

# A Cross-Examination on Role Strain and Academic Performance of Female University Students in Masvingo, Zimbabwe

Lokadhia Manwa<sup>1</sup>, Jenet Mudekunye<sup>2</sup> and Lilian Manwa<sup>3</sup>

<sup>1&3</sup> *Department of Technical Education, Great Zimbabwe University, Zimbabwe*

<sup>2</sup> *Department of Teacher Development, Great Zimbabwe University, Zimbabwe*

**Abstract:** - The purpose of this study was to interrogate the impact of role strain on academic performance of female university students. The consistent rise in the number of married and working female students in Zimbabwe demands an accurate and detailed investigation into the link between role strain, well-being and academic performance. A qualitative approach and a descriptive phenomenological design was adopted and conducted among a sample of thirty participants (twenty-five undergraduate female students and five lecturers) at one of the universities in Masvingo Province. Student participants were randomly selected while lecturers were purposefully chosen. Participating students were interviewed and completed an open-ended questionnaire that included questions related to their roles and well-being. All lecturer participants were interviewed. Outcomes of this study indicated that the majority of the students were negatively affected by role strain. This led to impaired diets (poor dietary patterns) as well physical and mental exhaustion. Most students showed to be 'unsatisfactory' with their assignments and examination grades. More than half of the students reported skipping breakfast and jumbled meals due to busy schedules. Ultimately, the study concluded that role strain led to poor dietary patterns and consequently affected negatively the well-being and academic performance of the students. However, developing healthy habits, specific programmes for promoting female students healthy lifestyle needed improvement and those were major recommendations of the study.

**Keywords:** academic performance, undergraduate student, role strain, well-being, dietary patterns.

## I. INTRODUCTION AND BACKGROUND

Undergraduate students are becoming a diversified group with young, old, married and working students attending university in larger numbers (Rowlands, 2010; Mohamedbhai, 2008). The researchers were motivated into studying this phenomenon because they observed similarities between their experiences as lecturers and as university students. This means female undergraduate students may be experiencing significant strain while pursuing their academic goals and attempting to negotiate the competing role demands. Research has demonstrated the prevalence of role strain among university students in developed and developing countries (Rowlands, 2010; Pavy, 2007; Adebayo, 2006). These scholars found that university students involved in many roles of study, work and attending to their families and leisure are

vulnerable to role strain, hence the current study on its impact on female students' academic performance.

### *Mental health and academic achievement*

The relationship between role strain and academic achievement lies in the notion of well-being put forward by Basch (2010), who argues that a healthy body is able to maintain a healthy mind. This means that certain risk factors resulting in ill health are also risk factors for depression and cognitive impairment. Hamaideh (cited in Mamhute 2011) states that due to continually changing university environments, students may potentially experience high levels of strain that can unhelpfully influence their health and, subsequently, their academic performance. Strain is one of the multitudes of psychosocial factors that may contribute to a person's eating patterns and which may, in turn, impact negatively on peoples' well-being. Vitamins, minerals and amino acids are vital to cognitive functioning and affect the production of chemicals in the brain (Basch, 2010), hence, the importance of studying the impact of role strain on academic performance.

The body and mind are so interrelated that psychological stress and physical health are interlinked (Ryan, 2004). Kaplan & Sadock (cited in Rafidah, Azizah, Norzaidi, Chong, Salwani & Noraini, 2009) state that too much strain can cause physical and mental health problems. Although an optimal level of role stress can boost learning ability, performance in academic life demands all aspects of well-being, which include the physical, social, emotional, spiritual and psychosocial (Safree, Yasin & Dzulkifli, 2011; Barrows, Dunn & Lloyd, 2013). Hom (2010) states that "university students are four times more likely to be anxious and depressed than other people of their age." The problem lies in the amount of work load given to university students. Thus, the number of roles that students assume might be directly associated with the stress they experience.

