

## **INTERDISCIPLINARY RESEARCH: A WAY TO TACKLE IMPACT OF CORONA PANDEMIC**

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### **ABSTRACT**

The corona pandemic has impacted every aspect of human life. It has impacted people on a social, cultural, religious, political, economic, physical, and psychological level. Vaccine research organisations globally are working hard to prepare more and more vaccinations that will help people. Many health institutes are providing medical care to those impacted by the corona. This pandemic poses a threat to everyone. The goal of this work is to emphasise the need of interdisciplinary research during corona pandemics. The current study was conducted using secondary data. The research was purely theoretical. The results of this research depicts that interdisciplinary research is negligible during this pandemic. Medical field is focus point of all in the research view point. Definitely this small attempt will attract the Governments, funding agencies, researchers and specialists from different fields to share a common platform to cope with the corona pandemic. Coronavirus is not just an issue of clinical science yet in addition a significant issue for different specialists like social researchers, financial experts, technologists, psychiatrics, analysts, sociologists, strategy creators, lawmakers and heads and so on. It is essential to put forth aggregate attempts to manage this pandemic. Interdisciplinary research is probably the most ideal ways to address all the affected aspects with this pandemic.

**Keywords:** Corona Pandemic, Need, Interdisciplinary Research, Diverse Fields, Challenge

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### **1 INTRODUCTION**

On 31<sup>st</sup> December 2019, China told the World Health Organization regarding a group of instances of pneumonia of an obscure reason in Wuhan City in Hubei area. On 9<sup>th</sup> January, 2020, the World Health Organisation made an announcement that “Chinese researchers have

made “preliminary determination” of the virus as a novel coronavirus. Since then, crores of people have been affected and lakhs of people have lost their lives due to the COVID-19 infection till date and the process is still continuing. Crores of people have also lost their employment throughout the world. According to the World Health Organisation as on 20<sup>th</sup> October, 2021 globally 241,411,380 numbers of corona positive cases have been detected and 4,912,112 people have lost their lives. As on 18<sup>th</sup> October 2021 total 6,545,309,084 doses of vaccine have been administered throughout the world. WHO region wise data shows that Americas regions reported 92,399,661 positive cases and 2,266,491 deaths, Europe region reported 73,921,143 positive cases and 1,388,047 deaths, South-Eastern Asia region reported 43,664,119 positive cases and 685,654 deaths, Eastern Mediterranean region reported 16,166,305 positive cases and 297,411 deaths, Western Pacific region reported 9,140,020 positive cases and 125,113 deaths and Africa reported 6,119,368 positive cases and 149,383 deaths (as on 20<sup>th</sup> October 2021). Country wise United States of America is at top in the world with 44,771,558 positive cases and 722,690 deaths followed by India with 34,108,996 positive cases and 452,651 deaths, Brazil with 21,651,910 positive cases and 603,465 deaths, The United Kingdom with 8,541,196 positive cases and 138,852 deaths and Russian Federation with 8,094,825 positive cases and 226,353 deaths (<https://covid19.who.int/table>).

Lockdowns, curfews, huge screenings, testing, isolation, and social distancing face cover/mask wearing have become compulsory norms over the globe to protect the people from corona infection. Now most of the countries of the world are moving towards unlock with some restrictions. The Medical Research institutions throughout the world are still busy to prepare more and more vaccines to provide relief to the people. COVID-19 is a biggest threat to human survival. The purpose of this study is to draw the attention of the researchers on the need of interdisciplinary research during corona pandemic crises. Only Secondary data was consulted to conduct the present study. Secondary data was collected through online websites, as the offline libraries are still closed due to the corona pandemic. The study is theoretical in nature. According to the Institute of Medicine, Washington DC, “Interdisciplinary research (IDR) is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice”.

“We are not students of some subject matter, but students of problems. And problems may cut right across the boundaries of any subject matter or discipline. This statement has gotten progressively applicable. Today, many of the phenomena and problems that we are attempting to comprehend and explain to be sure 'cut across' the conventional limits of academic disciplines. Present day innovative turns of events and globalization add to the multifaceted nature of problems issues and, accordingly, we are turning out to be progressively mindful that a coordinated methodology is necessary”, (Popper. 1963:88). The study is important in the manner that mankind has lost several things during corona pandemic. Health sector is actively conducting and other fields are neglected in this regard. Funds are only being invested in the field of medical science. For the first time in the world, such a terrible epidemic has occurred and the COVID-19 pandemic has provided an opportunity to experts and researchers from all fields to come on a single platform to address this complex problem. In the present paper need of interdisciplinary research has been highlighted.

