



**MENTAL HEALTH IN RELATION TO LOCUS OF CONTROL AND  
SOCIO-DEMOGRAPHIC COMPONENTS AMONG EDUCATED NAGA  
YOUTH**

A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENT FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

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**MENTAL HEALTH IN RELATION TO LOCUS OF CONTROL AND  
SOCIO-DEMOGRAPHIC COMPONENTS AMONG EDUCATED NAGA  
YOUTH**

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In partial fulfillment of the requirement of the Degree of Doctor of  
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**CERTIFICATE**

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**DECLARATION**

I, **RAZOUNEINUO SUOKHRIE**, hereby declare that the subject matter of this Thesis is the record of work done by me, that the contents of this Thesis did not form basis of the award of any previous degree to me or to the best of my knowledge to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Nagaland University for the degree of Doctor of Philosophy in the Department of Psychology.

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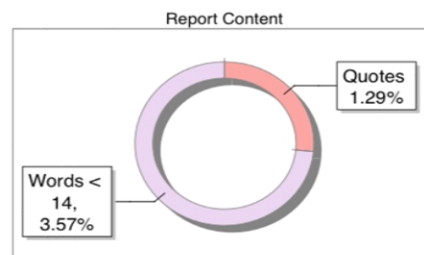
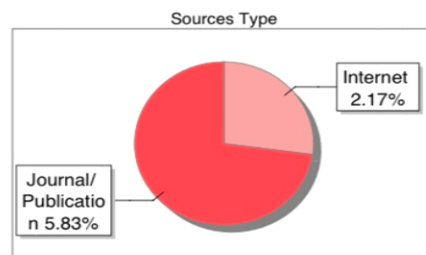
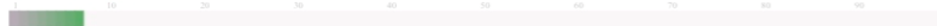
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## **ABSTRACT**

In the present study, mental health was examined in relation to locus of control, level of education, status of employment and gender among educated Naga youth. The sample size consisted of 600 Naga youth in the age range of 15 to 35 years. The sample was collected from two major districts in Nagaland namely Kohima and Dimapur. Tools used included mental health continuum short form, Rotter's locus of control scale and a self report socio-demographic questionnaire. Data was analyzed using descriptive and inferential statistics. Firstly, the findings indicated that majority of the Naga youth were moderately mentally healthy (45.7%) followed by a moderate number of participants in flourishing (32.2%) and a small but notable number of participants in languishing (22.2%). Frequencies and percentages of observation under each of the three categories of mental health (flourishing, moderately mentally healthy and languishing) for locus of control, level of education, status of employment and gender were also examined. Secondly, the multivariate main effects showed significant differences among youth with internal locus of control and youth with external locus of control on social wellbeing and psychological wellbeing. As for level of education, significant differences were observed among higher level of education and lower level of education on emotional wellbeing, social wellbeing and psychological wellbeing. In addition, significant differences were also found among males and females on emotional wellbeing. On the other hand, no significant differences were found among employed and unemployed on emotional wellbeing, social wellbeing and psychological wellbeing. However, the three way interaction effects highlighted that



there were significant interaction effects between gender, status of employment and locus of control on mental health. In addition, pairwise comparisons showed that only internal locus of control had a significant effect on mental health of employed and unemployed across both gender groups. The between-subjects effects were also analyzed to examine the effects of each independent variable on each dependent variable. The findings of the study were discussed based on the unique history of Nagaland and cultural backgrounds of participants.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Youth**

Youth is an important period in a person's life. During this period an individual is most vibrant, innovative, passionate, enthusiastic and productive. These characteristics make youth an important driving force towards bringing about positive economic, social and political changes in a society. This formative period in a person's life is vital to bring about healthy and competent individuals and also to minimize the risk of physical and mental health problems in the long run. This section of the population is often regarded as an indicator to measure a country's potential for growth (Youth in India, 2017). Despite the potentials, youth is also viewed as an "age of storm and stress" (Hameed & Mehrotra, 2017) as young people have to deal with different problems, pressures and expectations from within and from the surroundings which makes them vulnerable. The rapid advancement especially in the field of information and technology has ushered in Globalization resulting in major changes which are both beneficial and harmful. The negative effects of globalization are more pronounced among the youth as they are more susceptible to influences from "peers, media and cultural environment" (Rambaree & Knez, 2016). As the world becomes digitally connected young people are frequently exposed to various social media platforms which has contributed to diminishing interpersonal interactions in favor of digital interactions. Frequent and easy access to readily available contents on the internet has also increased their vulnerability to cyber crimes - as victims or perpetrators. In addition, young people are at higher risk of developing mental and substance use disorders. In India, across 15 states, it was found

that 32.8% of young people were into substance abuse with prevalence higher among males residing in north-eastern states of India (Venkatesh et al., 2024). According to a report by the World Health Organization (2024), at least one in seven adolescents had a mental health problem and one third of these mental health issues were evident before the age of 14 years. The increasing cases of mental health problems are one of the major causes of disability among the youth hampering their productivity and contribution.

Youth is often defined as the period from adolescence to young adult and it is also a transitional phase from childhood to adulthood. It is a period when young people form their personality, identity, pursue education, decide career choices and also establish interpersonal relationships. Positive inputs are crucial during this period as such inputs can bring about positive outcomes whereas negative experiences may hamper their “personality development” (Sultana, 2021). There is no unanimity on the definition of youth as various agencies use different age brackets to define youth. The United Nations (UN) defined youth as individuals in the age bracket of 15 to 24 years. The National Youth Policy (2003) defined youth as individuals in the age bracket of 13 to 35 years. However, the National Youth Policy (2014) changed the age bracket of youth to include individuals between the ages of 15 to 29 years. In this study youth will be defined as individuals in the age bracket of 15 to 35 years. This wider bracket will help in understanding the trends and changes in mental health taking place over a larger population.

According to Youth in India (2022) report, 27.2% of the population of India comprised of youth in the age bracket of 15 to 29 years as of 2021. India being one of the fastest growing economies in the world is estimated to become a \$5 trillion economy by

2027-28 (Keshri, 2024). These estimates are advantageous for India as it has a large population in the working age group of 15 to 25 years suggesting a high demographic dividend and offering India a great opportunity to progress substantially. This is in contrast with countries such as China, Japan and the United States of America which are facing the risk of an ageing population. Considering the demographic characteristics of India, it is important to study and invest in this section of the population to tap the benefits of the vast human resources and to address problems such as unemployment, poverty, poor physical and mental health.

#### **1.1.1 Factors Affecting Youth**

As youth is a major stakeholder in the progress of a society it is important to understand the factors influencing them. Firstly, education plays an important role in improving the quality of life of young people. Education is a powerful tool to empower the youth and to bring about positive economic and socio-political changes. However, the enrolment of young people in primary and secondary education continues to be poor in India. This is more prominent in rural parts of India where many of the young people lack basic reading and writing skills. Lack of basic education negatively impacts a person's intellectual development and as a result may hamper access to opportunities in the job market. Competitiveness in education, lack of employment opportunities and other resources are causes of stress, frustration and anxiety among young people. The pressure of education may become overwhelming making young people vulnerable to substance abuse, social isolation/alienation and develop mental health issues as a result of despair.

Gender disparity in education is another concern among the youth. According to Youth in India (2017), gender inequity in education is caused by “lack of access to and availability of gender sensitive educational infrastructure, materials and training programmes, as well as a high dropout rate amongst secondary school aged girls.” Despite different state sponsored programmes aimed at improving quality education, enrolment into formal education continues to be a challenge, especially for girl children.

Secondly, employment - or the lack of it - is another important factor affecting the state of mental health among the youth. Employment not only serves as a means to satisfy life's basic needs but also improves self-image and self-satisfaction. Education and employment are positively correlated and people with higher level of education usually have better employment opportunities. In a country like India, where opportunities are limited, this correlation is usually imprinted into the psyche of young people and they are conditioned to have big life ambitions. In the process of fulfilling these ambitions, they invest much of their energy and time which adversely affect their mental and physical wellbeing. Illiteracy or low level of education, lack of required skill sets and high competition in the job market have led to increasing unemployment, especially among youth in India. According to the Periodic Labour Force Survey (2023-2024), in India the unemployment rate of youth in the age range of 15 to 29 years stood at 10.2%. Furthermore, the unemployment rate of youth in Nagaland stood at 27.4 % making it the state with the second highest unemployment rate in India. Both these data depict that access to employment opportunities remains a challenge especially for the youth in India. As stated earlier, employment not only ensures financial security and stability but also positively impacts self-esteem, creative urges and self fulfillment. On the contrary,

unemployment has been shown to increase anxiety, depression, low self-esteem and poor physical/mental health. Failure to secure employment over a long period of time is also found to cause identity issues among the youth (Linn et al., 1985). According to Salagare (2016), youth in the lower sections of the society faced discrimination while seeking employment despite possessing required academic and technical qualifications.