It has been theorised and accepted that role strain is both directly and indirectly related to academic achievement (De Bruyn, 2010). The indirect trail, through cognitive engagement, is assumed to arbitrate the effects of role strain on academic engagement. Significant levels of strain often accompany the new roles conferred upon the students, in this

case, mostly young adults. Students may be stressed by the expectations invoked by their roles as students, family members and friends. Role strain levels are related to academic achievement as mediated by behaviours such as academic commitment or engagement which are favourable to achievement (De Bruyn, 2010). Theorists have repeatedly called attention to the fact that individuals are often anxious, overwrought, indecisive and ineffective when faced by numerous and/or contradictory role demands (Veney, O’Green & Kowalik, 2012; Lackey, 2004).

University life can be very demanding. Generally, people idealise the college experience and remember it as that idyllic time when they had little worries or everyday tasks (Idris, 2011). To students currently attending college, however, the process is often stressful and tedious. The need to perform well, peer relationships, fear of failure and many other aspects of the college environments are real life challenges that may manifest as mental strain. Owing to busy schedules, university students may not recognize signs and symptoms of stress, for example, headaches, stomach upsets, fatigue, tiredness, lack of concentration, moodiness, irregular sleeping patterns, increased muscle tension, to list just a few (Duenwald, 2002; Worthington-Roberts & Williams, 2000). These signs and symptoms of stress have a bearing on food intake and, in turn, physical, emotional and psychological well-being

For university students to achieve optimum academic performance there should be complete wellness since the body is a complex structure; one part of the body affects the proper functioning of the other (LaFountaine, Neisen & Parsons, 2006). Health and Academic Achievement (2014) defines health as complete physical, mental and social wellbeing, not

simply the absence of disease or dysfunction. Such conceptualisation of wellness facilitates the maximum development of the individual’s potential within his/her environment. Signs of strain may include cognitive, emotional, physical, or behavioural aspects such as hostility (Safree et al, 2011). Acute stress can crop up in anyone's life and university female students are no exception since university life has perceived stress levels. Thus, according to Amponsah and Owolabi (2011) and Agolla and Ongori (2009), it is vital for universities to maintain well-balanced college environments for conducive learning and they should also avoid acute stress.

Research has shown that stress levels not only affect physical health, but that it can also influence nutrition and vice versa (Wardlaw & Smith, 2011). The type of diet we follow can have a very powerful influence on the ability to deal with stress. People feel less fatigued, have more energy and their mood improves when they are on a healthy diet (Wardlaw & Smith, 2011). Astro Nutrition (2012) states that when under stress, people often consume a diet loaded with caffeine, fat, refined carbohydrate and alcohol. In excess, these foods exacerbate stress and also increase the chances of developing diet related problems such as hypertension, strokes, heart disease, cancer and many others. Although the effects of stress and nutrition on health and academic performance are often cited, few research studies have examined the effect of role strain (stress) and well-being on the academic performance

of university students. Figure 1 shows the link between role strain well-being and academic achievement of the university students.

