Stressors and Coping Strategies among Physiotherapy Student's Online Learning during COVID-19 Lockdown: A Descriptive Explorative Study

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Abstract: <u>*Background:*</u> *This study is designed to identify the causes of stress and coping strategies among the physiotherapy students. With a lockdown period with COVID-19 most physiotherapy colleges all over Maharashtra took to some or the other mode of learning. Social distancing protocols had to be enforced to reduce the spread of infection, thereby increasing the need of online learning. E-Learning techniques entail benefits and challenges both and may also pose technological difficulties. E-learning is a teaching technique that uses the internet to for communication between the lecturers, teachers and students.* <u>*Methods:*</u> *A validated self-made questionnaire was circulated amongst 200 undergraduate students. This study will help institution to strengthen orientation programme to students and help explore coping mechanisms and reduce stress in midst of several problems they face in their academic pursuit.* <u>*Conclusion:*</u> *The study concludes that online learning in COVID-19 outbreak resulted quite stressful for the students of an institute and this resulted that during online learning it can affect their academics workload due to least practical knowledge and non-accessibility of learning materials and practical knowledge too which led to stress for the students.*

Keywords: Coping strategies, lockdown period, online learning, stress

1. Introduction

Globally the traditional higher education delivery system which has a classroom setting with students and lectures interactions has been challenged by innervations is educational delivery mechanism[2]. Students in these pandemic have been educated through a mixture of media such as video, mobile phones, laptop, or personal computer [4]. Electronic communication is becoming increasingly easy nowadays and is also very common [4]. The most commonly diagnosed clinical sign for the Coronavirus disease (COVID-19) disease is pneumonia. Other signs include gastrointestinal symptoms, neurological symptoms, etc. [10]

In symptomatic individuals, the symptoms manifest usually less than a week later, which gives a lot of chance for the infection to spread since the incubation period is large. Implementation of travel restrictions has resulted in lowering of cases and control of spread of infection as seen in China. [10]Following such observations several nations of the world also started implementing restrictions and enforcing lockdowns. Social distancing protocols were put into enforcement to avoid the spread of infection. [10]Several countries around the globe went into nation-wide lockdowns which brought the daily routine lives of the people to a halt. With the COVID-19 pandemic, the world has been struggling with daily routine life. In this struggle, the education sector also has suffered immensely. Schools and colleges were forced to shut down during the midst of the academic year. [10] Students in these pandemic have been educated through a mixture of media such as video, mobile phones, laptop, or personal computer [4]. Electronic communication is becoming increasingly easy nowadays and is also very common [4].

With a lockdown period with COVID-19 most physiotherapy colleges all over Maharashtra took to some or the other mode of learning [4]. Social distancing protocols had to be enforced to reduce the spread of infection, thereby increasing the need of online learning [4]. E- Learning techniques entail benefits and challenges both and may also pose technological difficulties[2]. E-learning is a teaching technique that uses the internet to for communication between the lecturers, teachers and students [2]. Nichole has defined "E-learning as the use of various technological tools that are either web based, web distributed, or web capable for the purposes of education[4]." With the COVID-19 pandemic the world has been struggling the daily routine life. In this struggle, the educational sector has also suffered immensely [4]. Schools and colleges were forced to shut down during the midst of the academic year [4]. Students should not finish their courses due to failures of offline mode of education [2]. In these times of COVID-19, the need for e-learning seems increased. Schools and universities, both are increasingly using this mode of teaching in such times. However, there is little research done on how students cope up while E- learning. Various technical, technological, psychosocial capabilities and growth to cope with this trend will enable to improve standards of education during such trying times. [6][10] In recent years there is a growing appreciation of the stresses involved in medical training. Studies have classified the sources of stress into three main areas: academic pressures, social issues and financial problems. In addition to educating in a professional medical course it is also important to take into account the quality of life of the students during the years of medical training. [5] Using newer modern technologies the education sector shifted from offline mode of learning to online mode of learning[2].Studies or lectures conducted online reveal that students face problems such as combining full time work and being as an adult the students has many responsibilities

to meet while meeting the academic demands of their learning way[8]. This responsibilities has come with their associated pressure of work, fatigue which may result into stress induced behaviours among these students [3]. Interactions with students of physiotherapy during their online sessions showed complaints of headache by looking into the phone, sleeplessness and fatigue by these students [2]. Very little is known about the causes of stress and the coping strategies used by the students to survive the challenges encountered in pursuing online education in Physiotherapy colleges of Navi Mumbai[4].

