Perceived Stress and Sources of Stress among University Academics During the Covid-19 Pandemic

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ABSTRACT

Perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period. Higher education is of paramount importance to the country as universities are the places where knowledge is created through research and invention. To preserve the continuous smooth flow of knowledge creation and dissemination, lecturers play a vital role in the system. Therefore, their mental condition becomes a crucial factor, as stress can lead to various negative consequences. Even though university academics are knowledgeable, many tend to express feelings of experiencing stress in day-to-day life. As there is limited research conducted on the perceived stress among university academics of two state universities, this research could bridge the knowledge gap that exists in this regard. The research aims to investigate the perceived stress levels of university academics. The main theoretical framework of this study consisted of the theory of stress and coping developed by Lazarus and Folkman. The study population was comprised of two reputed state universities in Sri Lanka. Of the population of 813 lecturers, a sample of 262 was selected. It was selected to have a confidence level of 95% that the real value is within ±5% of the measured/surveyed value. Seven faculties from each university were selected for this study, and 131 academics from each university were randomly selected to be participants. Although the questionnaire was sent to 262 participants, only 50 of them responded. Convenience sampling was used as the technique for sample selection. The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress, and it was used as the instrument in the study. The primary data were gathered through the distribution of questionnaires as Google forms, mainly due to the disturbances in the country. Secondary material was gathered through books and other published research articles. By analysing the gathered data through SPSS, the researcher identified that 96% of the participants suffer from moderate to high stress. This is concerning as they are required to be mentally and physically strong in order to maintain the smooth flow of knowledge creation and dissemination. Some of the participants are engaged in different activities as solutions to stress. However, only 7% of them are engaged in relaxation exercises as a way of coping with stress. This could be mainly due to a lack of awareness regarding the benefits of relaxation exercises. As a researcher, it is important to reiterate the importance of the awareness of perceived stress and the employment of different mechanisms for decreasing stress levels for the betterment of one's well-being.

INTRODUCTION

This research is an attempt to study perceived stress and sources of stress among university academics during the COVID-19 pandemic. It mainly focuses on two state universities in Sri Lanka with the sample size of 262 academics. There are many research on COVID-19 pandemic and its impact on graduates. However, there is a visible vacuum in empirical data regarding research conducted on university academics which is intended to be bridged through this study.

In 1984, Lazarus and Folkman defined stress as "a pattern of negative physiological responses occurring in situations where people perceive threats to their well-being which may be unable to meet" (Lazarus & Folkman, n.d., 1984). Stress is defined as a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize (Marksberry, 2016). Stress is defined by Hans Selye as essentially the rate of all the wear and tear caused by life, later he defined stress as the non-specific (common) result of the demand on the body be the effect mental or somatic (Hubbard & Workman, 1998). In

day-today lives, stress is an inevitable part of a person's lives, long term stress can lead to various other health issues.

"The stress response theory outlines an adaptation that would have kept humans alive during a time when they may have been prey for large predators. As the predator attacked, the caveman would have entered the alarm stage, allowing him to run faster, jump higher, and think more quickly, thus increasing his chances of survival. Assuming he is not caught and eaten by the predator, the caveman would escape and calm down, eventually returning to a normal resting status. The human stress response evolved to help human beings survive in a different era. In today's world, it can be maladaptive" (Stoddard, 2017).

Stress can be both internal and external. If it is external the pressure comes from environmental sources, when it's internal, it's caused by internal perceptions of the individual. Internal stress can result in anxiety, and/or other negative emotions, and feelings such as press, pain, sadness, etc., and result in serious psychological disorders such as post-traumatic stress disorder (PTSD) (Shahsavarani, Abadi & Kalkhoran, 2015).

While stress is a negative physical and emotional experience, perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given time period. Perceived stress incorporates feelings about the uncontrollability and unpredictability of one's life, how often one has to deal with irritating hassles, how much change is occurring in one's life, and confidence in one's ability to deal with problems or difficulties. It is not measuring the types or frequencies of stressful events which have happened to a person, but rather how an individual feels about the general stressfulness of their life and their ability to handle such stress (Phillips, 2013). Although many are unaware of the danger of perceived stress in a person, it can cause various impacts on people. It can vary from tension, headaches, pain, anxiety, depression, eating disorders and sleep disorders ("The difference between stress and perceived stress", 2022).