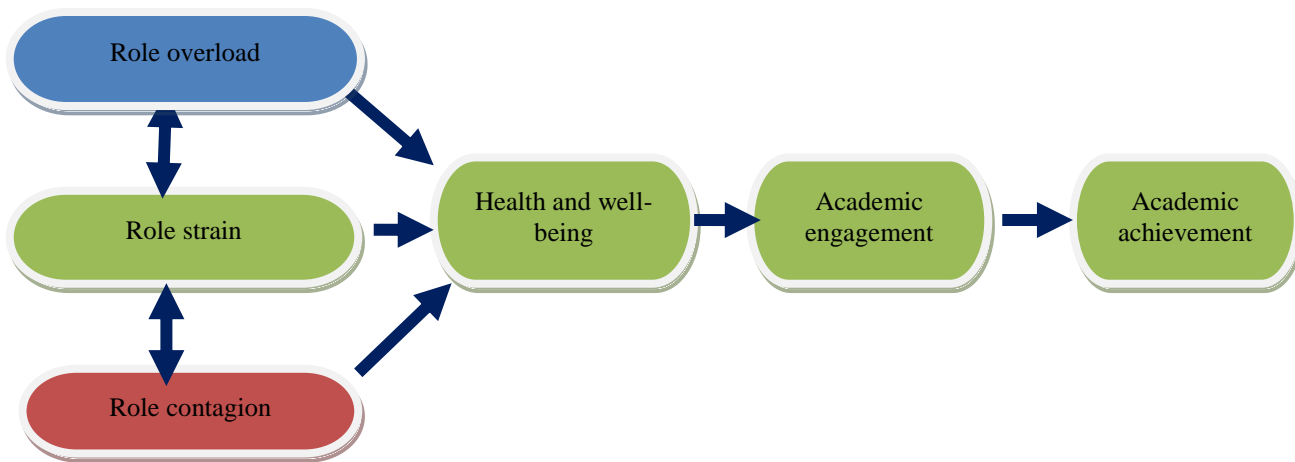


Fig. 1 Link between the role strain, well-being and its relationship to academic performance

*Physical health and student role fulfilment*

Physical wellness is whereby students recognise the need for a balanced diet, physical activity and sleep. These needs have since been seen to impact on academic performance in one way or the other (Yahia, Wang , Rapley & Dey, 2016; Willis, 1994). Most health experts intuitively believe that a number of

environmental factors affect dietary preferences which, in turn, influence health (LaFountaine et al., 2006; Willis, 1994). Health and Academic Achievement (2014) say that there is evidence of existence of the relationship between dietary habits and academic performance. These include skipping breakfast and excess intake of junk food. Breakfast eaters are

associated with better attention and better behaviour in class than breakfast skippers who are said to have decreased attention and difficulty in processing complex concepts (Holly & Sage, 2011; Ghosh & Saha, 2010; Health and Academic Achievement, 2014). Regular intake of macro nutrients was found to be correlated with a higher cognitive performance (Zhang, McKeoun, Maldoon & Tang, 2006). There is, therefore, need to look at the impact of nutrition on academic performance since role strain may lead to student impaired dietary habits.

Lack of adequate consumption of specific foods such as vegetables, fruits and dairy products is associated with lower grades among university students (Health and Academic Achievement, 2014; Ghosh & Saha, 2010). Thus, deficits of specific nutrients such as Vitamin A, B<sub>6</sub>, B<sub>12</sub>, C, folate, iron, zinc and calcium are linked to lower grades and tardiness (Basch, 2010). In light of the above submission and in the context of this study, it was the researchers' contention that role strain may lead to eating disorders and create an array of medical conditions that may occur very often on college students, especially female undergraduates, since they will be adjusting to demands of the new student role, busy schedules, personal, situational and institutional barriers.

It is against this background that the study was guided by the following objectives:

- 1) To establish the influence of role strain on well-being of female university students
- 2) To examine the relationship between female students' role strain and academic performance

## II. METHODOLOGY

This study, which sought to cross-examine the relationship between role strain, well-being and undergraduate students' academic performance, espoused a qualitative approach and a descriptive phenomenological design to provide a picture of the student role as it naturally happens. As a result, a thick description of undergraduate students' experiences was established.

The population of this present study comprised undergraduate students from one university faculty and their lecturers. The study was restricted to only one faculty because faculties differ in their student role demands, the characteristics of their undergraduate students and the studied school constitute more than one third of the university population. The target population was approximately four hundred people.

Undergraduate students who participated in the study were expected to have the following attributes in order to meet the criteria for inclusion in this study:

1. To have completed at least two semesters at the university as they would have experienced student life for a reasonable time.

2. Willing to participate so as to provide authentic answers in interview questions and when completing open-ended questionnaires.

The researchers used a sample of thirty participants which included twenty-five undergraduate students and five lecturers from five departments in the faculty. The students were randomly sampled and lecturers were purposefully selected each representing a department. Lecturers who were chosen had more teaching modules/courses in the undergraduate group under study as they had rich information concerning their students. The researchers focused on a small sample size so as to gather rich and detailed information from the participants. This enabled the researchers to produce accurate descriptions. Onwuegbuzie and Leech (2007) state that if the sample is too large, the qualitative researcher will be overwhelmed by data.

