There was a question about why such an illness happened to

me. The relief and thankfulness extended to family and friends because they could see the seriousness of the illness and its impact on others.

Resilience scores were better because there was hopefulness for recovery. This gave rise to a low to medium resilience score based upon an assurance that the patient would recover. There was also a gradient from medium to low. The reason for the nature of the score was a loss of confidence. This confidence was related to the uncertainty of the situation. The family and friends in this context was not certain of the outcomes related to long-term health. Again, there is no way of assessing the resilience level before the illness. There is a need for assistance programs, but unlike the first category there are some foundational elements on which to build. These foundational elements have a great deal to do with the possibility of recovery and the future. There are other foundational elements that are associated with relationships dealing with information sources. Trust in these sources is the key element.

Summary

Medical

Recovery/impatient/patient/concerned about time for recovery

Impatient/frustrated and anxiety.

Relief/thankfulness

Attitude

Sustain life to thankful/frustrated/hopeful/why happened to me

Impatient/frustration and anxiety.

Relief/thankfulness

Resilience

Hopeful-low to medium/sure will recover

Medium to Low

3. Mild to Little or No Effect and 4. No Problem

Example Resources for 3. Mild to Little or No Effect and 4. No Problem (Both three and four data sources were combined because it was difficult to segregate these two categories.)

https://cdcn.org/corona/?gclid=EAIAIQobChMI_tT52c7u9gIVXgytBh2KXwXMEAAAYBCAAEgIAofD_BwE

https://cdcn.org/corona/?gclid=EAIAIQobChMIwKHCpciS9wIVEQaICR3kjgR2EAAYBCAAEgJBqPD_BwE

https://hopenetwork.org/neuro-rehab/post-covid-rehab/?gclid=EAIAIQobChMIwKHCpciS9wIVEQaICR3kjgR2EAAYASAAEgJXK_D_BwE

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2776560>

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0257926>

<https://medlineplus.gov/ency/patientinstructions/000976.htm>

<https://newsroom.uw.edu/news/%E2%80%8BSeven-mild-cases-covid-19-impact-can-persist>

https://pandemicpatients.org/pandemic-pulse/?gclid=EAIaIQobChMIwKHCpciS9wIVEQaICR3kjgR2EAAyAAEgL6Y_D_BwE

https://usafacts.org/articles/category/coronavirus/?utm_source=google&utm_medium=cpc&utm_campaign=ND-COVID&gclid=EAIaIQobChMI2pWUr8aS9wIVBQutBh3K3gkzEAMYASAAEgJ4AvD_B

<https://weillcornell.org/news/covid-19-why-is-it-mild-for-some-deadly-for-others>

<https://www.cdc.gov/coronavirus/2019-ncov/long-term-effects/index.html>

<https://www.cidrap.umn.edu/news-perspective/2021/04/health-workers-report-long-covid-after-just-mild-illness>

<https://www.covid19treatmentguidelines.nih.gov/overview/clinical-spectrum/>

https://www.healthaffairs.org/covid-19-coronavirus-disease?campaignid=11972139484&adgroupid=115510564203&creative=489332832855&keyword=impact%20covid19&gclid=EAIaIQobChMIwKHCpciS9wIVEQaICR3kjgR2EAMYAiAAEgIUufD_BwE

<https://www.healthline.com/health-news/what-its-like-to-have-a-mild-covid-19-case>

<https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/covid-long-haulers-long-term-effects-of-covid19>

<https://www.medscape.com/viewarticle/950840>

<https://www.nbcnews.com/health/health-news/long-covid-even-mild-covid-linked-damage-brain-months-infection-rcna18959>

<https://www.nejm.org/doi/full/10.1056/nejmcp2009249>

<https://www.nejm.org/doi/full/10.1056/nejmcp2009249>

<https://www.nhs.uk/conditions/coronavirus-covid-19/long-term-effects-of-coronavirus-long-covid/>

<https://www.publichealth.columbia.edu/public-health-now/news/covid-19-pandemic-even-mild-disease-impacts-mental-health>

https://www.unwomen.org/en/news/stories/2021/7/faq-women-and-covid-19-in-india?gclid=EAIAIQobChMIwKHCpciS9wIVEQaICR3kjgR2EAAYAiAAEgKEy_D_BwE

<https://www.uptodate.com/contents/covid-19-clinical-features>

https://www.who.int/emergencies/diseases/novel-coronavirus-2019?adgroupsurvey={adgroupsurvey}&gclid=EAIAIQobChMI2pWUr8aS9wIVBQutBh3K3gkzEAMYAyAAEgJiJfD_BwE

<https://www.who.int/srilanka/news/detail/16-10-2021-post-covid-19-condition>

3. Mild to Little or No Effect

Reflection

Mild cases are those that do not require hospitalization and have been treated successfully by medication or another means at home. Their severity is very slight.