Problem statement and justification

Higher education is of paramount importance to the country as universities are the places where knowledge is created through research and invention. In order to preserve the continuous smooth flow of knowledge creation and dissemination, lecturers play a vital role in the system. Therefore, their mental condition becomes a crucial factor, as stress can lead to various negative consequences.

Even though university academics are knowledgeable, many tend to express feelings of experiencing stress in day-to-day life. As there is limited research conducted on the perceived stress among university academics at two state universities, this research could bridge the knowledge gap that exists in this regard.

Research aim and objectives

The aim of the research is to investigate the perceived stress levels of university academics at two state universities so as to make suggestions to facilitate those who suffer from stress. The general objective of this study is to assess the level of perceived stress among university academics at two main state universities. The specific objectives are to to investigate the reasons for perceived stress among university academics; to enable the participants to identify the level of perceived stress they experience; to build awareness of perceived stress among university academics and to provide suggestions for improved mental health.

Research questions

The following research questions are intended to be explored through this study.

1.1 What is the level of perceived stress among university academics at the selected state universities?

1.2 What are the reasons for the perceived stress among university academics?

1.3 What are the possible suggestions that could be proposed to minimize the stress level among university academics?

LITERATURE REVIEW

Similar researches

When conducting the literature review, the researcher was able to come across several studies conducted on similar topics. This portion of the study focuses on such similar research.

The research on "factors associated with college students' perceived stress" by Kate Brough focuses on perceived stress experienced by university students. College students from a Mountain state university (n = 187) completed an online survey that included the Perceived Stress Scale and the Daily Experiences of Pleasure, Productivity, and Restoration Profile. The amount of pleasure, productivity, and restoration students experienced from their day were each negatively correlated to their total levels of perceived stress, although only weakly (r = -0.15 to -0.25). Regression analysis revealed that of the three experiences, the amount of pleasure students experienced explained the largest amount of the variance in perceived stress; but, it was a weak predictor, explaining only 3% of the variance independently (Brough, 2015).

The research on Perceived stress and source of stress among undergraduate medical students of Government Medical College, Mysore by Bhavani Nivetha M., Mansoor Ahmed, and Prashantha B. is another research which was conducted on similar grounds. It was a cross-sectional study done in Mysore Medical College among undergraduate students. Perceived stress scale was used to assess the level of stress and Medical student's Stressor questionnaire was used to assess the source of stress. A total of 303 students were included in the final analysis. Among them 51.5% were male and 48.5% were females. The age group of the students ranged between 18 and 24 with a mean age of 20.48 and standard deviation (SD) of 0.4. The mean and SD of PSS score is 17.7 and 5.5. The prevalence of mild, moderate and severe stress was 20%, 74% and 6% respectively. Majority of the students (40.9%) considered academic related stressors to be the source of high stress. In the study though majority of the students were stressed (80%), only 6% were severely stressed. The coping strategies adopted by the students like resorting to sleep and music/dance appeared to be appropriate methods of handling stress (Nivetha M., Ahmed & B., 2018).

Stefanie M. Petrie's research on "The Relationship between Perceived Stress and Resilience among Adolescents with Cystic Fibrosis" is a study completed for medical purposes. In this study, the relationship between perceived stress and resilience in adolescents with CF was examined to help identify the psychosocial needs of these 4 4 2 individuals. Since many individuals diagnosed with CF are living longer, it is important to assess their stress and resilience in an effort to help with effective coping mechanisms before reaching adulthood. In addition, the use of a resilience scale can guide healthcare providers in promoting resilience and contribute to the health promotion and overall wellness of adolescents with cystic fibrosis (Petrie, 2010).

These studies demonstrate that they are focused on undergraduates and their perceived stress level. It enables us to identify that there is a visible research gap as there are a limited number of research conducted on the perceived stress among university academics.

Theoretical framework

Lazarus and Folkman's Theory of Stress and Coping

In 1984, the most influential theory of stress and coping was developed by Lazarus and Folkman. They defined stress as resulting from an imbalance between perceived external or internal demands and the perceived personal and social resources to deal with them. According to Lazarus and Folkman, two cognitive appraisal processes can be distinguished. Lazarus and Folkman's theory aims to explain how a person psychologically copes with stressful situations. According to this theory, one's perception of physical and mental health is related to the way one evaluates and copes with stressors (Burton & Haley, 2001).