Discrimination faced in accessing employment may lead them to be “rebellious and anti-social and can also lead to starvation, migration, criminal activities, suicidal tendencies, and mental disorders” (Youth in India, 2017).

A number of different economic and psychological theories have been developed in an attempt to explain the effects of unemployment on wellbeing. One such theory is the latent deprivation theory by Jahoda (1982) which stated that “unemployment negatively impacts an individual’s capacity to meet five latent benefits which are time structure, social contact, being part of a collective purpose, engagement in meaningful activities and social status whereas paid employment helps to meet these five needs”. Similarly, Fryer in his agency restriction theory (1986) stated that the “manifest benefit of employment such as income is the main negative consequence of unemployment”. He argued that unemployed people are deprived of financial stability which hinders their ability to make future plans thereby leading to psychological distress.

Thirdly, environment and cultural identity are also factors that influence mental health of youth. A study by Bryer et al. (2017), highlighted the correlation between living in poor neighborhoods and negative outcomes such as higher crime rates, school dropouts and fewer job opportunities which adversely affects young people. This is more so for youth from rural areas. In addition, youth from rural areas, where there is lack of

development and job opportunities, are forced to migrate to bigger towns and cities in search of employment. This migration to a new environment may lead to adjustment issues, alienation and discrimination and separation anxiety adversely affecting mental health. Unprecedented technological advances and globalization have brought about immense changes in the lifestyle of youth. Nowadays, young people are highly influenced by western music, films, literature, fashion and tries to imitate the western way of life. Also, westernization is often misunderstood as modernization and young people in their effort to be modern ignore their cultural identities. As a result, young people are “misunderstood by their elders/parents as a result of generation gap, struggle with traditional values and modernity, reservation and nepotism” (Salagare, 2016). Likewise, the impact of pop culture as shown through media has changed the perception of many young people and influenced them to adopt new lifestyles (Singh, 2022).

Therefore, all these factors and challenges facing the youth of today are major concerns that merits attention and redressal. Although the state and other agencies have introduced schemes/programmes aimed at empowering the youth and to address various problems such as unemployment, illiteracy, gender and socio-economic disparities the outcomes are limited and as such, more positive interventions are required to enable the youth to achieve their maximum potentials.

## **1.2 Mental Health**

Mental health has long been myopically translated as mental illness or as equivalent to having a mental health problem and as a consequence people tend to have an aversion towards the subject. However, this understanding of mental health is

reductionist and flawed. The World Health Organization (WHO, 1948) defined health as having a “state of complete physical, social and mental well-being”. In a similar manner, the World Health Organization (WHO, 2005), further defined mental health as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community”. From this definition, three components of mental health i.e. wellbeing, effective functioning of an individual and positive contribution to community can be seen as the key components of good mental health. This definition also highlights the positive nature of mental health which is often confused with mental illness. Westerhof & Keyes (2009) pointed out that “mental health should be viewed as a complete state along with the presence of wellbeing and not merely the absence of mental illness”.

In his research on mental health, Keyes (2002) used the mental health continuum model as a framework for understanding mental health. He was of the view that mental health is a combination of positive feelings and positive functioning. The mental health continuum addresses three dimensions of mental health namely, i) emotional wellbeing - which measures aspects of positive feelings, ii) social wellbeing and iii) psychological wellbeing (both of which measures aspects of positive functioning). According to Keyes (2002), indicators of emotional wellbeing include positive emotions, satisfaction and interest in life. Moreover, social wellbeing is seen as an important indicator of optimal functioning of an individual in relation to society and includes five components which are, i) social coherence - which refers to making sense of events that happen in society, ii) social acceptance - which is accepting others in a positive manner, iii) social actualization - which is the belief that the community can progress efficiently, iv) social contribution -

which refers to the belief that one's contributions to society are worthy and v) social integration - which refers to positive involvement in the community (Keyes, 1998). In addition, Ryff and Keyes (1995) described psychological wellbeing according to six components of positive functioning which are i) self-acceptance - which refers to the acceptance of self and awareness of one's limitations, ii) purpose in life - which is to have a sense of direction, purpose and meaning in life, iii) autonomy - which is to have self-direction guided by one's own principles, iv) positive relations with others – which means to have satisfying relationships with others built on empathy and intimacy, v) environmental mastery –which refers to one's potential to handle challenges according to one's own needs, vi) personal growth – which means possessing insight into one's capabilities and potentials for development. Accordingly, individuals can be categorized into three mental health categories namely i) flourishing – which is the optimal mental health, along with positive feelings and positive functioning everyday or almost every day, ii) moderately mentally healthy - which includes those individuals that are neither flourishing nor languishing, iii) languishing – which is absence of positive feeling and functioning, however, languishing does not mean being mentally ill. As it can be observed above, the mental health continuum measures mental health in terms of complete and incomplete mental health (Keyes, 2002).

In order to understand how positive mental health is related to mental illness, Westerhof and Keyes (2009) used the two continua model of mental health and mental illness and indicated that mental health and mental illness are two dimensions that are related but also distinct. On one end of the continuum, there is the presence or absence of mental health and on the other end is the presence or absence of mental illness. Keyes



(2005), emphasized that the absence of mental illness in an individual does not necessarily mean that the person has good mental health. Conversely, an individual who may be suffering from mental illness may have a relatively good mental health, implying that mental health and mental illness are complementary and are two related concepts on the continuum. Thus, mental health implies being emotionally, socially and psychologically fit and finding a balance in life to achieve happiness and flourish rather than being free from mental illness.

Estimates have shown that our economy and social conditions have been improving steadily in recent years and it is projected to improve further in the years to come. However, despite the positive developments, anxiety and depression amongst the population have been on the rise due to growing uncertainties about life, technological advancements, financial insecurities, sociopolitical disturbances and events in our own lives that are beyond our control but affect us. As such, it is vital that each individual responds effectively to these challenges by investing in mental health positively. Until recently, discussions on mental health problems such as anxiety and depression have taken place with limited understanding of the causes and little to no considerations have been accorded to the positive side of mental health and as such mental health continues to be understood as mere absence of mental illness or a continuum consisting of severe symptoms on one end and no symptoms on the other end. This myopic view of mental health fails to provide space for nurturing positive state of mental health and therefore it is important to positively interpret mental health, explore, nurture and promote it

The development of positive psychology has shifted the focus from viewing human weaknesses and repairing those damages to focusing on positive attributes of

human functioning in order to achieve happiness and life satisfaction. It is also concerned with helping people learn to build quality personal and social wellbeing and lead a fulfilling life. Positive emotions and experiences such as subjective wellbeing, optimism, hopes, strengths and values are some of the focuses of positive psychology. Having positive emotions and experiences allows one to have a sense of wellbeing and good health. In keeping with this, Seligman (2011) in his book “Flourish” came up with the acronym PERMA as the basis for a meaningful and fulfilling life. The PERMA acronym consists of, i) Positive emotion – which refers to hedonic happiness and wellbeing, ii) Engagement – which refers to making meaningful connection and being fully engrossed in activities/tasks, iii) Relationships – which refers to building relations and being satisfied with those relations, iv) Meaning and purpose - which refers to finding meaning in one’s life and identifying one’s purpose in life, v) Accomplishment – which refers to achieving long term goals and making positive contributions. Similar to Ryff’s six components of psychological wellbeing and Keyes’ mental health continuum, it also addresses positive mental health and highlights that mental health should be considered as more than the lack of psychopathological outcomes.

