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Analyzing the Capacities of Colleges of Balochistan to Address the Disasters: A Case Study of Covid-19

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Abstract

Balochistan is vulnerable to disasters. Its vastness and poverty makes it a hunting ground for floods, famines, earthquakes, heavy snowfall and pandemics. As a sufferer the educational institutions have no other option but to close their activities in times of disasters unless the calamity has incurred. This situation causes unfathomable loss to the students of public colleges and to the overall educational activities of institutions. This study would unfold the capacities of the public colleges to address the disasters along with highlighting the role of disaster-related departments during the pandemic covid-19. Based on the applied model of Quazi Arefin Rezoane, this study employs a conceptual framework which identifies the factors measuring the capacities of the colleges to address the disaster. Qualitative in nature, this study uses in-depth interviews for first hand data collection. In-depth interviews are conducted across Balochistan province. There are 122 functional colleges exists in Balochistan. Random sampling is employed for the sake of reliability and validity. Out of the 30 selected samples, data was collected from 26 samples in shape of recorded and written interviews. From the remaining four, inspite of repeated efforts, 3 samples could not be obtained, while one provided the data when the data analysis had been done. For analysis of the study, vivo coding has been used. The resulting numerical data is analyzed through "stata software". It is vividly observed that colleges possess no mechanism and capacity of their own to confront the challenge of any disaster. Content analysis depicts that there is a guideline mechanism of cooperation and coordination among the departments and in between the public and private organizations, however, in practical, no effort has been done in ensuring these guidelines, even the heads of the colleges are largely unaware of such policies. Besides the fact that preparedness planning, responsiveness and awareness regarding disasters are aims of disaster management policy, the study has found no evidence that this policy has implemented to its least version. This study also reveals the poor condition of inter-department cooperation at the time of disaster, still intra-departmental coordination has found explicitly. The role of non-governmental organizations was also negligible. The need of trainings, resources, cooperation, coordination and social awareness are assuredly observed.

Keywords: *Covid-19, Disaster, Colleges, Study, Case.*

Introduction

Disasters are not novel to the soil of Balochistan. The impact of Covid-19 has not dissipated yet another calamity in the form of flood has arrived. The Pandemic (Covid-19) affected all the educational institutions globally in various forms and degrees (Burgess & Sievertsen, 2020). All around the world, closing schools and colleges severed the routine education. But the massive shock hit those areas severely, where alternative systems of accessing education were unreachable to common people (Schleicher, 2020). Though the Government of Pakistan –with consensus of all provinces– commenced online education system, but it

could not benefit those areas where internet facility is unavailable or hard to access. Unfortunately, the major portion of the province of Balochistan comes under this domain. Students who are the permanent residents of Quetta have internet facility, but most students who lived in far flung areas, and had only traveled to Quetta when necessary for acquiring education; have not an access to internet. Resultantly, they suffered a lot in absence of a mentor and technology.

For multiple reasons, the government has decided to promote the students without assessment (on the behalf of their previous performance), but it doesn't filled the impacts on academic performances caused by the circumstances. Notably, with many short-term effects of this situation, multiple long-term effects are also likely to be expected. For instance, the lock down situation with massive uncertainty remains for more than a year. In this period, the students- who have accessed all the resources for continuing studies- have surpassed all those who don't. It is likely to be expected that it widens the inequality in grades and in the future admissions in prestigious institutions. It also likely to reflect in the acquisition of job in their near future. Dimensionally, it not only harmed the process of learning knowledge but also the benefits of exposure and the development of skills (Marinoni, 2020).

Research Significance

Studying the influence of Pandemic that has disturbed the overall educational scenario has worth for future challenges (Schleicher, 2020). Since there is no adequate arrangement for calculating the impacts of this pandemic over education, individual efforts means a lot (Marinoni, 2020). It is noticeable that at all the levels of education (primary, secondary, higher secondary, graduation and post-graduation and in schools, colleges universities and at other institutions of education in Balochistan, very insignificant work has been done to explore the aftermaths of pandemic (covid-19). Additionally, this work has also applications at professional levels whereby recruitment has projected on the basis of academics. It is also useful for the institutions giving admissions to the pupil whose studies have been disturbed or altered during pandemic days. The teaching facility can also get a factual analysis to understand the situation and to know the problems of their students with respect to their academic performance.

Problem Statement

Balochistan is prone to disasters. Earthquakes, floods, pandemics and epidemics are frequent and deadly. Population pockets are miles apart while resources are scarce. In these circumstances, one hundred and forty seven colleges of Baluchistan offers a natural shelter home to the residents of Balochistan. The impact of the disasters varies from place to place and from time to time but increase in institutional capacity may accelerate the performance of the colleges against disasters. The colleges can not only assist in mitigating the effects of the disasters but also they can play a significant role in raising the awareness regarding disasters. The last 3 years have witnessed the grave repercussions of covid-19 for students in educational institutions in the form of poor academic knowledge and lower academic performance. There may be a need of taking immediate steps for increasing the institutional capacities of the colleges to confront any future challenge. Taking in view of the importance of public colleges as a community center and as a center for preparing the educated youth, it is of immense importance to find out the factors that may increase the institutional capacities of the college. It is also important to know the hindrances and difficulties faced by the college during the lockdown period. Further, it is of notable significance to learn the actual role of the departments concerned with the disasters. This paper is contrived to find out the capacities of colleges of Balochistan to address the impact of the disasters over their activities.

Literature Review

1.6 billion Learners of 200 countries that are 94% of the global students felt the impact of Covid-19 during the year 2020 (Pokhrel, S., & Chhetri, R. 2021). Throughout the world, Education system has effected

badly. Fields that is accessible to public, such as education and health suffered a lot, not because of the paucity of resources or alternatives but because of its access to common masses (Tarkar, P. 2020). The issue was multiple folds in the countries and societies which are far behind in technology and development as the result of the closure of the institutions. The institutions not only work on enhancing the knowledge capability, but also it raises social awareness and social skills along with a fruitful environment. Absence of the institutions for a year around poses a massive negative impact over the growth of certain necessary skills that are being the part of their curriculum. Structure of Learning in such circumstances comes under the shadow of ambiguity (Pokhrel, S., & Chhetri, R. 2021). Teachers altered their teaching methodologies time and again but since these methodologies have their own short-comings, therefore results in very insignificant productive rate. Parents were also in a very confused situation as they were not compatible with the new online learning situation. Notably, only few high class private institutions offered e-learning as an alternative mode of learning successfully. More than 80% of the institutions (Government and Low-income Private) hadn't had such facility (Tarkar, P. 2020).