The initial appraisal, defined as primary appraisal, involves the analysis of whether an event is personally relevant. Events perceived as personally relevant can be appraised as either positive or stressful (the latter including possible harm, threat, or challenge). If individuals perceive events as stressful, they evaluate their own

resources to deal with the demands. This constitutes the process of secondary appraisal. Stress occurs when the demands are perceived as either exceeding or taxing the resources and coping responses become activated. Lazarus and Folkman (1984) defined coping as cognitive and behavioral efforts to deal with situations appraised as stressful. Generally, cognitive appraisal and coping processes are influenced by personality factors, personal and social resources, characteristics of the situation, and other variables (Burton & Haley, 2001).

The instrument

The Perceived Stress Scale (PSS) is the most widely used psychological instrument for measuring the perception of stress. The Perceived Stress Scale (PSS-10) is a 10-item questionnaire originally developed by Cohen et al. (1983) and widely used to assess stress levels in young people and adults aged 12 and above. It is a measure of the degree to which situations in one's life are appraised as stressful. Items are designed to tap into how unpredictable, uncontrollable, and overloaded respondents find their lives (PSS-10, 2022).

PSS -10 tool was employed to evaluate levels of stress. It is a brief and easy-to-administer tool. It measures the degree to which situations in one's life are appraised as stressful. It has been proven to possess substantial reliability and validity. The questions in this scale ask about the feelings and thoughts of the participants during the last month. In each case, they will be asked to indicate how often they felt or thought a certain way. It is a 10-item questionnaire with responses in the form of how often they experienced certain situations from 0-never to 4-very often (Cohen, Kamarck & Mermelstein, 1983).

METHODOLOGY

Methods

Research design

"A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure" (Ackoff, 1961). The research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. As such the design includes an outline of what the researcher will do from writing the hypothesis and its operational implications to the final analysis of data (Kothari, 2004).

Descriptive research studies are those studies that are concerned with describing the characteristics of a particular individual, or of a group (Kothari, 2004). Since this research attempts to identify the stress level and causes of stress among university academics, its research design is understood as descriptive. It also focuses on one variable of perceived stress level and further investigates the selected variable. This research does not test the relationships between several variables. Therefore, this research falls into the category of descriptive variable.

Research strategy

Quantitative and qualitative are the two main research strategies that are accessible for researchers. This research can be identified as quantitative research. Quantitative research is based on quantitative variables, which can be measured in appropriate units. These involve objects and individuals that vary in size, quantity, amount, scale, or degree. The intention of this research is to measure the perceived stress level of university academics throughout the duration of one month. Even though the research attempts to evaluate emotions and feelings, it falls into the category of quantitative analysis as it tries to investigate sentiments by using a validated questionnaire. However, towards the latter part of the questionnaire, two questions are added to find out the reasons for stress among university academics which are analysed using qualitative methods.

Data collection

Population

The population of this study consists of two of the most reputed state universities in Sri Lanka. These universities

were randomly selected as it was convenient for the researcher to conduct the research based on those two academic communities.

According to recent consensus, university A comprises 319 lecturers and university B has 494 lecturers. Therefore, the total population of the study is 813.

Sample

For the population of 813, a sampling of 262 were selected. It was selected to have a confidence level of 95% that the real value is within ±5% of the measured/surveyed value.

Seven faculties of each university were selected for this study and 131 academics from each university were randomly selected to be participants. Although the questionnaire was sent for 262 participants, only 50 of them responded. This is again discussed under the limitations of the study.

Sampling technique

This research employed a convenience sampling technique which falls into the category of non-probability sampling. Non-probability sampling is a sampling procedure that does not afford any basis for estimating the probability that each item in the population has of being included in the sample. Non-probability sampling is also known by different names such as deliberate sampling, purposive sampling, and judgement sampling. In this type of sampling, items for the sample are selected deliberately by the researcher; his choice concerning the items remains supreme. In other words, under non-probability sampling, the organisers of the inquiry purposively choose the particular units of the universe for constituting a sample on the basis that the small mass that they so select out of a huge one will be typical or representative of the whole (Kothari, 2004).