### **1.3 Locus of Control**

Locus of control is another important concept that will be assessed in the present study. It is one of the major personality attributes that influences behaviour. The concept of locus of control was first introduced by Julian B. Rotter (1966) who derived it from his theory of social learning which stated that behavior is learnt as a result of positive

reinforcements. These reinforcements promote the expectancy that a particular behaviour will lead to a desired outcome. Rotter explains how the experiences created through learning instill in a person a form of general expectancy of whether events in life are internally or externally controlled. How different people respond to the same situation says a lot about them and these individual differences in responding to a similar life event can be explained to a certain extent by the concept of locus of control. Rotter places locus of control into a uni-dimensional continuum ranging from internal to external. Individuals with internal locus of control perceive that internal determinants such as their efforts and attitude are responsible for events that happen in their lives. Whereas, individuals with external locus of control are of the view that external determinants that are outside their control such as luck, chance or fate are responsible for events that happen in their lives. It was found that people with internal locus of control have a sense of responsibility towards events that happen to them whereas people with external locus of control tend to externalize events that happen to them (Llyod & Hastings, 2009). Cvetanovski and Jex (2007) in their study highlighted that internal locus of control is often associated with lower levels of anxiety and depression and higher levels of self-esteem and satisfaction with life. External locus of control on the other hand is often related to higher levels of stress and feelings of helplessness and decreased subjective wellbeing (Roddenberry & Renk, 2010). This may therefore give the impression that it is more desirable to have an internal locus of control rather than external locus of control. However, both ends of the continuum have their merits and demerits and a person's sense of control may change according to different situations that they find themselves in. This particular point therefore becomes important when studying locus of control.

Nagaland faces many challenges such as unemployment, poor economy and socio-political instabilities which are further complicated by its long history of insurgency and conflict. Therefore, it is important to study locus of control to understand how youth perceive events in their lives as being within their control or beyond their control. In addition, Naga youth in recent years have been forced to migrate outside the state for employment and to pursue education due to poor opportunities in the state. Differences in physical appearance and customs from the rest of the country make them vulnerable to discriminations and social exclusion thereby negatively impacting their mental health. From an individual development point of view, it is evident that personality development plays a big part in overall development of a person. Considering that youth is a crucial period for developing a person's personality, it is important to study locus of control as an aspect of personality and its relationship with mental health.

#### **1.4 Demographics of Nagaland**

Nagaland is a small state located in the north-eastern part of India. It is distinct from other parts of the country in terms of its distinct culture, ethnicity and language. Because of its rich culture and unique traditional festivals, Nagaland is also known as the “land of festivals”. Nagaland is also home to one of the longest violent insurgency movements in the country which has led to economic and socio-political disturbances over the decades. To contain insurgency, Armed Forces Special Powers Act, a controversial law, was introduced in the state in 1958 which has had a profound impact on the lives of the people, especially among the youth as they are often caught in between the insurgents and the state. Further, proximity with the Golden Triangle and porous

international boundary with Myanmar makes Nagaland vulnerable to drug trafficking. Geographical, historical and on-going changes in the political and social milieu continue to shape the psyche of the Naga youth.

In terms of demographics, Nagaland has a total population of 19,78,502 (Census 2011) out of which the youth comprised of 40.2% of the population. As such, it is evident that youth make up almost half of the population of Nagaland. According to the Profiles of Adolescents and Youth in India (2011), the number of literates among youth population in Nagaland stood at 3,82,818. The male youth literacy rate in Nagaland stood at 89.1% while female youth literacy rate in Nagaland stood at 87.3% indicating a gender gap of 1.8%. Every year, thousands of young graduates are categorized as “educated unemployed” as employment opportunities, both in the public and private sectors, in the state are limited. The Periodic Labour Force Survey (2023-2024) reported that Nagaland had the second highest unemployment rate at 27.4%. According to the District Employment Exchange data, Nagaland has 92,302 registered unemployed youth. This figure may even be higher as many youth are yet to register themselves. Because of the widespread conception of stability and security attached with government jobs the demand for the same is very high among the youth thereby making the competition tough. This notion is further reinforced as employment opportunities in the private sector are limited. Each year the number of educated youth appearing for competitive exams has been increasing putting more stress in the job market. Acute unemployment has forced highly qualified youth to seek employment in jobs requiring lower academic qualifications. This shows the precarious state of youth in accessing employment opportunities and the physical, emotional, mental and economic toll they have to suffer in

search for employment. Furthermore, young people in Nagaland struggle to comprehend the concept of “dignity of labor” and many young people consider it below their dignity to take up odd jobs favoring to stay unemployed and wait for government job openings.

Because of the patriarchal nature of the Naga society, Naga women continue to be nearly invisible in decision making bodies in the society as well as the state. Also, in inheritance of ancestral land and immovable properties preference is given to males. Despite education, as can be seen in the high literacy rate of Nagaland, and proactive measures by the state and other agencies to close the gender gap, gender biases continue to be a major hindrance in the progress of women in the state.

In terms of gender gap in educational attainment in Nagaland, females are seen to outnumber their male counterparts in higher education. The All India Survey on Higher Education (AISHE) report for the year 2021-22 showed that out of 51,223 students enrolled in various educational levels in Nagaland, a total of 23,557 were males and 27,666 were females clearly indicating more female representation in higher education. This rise in female enrolment and better performance in higher education are progressive signs indicating positive changes in a highly patriarchal society. Recent years have also observed increasing representation of women in domains such as publication, journalism and teaching. This is a unique development in Naga society where traditional values and customary practices limit women to become a part of the decision-making bodies.

Keeping these factors in mind, the present study also takes into account the unique demographic scenario of the Naga society and its cultural background in understanding mental health of Naga youth.

**1.5 Statement of the Problem:** What will be the status of mental health in relation to locus of control and socio-demographic components among educated Naga youth?

## **1.6 Rationale of the Study**

In Naga society, mental health has long been understood as mental illness and stigmatized. Many people are unaware of it and fear the stigma attached to it and as a result health seeking behaviour is poor. It is worth noting that there exist no qualified words in the Naga vocabulary that fully describes and captures the nuances of mental health and mental health is often interpreted as mental illness. Although, in recent years, there have been initiatives to raise awareness on mental health in Nagaland, outreach continues to be a problem especially in the interior and rural parts of the state. Further, it has been observed that there is limited research on mental health of Naga youth especially in the context of positive mental health as studies done in the past have mostly focused on mental illness and ignored other components especially the positive components of mental health. Keeping these observations in mind, the present study will assess mental health of educated Naga youth in terms of positive components of mental health.

Personality is another important aspect that needs to be studied along with mental health. In a study by Corr and Matthews (2009), it was highlighted that an individual's personality may determine the quality of their mental health. Similarly, another study by Karayurt and Dicle (2008) stated the importance of locus of control in determining the level of wellbeing functions. Therefore, this study will assess mental health in relation to locus of control. Apart from mental health and locus of control the researcher will also examine the unique characteristics of Naga society and their impact on the mental health

of Naga youth. Towards this end, factors such as gender, level of education, and status of employment of educated Naga youth are taken in account in this study. Accordingly, this study will help to provide an understanding of the interactive effects of mental health, locus of control and socio-demographic components among educated Naga youth and also pave way for further research on youth mental health. This study will not only contribute to the existing literature on youth mental health but also establish a clear understanding of the interactive effects which come into play among the variables under investigation in this study.

### **1.7 Objectives**

1. To assess the status of mental health among educated Naga youth
2. To examine the role of locus of control on mental health of educated Naga youth
3. To examine the role of levels of education on mental health of educated Naga youth
4. To examine the role of status of employment on mental health of educated Naga youth
5. To examine the gender difference in mental health of educated Naga youth

### **1.8 Hypotheses**

- H<sub>1</sub>. There will be a significant difference between youth with internal locus of control and youth with external locus of control on mental health
- H<sub>2</sub>. There will be a significant difference between youth with lower level of education and youth with higher level of education on mental health



H<sub>3</sub>. There will be a significant difference between employed and unemployed youth on mental health

H<sub>4</sub>. There will be a significant difference between male and female educated Naga youth on mental health

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

The review of literature was conducted to understand the trends in mental health and find possible research gaps in mental health, locus of control and the impact of socio-demographic variables on mental health. Although numerous studies have been conducted on these variables of interest worldwide, it is not possible to incorporate all of them in the present review. However, in keeping with the research variables of the present study, the researcher will look into relevant and related literatures to support the present study. In doing so, the researcher will get to understand the methods, tools used, population sample and data analyses incorporated in these studies. This chapter is arranged under four subheadings namely, i) international studies on mental health, ii) international studies on the relationship between mental health, locus of control and socio-demographic components iii) Indian studies on mental health iv) Indian studies on the relationship between mental health, locus of control and socio-demographic components. The following studies conducted between the year 2002 to 2024 related to the variables under consideration were reviewed in the present chapter.