Stress can be defined in a medical or biological context stress is a physical, mental, or emotional factor that causes bodily or mental tension [3]. Stress can be external (from an environment, psychological or social situations) or internal (illness or from a medical procedure).Stress can cause psychological conditions such as depression and anxiety [2]. *Stress*, as coined by Hans Selye in the early 1930s, is a bio psychosocial model that refers to the consequence of failure of an organism to respond adequately to mental, emotional or physical demands, whether actual or imagined (Selye, 1982. [1][3] Coping means to invest one's own conscious effort, to solve personal and interpersonal problems, in order to try to master, minimize or tolerate stress and conflict. The psychological coping mechanisms are commonly termed coping strategies or coping skills [9]. Folk man and Lazarus (1980) defined coping as a cognitive and behavioral effort taken by individuals to try to either alleviate or appreciate the requirements creating the disparity between the person and the coexisting environment (Firth, 1986).Their primary suggestion included an in-depth analysis of the determinants leading to stress and their strategic management protocols. They envisioned coping as being either problem-focused or emotion-focused. [2] The students also face social, emotional and physical and family problems which may affect their learning ability and academic performance [1] [2]. Too much stress can cause physical and mental health problems, reduce students self-esteem and may affect students academic achievement. [3][4][9] Studying causes of stress and coping strategies used can help in designing appropriate interventions and planning modifications in the curricula to reduce stress and enhance students' wellbeing and learning abilities. [5][2]Research evidence suggests that students experience some kind of stress in one way or the other; therefore stress is a part of student's existence and can have effect on how students cope with the demands of university life[2]. Excessive stress among students results in poor academic performance, school dropout, addictions etc [2]. However how students cope with these stressors depend largely on their personality, perception and past experience [2]. Students have to adapt the various forms of psychosocial changes in addition to coping with the academic, social and work demands in preparing for their professional career [2]. Stress also affects the person's health is irrespective of race, age and socio economic background [2]. Students are faced with writing assignments, preparing for presentation and end of semester examination [2]. Furthermore, meeting deadlines for submission of assignment and coupled with work and other social demands demand a lot of efforts to handle there multiple roles[2]. These academic activities coupled with work and other social responsibilities among students have received little research attention to inform policy [2]. The aim

of the present study was to gather data about how students feel regarding e-learning and their opinions regarding the e-learning and to study the awareness of the perceived causes of stress among the students and coping techniques or mechanisms they use to minimize them. [10]

2. Materials and Methods

Sample population included were students of physiotherapy and sampling method was convenience sampling. Age group included in this study were of about 20 to 25 years of age. Total sampling size was 200 students. Materials included were Google form, self-designed questionnaire. This study was descriptive explorative study in nature employing quantitative methods in collecting the data. A cross sectional survey was carried out using a voluntary, anonymous, self-administered questionnaire among sampled students from all 4 years. Approval from an institutional review committee was obtained. Participants were informed about the survey and questionnaire was circulated through Google form. Questionnaires were categorized into two domains that are stress and coping strategies. After questionnaire obtained data was analysed through MS Excel in the form of graphs and pie charts.