A few upsetting issues of equity emerge. Web based mastering needs hardware and specialized abilities, yet not every person has PCs, reliable access or specialized abilities. The 'advanced splits' among rich and poor, white and dark, metropolitan and rustic, unexpectedly have more significance. With schools and libraries shut, the imbalance of assets turns out to be more significant. Numerous learners don't have a home equipped with books; concentrate on spaces, or instructive skills (Connell, R. 2020).

The plethora of alternatives for online learning

To enhance the domain of online learning, online teaching strategy was opted along with open source learning websites and channels. Another huge difficulty and uncertainty was faced by the international students who were stuck abroad due to the closure of flights and tough immigration rules. Another setback was the reduction of employment opportunities that pose a serious threat to the young graduates who had faced a serious problem of employment along with the covid-19. For those Parents and Guardians who live in far flung areas or those who are unaware of the use of technology, access to the online learning was a great challenge (Tarkar, P. 2020). In addition, there are certain limitations found frequently in online system; such as accessibility, practical work, quality assessment, etc. Online education is regarded as the most feasible methodology to continue the education, but it holds earnest repercussions in multiple ways (Tarkar, P. 2020). Individuality of each subject while referring to the online/digital learning couldn't be ignored. Similarly, not a single methodology could be applicable to all individuals of varying age and ability. (Doucet et al., 2020).

On one hand, where the online learning put challenges in front of the usual schooling; on the other hand the same digital learning offers more opportunities to the physically challenged learners, that requires more comprehensive learning opportunities with less or no physical movement. (Basilaia & Kvavadze, 2020). Many learners who have insufficient resources or are unaware of the use of digital learning equipments have faced much emotional and psychological distress. They have often found themselves in a very puzzling situation. The best method of offering the digital learning is yet to be explored. (Petrie, 2020).

The need of ICT as an alternative

In fact the use of ICT (Information and Communication Technology), on which the entire system of digital learning is based, needs expertise and practice, not only for the educators, but for the learners as well. (Doucet et al., 2020). Many significant tools were used in this regard, such as Microsoft teams, home classrooms, Google classrooms, video meetings and timing schedules. These materials were further supported by Microsoft programs (word, excel, power point), PDFs, and with audio visual aids (Petrie, 2020). Another method of "flipped classrooms" were also considered as a successful strategy for the learners, in which the learning material (in form of articles, links, videos, files, and audios) had given to the class and then the discussion session were introduced for understanding of the concepts (Pokhrel, S., &

Chhetri, R. 2021). The Transition-from face to face learning to online learning- was an imposition for which the education system of many countries had not prepared. With little or no alternatives, the education system had tried to opt this system of learning with ambiguities, precariousness and uncertainty (Pokhrel, S., & Chhetri, R. 2021).

The Role of the Teacher

Staff and learners must be skilled and sure about both: academic and specialized parts of instructing and learning on the web i.e. through internet (Turnbull, D., Chugh, R., & Luck, J. 2021). Educators' work has changed even without significant change in educational plans. Where instructing has moved out of nowhere on the web, an entire pontoon of abilities and practices must be mastered, new readiness are evolved with new types of evaluation created. New authoritative requests are a significant piece of the heap. Jobs jumped up in the beginning phases and it's improbable they have settled at this point. As schools re-open a ton of work must be finished to get things running once more, and where a few students don't speedily return, both face to face and distance training must be kept up with (Connell, R. 2020).

Educating by means of Zoom or another web-based stage is hugely not quite the same as showing face to face, regardless of whether the proper substance is comparable. According to Connell, R. (2020), the physical and close to home air of school or college life is gone; there is less this way and that, no running about, no commotion. Instructing has consistently elaborate shuffling various assignments together, exchanging rapidly starting with one then onto the next; learning is slower on the web. There is more space for recording and observation, which likely means less creative mind and chance taking.

In the pandemic, relations among educators may likewise be re-molded. The entire labor force of an everyday schedule is engaged with delivering instructive results. A significant part of the co-appointment is speedy and casual; with online work this turns out to be increasingly slow formal. With re-opening, new equilibriums and associations must be made. This must be finished under close to home tension. Instructing is innately a profound interaction, and educators like every other person are impacted by the pressures and misfortunes of the pandemic (Connell, R. 2020).

Challenges for the institutions

Multiple challenges were identified by various scholars about this paradigm shift of online-learning. Murgatrotd, (2020) has identified that accessibility, affordability, sustainability, flexibility; along with a practical pedagogy technique are the huge challenges in front of this transition. In most of the developing countries, a major chunk of the population couldn't afford expensive devices along with internet facility for online learning. This leads to widen the gap between the haves and have-nots. (Pokhrel, S., & Chhetri, R. 2021). The risk for being adapt to devices for the students is yet another big issue for the parents and teachers. Researchers noticed that online learning is conducive for the internally motivated students, while for the rest who need guidance, motivation, and supervision, it would be not as productive as it should be to replace the traditional system of face to face education (Pokhrel, S., & Chhetri, R. 2021). It was noted that the level of intrinsic motivation gets stronger when students have provided fully equipped online education. As a result, it was expected that internally motivated students might get better grades that have been fully facilitated with online learning materials (Murgatrotd, 2020).

Tools of E-Learning in Education

With COVID-19 influencing our regular routines, as well as the security and medical problems continually being raised, to deal with the continuation of everyday life pretty much every business or type of work has needed to roll out extraordinary improvements to proceed. The global education area has needed to remake and adjust to keep offering types of assistance. Higher education overall has needed to go on the web and

assist understudies with proceeding with their education to not ruin their improvement during this season of emergency (Oranburg, S. 2020).