#### **2.1 International Studies on Mental Health**

**Keyes (2002)** conducted a study to determine the prevalence of mental health and its relation to major depression among adults in United States of America. The sample consisted of 3032 participants in the age range of 25 to 74 year. Tools used were composite international diagnostic interview short form scale, emotional wellbeing measured using a self-administered positive effect scale, Ryff's psychological wellbeing

scale and social wellbeing scale developed by Keyes (1998). The results highlighted that more than half of the participants were moderately mentally healthy (56.6%), some were flourishing (17.2%) and a few were languishing (12.1%). Furthermore, those in the languishing category were two time more likely to have major depression episodes as compared to individuals in moderately mentally healthy category and six times more likely than those in flourishing category. With regard to emotional health, languishing adults were more likely to report poor emotional health as compared to those in moderately mentally healthy category and flourishing category. Moreover, the findings also indicated that languishing adults had more activity limitations than the other two categories.

**Luitjen et al. (2019)** in their study examined the psychometric properties of the mental health continuum - short form (Dutch version) and determined the level of mental health. Data was collected from 1175 adolescents in the age group of 11 to 17 years. The findings of the study revealed that more than half of the adolescents were flourishing (54.3%), followed by the moderately mentally healthy (40.4%) and languishing (5.3%).

**Gilmour (2014)** in a study compared the prevalence of mental health and mental illness among Canadian youth. It was a cross-sectional study using the Canadian Community Health Survey–Mental Health (CCHS-MH) sample consisting of 25,113 participants. Data was analyzed using the SAS 9.1 software. The results highlighted that a clear majority of the participants were flourishing (76.9%) followed by moderately mentally healthy (21.6%) and languishing (1.5%). The findings also indicated that Canadians aged 15 and above had a higher percentage of flourishing as compared to other countries. Furthermore, it was also observed that when mental health/flourishing was examined

along with mental illness in the population under study, a good majority had complete mental health indicating that they were flourishing. In addition, it was also found that complete mental health was positively associated with age. Further, people with partners were more likely to have complete mental health than those who were widowed/separated/single. The findings also suggested that participants with lower level of education and unemployed participants were less likely to have complete mental health.

**Guo et al. (2018)** assessed the prevalence of mental health and the correlates of mental health among Chinese adolescents. The sample size was 5399 students comprising of 3044 grade 8 students and 2355 grade 10 students. Mental health continuum-short form and a socio-demographic questionnaire were used to collect data from the participants. The findings indicated that more than half of the participants irrespective of gender were flourishing. The chi-square test also showed significant differences in the prevalence of mental health among Chinese adolescence. Furthermore, the results from multivariate logistic regression also showed, among other variables, that gender, social trust, perceived family economy and stress were significantly associated with mental health.

**Góngora and Solano (2017)** examined mental health status and its prevalence according to demographic variables. The study also examined dual continua model to determine mental health with or without the presence of a mental disorder. The sample consisted of 627 Argentinean adults in the age range of 18 to 85 years. The questionnaires used in the study consisted of the symptoms checklist-90-revised and the mental health continuum short-form. The results for the prevalence of mental health according to the three categories i.e. flourishing, languishing and moderately mentally healthy, found that the

majority of the participants were moderately mentally healthy (54.9%), followed by flourishing (39.7%) and the least number of participants were languishing (5.4%). Furthermore, chi-square test was utilized to see the difference in mental health category and demographic variables. The findings showed no significant difference in mental health of males and females. In addition, no significant difference in mental health was found with regard to age group, level of education, child bearing and place of birth. However, the finding did show a significant difference in mental health between salaried participants and non-salaried participants. It was also reported that individuals not receiving salary were three times more likely to be in the languishing category. Lastly, in regard to mental health, with or without the presence of a mental disorder, it was found that half of the participants in the languishing category had a mental disorder, a quarter of the participants in moderately mentally healthy category had a mental disorder, and only a few participants in the flourishing category had a mental disorder.

**Giblett et al. (2021)** conducted a study to examine whether generalized self-efficacy and health locus of control were predictors of mental health in an Australian adult population. The study comprised of 224 adults in the age range of 18 years and above. The measures included a demographic questionnaire, mental health continuum short form, multidimensional health locus of control, generalized self-efficacy scale, Rosenberg self-esteem scale, multidimensional scale of perceived social support and the brief COPE inventory. The findings showed that generalized self-efficacy, internal locus of control, self-esteem and education had positive relation with mental health. With regard to predictors of mental health, it was found that self-efficacy and locus of control were the

highest predictor of the variance in mental health. In addition, it was found that self-esteem, social support, self-efficacy and gender were unique predictors of mental health.

**Marciano and Viswanath (2023)** explored the impact of social media on wellbeing among adolescents. The sample consisted of 1429 Swiss adolescents in the age range of 12 to 18 years. Wellbeing in this study was measured using the Harvard adolescent flourishing scale. In addition, positive and negative online social experiences, self-disclosure on social media and social media inspiration were considered to measure social media use. Descriptive statistics, Pearson's correlation and hierarchical regression analysis were used to analyze the data. The correlation result showed that self-esteem, extraversion, physical activity, positive social media experiences and social media inspiration were positively correlated with flourishing. On the other hand, ill being, neuroticism, negative social media experiences, perceived stress, age and gender (with females more impacted than males) were seen to be negatively correlated with flourishing.

**Vaingankar et al. (2013)** examined the relationship between socio-demographic characteristics and positive mental health and also compared positive mental health scores of participants with and without depression and anxiety among adults. Their sample consisted of 404 adults in the age range of 21 to 65 years from an Asian community in Singapore. Data was collected through i) a socio-demographic questionnaire, ii) positive mental health instrument with six subscales (general coping, emotional support, spirituality, interpersonal skills, personal growth and autonomy, global affect) and iii) validity measures with regard to positive mental health instrument which included PHQ-8 and GAD-7 scales. The findings indicated significant differences

in the scores of positive mental health and its subscales across different socio-demographic variables. Spirituality was higher among those aged 40 and above and differences were seen in personal growth and autonomy among genders. Similarly, the results also showed that ethnicity played a significant role in predicting positive mental health. Lastly, the internal consistency for PHQ-8 and GAD-7 were high and a moderate negative relationship was found among positive mental health, PHQ-8 and GAD-7.

**Verma and Ura (2022)** assessed the gender differences in Gross National Happiness (GNH) in Bhutan. GNH nationwide survey data (2006, 2008, 2010, 2015) was utilized to examine the relationship between gender and wellbeing. The findings from the study reported that on average males had higher levels of happiness than females. In education, psychological wellbeing, time management, governance and community living, it was found that males performed better. On the other hand, females were seen to performed better in domains such as standard of living, ecological diversity and resilience. This study also reported that women faced discriminations and gender biases in political participation, decision making and social status.

## **2.2 International Studies on the Relationship Between Mental Health, Locus of Control and Socio-Demographic Components**

**Sagone and De Caroli (2013)** conducted a study to see the relationship between locus of control and the belief in superstition and luck. The study consisted of 118 adolescents (56 males and 62 females) in the age range of 14 to 19 years. Locus of control of behaviour scale, belief in superstition scale and the belief in good luck scale were used to collect

data and the data was analyzed using t test and linear correlation. The findings highlighted that adolescents who had internal locus of control were less likely to believe in superstition and associate negatively with the concept of luck whereas, adolescents with external locus of control were more likely to believe in superstition and associate positively with luck.

**Botha and Dahmann (2024)** investigated the association between locus of control, self-control and health outcomes among 15,288 participants from the Household Income and Labour Dynamics in Australia (HILDA) survey. Locus of control was measured using the mastery scale (Pearlin and Schooler, 1978) along with the brief self-control scale (Tangney et al, 2004) and health outcome scale. The findings of the study suggested that individuals with higher internal locus of control had higher self-control. In addition, the study found that internal locus of control had a significant positive association with greater physical and mental health.

**Angelova (2016)** investigated the relationship between locus of control and socio-demographic factors such as education, family status, professional activity and place of residence. The sample for the study consisted of 608 Bulgarian individuals in the age range of 15 to 65 years. A demographic questionnaire and locus of control questionnaire by Shishkov & Vitanova (2004) were used to assess the participants. The data collected was analyzed using chi-square test. The results indicated that majority of the participants had external locus of control (77.7%) followed by internal locus of control (22.3%). With regard to socio-demographic factors, only education, family status and professional activity had significant relationship with locus of control. Place of residence was found to be non-significant in relation to locus of control.



**Ramezani and Gholtash (2015)** examined the relationship between happiness, self-control and locus of control among college students. The study used cluster sampling and data was analyzed through multiple regression analysis and one way analysis of variance. The results of the study highlighted the relationship among happiness, self-control and locus of control. Happiness was found to be significantly and positively related to self-control. Furthermore, it was found that self-control served as a dominant predictor of happiness and self-control was also positively related to locus of control. Further, no significant relationship was found between locus of control and happiness.