The undergraduate students and lecturers' views, perceptions and experiences were elicited through the use of individual in-depth interviews and open-ended questionnaires. These data gathering instruments were well-matched with the qualitative methodology; the approach generally guides the researcher on the methods to be used, that is, making decisions on the "fitness for purpose" (Cohen, Manion & Morrison, 2011). The methodology also allowed the researchers to carry out in-depth discussions with participants, in relation to their day-to-day experiences.

To maintain anonymity and confidentiality in the research, participants' pseudonyms e.g IS-Mary (interview student Mary) and codes were used to tag the responses that emerged from the open-ended questionnaires and transcribed data e.g Q- A (questionnaire A).

## III. FINDINGS AND DISCUSSION

Table 1: Demographic data of participants N= 30

VARIABLE	VARIABLE DESCRIPTION	FREQUENCY	PERCENT AGE (%)
Age	Below 25yrs	7	23.3
	25- and above	23	76.7
Marital status	Single	5	16.6
	Married	20	66.8
	Single parent/ Widow/widower	5	16.6
Programmes for students	Full-time	15	60
	Part-time	10	40
Teaching experience for lecturers	Less than 5yrs	1	20
	Above 5yrs	4	80

Table 1 above shows that there were thirty participants, of whom ten were interviewed face-to-face, while twenty participated through answering the open-ended questionnaire. Age was significant in this present study because it is very

closely linked to role strain as it depicts ones' duties in the life cycle.

In the analysis of results, narratives, excerpts and vignettes or the actual words that were written or spoken by the participants as responses to the in-depth interviews and open-ended questionnaires were captured and italicised for ease of identification as they represent typical responses that were provided by the participants. The intention was to highlight the trustworthiness and reliability of the research findings. During the research process, there were some circumstances where the researchers had to separate or merge data from the student(s) and lecturer(s) participants.

#### *Role Strain Compromised Undergraduate Female Students' Well-Being and Consequently Academic Performance*

The researchers established that role strain influenced the undergraduate students' eating patterns and that, due to physical and mental exhaustion and in some cases illnesses, this negatively impacted on their role performance. The majority of undergraduate student participants in this present study indicated that their eating patterns had changed since they came to college. Only a few showed that there were slight changes in their eating patterns and just one out of the twenty-five undergraduate participants indicated that her dietary patterns have not changed. Issues which led to change of eating patterns comprised mainly busy schedules and lack of variety which, in turn, led to the skipping of breakfast and frequent consumption of junk foods. The narratives that were shared by the undergraduates who participated in this study revealed that almost all of them were negatively affected by social and physical problems which disturbed their well-being and, consequently, academic engagement. The next section presents data on the impact of skipping breakfast.

#### *Skipping breakfast had undulate effects on students' well-being*

Many undergraduate students indicated that they did not have time to take breakfast despite its nutritional capability. This was the major change in their diets. They lamented that they spend the whole day without eating a proper meal. The following responses from in depth interviews and questionnaires have been selected because they represented the typical responses that were provided by the participants. These illustrate how skipping of breakfast negatively impacted on students' health and, consequently, academic engagement.

*I now rarely take breakfast and have since discovered that this affects my health and concentration span. I remember one day I felt so hungry that I decided to get out of the lecture room to find something to eat because I was dozing in class. (IS- Fatso).*

Responses from the questionnaires also echoed the same sentiments that the skipping of breakfast meals was the major change in dietary patterns, as well as a challenge in

undergraduate students' lives. The following response confirms the findings:

*Eating patterns have changed. Because of very busy schedules, I rarely eat breakfast and lunch. Cold food is the order of the day and this has affected my health. (Q- B).*

The next section presents unplanned haphazard eating patterns.