The medical aspect is that the symptoms have slowed the individual to the point of sickness and not being able to function normally. Their lifestyle has continued in a reduced form. There is frustration and anxiety about being sick and knowing that the illness could have been much worse. There is a reflection that they have taken the necessary precautions and know how to maintain their lifestyle. Some of these individuals have a false sense of security. They are relying on themselves and their knowledge, when in fact there are other reasons for the severity of the illness. In some cases, a healthy lifestyle may have influenced the severity of their illness. These types of medical questions are still being explored within the research of the medical community. Any conclusion such as this is far beyond the purview of this paper.

The attitudes again are very closely associated with the medical conditions. There is frustration about not being able to continue with their lifestyle. There does not seem to be a great anxiety associated with the realization of the severity of COVID in other people's lives. There is an attitude that the illness is not so bad. The philosophy was it is better that someone else is ill other than me. This is not true in all cases but there were some misunderstandings about the disease and its influence.

The interesting part of this category was the resilience. The resilience score run high. Some have a false sense that they are a Super Person that can resist most anything. I have survived other sicknesses and this is like any other. I have endured. Others feel that they are quite lucky that they have been able to have a less severe case of the virus. There is a great sense of humility among some of these individuals. Their resilience was based on circumstance or fate.

Summary

Medical

Slow down but continue with life style/frustrated

Know how to sustain lifestyle

Attitude

Impatient to get back to normal lifestyle

Frustrated because cannot perform

Happy not so bad/better someone else

Resilience

High

Can resist most anything

Superman

Survived

Lucky

4. No Problem

Reflection

Where there were no major problems with the COVID pandemic, there were no health issues. There were not even slight symptoms of infection. The medical reason for this and its discussion is far beyond this essay. The prevailing position was that this pandemic is just a bump in the road. The primary focus was the thinking about the future and recovery when the pandemic was over. It was seen as a barrier and the primary emphasis was ways of finding how to overcome the obstacles. There often was a position of thank God it was not me.

Attitude was very closely associated with the medical perspective. There was sadness because there had been a slowdown in life and a loss of many lifestyle benefits. There was frustration but not a great level of anxiety because they did not necessarily have direct contact with the devastation of the disease. There was a desire for the normal lifestyle. Ways were found to adapt, but they were not completely satisfactory. Thank God it was not me.

The resilience level was quite variable. There was no way to assess their resilience level before the pandemic, but it may be suggested that their resilience level is probably very similar but there is not any data to determine the level. The primary emphasis was: what is the problem? I have always recovered from sickness and this is no different. I am Super Person and not much affects me. This is a direct reflection of not having direct experience with the virus to understand the seriousness of the illness.

Summary

Medical

Just bump in road

Thank God not me

Thinking about future when pandemics over

Always find ways to overcome barriers

Attitude

Sad because have slowed down

What is the problem

Frustrated because things not normal

Thank God not me

Resilience

What is the problem

Super Person

Always recover/always overcome

COVID Groups: Important Variables

The following is a graphics chart of important variables isolated in relation to COVID segments identified. (The positions are not absolute, but only a relatively indicator of the majority of the data.) The variable dimensions identified were: sadness, hope, future, family position, miracle, help, attitude, experience with COVID, and overall resilience.