**Khan and Iqbal (2014)** in their study examined difference in locus of control between males and females. The study consisted of 270 students from secondary schools in a cantonment area. The tool used was a self-developed questionnaire to measure locus of control. Results from the t-test showed that there was a significant difference between the mean scores on locus of control for males and females.

**Devin et al. (2012)** studied the relationship between locus of control and happiness among pre-elementary teachers. The study consisted of 84 female teachers in the age range of 25 to 49 years. Two questionnaires were used for this study namely Rotter's locus of control scale and Oxford happiness inventory. The result showed that locus of control was positively correlated with happiness. However, no correlation was found between locus of control and happiness with regard to age or work experience. On the other hand, significant differences were found in level of education with regard to locus of control and happiness. This indicated that participants with higher education level had internal locus of control and higher scores on happiness than their counterparts with lower level of education.

**Niemeyer et al. (2019)** examined the association between level of education and depressive symptoms and positive mental health. Psychosocial factors such as sense of control, resilience, delay of gratification, cultural activities and daily hassles were assessed with respect to level of education to see whether they mediated the relationship between level of education and mental health. The study utilized the longitudinal BOOM (Bochum Optimism and Mental Health Studies) which measured positive and negative mental health on German adult population. The tools used included depression anxiety stress scales, 9-item positive mental health scale, the 11-item version of the resilience scale, German-Swiss version of the delay discounting test, the 9-item daily stressors screening and scales on urbanicity, cultural activity, sense of control and educational level. The correlation results showed that there was a significant negative relationship between depressive symptoms, resilience and daily hassles. Conversely, there was a significant positive relationship between positive mental health, resilience and daily hassles. Odds ratios were also calculated indicating that group with lower education level had higher depressive symptoms. Similarly, it was highlighted that individuals with lower education level (secondary school) had lower sense of control, resilience and ability for delayed gratification than individuals with university level education.

**Griffin (2014)** studied locus of control in relation to psychological wellbeing. The sample size of the study consisted of 577 (170 males and 407 females) psychology students with an age range of 17 to 59 years in the graduate degree program. The data for the study was collected online using four questionnaires namely, i) Rotter locus of control scale, ii) Rosenberg self- esteem scale, iii) Center for Epidemiological Studies depression scale and iv) perceived stress scale. For the purpose of measuring locus of control,

participants answered 14 items from the locus of control scale (6 of the items measured internal locus of control and 6 items measured external locus of control and 2 items were fillers). The items on the scale were rated using a 5-point Likert scale ranging from strongly disagree to strongly agree. The results of the study analyzed using bivariate correlation highlighted that internal locus of control had a significant positive relation with self-esteem. Furthermore, it was found that external locus of control had a significant negative relation on self-esteem and a positive relation with depression and stress. In addition, the result also showed that only external locus of control was a positive predictor of depression and stress and a negative predictor of self-esteem.

**Couto and Baptista (2023)** explored locus of control in relation to depression, emotional dysregulation and anxiety. Their sample consisted of 327 participants in the age range of 18 to 79 years. The instruments used to collect data included a socio-demographic questionnaire, locus of control scale, Baptista depression scale (adult version), emotional dysregulation scale - adults and cognitive anxiety scale. Analysis of data was done using correlation and path analysis using maximum likelihood method. The results showed that external locus of control had a strong association with negativity while internal locus of control had a strong association with depression. Based on the results using path analyses, it was found that locus of control was a predictor of depression, emotional dysregulation and anxiety. Similarly, locus of control was seen to be a mediator for emotional dysregulation, depression and anxiety.

**Hough et al. (2021)** conducted a study to examine locus of control in relation to psychological wellbeing. A cross-sectional survey method was used to collect data. The sample size included 267 adults and convenience or snowball sampling method was used.

Correlation and structural equation model were used to analyze the data. The findings indicated that there was a significant negative correlation between locus of control and psychological wellbeing. Furthermore, it was found that environmental mastery, self-acceptance, and purpose in life had a greater impact on relationship between locus of control and psychological wellbeing.

**Kamrani, Kamrani and Kamrani (2023)** conducted a study to explore the relationship between psychological wellbeing and locus of control among young Pakistani adults. They hypothesized that locus of control will be related to psychological wellbeing and its six dimensions. 463 university students in the age range of 18 to 25 years were engaged to respond to Levenson's locus of control scale and Ryff's psychological wellbeing scale. Pearson's correlation and descriptive statistics were used for data analyses. The findings showed that there was a negative correlation between locus of control and personal growth. However, no significant relationship was found between locus of control and other dimensions of psychological wellbeing.

**Augustina and Dorathy (2021)** conducted a study to examine whether locus of control was a predictor of psychological wellbeing among adolescents. The sample consisted of 763 secondary school students from Anambra state. Participants responded to two questionnaires namely, locus of control of behavior scale (Craig, Franklin and Andrews, 1984) and psychological wellbeing scale (Ryff, 1989). The data was computed using regression analysis. The results of the study showed that 18.1% of change in psychological wellbeing among males was explained by locus of control and 24.4% of this change among females was explained by locus of control. Therefore, locus of control was found to be a significant predictor of psychological wellbeing among adolescents.

**Zhang et al. (2010)** in their study examined the social wellbeing of people from individual level education and neighborhood level education in different areas across Hawaii. The Hawaii Health Survey (HHS) containing demographic information along with physical and mental health measures was utilized. With respect to education and social wellbeing, it was seen that areas with greater number of individuals with higher educational level also had higher social wellbeing. The findings also showed that females were seen to have lower levels of mental health than their male counterparts. In addition, it was found that married people and those living together had better mental health. In regard to ethnicity, Asians and Hawaiians fared better in mental health scores than Caucasians. Moreover, it was found that social wellbeing was positively related to mental health with social coherence possessing the most notable effect followed by social integration, social contribution, and social actualization.

**Lee and Yang (2022)** conducted a study to explore the association between educational attainment and emotional wellbeing among adolescents and adults. The data was obtained from the National Longitudinal Study of Adolescent to Adult Health (Add Health) and included questions on happiness, depressive affect and demographic characteristics such as educational attainment, age, gender, ethnicity and socioeconomic status. The results indicated that there is a positive association between educational attainment and emotional wellbeing among females whereas no significant association was observed between happiness and educational attainment among males.

**Cohen et al. (2020)** did a study to examine the association of depression with educational attainment, aspirations and expectations respectively. Using data from the National Longitudinal Survey of Youth 1979 (NLSY 79) Cohort, the sample size consisted of

4417 participants. Depression was measured using the Center for Epidemiologic Studies depression scale short form and variables included educational attainment, aspirations and expectations. Generalized linear modeling was performed and p value and sensitivity analyses were computed. The results highlighted that there were greater number of females in the depressed group of participants. Moreover, the depressed group of participants had less educated parents, were less educated themselves, had lower educational aspirations and overall, they belonged to lower socio-economic background. Furthermore, participants with higher educational attainment were less likely to be depressed as compared with participants with lower educational attainment. The findings also indicated that there was a significant association between adult depression and lower educational expectations. However, no association was found between adult depression and educational aspirations.

**Turashvili and Japaridze (2012)** examined the prevalence of psychological wellbeing among students in a Georgian population sample and also examined factors influencing students' wellbeing and the relationship between wellbeing and academic performance. The study consisted of 252 participants with a mean age of 21 years from five universities around Georgia. Ryff's psychological wellbeing scale, coping inventory for stressful situation, Kucher adolescent depression scale and academic achievement scale were used to collect data. T-test, ANOVA and Pearson's correlation were used to assess the data. With regard to the dimensions of psychological wellbeing, significant differences among males and females were found in autonomy, where, males had higher autonomy than females whereas, in self-acceptance, females scored higher than males. On the other hand, no significant differences were found in academic performance among

males and females. However, males and females with higher or average academic performance were seen to have a better wellbeing than those with low academic performance. Furthermore, on coping strategies, males were found to indulge in higher avoidant coping strategies than their female counterparts.

**Nam et al. (2021)** investigated the association between employment status and mental health among young adults in Korea. Data was derived from the Korea National Health and Nutrition Examination Survey and included measures on socio demographic details, health behaviors and co-morbidities. The sample size was 15,649, including both males and females in the age range of 19 to 39 years. The results highlighted that more than a quarter of the participants were unemployed. The rate of depressive mood was higher in unemployed individuals who fell in the 20-year-old category whereas the rate of suicidal ideation was higher among unemployed participants in the 30-year-old category as compared to employed participants. Furthermore, the findings also suggested that unemployed females had the highest rate of depressive mood and suicidal ideation.