#### *Undergraduate students had unplanned haphazard eating patterns*

The results of this study also revealed that most undergraduate students had unplanned and irregular meals, which led to unbalanced diets and/or lean times. This negatively impacted on their health and, consequently, academic engagement. Most student participants indicated that they had no time to plan meals nor did they have defined meal times since they attended college. One non-resident student had this to say:

*Um...mh I only eat decent meals when on vacation. The whole semester we just live like people in the bush (laughing) because we don't have fixed meal times even at midnight we eat due to pressure. (IS-Fayi).*

Another resident student echoed the same sentiments:

*Our timetable is fully packed such that most of the time we miss canteen meal times. (IS-Shaw).*

Questionnaire answers also indicated that undergraduate students were failing to plan decent meals and also to have regular eating patterns. The following response justifies the findings:

*I have no time to think about what I will eat like we do at home. I just prepare what is an available mostly green vegetables. We no longer worry about decent meals or balanced diet. (Q- H).*

Another important point that came out from the participants' narratives related to change in eating patterns. Responses show that students frequently eat junk foods. Almost all undergraduate students' participants admitted that they were relying on "junk foods" though some of them knew that these have adverse health effects. The following responses from in-depth interviews show that students ate a lot of "junk foods":

*My dietary patterns have changed much. Sometimes lectures are done during lunch and at the canteen there is no variety of food. Mmmm..., most of us rely on French fries, burgers and soft drinks though I know it's a bad food habits but I can't help it. (IS-Fayi).*

*Since I started schooling, oh, I've seen a great change in the foods I am taking. They have really caused havoc in my tummy and the doctor said I have stomach ulcers. (IS-Fatso).*

*I am always stressed so I discovered that I have developed very high appetite so I just take what is available at that time usually from the tuck-shop. (IS- Bees).*

The following section presents findings that show that undergraduate students experienced physical and mental exhaustion.

*Undergraduate students experienced physical and mental exhaustion*

All the undergraduate student participants in this current study indicated that they experienced physical exhaustion, fatigue and stress from their student role(s) as well as social roles. The exhaustion was amplified by inadequate meals. Some of them revealed that they also faced health challenges such as headaches and stomach problems due to poor food intakes. These factors were identified as major barriers against undergraduate students' academic engagement and performance. These barriers lead to sub-standard assignments, low passes and failure to meet deadlines. The following verbal quotes from in- depth interviews illustrate that most undergraduate students experienced physical exhaustion and illnesses because of role strain and poor dietary patterns.

One mature student said:

*Just a week ago I ended up going to the clinic when my whole body was aching. I couldn't even concentrate on my school work as my mind and body was exhausted. (IS-Fayi).*

Another one echoed the same feeling and said:

*To be honest with you, umm...., these days I am experiencing physical fatigue and mental stress because of pressure and this has affected my appetite. (IS- Shaw)*

One more said:

*I really don't know how I'm going to go through this semester because I am already exhausted before I have even started preparing for the forthcoming exams. (IS-Fatso).*

Results from student questionnaires also revealed that undergraduate students suffered from physical exhaustion and illnesses. The following response confirms the findings:

*Since I started this degree program, I have developed many diseases. The doctor asked me to have enough rest and adequate food*

*intake but it's difficult because I am overwhelmed by many duties such that resting and eating are not a priority. (QR – K).*

All the lecturer participants confirmed the undergraduate students' responses when they indicated that their students were being affected by dietary problems to a greater extent, thus increasing the negative impact of role strain. They all expressed that what students went through or experienced in their academic career was taxing to their physical and mental health. They all indicated that most undergraduate students' face showed that they were stressed and these students slept in class as soon as they entered the lecture rooms, even during the first lecture of the day. Some came late for lectures and a number of them showed physical signs and symptoms of unhealthy bodies. The majority of the lecturer participants also stated that they always counselled students and also asked them to plan their tasks so that they could get adequate meals and sleep. Physical exhaustion negatively affected their concentration span and their academic performance. The following verbal quotes confirm the findings:

*Most students show stressed faces everyday even early in the morning. This really affects their concentration span. Um..., in several lectures, I often crack some jokes to keep them awake so that they may concentrate. (IL- Tapywell).*

*You know, um..., they are always half-absent due to coming late for lectures or dozing in class. (IL- Muza).*

*Discussion on the impact of role strain on undergraduate students' health and academic performance*

The findings on impact of role strain on undergraduate female students' health showed that most students' daily nutritional needs were not met and this revealed that their physical health statuses were compromised and in some cases leading to mental health. This confirms that a healthy body produces superior results. The study established that many students' dietary patterns had changed since they came to college. A number of reasons were given and these include busy schedules, meaning that they did not have time to prepare meals or purchase food from the canteen, lack of meals proper meals and easy availability of junk foods. These findings are consistent with those of LaFountaine et al. (2006) who also found out that most college students buy food from easily accessible food points and college canteens which provide cheap meals.