1 2 3 4
Sadness ----- Joy

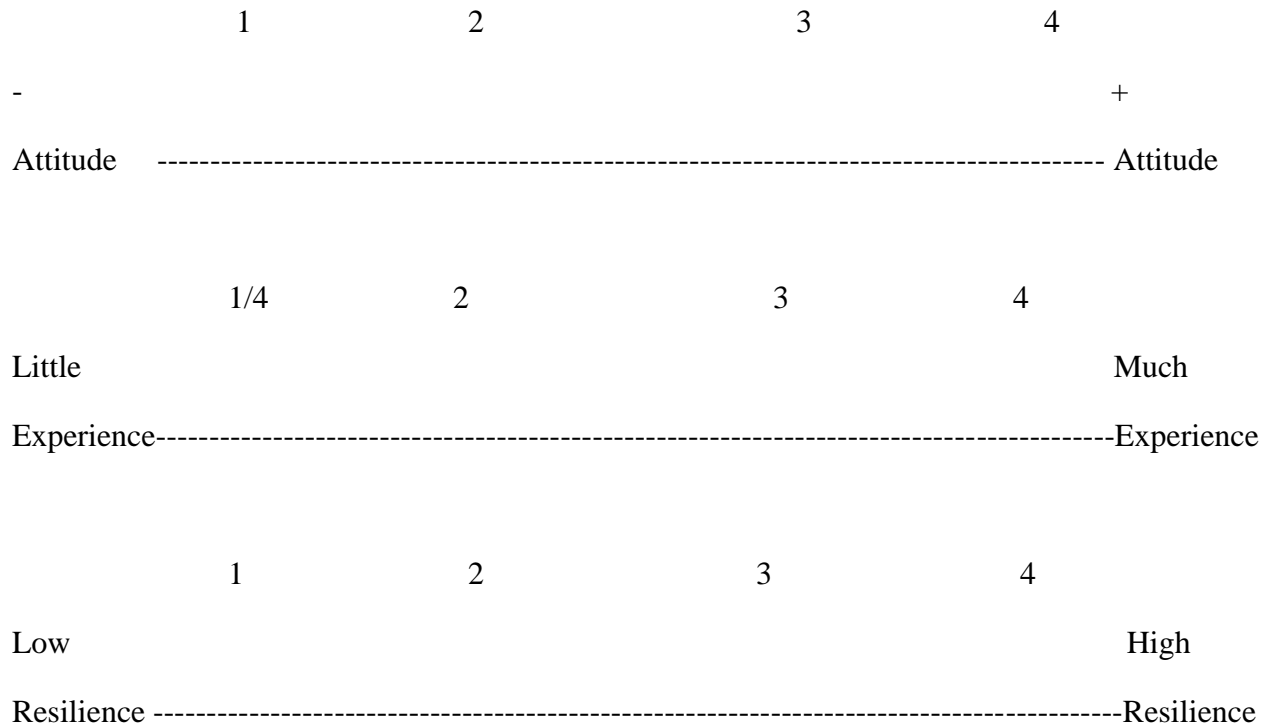
1 2 3 4
No
Hope ----- Hope

1 2 3 4
No
Future ----- Future

1 2 3 4
Family Family
Sad ----- Happy

1 2 3 1/2/4
No
Miracle ----- Miracle

1/2/4 2 3 1/2/4
No
Help ----- Help



It was clear that there was a consistent position in most of the elements identified.

There was a consistent evolutionary position among category 1 based upon negative positions: sadness, loss of hope, no future, family sadness, some miracles/mostly no miracles, a little amount of help sometimes and a significant amount of helps sometimes, negative attitudes, little experience with COVID sometimes and much experience with COVID sometimes, and low resilience.

Categories 2 and 3 occupied middle positions on the scales. Category 2 had miracles sometimes and no miracles sometimes and help sometimes.

Category 4 occupied the opposite extreme in terms of the evolution of Category 1, except in help and experience dimensions. There was help sometimes and no help sometimes and miracles sometimes.

One of the causal influences was the amount of experience associated with the virus. Those individuals that had sickness from COVID had a completely different perspective than those that were not as sick.

COVID Segments and their Relationship to Resilience Components

Part two was a review of components of resilience based upon four COVID categories identified, especially in relation to the travel and tourism industry. There was a spectrum from individuals who had very bad experiences, impaired health or death to those who had no problem. Obviously, the medical condition, attitude, and resilience were all based upon the individual's experience with COVID. The primary question is what were the primary dimensions identified from the previous research and how did the categories relate to the COVID dimensions identified. The dimensions identified in the research were: sadness, hope, future, family position, miracle, help, attitude, experience, and resilience. The focus of this section was analyzing the categories identified and relating the findings to a more detailed definition of resilience than the general concept used in part one.

There was not an empirical data base for this section and it is an assessment of the content experts regarding the four categories in relation to the detail definition of resilience. It must be recognized that this is an effort to better define COVID and develop a program base for strategic planning for the future for emergencies that will affect the travel and tourism industry. The resilience definitions were repeated for clarity.

Goal Directed

Category 4 would have a very high Goal Directed score because of the individuals having the medical problems and would be seeking a resolution. They would be very focused in making the best decision to solve this problem.