Convenience sampling was selected mainly for the convenience of the researcher. As there are some lecturers who are overseas or on study leave, the researcher had to take those into consideration before selecting the participants. Avoidance of such academics was crucial to maintain the integrity of the study.

Data collection methods

Primary data

Data collection is one of the crucial sections of research. Primary data collection was conducted through the distribution of questionnaires. It was accomplished through Google forms mainly due to the disturbances in the country. 27 questions were included in the questionnaire that enabled the researcher to gather information on perceived stress among university academics.

Secondary data

Secondary data were mainly gathered through books, journal articles and websites. It allowed the researcher to gather more information regarding the selected topic.

The assessment instrument

The assessment tool employed here is PSS – 10 tool. PSS -10 tool was employed to evaluate levels of stress. It is a brief and easy-to- administer tool. It measures the degree to which situations in one's life are appraised as stressful. It has been proven to possess substantial reliability and validity. The questions in this scale ask about the feelings and thoughts of the participants during the last month. In each case, they will be asked to indicate how often they felt or thought a certain way. It is a 10-item questionnaire with responses in the form of how often they experienced certain situations from 0-never to 4-very often (Cohen, Kamarck & Mermelstein, 1983).

Data analysis

Methods of data analysis

Data analysis is the process of evaluating the gathered data. The process of data analysis includes cleaning,

translating, and formatting data testing with the aim of finding useful information. Data Analysis is in short a method of putting facts and figures to solve the research problem. It is vital to finding the answers to the research question. Accordingly, in this research, data obtained from 50 databases were quantitatively analyzed by SPSS software.

Research limitations

One of the major limitations of this research is the lack of contribution of participants. Even though the questionnaire was sent as a Google form, many were not interested to take part in it. When it was sent to two reputed state universities in Sri Lanka to a population of 280, only 50 responses were gathered. Therefore, it was a limited number of responses were analysed.

The current situation in the country also acted as a limitation from expanding the study further. Firstly, it was the intention of the researcher to conduct several interviews with the participants of the study. Due to the prevailing situation of the country, the researcher could not conduct interviews and had to rely on online methods to gather primary data.

The time restrains were also a concern when completing this study. Limited time was given and it prevailed the researcher from investigating several other state universities and academics.

Since this study was conducted focusing on a carefully selected sample, it is advisable not to generalize the findings to that of the population.

RESULTS AND DISCUSSION

Socio-demographic profile of the study participants

Representation of the gender distribution of the participants
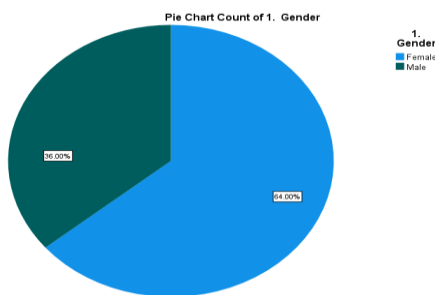

Figure 1: Socio demographic profile of the study participants

The Study participants consisted of both male & female, while majority of them were females (64%). The male participants were 36% from the total study population.
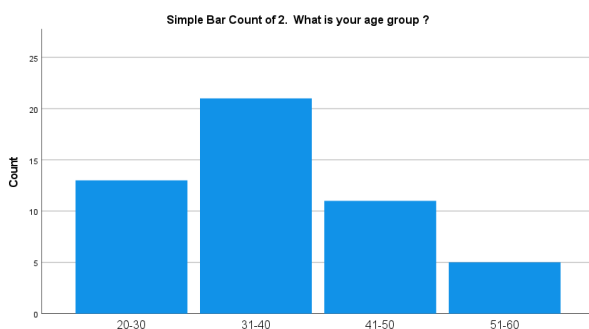
What is your age group?