3. Results

- 200 subjects were included in our study. Questionnaires were prepared under the two domains stress and coping strategies.
- There were total 200 responses seen and the result was obtained and analyzed through MS-Excel in the form of pie chart and bar graphs.
- The response of pie charts and bar graphs were as follows

i) Academic:
In academic students experienced academic workload around 42.8% which is quite stressful few students experienced 40.3% i.e. somewhat stressful few experienced 13.9% i.e. very stressful whereas very few students experienced only 3% i.e. not stressful at all.
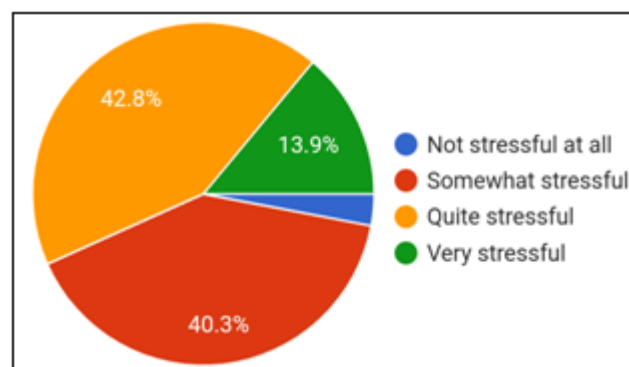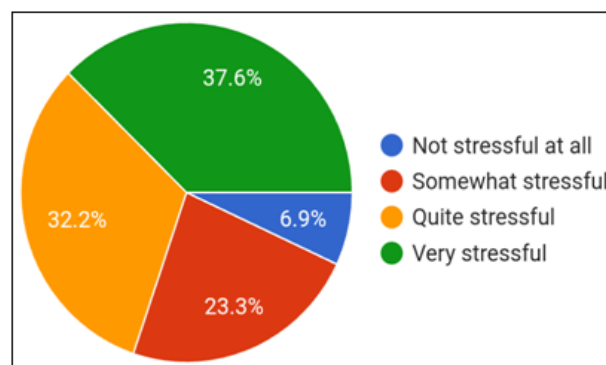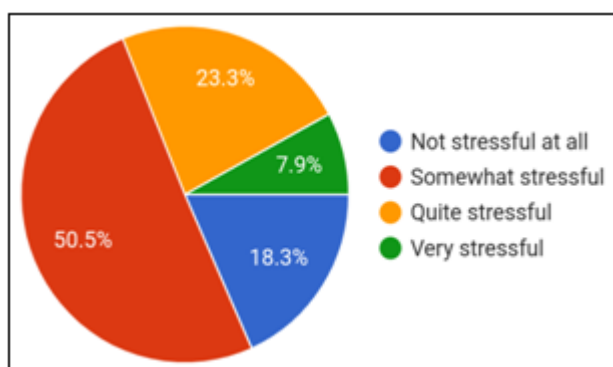