Most Measures taken by colleges are normal like utilizing on the web stages to direct virtual classes. With the expansion in cases around the world, we saw a worldwide development of an ever increasing number of clients on the web, understudies particularly searched out different strategies given by their foundations (Salloum at el., 2020). The UNESCO additionally gave different assets to remove figuring out how to assist many schools and associations with finding some peace with proceeding with their work during COVID 19. As indicated by Oranburg, S. (2020), a few well known devices gave and utilized these days are Google homeroom, Chalkboard Learn, Ultra Cooperative, Go To Meeting, WebEx, Zoom, Answer us Screen Lockdown Program, and some more.

Disaster Management in Pakistan

Since the time of partition, the areas of Pakistan have seen many devastating disasters that are earthquakes, tsunami, pandemics, droughts, floods, landslides, wind storms, and avalanches. Most devastating among these disasters was the 1935 Quetta Earthquake that completely destroyed the old city of Quetta and killed more than 60,000 people. In 1945 Makran Tsunami had killed an estimated 4,000 people. After Independence, Pakistan had formed multiple bodies that included aspects of disaster management. In addition the super floods of 2010 the single worst event of flooding to affect Pakistan. The floods affected Balochistan severely affecting 20 million people including 1,985 deaths, and injuring 2,946 persons. It leads to over three-trillion worth of damages and losses.

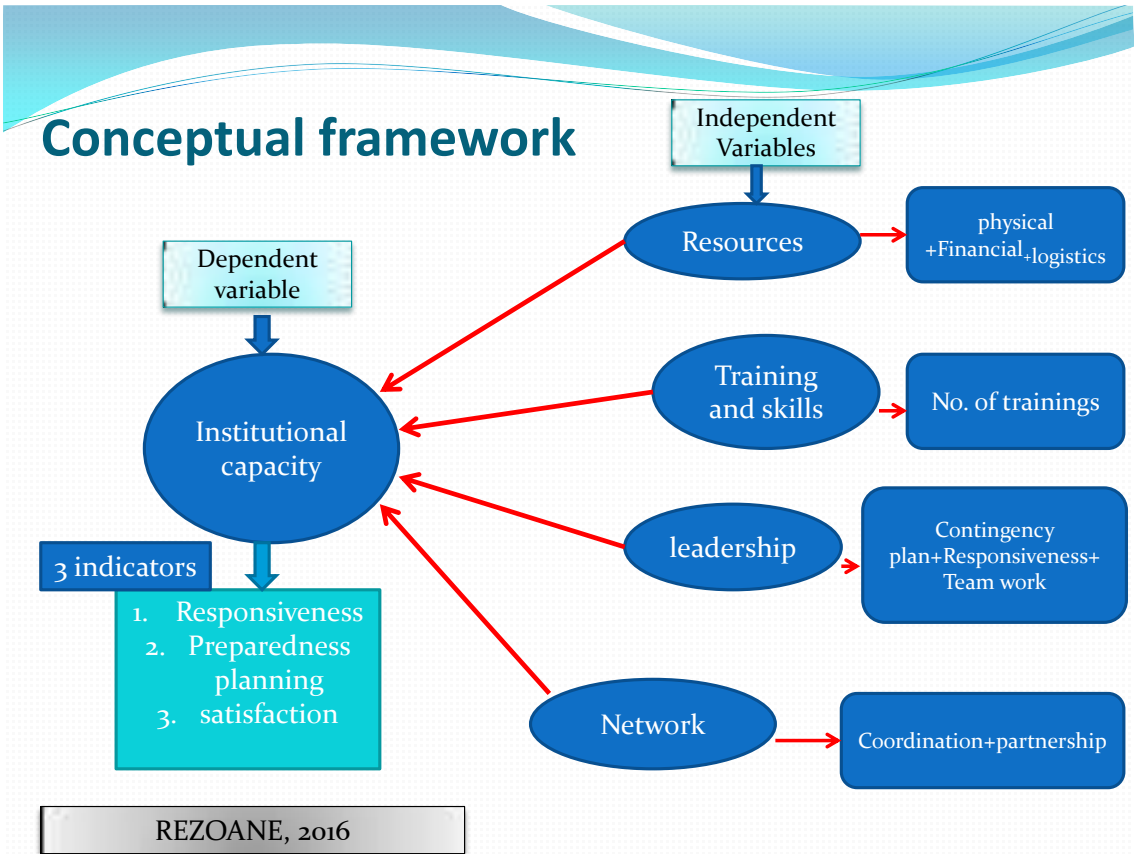
The Role of Provincial Disaster Management Authority (PDMA) Balochistan in Confronting Covid-19

The Provincial Disaster Management Authority (PDMA) Balochistan was established after the 18th amendment as a result of provisional autonomy. It is the operational disaster management authority that promotes disaster risk awareness through collaboration and coordination. It also works to prevent and minimize the capital damage in terms of livestock environment and property. Under the supervision government of Balochistan, the Provincial Disaster Management Authority (PDMA) Balochistan restores the normal economic functions that have been disturbed as a result of disaster.

Objectives of the Provincial Disaster Management Authority (PDMA) Balochistan

The Provincial Disaster Management Authority (PDMA) Balochistan is designated for reducing the disaster risks and vulnerabilities, recognizing the poor and marginalized societies of the province. It functions to increase the provincial disaster management capacity through a synchronized and comprehensive approach that shall in-line with the national disaster risk reduction policy. For the rehabilitation of the disaster damaged areas, the efficient utilization of provincial resources also falls under the domain of Provincial Disaster Management Authority (PDMA) Balochistan. It is also responsible for early warnings and early response against the possible threat pertaining to different areas and situations across Balochistan. In addition to the technical and institutional assistance, Provincial Disaster Management Authority (PDMA) Balochistan is also responsible for the training, technology and the availability of the human and materials resources at district and community level. Keeping in view the ensured, rapid and efficient response, the effective disaster preparedness including evacuation exercises also lay under the domain of PDMA. Not only the Provincial Disaster Management Authority (PDMA) Balochistan is responsible for establishing the emergency funds, wherever appropriate, but also it is the sole body of engaging the active participation of all stake holders across Balochistan for disaster risk reduction.