Worthington-Roberts and Williams (2000) are also of the view that access to food is the leading cause of physical, emotional, social and psychological status of populations. In this present study, the majority of undergraduate students got inadequate nutrients, leading to nutrition-related disorders which disturbed their academic engagement. The findings on

breakfast intake revealed that the majority of undergraduate students did not take breakfast regularly. These findings are similar to those of Ghosh & Saha (2010) who point out that a number of environmental factors affect dietary patterns. Breakfast is a very important meal of the day as it contributes largely to the days' nutrient intake (Willis 1994), therefore should not be skipped at all cost. Skipping breakfast is linked to decreased attention and difficulty in processing complex concepts; those who take breakfast are associated with better attention and better behaviour in class (Holly & Sage 2011; Ghosh & Saha 2010). This means that it is a very crucial meal in the lives of undergraduate students and must, therefore, be taken daily in a balanced form.

The results also revealed that some undergraduate students who claimed to take breakfast just drank a cup of tea and ate a slice of bread. Such meals do not provide adequate nutrients which are required to start the day; they do not provide at least one third of the days' nutritional requirement as recommended by nutritionists (Wardlaw & Smith 2011). A number of psychological needs, such as security, comfort or pleasure are met by eating. When these are not met, it is obvious that undergraduate students will be distressed.

The study also revealed that the health status of undergraduate students was greatly influenced by unplanned haphazard eating patterns, hence their poor academic performance. These results clearly indicate that environmental factors impacted negatively on students' dietary patterns as most participants complained about lack of time to access full-service grocery stores and also lack of familiar foods. All these lead to unhealthy eating and bad food behaviours. The findings of this study concur with Michelle, Mark & Paul (2008) who posit that foods for consumption are chosen by consumers within their context and their preferences as well. As in this case, most undergraduate students, especially foreign students and those from other regions of Zimbabwe indicated that they could not find their household preferences, thus, choice of food was a bit challenging. Some students, therefore, resorted to eating foods they did not enjoy eating. This impacted negatively on food intake and their health status.

The present researchers also noted that unplanned haphazard meals increased the undergraduate students' stress. This echoes the Yahia, Wang, Rapley and Dey (2016) advice that tea, lunch and dinner breaks are very crucial as they help relieve the stress of working all day long. This, therefore, means that, no matter how busy undergraduate students are, they need some downtime to refresh their bodies and minds in the busy college ambience. Unplanned haphazard meals indicated that undergraduate students' dietary patterns were at odds with healthy lifestyles as they seemed to be too busy to eat properly. They went for food stuffs that were easily available and, which, in most cases, lacked adequate nutritional value and were often prepared in unclean environments.

The easy availability of junk foods and very tight schedules led to a high intake of "junk foods" among undergraduate students. As an alternative to meals like breakfast or lunch, a variety of non-nutrient or high fat, sodium and sugary foods were eaten by the students. According to Amponsah and Owolabi (2011), this is equivalent to skipping meals and this is a very bad habit for body development and normal growth. Intakes of "junk foods" also lead to the accumulation of sugar, salt and cholesterol in their bodies. This is a health risk factor for most chronic diseases and it impacts negatively on their academic engagement. Trans-fats in "junk foods" negatively affect brain synapses and many other molecules that aid in learning and the proper functioning of the short memory (Roger, 2001). Thus a high intake of fatty foods, like most take-away foods, hinders the learning process.

The student participants' responses in this study also showed that undergraduate students' dietary patterns exacerbate the stress students already suffer due to role strain. This is because food energises the physical body to continue working and it also keeps the mind alert. It is very difficult to work or concentrate on an empty stomach. Thus, physical and mental stresses result in exhaustion and impact negatively on academic engagement as studying required a healthy fresh body and mind. Commenting on such situations, Michelle, Mark and Paul (2008) argue that impact on the academic performance of university students and their future educational attainment is a public health concern because these lead to poor academic grades and unhealthy individuals.