Figure 2: Age group

The above graph indicates the age distribution of the participants. 13 of them belong to 20 – 30 age gap and 11 of them belong to 41-50 age gap. The majority of them belong to the 31-40 age gap which is 21 participants. The lowest number of them are in the 51 – 60 age gap which is 5 participants. This demonstrates that most of them are below 40 years of age.
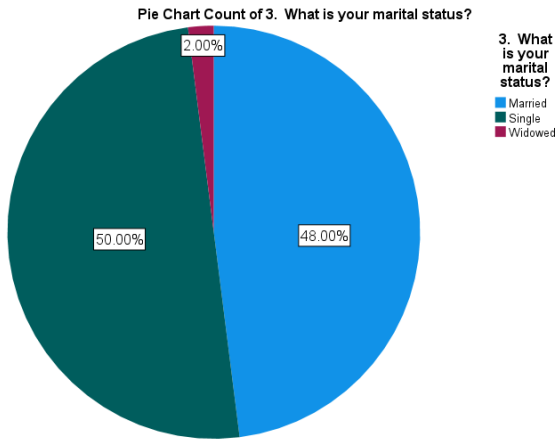
What is your marital status?

Figure 3: Marital status

This graph shows that 50% of participants are single and 48% of them are married. When it is not a major difference between the two groups there are also 2% of them who are widowed. This creates an interesting dynamic in the selected group.

Perceived stress level of university academics

Table 1: Perceived stress level of university academics

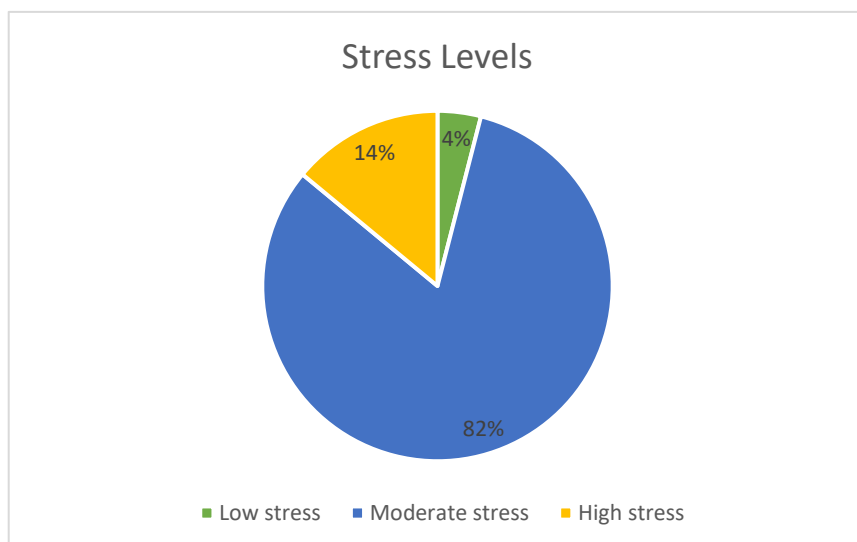| Stress level	Number of participants
Low stress	2
Moderate stress	41
High stress	7

Figure 1: Perceived stress level of university academics

The above graph indicates the perceived stress level of university academics. It illustrates that 4% experiences low stress level while majority of them suffer from moderate stress (82%). The high stress rate is 14% which is also a concerning situation as well. Therefore, most of the participants experience moderate to high level of stress within the past month.

Table 2: Stress level

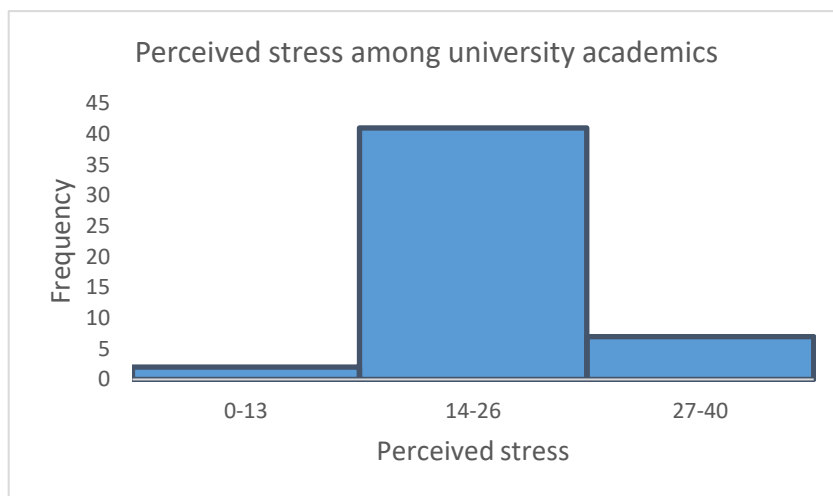| Stress Level	Frequency
0-13	2
14-26	41
27-40	7

Figure 52: Stress level

The above graph demonstrates the perceived stress level of university academics. The mean value is 20.96. According to the validated instrument of perceived stress scale – 10, Scores ranging from 0-13 would be considered low stress; Scores ranging from 14-26 would be considered moderate stress; and Scores ranging from 27-40 would be considered high perceived stress. Therefore, the majority of the participants indicate the perceived stress level from medium to high level.