Theoretical/Conceptual Framework



In the conceptual framework, five variables have been identified. 4 are the independent variables i.e. resources, training and skills, leadership and network, while one is the dependent variable i.e. the capacity of the institution. The institutional capacity of the colleges is analyzed by 3 indicators, namely responsiveness, preparedness planning, and satisfaction. The independent variable resources implies to the resources needed during the pandemic covid-19, i.e., physical resources, financial resources, and the logistics. The second independent variable training and skills is determined by the number of trainings and their effectiveness. Thirdly, the variable leadership is examined by the contingency planning, responsiveness and team work. Finally, coordination and partnership are the indicators of the fourth independent variable i.e., network.

Methodology

This study is qualitative in nature. For data collection method, content analysis and interviews are employed. In depth interviews were conducted to gain a deeper insight of the problem. Interviews were conducted from intermediate, degree and graduate colleges in order to acquire a holistic view of the capacities of the colleges.

Research Design

The nature of the study is qualitative; therefore, it would employ in-depth interviews so to ensure comprehensiveness and reliability (Mertler 2019; p.83). This method is suitable because it guarantees the

collection of the insight of management that have observed the intensity and pitfalls of the disasters. This method is also useful in extracting reliable conclusions (REZOANE, 2016). In addition, the extant raw data collected from the principals/ focal persons is the most reliable source that can provide the valuable perceptions of the individuals and their exposure to extraordinary circumstances (Anderson, S., 2021).

Data Collection Tool/ Instrument

On the basis of the framework and variables, an open ended questionnaire would have employed for the collection of data. The sequence of the questionnaire would base on the variables and their indicators. The population is all the public colleges of Balochistan. The collection of data was a herculean task, but it was made possible through cellular network and personal interviews.

Variables of the Study

Four variables have been identified in this study; four are the independent variables i.e. resources, training and skills, leadership and network, while one is the dependent variable i.e. the capacity of the institution. The institutional capacity of the colleges is analyzed by 3 indicators, namely responsiveness, preparedness planning, and satisfaction. While the 4 independent variables which represent the institutional capacity have their own indicators on the lines of which data is presented.

Sampling

Random sampling technique is employed in order to analyze the capacities of the colleges. The collection of samples for the study was comprised of three phases. In the first stage, samples in the form of personal interviews were taken from the principals of colleges of Quetta. In the second phase of the interviews, those principles were taken into consideration which was posted outside the Quetta city but now available at Quetta city. Finally, online interviews were conducted to collect the data from all over Balochistan.

Data Collection and Presentation

For analyzing the capacities of colleges of Balochistan to address the disaster data is collected from various colleges via scheduled interviews. The respondents are mainly the principals because he/she is the person who is all in all responsible for managing the affairs of the colleges. The responses collected from the interviews are arranged on the basis of respective variables. As mentioned earlier, dependent variable of the study is the institutional capacity of the colleges which is analyzed by 3 indicators, namely responsiveness, preparedness planning, and satisfaction. There are 4 independent variables which represent the institutional capacity that is resources, training and skills, leadership and network. Every variable has its own indicators on the lines of which data is presented.

Research Findings

In this chapter of the study, the researcher tries to answer the research question by illustrating the data collected from the field. The existing capacity of the colleges of Balochistan to address the disasters is expressed and analyzed in this chapter.

The Meager Institutional Capacity of the Colleges to Confront the Disaster

Balochistan is a disaster-prone province. Its vast land is greater than the land of three-forth countries of the Europe. Such geography has both strengths and weaknesses. Since geography is sparsely populated therefore it is a natural quarantine zone against pandemics and epidemics. It is the fact that besides poor or no health facilities, very little help from the outside, the province confronted the challenge of covid-19 very effectively. The role of health system was not in accordance with the need because the health system

severely lacks capacities. The other two departments, Provincial Disaster Management Authority (PDMA) and the district administration, that bore the burden of management of disasters had negligible role as coordinating body. This view is also carried by (Huo, C., et al., 2021). And the damage that is in the form of human and capital resource was very little as compare to other provinces. But this does not mean that it will be probably the same with respect to the other disasters. Balochistan is vulnerable to floods and earthquakes. And there is no physical, financial, and logistical support exists in colleges that might help them in confronting the disasters. The recent floods in Naseerabad division are an eye-opener where 3 colleges were hit by the floods and the colleges had been closed for 3 months. The intensity of the flood was not severe and it did not hit the college directly. But the water that had been entered into the colleges had not been ejected out for months due to unavailability of the resources.

No In-depth Knowledge of the College Administration about Disaster Management

The college administration is mainly comprised of seasoned professors who possess in-depth knowledge of their locality and the disasters but they seldom possess knowledge of the disaster management. They are well-aware of the intensity of the disaster they have faced in the past in the shape of covid-19. They also know that their existing resources are not in accordance with the disaster management. However, they don't have deeper knowledge about provincial and national disaster management policies as compare to the knowledge they have about the disasters they have faced. The statistics shows that only 9 participants out of 26 have a slight information about disaster management policy but non among the participants have experience of reading material on disaster management policy. Among all participants only one participant have experience of attending an awareness session regarding disaster management.

The Poor Role of Provincial Disaster Management Authority (PDMA) for Colleges

There was no direct role of PDMA in addressing the disaster damage of the college. Nor they have a holistic role in increasing the capacities of colleges of Balochistan to confront the disaster. It is evident that the provincial government and local administration have a major role in dealing with the disasters (Huo, C., et al., 2021) but as a responsible institution, PDMA holds the prime responsibility. Only one participant viewed that the PDMA has a cooperative role for colleges in addressing the disaster. Seventeen participants hold the view that PDMA haven't cooperated with them at time of disasters while the remaining participants see PDMA as a partial cooperative as it provided some assistance to the directorate of colleges and higher education. Only seven participants affirmed that they had received some physical support from directorate of colleges and higher education assisted by the Provincial Disaster Management Authority (PDMA). The rest were never assisted by the PDMA. Simultaneously, only three participants viewed that PDMA needs more resources while the majority had no idea about the increasing needs of PDMA.