Good nutrition is very essential for both physical and mental health as its absence results in stress and tiredness, which reduce the students' concentration span during lectures or study. Physical and mental exhaustion was listed as the major barriers to academic engagement by almost all the lecturer participants. This, therefore, shows that there is a very close link between food intake and student role fulfilment. Food as a physiological need must be met first so that undergraduate students can perform to their best. Physical exhaustion led to many complications, such as fatigue and general poor health which disturb academic engagement. These findings are similar to those found by Basch (2010) who points out that a healthy body is a healthy mind and vice versa.

#### IV. CONCLUSION AND RECOMMENDATIONS

##### *Conclusion*

This study concluded that role strain leads to impaired dietary patterns. Inadequate diets lead to compromised physical and mental health, thus negatively influencing on academic engagement and achievement.

##### *Recommendations*

The following recommendations were made on the basis of the research findings from this present study:

- The institution through the Department of Student Affairs should hold workshops and seminars on stress and time management workshops for undergraduate students. Such programmes will educate undergraduate students on how to handle pressure and manage time, in order to avoid procrastination.
- It is also important for undergraduate students to know that a healthy body is a healthy mind. This is very important because most undergraduate students do not think of food when they are under pressure.
- The study recommends the following management skills as guidelines to reduce undergraduate students' role strain:
  - (a) Students should manage their physical bodies. Physical and emotional management through adequate balanced diets exercises and adequate sleeping hours are fundamental factors for a healthy body. This helps them to develop elephant skins.
  - (b) Students and the staff should take guidance and counselling seriously will help students face challenges and also encourage them to share or seek advice from relevant people when in need of help. This enables the nurturing of positive attitudes to avoid excessive worrying as this can lead to focusing on worries instead of the student role workload.