In this about 87.9% students responded yes for feeling affected by non accessibility of learning materials and practical knowledge and 12.1% students responded no for the same.
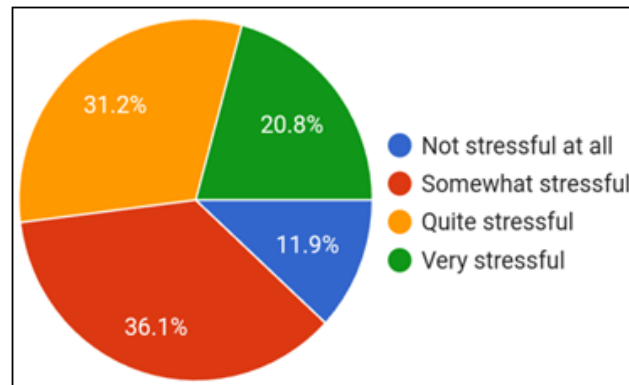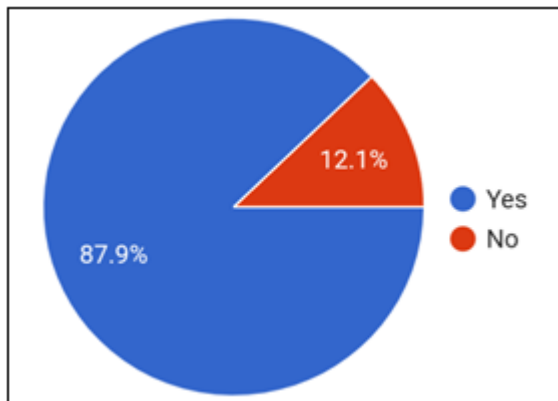
In academic under stress domain 50.5% experienced somewhat stressful to understand the class schedule whereas 23.3% students experienced quite stressful 18.3% students experienced not stressful at all and 7.9% students experienced very stressful for the same.
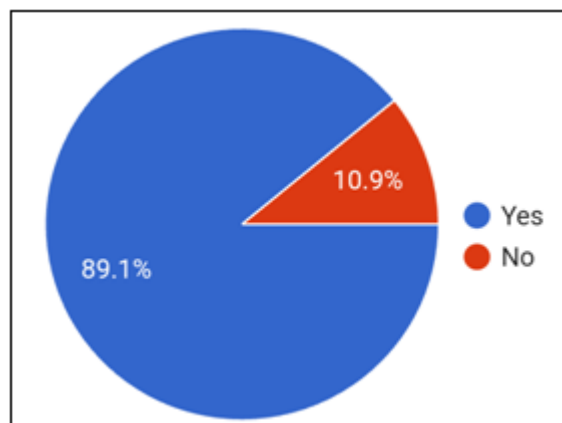

48.5% students experienced somewhat stressful in handling online examination whereas 31.7% students experienced not stressful at all 14.4% students experienced quite stressful and remaining 5.4% students experienced very stressful for the same.

ii) Psychosocial
36.1% students experienced somewhat stressful to concentrate on online lectures whereas 31.2% students experienced quite stressful 20.8% students experienced very stressful and remaining 11.9% students experienced not stressful at all.
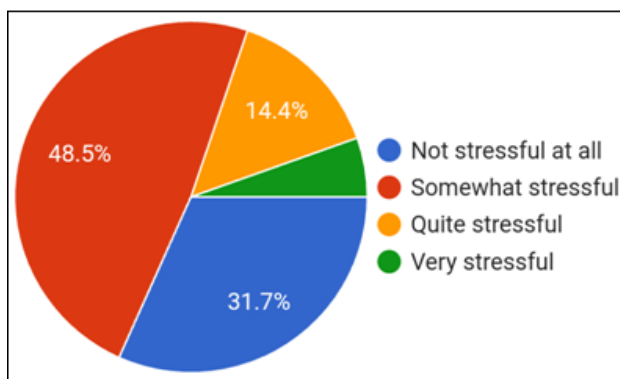

37.6% students experienced very stressful during back to back lectures whereas 32.2% students experienced quite stressful 23.3% students experienced somewhat stressful and remaining 6.9% students experienced not stressful at all for the same.