Preparedness Planning of the Colleges to Confront the Disaster

Besides the meager assistance from other departments, most of the colleges planned well to confront the challenge of the covid-19. Decision making is greatly linked with the disaster management effectiveness (SimõesMarques and Figueira, 2018). The policy guidelines to contain the spread of the disease were strictly observed by the colleges. Since internet facility is very poor and the electronic gadgets are too expensive for the students and for the colleges of the province, online classes were not an option for the students of Balochistan. The colleges were closed during the peak months of the disease and academic educational activities were marginalized. But when the colleges were re-opened, the principal along with the college staff framed preparedness planning as per their existing resources. Interviews revealed that 77% of the colleges developed preparedness planning according to their circumstances to continue the academic activities.

The Satisfaction Level of the Society and Students with the overall Performance of the College

The covid-19 was a break in educational activities. It was a compulsive choice for the staff and for the students. Resultantly, most of the students that were in utter confusion having little access to alternate educational resources lost their precious time in vain. The government had decided to pass the undergraduate students on the basis of their past performance. This too increased the laziness of the students who felt relaxed while spending their time in useless activities. Students compromised their learning activities during the pandemic are not having the required knowledge and skills that are required in their next grades. Majority of the participants ranked them as 50% lower in abilities as compare to the students that possess the same degree in normal routine.

The Need of Trainings

The closure of colleges to uncertain times due to medical emergency was a novel phenomenon for the people of Balochistan. After that the reopening of colleges with the list of prescribed safety measures was a total unfamiliar situation for the staff members and for the pupils. This would need adept knowledge and trainings. A majority of participants haven't received any kind of trainings and what they did to themselves and with the students were totally based on a layman's knowledge. Only 11% personals satisfied with the number of trainings provided. The rest were waited for the sufficient guidance. However, all agreed that trainings make difference and there shall be adequate trainings at least for the staff members so that they may able to expand this awareness to their thousands of students.

Dearth of Coordination between the Colleges and other Disaster Related Departments

In the extra-ordinary situation of disasters, coordination is the key to mitigate the impact of it. The result of the study is in conformity with Hashmi, A., et al. (2021). Unfortunately at the time of covid-19, the coordination among the departments was not satisfactory. Besides the inter-departmental cooperation, only health department coordinated, to some extent, in terms of vaccination to the colleges. The covid-19 was a medical emergency, therefore it was obligated that the health department shall coordinate the educational institution to contain the spread of the disease, but it could not happen in that way. A notable amount of colleges that are 35% hadn't got attention of health department. The other two bodies, the Provincial Disaster Management Authority (PDMA) and the District Management, that were assigned the responsibility of disaster management failed in fulfilling their responsibilities. It is evident that the provincial government and local administration have a major role in dealing with the disasters (Huo, C., et al., 2021). But as a matter of fact there was a negligible contribution of these departments in assisting the colleges to confront the challenge of covid-19. Ironically, the situation is same after the bitter experience of covid-19. Colleges affected by recent floods haven't received any sort of assistance from any department. Resultantly the academic activities were severely hampered for months. The college campuses of 5 colleges were closed for more than 3 months due to standing water inside the premises.

The Indifference of Non-Governmental Organizations and Volunteers towards Colleges at the Time of Disaster

Disaster management requires preparations, awareness sessions, and trainings, with respect to the topology of the land and the existing situation. The need increases multifold in the case of colleges because a trained staff member can further train thousands of his students. This view is also supported by Hashmi, A., et al. (2021). Now taking into consideration the role of non-governmental organizations and volunteers towards colleges at the time of disaster, the 88% respondents said that there is no coordination between the college and the non-governmental organizations and volunteers during disaster. It is concluded that the dearth of cooperation between the colleges and the non-governmental organizations and volunteers has a direct impact upon the insufficient trainings, required preparations and awareness sessions. Had there been an effective coordination system between the colleges and the non-governmental organizations and volunteers,

there would be significant difference while confronting the challenge. Admittedly, the disaster management in colleges requires comprehensive cooperation with the non-governmental organizations and volunteers as the de-facto responsibility of the extra ordinary trainings falls under the domain of non-governmental organizations. Ironically, only 3 colleges that are only 11% of the sample confirmed that they had received some sort of assistance in terms of awareness sessions. Resultantly 89% of the colleges haven't received any volunteer support from any organization.

The following tables (extracted with the help of stata software) will further assist in analyzing the research findings.

Table No. 1 (Correlation among Awareness about Disaster Management, Preparedness Planning and Contingency Planning)

Table 1

AWARNESS ABOUT DI SASTER MANAGEMENT	PREPAREDNESS PLANNI NG YES	NO	Tot al
YES	9	0	9
NO	11	6	17
Tot al	20	6	26

While analyzing the correlation among the questions asked, it was explored that 65% participants were unaware about the disaster management policy; but when asked about the preparedness planning during the covid-19, 77% participants affirmed that they had framed a preparedness planning (Table 1.1). This contradiction implies that the college management framed their preparedness planning according to their own perception and circumstances and not according to the disaster management policy.

Table 2

PREPAREDNESS PLANNI NG	CONTI NGENCY PLANNI NG YES	NO	Tot al
YES	8	12	20
NO	0	6	6
Tot al	8	18	26

The same situation rehearsed while analyzing the questions of preparedness planning and contingency planning. On one hand, where 77% of the participants affirmed that they had a preparedness planning to confront the disaster, on the other hand, from the same pool, 70% participants told the author that they had not framed any contingency planning as they had no resources, nor any directions regarding it (Table 1.2). This situation leads us again towards the upper mentioned deduction that due to the unawareness regarding disaster management the college administration was unable to frame any effective contingency planning to confront the disaster.

Table No. 3 (Correlation among Performance of PDMA, Responsiveness of PDMA, and Resourcefulness of PDMA, Teamwork, and Satisfaction level).

Table 3

PERFORMANCE OF PDMA	RESPONIVENESS OF PDMA PHYSICAL	NONEOFTHE	Total
FULLYCOOPERATIVE	1	0	1
PARTIALLYCOPERATIVE	4	4	8
NOTCOOPERATIVE	2	15	17
Total	7	19	26

On the question of performance of Provincial Disaster Management Authority (PDMA), only one participant viewed it as a fully cooperative institution. 30% of the participants observed it as a partial cooperative body due to its physical support to the colleges and higher education department, which then assisted the colleges and other higher education institutions of Balochistan. But the majority of the participants, i.e., 65% considered it as a non-cooperative body for disaster management (Table 2.1). *The non-cooperative behaviour of PDMA is further affirmed while interviewing from the managements of those colleges which are severely affected and damaged by recent floods.* Simultaneously, 73% of the participants reported that they did not receive any assistance from PDMA. The rest 27% received some physical assistance but not financial and logistical support (Table 3).