Category 3 would have a similar score based upon the same reason because the medical problem was very bad.

Category 2 and 1 would have a very low score because they are not focused upon COVID and their concern was primarily recovery. They are not concerned about the illness because it is not severe.



Goal Directed: This is a skill that is based upon vision to guide creative processes in seeking solutions. It requires decisiveness and confidence, especially in leading teams. Decisions are made based upon time constraints.

Avoidance

Category 4 would have a medium Avoidance score because the primary concern is not caution but finding a solution to the problem no matter what the level of risk. The solution has to be immediate because of the impact.

Category 3 would have a similar score but the urgency would be a little less because the illness was less severe.

Category 2 and 1 would have very low scores because their problem was not very serious and as a result their primary concern is reestablishing a lifestyle not problems and solutions.

4 3 2 1

High-----Low

Avoidance: Caution is used in approaching problems and solutions. Chaos should be avoided as it adds confusion and as a result increase the difficulty in decision-making. Individuals must show wisdom in approaching tools that are on hand to solve the problem.

Critical Understanding

Category 4 would have a medium Critical Understanding score. They would have some understanding of the tools for solution of the illness from medical advice because of the confusion about treatment.

Category 3 would have a slightly lower score than category 4. The reason for this would be that the seriousness of the illness of category 4. Information about treatment was still sketchy with those who were hospitalized but not in danger of immediate death or impaired illness.

Category 2 and 1 would have the lowest scores because the mildness of the virus. There was still among these groups a concern about treatment to restore their lifestyle. There was even more confusion among treatment with slight cases of illness.

4 3 2 1

High-----Low

Critical Understanding: The effective use of information based upon a comprehensive understanding of the tools for solution and how they apply to the current crisis. This involves manipulation of system elements and the sharing of information to solve the problem.

Role Dependence

Category 4 would have a medium Role Dependence score because the primary concern was not caution but finding a solution to the problem no matter what the level of risk. The solution has to be immediate because of the impact.

Category 3 would have a similar score but the urgency would be a little less because the illness was less severe.

Category 2 and 1 would have very low scores because their problem was not very serious and as a result their primary concern is reestablishing a lifestyle not problems and solutions.



Role Dependence: This involves how the system structure and personnel fits together to solve problems. It is based upon team functions and understanding how to solve the problem based upon human resource skills to use the tools to solve problems.

Information Sources

Category 4 would have a medium Information Sources score. They had some understanding of the tools for solution of the illness from medical advice. There was confusion about treatment which caused problems.

Category 3 would have a slightly lower score than category 4. The reason for this was that the seriousness of the illness of category 4. Information about treatment was still sketchy with those who were hospitalized but not in danger of immediate death or impaired illness.

Category 2 and 1 would have the lowest scores because the mildness of the virus. There still was among these groups concern about treatment to restore their lifestyle. There was even more confusion among treatment with slight cases of illness.

4 3 2 1
High-----Low

Information Sources: A multiplex of information resources are needed to gain understanding. It is the understanding of these information sources and being able to use them to conceptualize solutions. This provides perspective and it is important to have the conviction to act on the solutions identified. The basic thread of this dimension is the ability to seek truth from the sources provided.

Resource Access

Category 4 would have high Resource Access score because of the individuals having the medical problems and would be seeking a resolution to their problem. They were very focused in making the best decision to solve this problem.

Category 3 would have a similar score based upon the same reason because the medical problem was very bad.

Category 2 and 1 would have a very low score because they are not focused upon COVID and their concern was primarily recovery. They were not so concerned about the illness because it is not as severe.

4 3 2 1

High-----Low

Resource Access: This is the ability to know what resources are needed and to develop the necessary relationships to access the resources needed to solve the problem. This may involve an element of risk because many traditional resources will not allow them to be retrieved and the individual must have the necessary resolve to access the resources anyway.

IMPLICATIONS

In the initial phase of the pandemic, there was great confusion and the direct result was a change in the resilience of the population. The populations had different resilience positions based upon their medical response to the virus. It would be difficult to assess the resilience prior to the pandemic, but there are ways to mediate resilience in Phase 1. The pandemic was politicized which caused a very difficult environment to develop. This essay was not to examine this political effect on the pandemic, but it is to point out the differences in resilience based upon a segmented population. What is needed is procedures that could be used for such pandemic crises in the future. This long-range planning method must be in place to reduce the pain and impact that this type of pandemic has upon different societies and populations both nationally and internationally.