#### REFERENCES

- [1]. Adebayo, D. O. (2006). Workload, social support and work-school conflict among Nigerian non-traditional students. *Journal of Career Development*, 33 (2): 125-141.
- [2]. Agolla, J. E. & Ongori, H. (2009). An assessment of academic stress among undergraduate students: The case of university of Botswana. *Educational Research and Review*, 4 (2): 063-070.
- [3]. Amponsah, M. & Owolabi, H. O. (2011). Perceived stress levels of fresh university students in Ghana: A case study. *British Journal of Educational Research*. 1 (2): 153-669.
- [4]. Astro Nutrition. (2012). *Emotional Wellbeing, Emotions, Illness, Immune mind stress*. <http://astronutrition.com/blog/astronutrition>. Retrieved 30 March 2019.
- [5]. Barrows, J., Dunn, S. & Lloyd, C. A. (2013). Anxiety, self-efficiency and college exam grades. *Universal Journal of Educational Research*, 1 (3): 204 – 208.
- [6]. Basch, C. E. (2010). Healthier students are better learners: A missing link in school reforms to close the achievement gap. *Equity Matters: Research Review* No. 6. Columbia University.
- [7]. Carr, C., Cloud, N. & Bradshaw, S. (2008). *Circumstantial evidence: The extent to which circumstantial influences affect study habits*. Bringham Young University.
- [8]. Cohen, L., Manion, L. & Morrison, K. (2011). *Research methods in education*. 7<sup>th</sup> Edition. London: Routledge.
- [9]. De Bruyn, E. H. (2010). Role strain, engagement and academic performance. *Netherlands Educational Studies*, 31 (1): 15-28.
- [10]. Duenwald, M. (2002). *Students find another staple of campus life: Stress*. <http://www.nytimes.com/2002/09/17>.
- [11]. Food and Agriculture Organization of the United Nations (2017). National Gender Profile of Agriculture and Rural Livelihoods – Zimbabwe: Country Gender Assessment Series. Harare.
- [12]. George K. (2010). *9 Reasons to choose in-depth interviews (IDIs) / Market Research in Upstate NY*. The Research Bunker.
- [13]. Health and Academic Achievement (2014). *Natural Centre for Chronic Disease Prevention and Health Promotion*. Atlanta.
- [14]. Holly, S. & Sage, R. (2011). Exploring the effects of hope on GPA and retention among college students on academic probation. *Education Research Interactional*. (2011) 1-7.
- [15]. Hom, V. 2010. *The triggers of stress in university life*. Utopia Research Institute.
- [16]. Idris, M. K. (2011). Overtime effects of role stress on psychological strain among Malaysian public university students. *International Journal of Business and Social Science*, (2): 9. [www.ijbssnet.com](http://www.ijbssnet.com).
- [17]. Lackey, G. P. (2004). *Stress, stress theories*. Carolina: University of Carolina-Chapel Hill.
- [18]. LaFontaine, J., Neisen, M. & Parsons, R. (2006). Wellness factors in first year college students. *American Journal of Health Studies*, 21 (4): 214-218.
- [19]. Lavy, V. & Sand, E. (2012). The friends' factor: How students' social networks affect their academic achievement and well-being? Hebrew University, University of Warwick.
- [20]. Mamhute, R. (2011). *The educational challenges of pregnant and nursing adult learners: A case of Morgenster Teachers' College*. D. Ed Dissertation. UNISA.
- [21]. Marmot, M. & Wilkinson, R. G. (1999). *Social determinants of health*. Midsomer Norton, Avon: Oxford University Press.
- [22]. Martin, M. A. & Murray, B. (2009). (Eds.). *Oxford handbook of anxiety and related disorders*. Oxford: University Press.
- [23]. Michelle, D. F., Mark, A. & Paul, J. V. (2008). Diet quality and academic performance. *Journal of School Health*. 78 (4): 209-215.
- [24]. Mohamedbhai, G. (2008). *The effects of massification on higher education in Africa*. Occasional Paper.
- [25]. Onwuegbuzie, A. J. & Leech, N. L. (2007). Sampling designs in qualitative research: Making the sampling process more public. *The Qualitative Report*, 12 (2): 238-254.
- [26]. Pavy, J. R. (2007). *The modern student: The psychological, social and academic implications of participating simultaneously in leisure, study and work*. Department of Social Science. University of Adelaide.
- [27]. Rafidah, K., Azizah, A., Norzaidi, M. D., Chong, S. C., Salwani, M. I. & Norraini, I. (2009). The impact of perceived stress and stress factors on academic performance of pre-diploma Science students: A Malaysian study. *International Journal of Scientific Research in Education*, 2 (1): 13-26. Retrieved 30 April 2018 from <http://www.ijrsre.com>
- [28]. Rogers, P. J. (2001). A healthy body, a healthy mind: long-term impact of diet on mood and cognitive function. *Proceedings of the Nutrition Society*, 60, 135-143.
- [29]. Rowlands, S. R. (2010). *Nontraditional students: The impact of role strain on their identity*. Model Research Paper. Southern Illinois University Carbondale.
- [30]. Ryan, M. I. (2004). *The relationships among stress of living situations, health and academic performance*. Dissertation. Loyola University: Department of Psychology.
- [31]. Safree, A., Yasin & Dzulkifli, M. A. (2011). Differences in depression, anxiety and stress between lower-high achieving students. *Journal of Sustainability Science and Management*, 6 (1): 169-178.
- [32]. United Nations Zimbabwe. (2010). *Country Analysis Report for Zimbabwe*. Harare: Government of Zimbabwe.
- [33]. Veney, C., O'Green, V. & Kowalik, T. F. (2012). *Role strain and its impact on nontraditional students' success*. Strategic Enrolment Management: American Association of Collegiate Registrars and Admissions Officers.
- [34]. Wardlow, G. M. & Smith, A. M. (2011). *Contemporary nutrition*. 8<sup>th</sup> Edition. USA: McGraw-Hill.
- [35]. Willis, R. J. B. (1994). *Your health in your hands*. England: The Stanborough Press Ltd.
- [36]. Yahia, N., Wang, D., Rapley, M. & Dey, R. (2016). Assessment of weight status, dietary habits and beliefs, physical activity, and nutritional knowledge among university students. *Perspect Public Health*. 136(4):231-44.