What are the reasons for the perceived stress among university academics?

What are some of the reasons that cause stress in you?

Table 3: Reasons that cause stress

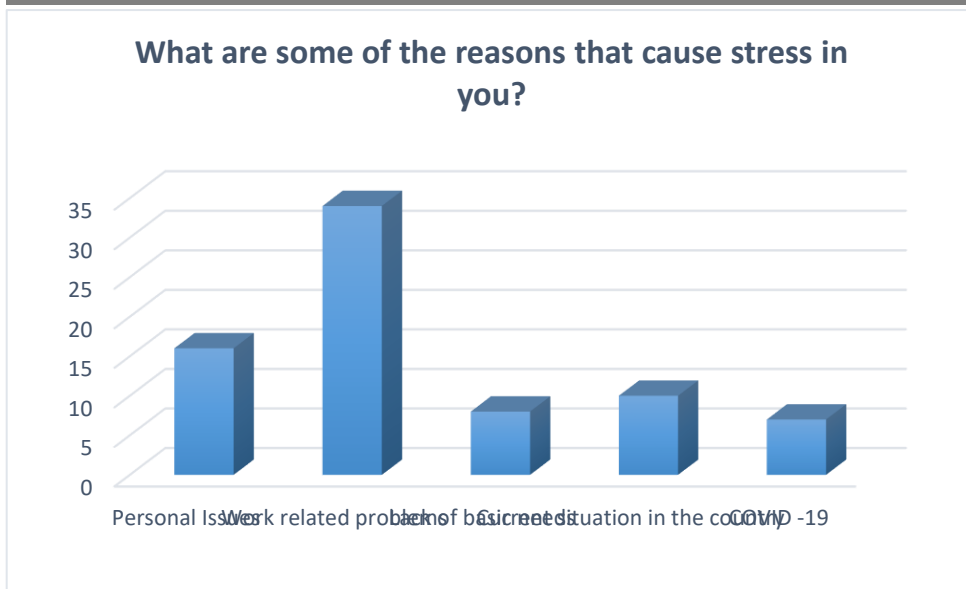| Issues	Number
Personal issues	16
Work related problems	34
Lack of basic needs	8
Current situation in the country	10
COVID -19	7

Figure 6: reasons that cause stress

Question 26 was an open-ended question that focused on reasons that cause stress in participants. For this question, the gathered responses were gathered in a table and demonstrated through a bar chart.

According to the data, the majority of them suffer due to work-related issues. This includes insufficient time to meet deadlines, heavy workload, lack of support from staff members and lack of free time and holidays. Therefore, work pressure seems to be the biggest source of stress among participants.

The second highest responses were given to personal issues. This includes commitment towards family, children, and lack of time to spend with family and isolation. The responses given to other categories such as lack of basic needs, the situation in the country, and COVID-19 have similar response rates. This means that the participants are also affected by the external forces that are within and beyond their control.

What are the possible suggestions that could be proposed to minimize the stress level among university academics?

Have you taken any steps to reduce stress?