**Gray et al. (2019)** studied the impact of employment status on mental wellbeing in the working age population in United Kingdom. They explored whether any type of employment as opposed to unemployment had a positive impact on mental wellbeing. Data was taken from the understanding society wave 7 dataset (anonymous pan-UK dataset from 2015) and included individuals in the age range of 18 to 64 years. Sample size consisted of 18,525 (8473 males and 10052 females) including both employed and unemployed respondents. Short Warwick Edinburgh mental wellbeing score was used for measuring mental wellbeing. Data was analyzed using the chi-square test and odd ratios. The findings showed that a huge majority of unemployed respondents had poor mental

wellbeing. This was followed by respondents who had temporary employment. It was found that respondents with permanent employment had better mental health. It was also found that respondents with temporary employment struggled with issues, unable to take clear decisions or think clearly and unable to connect with others as compared to respondents with permanent job who fared better. All in all, those who were unemployed had the poorest overall mental wellbeing.

**Nasrin et al. (2023)** aimed to study the impact of employment status on physical and mental health of individuals. The study was conducted in Khulna, Bangladesh and the sample size consisted of 320 participants. Multi stage random sampling method was employed to select participants. The tools used in the study included a semi-structured interview schedule developed by the authors along with BMI and depression anxiety stress scale – 21. Data was analyzed using descriptive statistics, logistic regression and OLS model. The findings of the study indicated that employed participants were more prone to suffer physical ailments than unemployed participants. Similarly, on the relationship between mental health and employment status, the results indicated that employed participants were at higher risk of developing a mental health problem as compared to unemployed participants. There were also indications that an increase in age had a negative impact on mental health. Further, male participants displayed an increase mental health risk behavior than female participants. Lastly, the findings also suggested that employed participants had lower levels of anxiety compared to unemployed participants and no link was found between employment status and depression or stress.

**Pervaiz and Malik (2021)** explored gender roles and psychological wellbeing among young adults, middle adults and old adults. The sample consisted of 300 participants (150



females and 150 males) in the age range 20 to 35 (young adults), 36 to 51 (middle adults) and 52 to 67 (older adults). They used the snow ball sampling method to collect data from participants. The tools consisted of Urdu translated scales for gender role attitude scale, Ryff's psychological wellbeing scale, and a demographic questionnaire on age, gender, education, marital status and occupation of participants. The results suggested significant differences among the three age groups on gender role and psychological wellbeing. On further analysis using ANOVA, the results highlighted that education had a significant effect on both gender roles and psychological wellbeing. On comparing the mean and standard deviation, it was found that participants with highest level of education were more inclined to have modern gender roles and better psychological wellbeing than participants with lowest level of education. In addition, a positive relation was also found between gender roles and psychological wellbeing. Lastly, the results also indicated that significant differences between genders was found on all the psychological wellbeing dimensions with females having higher mean scores on autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance.

**Love, Nikolaev and Dhakal (2023)** examined the relationship between gender and wellbeing and assessed these variables in order to determine whether males and female entrepreneurs differed in their wellbeing and also examined the role of economic development, gender discrimination and education level on wellbeing. Data was collected using the World Values Survey (WVS). The findings revealed that female entrepreneurs had lower levels of happiness than their male counterparts. Furthermore, it was also seen that female entrepreneurs from low and middle income countries had lower levels of

wellbeing as compared to female entrepreneurs from high income countries. Similarly, in countries with low economy and high prevalence of gender inequality, females were found to have lower levels of wellbeing. In addition, in societies where sexist gender roles and traditional values were more prominent, a wider gender – wellbeing gap was observed. Lastly, females with higher level of education, lower risk-taking behaviors and also with no children were found to have a higher wellbeing.

**García et al. (2019)** aimed to study the relationship between gender and wellbeing. The sample of the study consisted of 708 (374 females and 334males) students in a Mexican university. The age range was 18 to 26 years. They used the Spanish version of psychological wellbeing scale (Ryff) adapted by Diaz et al. 2006. The data was analyzed using descriptive statistics and MANOVA and ANOVA. The results showed that males had higher scores on self-acceptance, autonomy, positive relations, environmental mastery and purpose in life as compared to females. However, no differences were found among males and females on personal growth.

**Ferrant (2017)** studied the effects of gender discrimination on subjective wellbeing for both males and females. The Social Institutions and Gender Index (SIGI) was utilized to measure gender discrimination and Gallup World Poll data was utilized to measure subjective wellbeing and other socio demographic variables. The results highlighted that in countries with greater gender equality, both males and females were happier and satisfied with life on average. Likewise, it also showed that the subjective wellbeing of both males and females was lower in countries with high gender-based discrimination.

**Rungreangkulkij et al. (2019)** in their study explored the underlying causes of depression among Thai women. The study was carried out in the Surin province, Thailand. The sample size was 1002 women who were aged 18 and older. Data was collected using the 9Q test consisting of 9 questions related to depressive disorder along with the mini international neuropsychiatric interview. The findings highlighted the gender discriminations/power inequality faced by women in the society.

**Artazcoz et al. (2004)** studied the effects of gender differences and unemployment on mental health and the interactions between gender, family roles and social class. Data was derived from the Catalanian Health Survey (1994). The sample consisted of 2422 employed males and 1459 employed females as well as 371 unemployed males and 267 unemployed females. General mental health questionnaire and questionnaire on employment status, family roles and occupational social class were utilized to collect data. Multiple logistic regression model and Hosmer–Lemeshow test were used to analyze the data. In assessing mental health among employed and unemployed participants, it was found that employed participants were less likely to have poor mental health as opposed to unemployed participants irrespective of gender. Further, unemployment benefits provided by the state were seen to have a protective effect on both unemployed males and females and unemployed participants who were not receiving such benefits exhibited poorer mental health. Moreover, unemployed married males were more susceptible to poor mental health especially because of family responsibilities. On the other hand, for females, being married and having children acted as a buffer against poor mental health.

**Shojaee and French (2014)** conducted a study to explore the relationship between mental health and locus of control among Nova Scotian youth. For the study, 172 participants in the age range of 19 to 30 years were asked to reply to three questionnaires comprising of Ryff's psychological wellbeing scale, Rotters locus of control scale and a demographic questionnaire. Data analysis was done using linear regression, correlation, t-test and ANOVA. Findings from the study suggested that there was a significant positive correlation between internal locus of control and Ryff's psychological wellbeing components. On the other hand, a significant negative correlation was found between external locus of control and psychological wellbeing components indicating that individuals with external locus of control had lower scores on mental health. Furthermore, a positive association was found between Ryff's psychological wellbeing scale and Rotter's locus of control scale.

**Nwankwo, Okechi and Kalu (2017)** examined the role of locus of control and gender on psychological wellbeing among athletic youth. The study comprised of 220 (120 males and 100 females) athletic youth from a university in Nigeria. Convenience sampling was employed to collect data from participants. Tools used included the locus of control scale (Pettijohn, 1992) and Ryff's psychological wellbeing scale (1989). Results were analyzed using descriptive statistics and multiple linear regression model. The findings highlighted that gender was a significant predictor of psychological wellbeing among athletic youth. Furthermore, it was found that male athletes had higher psychological wellbeing than female athletes. Moreover, the results also indicated that locus of control was a significant predictor of psychological wellbeing. Participants with internal locus of

control had higher psychological wellbeing than participants with external locus of control who had significantly lower levels of psychological wellbeing.

**Xia and Ma (2020)** investigated the relationship between social integration, locus of control, perceived stress and psychological wellbeing among Chinese adults. The study examined the following, i) whether social integration influenced the psychological wellbeing of emerging adults, ii) whether perceived stress played a role in the effect of social integration on psychological wellbeing, iii) the role of locus of control on the relationship between social integration, perceived stress and psychological wellbeing. The sample size comprised of 6084 migrant Chinese adults in the age range 18 to 29 years. The findings highlighted that there was a significant negative relationship between social integration and mental illness. Furthermore, a positive relationship was found to exist between social integration, health and life satisfaction. Perceived stress was also found to play a mediating role in the influence of social integration on the parameters of psychological wellbeing. Lastly, locus of control was found to play a moderating role in the influence of social integration on perceived stress and on the parameters of psychological wellbeing.