## 2 LITERATURE REVIEW

Youngblood, D. (2007) conducted a study entitled “Interdisciplinary Studies and the Bridging Disciplines: A Matter of Process”. In this paper the author has explored interdisciplinary features of two bridging disciplines that is, geography and anthropology, to see what the "interdisciplinary studies" initiative, which is still relatively new, may learn from the lengthy history. It examines the fallacy of the nomothetic claim, as well as the fruitful generation of solutions, by focusing on process (methodology) rather than domain (academic turf) as the important factor to interdisciplinary success. Noticing the importance of interdisciplinary approaches and following the requirements of that need enriches both the disciplines and interdisciplinary research, while claiming interdisciplinarity is proved to be ineffective.

Bridle, H. et al. (2013) conducted a study on “Preparing for an Interdisciplinary Future: A Perspective from early-career researchers”. The researchers in this study analyse the approach to fostering the skills required for successful cross-disciplinary collaboration from the perspective of an interdisciplinary group of early-career researchers. The study was drawn from a four-day workshop. The workshop was organised in Europe by European Science Foundation. The theme of the workshop was “Water: Unite and Divide, Interdisciplinary approach for a

Sustainable Future for early career researchers”. In this workshop 34 early career researchers were participated. The researchers came to the conclusion that interdisciplinary encounters are an excellent way to assist the development of future interdisciplinary researchers, with open communication being a major benefit of this method. We distinguish between "cultivation" and "development" encounters depending on the goal of the organiser. Among the many aspects that contribute to effective multidisciplinary interactions, we discovered that the theme, participants, and location must all be customised to the encounter's specific goals. The researchers suggest that funding bodies and other members of the research community take note of the success of encounters in fostering interdisciplinarity and creating space for more innovative and high-impact research that provides solutions to humanity's future concerns.

Tabi, H. and Kampen, J. K., (2017) presented some methods for interdisciplinary research framework. The researchers have mentioned research as a process of methodology, the conceptual design, the technical design, integration and scientific quality and ethical consideration in the design of interdisciplinary research as the main forms of methods for interdisciplinary research framework. The researchers mentioned that the importance of methods for interdisciplinary research framework lies in the difficulty and multifarious nature of issues.

Carr, G. et al. (2018) studied on “Gaining insights into interdisciplinary research and education programme: A framework for evaluation”. The study is based on qualitative and quantitative data. On the basis of social learning process, social capital outcomes and knowledge, a programme evaluation framework has been highlighted in the study. The framework was drawn on the basis of case study of Vienna Doctoral Programme on Water Resource System at Vienna University of Technology. The study revealed that social learning processes and social capital outcomes uphold new interdisciplinary research outcomes. Therefore these are important features to continue in interdisciplinary programme management. The researchers concluded that “different aspects of individual learning seem to contribute to a researcher's ability to interact with researchers from other research fields and work collaboratively. These include learning new material from different research fields, learning how to learn new material and learning how to integrate different material.”

Hoidn, S. (2018), conducted a study on “Conducting Interdisciplinary Research in Higher Education: Epistemological Styles, Evaluative Cultures and Institutional Obstacles”. The researcher in this study looked at interdisciplinary research in higher education and the

various perspectives that researchers in the social sciences (e.g., education, sociology, and economics) have on how information is produced, integrated, and evaluated. The barriers to interdisciplinary study that exist within many higher education institutions' existing departmentalized frameworks have been explored. The research explained the epistemology style of producing knowledge, process of interdisciplinary knowledge integration and evaluative cultures. In this research paper infrastructure, administrative barriers, institutional policies, funding mechanism, academic reward structure, disciplinary culture, etc. have been highlighted as main obstacles for conducting of interdisciplinary research. Creating of sustaining interdisciplinary inquiry culture is focus point of implication of interdisciplinary research.

### **3 IDENTIFICATION OF RESEARCH GAP**

The reviewed literature depicts that with the passage of time the concept of crossing research boundaries has developed interdisciplinary research approach among the researchers. There is enough literature on the topic interdisciplinary research. COVID-19 has provided new space to researchers in all fields. In this paper researcher has made an attempt to contribute a small literature related to corona pandemic. In this regard many articles, research papers and published reports related to corona pandemic were consulted. It has been concluded from the review of literature that there is no mention of interdisciplinary research and interdisciplinary research is very much needed during this epidemic, as the hit of this pandemic is at large scale. Need of the hour is to address all the aspects of this problem from a common platform. This is possible through interdisciplinary research. This research is mere an idea.