Table 4

PERFORMANCE OF PDMA	RESOURCEFULLNESS OF PDMA YES	NO	NOIDEA	Total
FULLYCOOPERATIVE	1	0	0	1
PARTIALLYCOPERATIVE	1	3	4	8
NOTCOOPERATIVE	1	3	13	17
Total	3	6	17	26

Comparing the performance of PDMA with its perceived resourcefulness it is observed that while 65% of the respondents considered PDMA as non-cooperative body, the same percentage, i.e., 65% have no idea about the resourcefulness of PDMA (Table 2.2). Only 3 participants viewed PDMA as a resourceful body which could assist the colleges at the time of disasters.

Table 5

PERFORMANCE OF PDMA	TEAM WORK EFFECTIVE	COMPULSIV	NOTEFFECT	Total
FULLYCOOPERATIVE	1	0	0	1
PARTIALLYCOPERATIVE	6	1	1	8
NOTCOOPERATIVE	5	2	10	17
Total	12	3	11	26

Considering the moderate results of teamwork situation, it is observed that 46% of the respondents have viewed it effective at college level, 42% have seen it as not-effective, while 12% call it as a compulsive choice (Table 2.3). Keeping in view of the satisfaction level of the students and the society, it can be analyzed that besides the moderate teamwork situation, it would not produce results due to the poor performance of PDMA.

Table 6

PERFORMANCE OF PDMA	SATISFACTION LEVEL SATISFACT	LOWSATISF	DISSATISF	NOIDEA	Total
FULLYCOOPERATIVE	1	0	0	0	1
PARTIALLYCOPERATIVE	3	4	1	0	8
NOTCOOPERATIVE	2	9	3	3	17
Total	6	13	4	3	26

While analyzing the satisfaction level emerges from the overall capacities of the colleges and the student performance, it is noted that no head of the institution, i.e., principal/focal person, is highly satisfied with the student performance. 23% has satisfied to some extent while half of the respondents that are 50% show very low satisfaction. 15% of the participants are dissatisfied with the performance of the students (Table 2.4).

Table No. 7: (Correlation among leadership, staff training, coordination system and volunteer participation)

Table 7

LEADERSHIP	Freq.	Percent	Cum
EFFECTIVE	5	19.23	19.23
COMPULSIVE	3	11.54	30.77
NOTEFFECTIVE	18	69.23	100.00
Total	26	100.00	

Analyzing the role of leadership during disasters in terms of provision of guidance and making the strategies effective, the majority of respondents, i.e., 69% found the role of leadership as ineffective (Table 3.1). It is also noted that the major reason behind ineffective coordination between the colleges and the department is the centralization of the system. The directorate and the secretariat are miles away from most of the colleges. The focus of the authorities would remain revolve around the capital city of Balochistan, while the rest of the province remains in ignorance.

Table 8

STAFF TRAININGS	COORDINATION SYSTEM YES	NO	Total
YES	9	2	11
NO	4	11	15
Total	13	13	26

Disaster management requires comprehensive trainings. The need increases multifold in the case of colleges because a trained staff member can further train thousands of his students. More than half of the respondents told the researcher that they haven't received any training regarding covid-19. Now taking into consideration the coordination system among the other stake holders, half of the respondents said that there is no coordination between the college and the other stake holders during disaster (Figure No 1). Comparing both responses, it is concluded that the dearth of coordination system between the colleges and the stake holders has a direct impact upon the insufficient trainings. Had there been an effective coordination system between the colleges and the stake holders, there would be significant training sessions for the staff members.

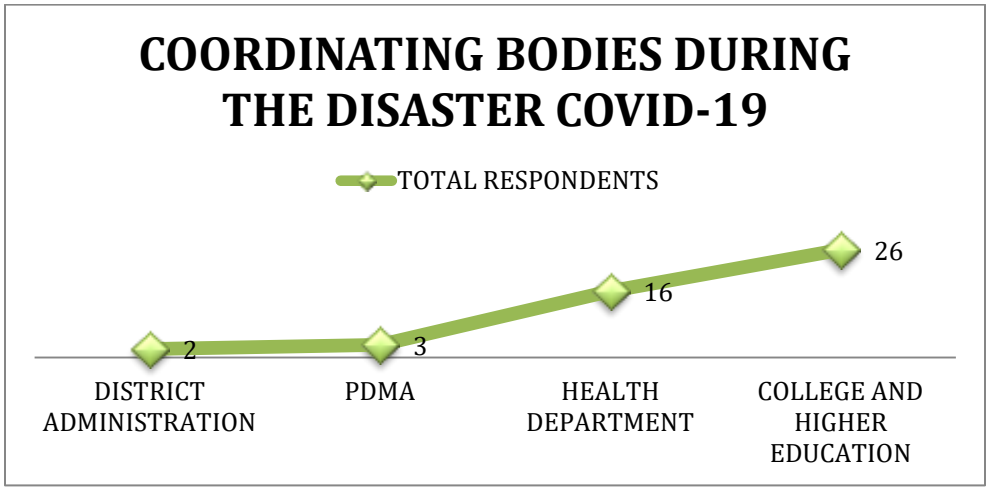


Figure No 1

Considering the question of coordination among the colleges and the concerned departments, it is of notable importance that the only department that is in constant cooperation has non-other than the colleges and higher education department. It strengthens the notion of self-help especially at the time of disasters. It further implies that the colleges must improve their own capacities to address the disasters. The second notable department that assisted 61% of the colleges during the pandemic was the health department (Figure No 1). This department helped the colleges in terms of vaccination and diagnostic tests to contain the spread of covid-19. The role of health system was not in accordance with the need because the health system severely lacks capacities. The other two departments, Provincial Disaster Management Authority (PDMA) and the district administration, that bore the burden of management of disasters had negligible role as coordinating body. This view is also carried by (Huo, C., et al., 2021). Only 2 to 3 colleges affirmed that they had some sort of coordination with the PDMA and the district administration.