**Hjorth et al. (2016)** studied the prevalence of poor mental health and its association with gender, level of education and dropout rate among 23,392 Danish students. The study was longitudinal in nature and follow up was done for 1524 participants who were pursuing education. Tools used included short form health survey containing 12 items and information on dropouts and other covariates such as age, parental education, family income, ethnicity and educational level were obtained from the participants. Data was analyzed using chi-square test, p-value, logistic regression analysis and odds ratio. The

findings indicated that almost a quarter of participants had poor mental health. Gender difference in mental health was also significant and females were found to have poorer mental health than males. Furthermore, the findings also reported that students in higher education level were at higher risk of mental health issues. Poor mental health was also found to be associated with higher dropout especially in vocational and higher education.

### **2.3 Overview of Studies Done in the International Context**

The studies which were reviewed above aid in understanding mental health and its relation to a multitude of variables. The focus of these studies included mental health continuum and its relation to depression (Keyes, 2002), mental health continuum and correlates of mental health and mental illness (Gilmour, 2014; Guo et al., 2018), dual continua model of mental health and mental illness (Góngora & Solano, 2017), social media and wellbeing (Marciano & Viswanath, 2023), correlates of positive mental health and socio-demographic differences (Vaingankar et al., 2013), happiness and gender (Verma & Ura, 2022)

On the relationship between mental health, locus of control and socio-demographic components, studies were also carried out on belief in superstition and luck (Sagone & De Caroli, 2013), LoC, self-control, health outcomes and happiness (Botha & Dahmann, 2024; Ramezani & Gholtash, 2015), LoC, education, family status and professional activity (Angelova, 2016), gender, LoC and academic achievement (Khan & Iqbal, 2014), LoC and happiness (Devin et al., 2012), psychological wellbeing and LoC (Griffin, 2014; Hough et al., 2021; Kamrani, Kamrani & Kamrani, 2023; Augustina & Dorathy, 2021), LoC, depression, anxiety and emotional dysregulation (Couto &

Baptista, 2023), social wellbeing and education (Zhang et al., 2010), educational attainment and emotional wellbeing, depression, aspirations and expectations (Lee & Yang, 2022; Cohen et al., 2020), psychological wellbeing and academic performance (Turashvili & Japaridze, 2012), employment status, mental health and wellbeing (Nam et al., 2021; Gray et al., 2019; Nasrin et al., 2023), gender roles, gender discrimination and wellbeing (Pervais & Malik, 2021; Love, Nikolaev & Dhakal, 2023; Ferrant, 2017), social integration, perceived stress, LoC, psychological wellbeing (Xia & Ma, 2020), gender and unemployment on mental health (Artazcoz et al., 2004), Locus of control and mental health (Shojaee & French, 2014), gender, level of education, poor mental health and dropout rate (Hjorth et al., 2016).

Analysis of studies from other countries have underscored the importance of mental health and studied it in relation to other relevant variables. Furthermore, studies employing the mental health continuum model (which is central to the present study) compared the overall levels of mental health among various samples of population from different countries with some findings indicating higher level of flourishing and others indicating higher level of moderately mentally healthy. However, there are limited studies utilizing the mental health continuum model to explore the levels of mental health according to locus of control, level of education, status of employment and gender especially among youth. Moreover, past studies have also examined psychological wellbeing and its relation to locus of control, gender, education and employment status, but there is a dearth of studies exploring emotional and social wellbeing and its relation to locus of control and socio-demographic variables.

## **2.4 Indian Studies on Mental Health**

**Singh et al. (2015)** conducted an exploratory study to examine the prevalence of mental health and its association with psychosocial functioning and mental distress among adolescents in Delhi, India. There were 539 participants in the study and their ages ranged from 13 to 18 years. Mental health continuum short-form, depression anxiety and stress scale-21 and strengths and difficulties questionnaire were used to measure the different variables in this study. The findings with regard to the three mental health categories showed that majority of the adolescents were moderately mentally healthy (51.2%), followed by flourishing (46.4%) and languishing (2.4%). In addition, it was also found that a greater number of females and younger adolescents were flourishing as opposed to males and older adolescents. Furthermore, the study also reported that the rate of depression and difficulties with adjustment were lower among those in the flourishing category. Flourishing adolescents were also found to possess more prosocial behavior than those in moderate and languishing category.

**Arikrishnan et al. (2020)** assessed the prevalence of positive mental health and examined the factors associated with it in an adolescent population in rural Puducherry, India. The sample size was 245 adolescents in the age range of 10 to 19 years. Mental health continuum short form was used to measure positive mental health and for collecting data from the participants. The results of the study highlighted that more than half of the adolescents had positive mental health. In addition, it was also found that there was a significant positive association between participants' socioeconomic conditions and mother's education on the mental health of adolescents.



**Keyho, Gujar and Ali (2019)** in their study examined the prevalence of mental health in adolescents. Data was collected from different schools in Kohima, Nagaland. The sample size was 702 and random sampling was used. Adolescents in the age range of 13 to 19 were part of the study. The tools used included a socio-demographic questionnaire and strengths and difficulties questionnaire (SDQ). Prevalence of mental health was measured through SDQ consisting of 5 subscales namely, i) emotional problem, ii) hyperactivity, iii) peer problem, iv) conduct problems and v) prosocial behaviors. Descriptive statistics was used to analyze the data. The findings of the study highlighted that more than half of the adolescents had normal scores on emotional problem, hyperactivity, peer problem, conduct problems and prosocial behaviors followed by a quarter having borderline scores and the least number of adolescents had abnormal scores on the 5 subscales.

**Agnes and Akhila (2023)** in a study compared the mental health and life satisfaction of working and non-working women in India. The sample consisted of 60 women in the age range of 24 to 55 years. The tools used were mental health inventory and life satisfaction scale. The findings revealed that there was no significant difference between working and non-working women on mental health and life satisfaction. On examining the relationship between mental health and life satisfaction, a significant positive relation was seen between these two variables.

**Alat et al. (2023)** in their study examined the role of psychological capital and internal locus of control on mental health during the COVID-19 pandemic. The sample comprised of 667 participants who were above 18 years and from different parts of India. Tools used included the general health questionnaire, compound PsyCap scale, Rotter's locus of

control scale (10 items from the scale were selected) and the scale of positive and negative experience. The findings from the study revealed a significant negative association between psychological capital and internal locus of control on psychological distress. Furthermore, it was also highlighted that affect balance (which is computed by subtracting negative experience with positive ones) played a mediating role between psychological capital and psychological distress and also between internal locus of control and psychological distress.

**Jayasankar et al. (2022)** in their study investigated the prevalence, treatment gap of common mental disorders and also the impact of socioeconomic parameters and disability on Common Mental Disorders (CMDs) in India. The study utilized the National Mental Health Survey of India and included 39,532 adult participants who were 18 years and above. The mini-international neuropsychiatric interview (6.0.0) along with Sheehan disability scale were used to measure common mental disorders. The findings showed that prevalence of CMDs was highest among adults in the age group of 50 to 59 years. In addition, the prevalence was seen to be higher among females who were less educated, unemployed, married and living in an urban area. Furthermore, the findings also indicated that depressive symptoms and anxiety disorders were more prevalent among females as compared to males.

## **2.5 Indian Studies on the Relationship Between Mental Health, Locus of Control and Socio-Demographic Components**

**David & Singh (2016)** conducted a study to see the correlation between locus of control and happiness among postgraduate students studying business management in India. Their sample consisted of 300 post graduate students. Survey questionnaires were utilized with questions taken from Oxford Happiness Inventory (1989) and Rotter's locus of control scale (1966). The data obtained from their study were analyzed using correlation, inter correlation, factor analysis and t-test. The results from the study indicated that there was a significant positive relationship between locus of control and happiness among postgraduate students in India. It was also observed that post graduate students with internal locus of control scored higher on the happiness scale than post graduate students with external locus of control. Additionally, no significant association between happiness and locus of control among male and female students was found.

**Jain and Singh (2015)** examined the relation between locus of control on mental health and adjustment. In this study, the sample size consisted of 50 adolescent females studying at Amity University. They used the Rotter's locus of control scale, mental health battery by Singh and Gupta (2000) and adjustment inventory by Sinha and Singh (1995). Data was analyzed using descriptive statistics and t-test. The results of the study showed that adolescent females with internal locus of control and those with external locus of control differed in their mental health as well as their capacity to adjust. Adolescent females with internal locus of control had better mental health and adjustment ability, whereas, adolescent females with external locus of control exhibited poorer mental health and scored poorly on adjustment ability. Additionally, the study also indicated that adolescent

females with internal locus of control and those with external locus of control differed significantly in different domains of adjustment namely health, social adjustment, emotional adjustment and educational adjustment.