#### **3.1 Problem Selection**

The present study is focused on the need of interdisciplinary research during corona pandemic. The present problem was selected for the study because COVID-19 has hit not only health but also other aspects of human life. Research is continued to find the corona vaccines throughout the world. Rest of the corona affected aspects are not getting more attention of the policy makers. There is a need research collaboration on this specific problem.

### **3.2 Importance of Present Study**

Interdisciplinary research is an important aspect in the current pandemic scenario. The corona virus is a complex problem not only for medical science but also for others throughout the world. This is not a problem of a specific country, region or field. Corona pandemic requires collaboration of scholars or experts from various fields, so that the problem can be addressed through a common platform of researchers or experts. It requires shift from medical science to interdisciplinary approach. But we cannot deny the role of medical science before, during and after corona pandemic.

### **3.3 Objectives of the Study**

1. To highlight the importance of interdisciplinary research on the COVID-19 pandemic.
2. To initiate a new debate among scholars and policy makers on the need of interdisciplinary research especially on this specific problem.
3. To provide an idea to the scholars regarding conducting of interdisciplinary research.
4. To draw the attention of the researchers and policy makers to conduct an interdisciplinary policy research on COVID-19, at large scale.
5. To inspire the future researchers towards the interdisciplinary researches.

### **3.4 Research Question**

Main focus of this paper is to highlight the need of interdisciplinary research during corona pandemic. Corona pandemic has given an opportunity to the researchers to move forward with the interdisciplinary research. After going through some literature some of the questions were answered. These are:

1. Only medical science is getting attention in research point of view throughout the world.
2. Researches others than medical science fields have not been conducted at large.
3. Only small level researches have been conducted in other fields.
4. Policy initiatives to conduct the interdisciplinary research are nowhere.

### **3.5 Data Collection**

The study was based on secondary data. Previous studies were consulted through online mode. Offline mode of the secondary data collection is not accessible due to the corona pandemic.

### **3.6 Limitations of the Study**

Humans have been entirely affected by the corona pandemic. It is not possible to perform a comprehensive literature review due to the study's short timeframe. Only online literature was used in this study. Because offline libraries were closed owing to COVID-19, no offline literature was consulted.

## **4 RESULTS AND DISCUSSION**

Okamura stated that “Addressing many of the world’s contemporary challenges requires a multifaceted and integrated approach, and interdisciplinary research has become increasingly central to both academic interest and government science policies. Although higher interdisciplinarity is then often assumed to be associated with higher research impact, there has been little solid scientific evidence supporting this assumption”. From the review of literature, it was found that policy research related to corona pandemic is negligible. No doubt researchers are doing researches at their own level in other fields also, but these fields are being neglected in the view point of policy research. Medical science is getting more attention and huge funds for research on COVID-19. Others fields are not getting attention of the funding agencies to conduct the research. This is very important to conduct an interdisciplinary research at wider level to address this pandemic from a common platform. Corona pandemic has affected every aspect of our lives. No doubt health is an important aspect, but after getting recovered from health aspect what we will get back? This is the main question. Can those people get their jobs that have lost their jobs during this pandemic? Can we revive easily in other spheres of our lives like psychologically, socially, politically, financially, culturally, etc.? The pandemic has given a chance to the researchers to rethink. There is a need to shift research paradigm from traditional research to interdisciplinary research.

## **5 CONCLUSION**

Coronavirus is not just an issue of clinical science yet in addition a significant issue for different specialists like social researchers, financial experts, technologists, psychiatrics, analysts, sociologists, strategy creators, lawmakers and heads and so on. It is essential to put forth aggregate attempts to manage this pandemic. For this, interdisciplinary exploration is probably the most ideal ways. Interdisciplinary research is equipped for crossing over

customary splits among disciplines and furthermore joins research greatness with applicable effect. Interdisciplinary research ought to be taken as strategy research. Nature of interdisciplinary research structure gives ground breaking thoughts/areas of research yet additionally gives adaptability and more extensive prospects to conventional controls. This paper will liable to move scientists and strategy producers for additional interdisciplinary research on corona pandemic. Interdisciplinary research will cover the broad interest of the society.

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