iii) Health related
In health related 89.1% students felt strain on eye during lectures while seeing on mobile phones or laptop screen whereas 10.9% students experienced no strain on eye during online lectures.
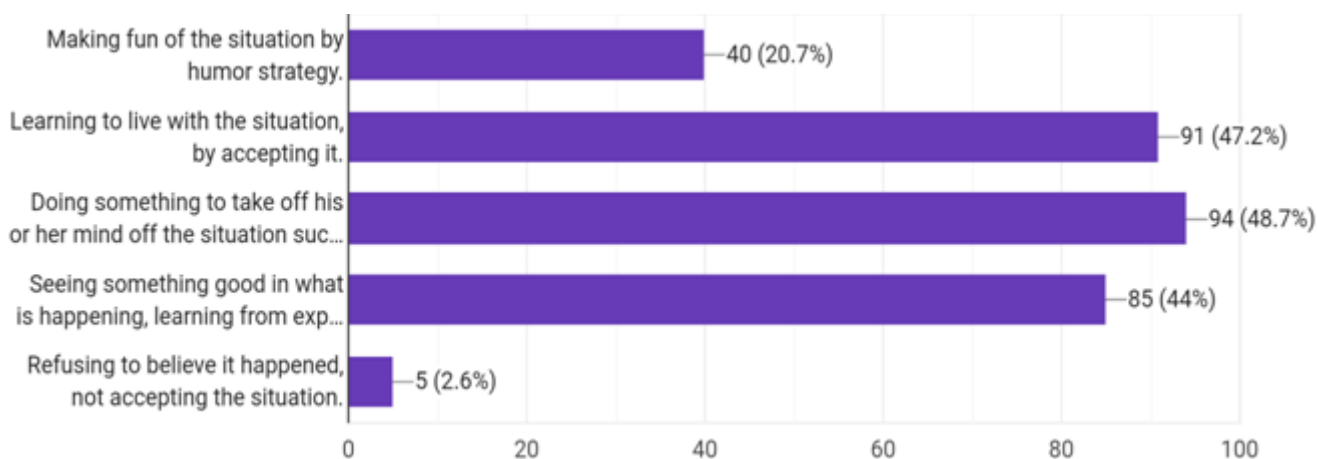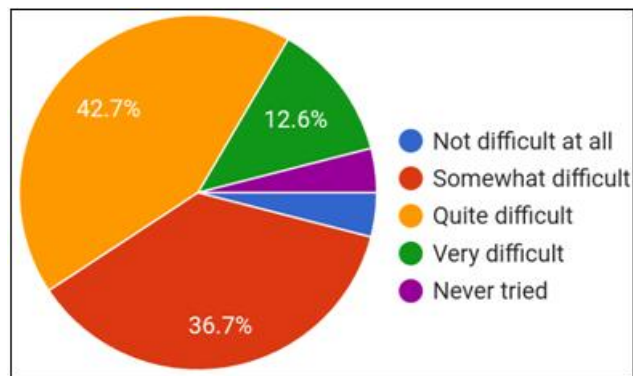

B) Coping Related Questionnaires
For coping the students experienced 42.7% quite difficult to neglect stressors 36.7% students experienced somewhat difficult 12.6% students experienced very difficult 4% never tried whereas 4% students found not difficult at all.

So for coping students took various different actions to reduce the stress during e-learning : 48.7% students did different things to take off their mind off the situation such as watching TV, movies, etc. whereas 47.2% students started Learning to live with the situation, by accepting it whereas 44% students experienced something good in what is happening, learning from experience whereas 20.7% students cope up by making fun of the situation by humor strategy whereas 2.6% students refused to believe it happened and not accepting the situation.

4. Discussions

This study was done in an institute and its aim was to study the awareness of the perceived causes of stress among the students and coping techniques they use to minimize stress. Students had difficulty in coping their course work due to online mode as they sometimes used to face poor internet access.Students in these pandemic have been educated through a mixture of media such as video, mobile phones, laptop, or personal computer. With a lockdown period with COVID-19 most physiotherapy colleges all over Maharashtra took to some or the other mode of learning. So the result was that most students experienced quite stressful and some students experienced somewhat stressful due to academic workload, non-accessibility of learning materials and least practical knowledge and bed-side clinical learning. Also understanding the class schedules, handling online examination due to poor internet access, concentrating on online lectures, back to back online lectures, and also students felt eye strain during lectures while seeing on mobile or laptop screen. So for coping strategies that majority of students used were they did different things to take off their mind off the situation such as watching TV,

movies and students started learning to live with the situation. These strategies were helpful as it attempted to reduce the negative impact on the students.

5. Conclusion

The study concluded that online learning in COVID-19 outbreak resulted quite stressful for the students of YMT College of Physiotherapy and this resulted that during online learning it can affect their academics workload due to least practical knowledge and non-accessibility of learning materials and practical knowledge too which led to stress for the students. For stress busters students tried different coping strategies such as doing something to take off their mind off the situation such as watching TV, movies so that they can they can divert their mind and overthinking of academics is reduced .

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