Table 9

STAFF TRAINI NGS	VOLUNTEER PARTI CI PATI ON YES	NO	Total
YES	3	8	11
NO	0	15	15
Total	3	23	26

Admittedly, the disaster management in colleges requires comprehensive trainings. The need increases multifold in the case of educational institutions, because a trained teacher can further train thousands of his students. 58% of the respondents told the researcher that they haven't received any training regarding covid-19. Now in Balochistan, the de-facto responsibility of the extra ordinary trainings falls under the

domain of non-governmental organizations. Ironically, only 3 colleges that are only 11% of the sample confirmed that they had received some sort of assistance in terms of awareness sessions. Resultantly 89% of the colleges haven't received any volunteer support from any organization (Figure No 2).

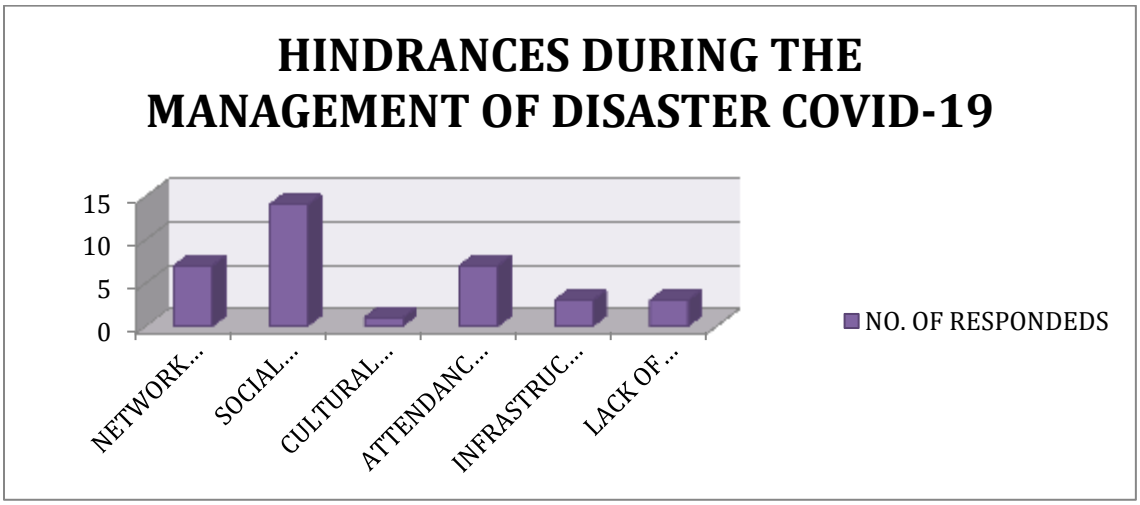


Figure No. 2: (hindrances/restrictions faced during the management of the disaster)

Framing the Question of problems faced by the administration of the college, the most disturbing problem that had the greatest frequency was social illiteracy. The society in general was reluctant to accept the covid-19 as an unprecedented pandemic (Table 4). It further leads to their reluctancy towards vaccination and somehow other safety precautions. In addition the same social illiteracy contributes against the principle of adaptability for the alternative means of acquring education that is online education that require some use of electronic gadgets. The next two major obstacles that has been faced by the college management after the closure of college campuses and after the reopening of the campuses were network issues and the attendence issues respectively. Without the assistance of a reliable network, online learning was proved to be a failed effort. All colleges had reconducted the online classes after the reopenong of the college campus because of the unavailability of cellular and internet network in remote areas.

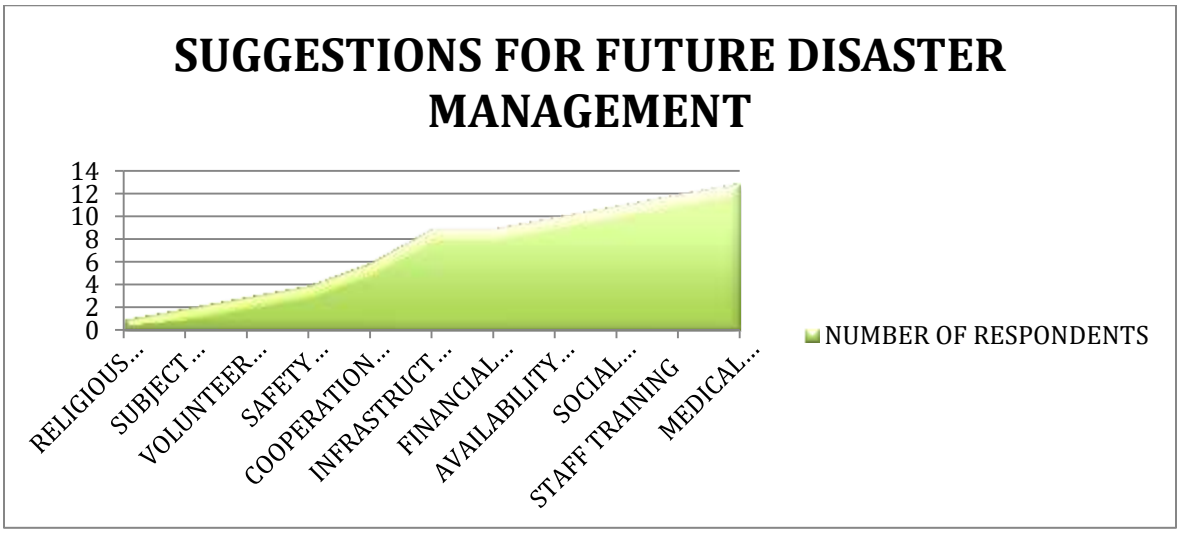


Figure No.3

Suggestions and Recommendations

The last Question of the research questionnaire was about recommendations titled as *"Please suggest some workable measures that will help for future disaster management"*. Participants were free to suggest any workable measure that they consider necessary for their institution. No guidelines or options were given to them. The following suggested measures are enlisted as per their frequency.