Table 4: Steps taken to reduce stress

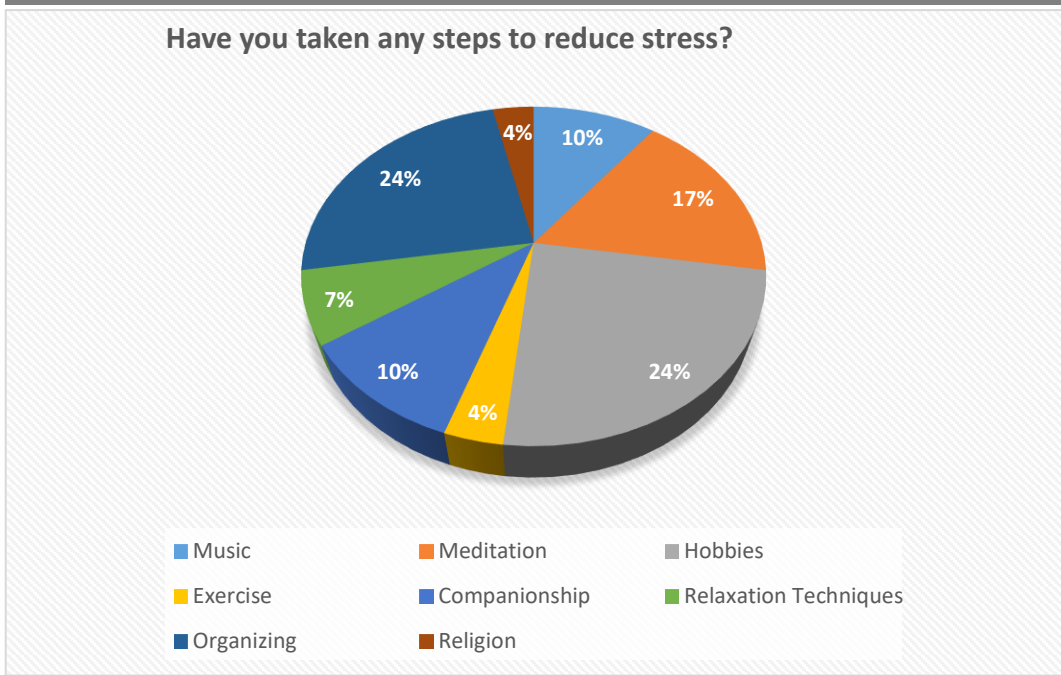| Steps taken	Rate
Music	3
Meditation	5
Hobbies	7
Exercise	1
Companionship	3
Relaxation Techniques	2
Organizing	7
Religion	1

Figure 7: Steps taken to reduce stress

The 27th question focused on steps taken by participants to reduce stress. This was an open ended question which allowed them to freely respond. Interestingly, organizing and hobbies received similar response of 24%. 17% responded by saying they engage in meditation. Only 7% are engaged in relaxation techniques which indicates unawareness of the importance of such effective methods.

CONCLUSION

Perceived stress incorporates feelings about the uncontrollability and unpredictability of one's life, how often one has to deal with irritating hassles, how much change is occurring in one's life, and confidence in one's ability to deal with problems or difficulties. It is not measuring the types or frequencies of stressful events which have happened to a person, but rather how an individual feels about the general stressfulness of their life and their ability to handle such stress (Phillips, 2013). When conducting the literature review, the researcher was convinced that many of the studies were conducted on the stress level of undergraduates. Only a limited number of research were conducted on the perceived stress level of university academics. Therefore, this research was conducted as a way of bridging the apparent gap in the existing literature.

The main aim of this research is to investigate the perceived stress levels of the university academics at two state universities in Sri Lanaka. The general objective of the research is to assess the level of perceived stress among university academics at the selected universities. The specific objectives are to investigate the reasons for perceived stress among university academics, enable the participants to identify the level of perceived stress they experience and build awareness of perceived stress among university academics, and provide suggestions for improved mental health. By conducting an online questionnaire, the researcher was able to find answers to the research questions which were namely: what is the level of perceived stress among university academics at the selected universities and what are the reasons for the perceived stress among university academics?

By analysing the gathered data through SPSS, the researcher identified that the majority of the participants suffer from moderate to high stress. This is concerning as they are required to be mentally and physically strong in order to maintain the smooth flow of knowledge creation and dissemination. Many of them stated that the reasons for stress are work-related where they don't receive sufficient time to complete tasks. Further, issues related to personal lives, current situation in the country, scarcity of goods, COVID-19 are also recognized as stressful matters by the participants.

Some of the participants are engaged in different activities as solutions to stress. Some are engaged with meditation, listening to music, engaging with hobbies, and organizing tasks as a way of coping with perceived

stress. However, only a small percentage of them are engaged in relaxation exercises as a way of coping with stress. This could be mainly due to the lack of awareness regarding the benefits of relaxation exercises. As the researcher, it is important to reiterate the importance of the awareness of perceived stress and the employment of different mechanisms for decreasing stress levels for the betterment of one's well-being.

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