Need of Medical Support to Colleges

The last experience of any disaster to majority of the colleges was the pandemic covid-19 and that was a health emergency. Participants felt that at least some medical support shall be given to the educational institutions to make able them efficient against any health emergency. Participant also viewed education and health as mutually inclusive departments that are always in need of each other. A principal of a postgraduate college said that there should a certified physician in public colleges to address any health issue of the students and the staff. This view is also supported by the universal standard of World Health Organization (*WHO*) that recommends one doctor per one thousand persons, and most of the public colleges have enrollments around thousand pupils. In addition, colleges have playgrounds and science laboratories where chemicals and other experimental objects are in use. There is a need of first-aid kits and a medical technician which can mitigate any health issue or injury.

Staff Trainings

The second major need that was observed during this research was the dearth of staff trainings. Participants viewed that Balochistan is vulnerable to disasters. Earthquakes, floods, pandemics and epidemics are frequent in this province. Therefore, fundamental trainings shall be provided to the staff members who then share their knowledge and skills to their students. Participants also viewed that the college serves as a welfare community center at the time of disaster due to its infrastructure and access. At the time of covid-19 most of the colleges were center for vaccination. Simultaneously colleges of Quetta division have served multiple times as shelter houses during earthquakes. Recently, the Usta.M. College served as a shelter house for hundreds of poor masses during the massive rain fall and flood. Ironically, the majority of the participants were unaware about *disaster management.* The participants expressed that the institutional capacity of the college to address the disaster can be increased by comprehensive trainings.

Social Awareness

Another aspect that has to be addressed in order to enhance the capacities of the colleges is the social awareness regarding disasters and safety precautions. In many colleges, some of the students and the staff members were reluctant to vaccinate themselves as they consider it as a part of a universal conspiracy. Side by side the college management was in utter confusion as they observed that outside the premises of the colleges there were no following of the safety precautions. Therefore they consider safety precautions within the premises of colleges as useless activity. As a result only a few colleges carried the continuation of their educational activities with the recommended safety measures.

Need of a Reliable Networking System

The only alternate system of education during the closure of college campuses, according to the participants, is online system of education. But it has some grave and serious issues which need to be addressed. The rudimentary cause due to which online education failed to become an alternative source of education is the network problem. Online or distance learning needs reliable networking system. For making the distance learning possible, the stake holders must ensure the provision of internet to every nook and corner of the province. Second, Balochistan is a huge and poor province. People in general and students in particular cannot afford electronic gadgets that are fundamental to online learning. That is why

the online system of education had bitterly failed during the pandemic covid-19. The institutions who offered online education had re-conducted the physical classes because majority of the students did not access the material and lectures offered online.

Addressing the Infrastructural Issues

Balochistan is vulnerable to disasters which include earthquakes, floods, pandemics and epidemics are frequent in this province. Public colleges need strong infrastructure as they work not only as an educational institute but also as a community center and a center of future development. Many colleges have weak buildings. They have structural flaws and material issues. For instance, during the last heavy rainfall the Manjhipur college has severely damaged. Similarly, water poured into the premises of many colleges and could not be extracted out for months. Similarly, during the windy season, boundary wall of many colleges were torn down. Participants viewed that college infrastructure must be aligned with the universal standards so that they can confront the future disasters.

Financial, Physical and Logistical Resources

According to the participants there are no specific financial, physical or logistical resources in colleges to confront the disasters. The variety in landscape of Balochistan needs variety of resources. For instance, the Naseerabad division is vulnerable to floods; on the other hand the Quetta division is vulnerable to earthquakes. Therefore, the physical, financial and logistical support shall be in accordance with the geography and geology of the colleges. The participants also said that the colleges might address the past disasters more efficiently if they had enough resources.

Other Suggestions and Recommendations

Disasters are extraordinary in nature. They require extra-ordinary measures and support. Colleges haven't any mechanism for managing the disasters on their own therefore many respondents are of the view that cooperation with other departments are necessary for enhancing the capacities of the colleges. Coordination among the relevant public and private sectors is of vital importance to avoid the harmful impacts of any disaster (Hashmi, A., et al. 2021). As a known fact, safety measures can reduce the damage of any disaster; many scholars viewed it as another measure needed to be taken. Some participants also viewed volunteer participation as an effective strategy for confronting the disasters. According to the respondents, every college has a number of enthusiastic students that are eager to train themselves for their institution and for their nation at the time of emergency. Preparing them can also assist in increasing the capacities of the colleges. Almost all participants suggested that there is a dire need of staff trainings for confronting the disaster, especially in the circumstances when there are no resources, nor a policy available in colleges for facing the challenges during disasters. Participants also viewed that on the pattern of Japan and the United States, we also need a specialized subject introduction regarding disaster management which can resolve the issue of social awareness in general and preparedness planning in particular. Another solution that is considered by few of the participants with regard to social awareness is the religious motivation. The role of clerics is of notable value in this regard.

Recommendations/ Areas for Future Researchers

A) Need of a Comparative Study regarding Disaster Management

While doing the field work I felt that there is a need of comparative study of Balochistan with other provinces pertaining to PDMA. Since after 18th amendment, the devolution of power assigned the responsibility of disaster management to provinces, PDMA has to be resourceful in all aspects. It would be interesting to observe the work and efficiency of this department in other provinces as well, especially the collaboration it might have with the educational institutions.

B) Broadening the research to national level or international level

At first the realm of my research was district Quetta, but as I get through my field work, I observed remarkable differences among the situation, needs and responses of the participants. It pushed me to employ all my energy towards accomplishing the data collection all over the Balochistan. It is of worth importance if future researchers encompass their domains to national or international level.

C) Analyzing the capacities of colleges of other provinces

While reviewing the literature I haven't found researches pertaining to colleges. It is evident that the college issues during disasters are not addressed yet. Therefore, there is a need of similar researches in other provinces as well.

D) Analyzing the capacities of colleges for disasters of developed countries

For fashioning a feasible and optimal framework, it is rudimentary to analyze the capacities and frameworks of colleges and other educational institutions of developed countries. Do they have contingency planning mechanisms? If yes then what parameters they have? And what types of disasters they are prepared for? Analyzing the capacities of colleges for disasters of developed countries will surely help us in developing a workable strategy of our own.

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