**Sidola, Saini and Kang (2020)** conducted a study to examine locus of control in relation to mental health among college students. The study had a sample size of 400 (200 males and 200 females) who were studying in four colleges under Punjab Agricultural University. The tools used included a locus of control scale adapted from Rotter's locus of control and Levenson's multidimensional scale and mental health battery by Singh and Gupta which was adjusted for this study to measure emotional stability, over-all adjustment, autonomy and security-insecurity. With regard to the status of locus of control, the results indicated significant differences in internal and external locus of control among participants from the four different colleges. When assessing the mental health of participants across the above mentioned four dimensions of mental health, the results showed that more than half of the participants had average emotional stability (82.50%) followed by high emotional stability (14%) and low emotional stability (3.50%). With regard to overall adjustment 73% of the participants were in the average category, 25.50% in high and 1.50% in low level of adjustment. Additionally, with regard to autonomy and security-insecurity, majority of the participants were in average level (82%; 82.75%), followed by high level (17.25%; 15.25%) and low level (0.75%; 2%). Further examination using regression analysis showed that internal locus of control had a significant positive contribution to overall adjustment and mental health.

**Sukanya and Chengti (2015)** assessed the effects of locus of control and level of education on mental health of students. The sample for the study consisted of 360

adolescents from varied educational levels. The tools used included mental health inventory by Jagdish and Srivastava (1988) and locus of control scale by Anandkumar and Srivastava (1985). The findings of the study suggested that post graduate students had higher mean scores on mental health as compared to under graduate and higher secondary students. In addition, it was also found that there were significant differences in mental health among students with different educational levels. Further, with regards to locus of control and mental health, it was seen that students with internal locus of control had higher mean score on mental health as compared to students with external locus of control. Furthermore, significant differences were found among students with internal and external locus of control on their overall mental health.

**Ahmed, Arora and Gond (2023)** in their study examined the level of self-esteem, anxiety, stress and depression among unemployed youth in Varanasi, India. It was a cross-sectional study involving 100 unemployed participants. A socio-demographic sheet, general health questionnaire, Rosenberg self-esteem scale and depression anxiety stress scale were used to collect data. Descriptive statistics along with independent sample t test and correlation were used to compute the data. The findings highlighted that majority of the participants fell in the normal category in regard to depression, anxiety and stress. Further, significant differences were found between genders, with males having higher scores on anxiety, depression and self-esteem while females had higher scores on stress. Furthermore, positive relationship was found between depression and anxiety, stress and anxiety, stress and depression. A negative relationship was found between stress and self-esteem.

**Ram (2023)** in his study examined the level of depression and anxiety among employed and unemployed youth in Patna, India. The sample size comprised of 200 youth in the age range of 21 to 30 years. Anxiety scale (Sinha, 1996) and manifest depression inventory (Jamuar, 1986) were used to collect data from participants. The findings showed that unemployed youth had higher levels of anxiety and depression as compared to employed youth.

**Kaur (2020)** investigated the association between anxiety, stress and depression among employed and unemployed young adults in Delhi NCR. The study included a sample size of 100 (50 employed and 50 unemployed) participants aged 22 to 28 years. The anxiety depression stress scale was used to collect data from participants. Correlation and t-test were used to analyze the data. The findings indicated that there was a positive relationship between anxiety, stress and depression. It was also reported that employed and unemployed participants did not differ significantly in the level of stress and depression but there was a significant difference between employed and unemployed participants on levels of anxiety.

**Yadav and Lakshminaryan (2019)** in their study assessed health locus of control and anxiety among students in Bareilly, India. It was a cross sectional study and the sample size comprised of 632 students aged 18 to 25 years. Data was collected using a demographic questionnaire, anxiety scale and multidimensional health locus of control scale. The findings of the study highlighted that there were significant differences on scores of mild, moderate and severe anxiety under the three categories of locus of control (internal, chance and powerful others).

**Bhat and Joshi (2020)** conducted a study to see the impact of unemployment on the mental health of youth in Kashmir, India. The sample comprised of 200 youth, half of which were employed and another half were unemployed. The mental health inventory was the choice of instrument used in this study. The findings of the study revealed that, level of depression, anxiety and loss of behavioral and emotional control were higher among unemployed participants. On the other hand, the level of positive effect, emotional ties and life satisfaction were higher among the employed participants.

**Baby, Fatima and Kaneez (2022)** investigated the relationship between social wellbeing and academic performance and identified significant predictors of academic performance in social wellbeing among different students from Aligarh Muslim University. The sample consisted of 203 students in the age range of 18 to 30 years. The social wellbeing scale (Keyes, 1998) and the academic performance scale were used to collect data. Multiple linear regression was used to analyze the data. Findings suggested a positive correlation between social wellbeing and academic performance. In addition, academic performance was positively related to social integration, social contribution and social actualization. Moreover, it was also found that social integration and social contribution were significant predictors of academic performance.

**Arora (2023)** examined the relationship between locus of control and work-related stress among young people working in banks in Delhi, India. The study was purposive in nature and had a sample size of 100 employees (50 males and 50 females) with an age range of 21 to 29 years. Rotter's locus of control scale (1966) and the Workplace Stress Survey (2001) were used to collect data. Descriptive statistics, t-test and correlation were used to

analyze the data. The results of the study showed that more males had internal locus of control while more females had external locus of control. Further, the findings indicated that females had higher scores on workplace stress as compared to males. Furthermore, a positive correlation between locus of control and workplace stress was observed which suggested that individuals with higher scores on locus of control scale had higher levels of work stress and individuals with lower score on locus of control had lower levels of work stress.

**Arjun, Dakshinamurthy and Rajavel (2022)** conducted a study to find the relationship between psychological wellbeing and socio-demographic variables of adolescents. The study consisted of 100 (50 males and 50 females) school students in the age range of 15 to 19 years from rural and urban areas in Kozhikode district, Kerala. The study utilized Ryff's psychological well-being scale along with a socio-demographic questionnaire to collect data from the participants. Results were analyzed using descriptive statistics and t-test. Findings from the study suggested that more than half of the participants had low autonomy, personal growth, purpose in life and overall psychological wellbeing. On the other hand, more than half of the participants displayed a higher percentage in positive relations and self-acceptance. In addition, the t-test indicated that females had higher psychological wellbeing than males. Females also had higher environmental mastery, positive relations and self-acceptance as compared to males. No significant differences between males and females were found in autonomy, personal growth and purpose in life.

**Hassan (2019)** examined the differences in psychological wellbeing and gender among students from social science stream and students from science stream at Aligarh Muslim University. The sample consisted of 163 (83 males and 80 females) undergraduate



students. Ryff's psychological wellbeing scale was used to collect data. T-test was used to analyze the data. Findings highlighted that there were no significant differences between males and females on psychological wellbeing irrespective of the streams.

**Jadav (2023)** investigated the level of psychological wellbeing and gender differences among youth from the urban and rural areas in India. The sample size was 120, where 60 youths (30 males and 30 females) were from rural area and 60 youth (30 males and 30 females) were from urban area. Psychological wellbeing scale consisting of 5 subscales (satisfaction, efficiency, sociability, mental health and interpersonal relationship) by Sisodia and Chaudhary was used to collect data. 2x2 factorial design and t-test were used to analyze the data. Results indicated that there was no significant difference in psychological wellbeing among youth from urban and rural areas. In addition, the results highlighted that there was a significant difference in psychological wellbeing between males and females from both rural and urban areas. Furthermore, females were shown to have higher levels of psychological wellbeing than their male counterparts.

**Agarwal et al. (2018)** in their study investigated general mental health in relation to locus of control and gender among students playing sports at a competitive level and students who do not play at a competitive level. The sample comprised of 160 students divided equally among the two categories. The tools included the psychological general wellbeing schedule and Levenson's locus of control scale. The findings from the ANOVA results revealed that there were no significant differences between the two categories of students. However, a significant

difference in general wellbeing with regard to external locus of control and internal locus of control was observed.

## **2.6 Overview of Studies Done in the Indian Context**

The studies done on mental health in India have mainly focused on parameters such as psychosocial functioning and mental distress (Singh et al., 2015), positive mental health (Arikrishnan et al., 2020), mental health and life satisfaction (Agnes & Akhila, 2023), treatment gap and socioeconomic factors (Jayasankar et al., 2022), prevalence of mental health (Keyho et al., 2019).

With regard to Indian studies on the relationship between mental health, locus of control and socio-demographic components, the focus was on parameters such as locus of control and happiness (David & Singh, 2016), loneliness, anxiety, work stress, adjustment in relation to locus of control (Arora, 2023; Jain & Singh, 2015), self-esteem, stress and depression in unemployed/employed youth (Ahmed et al., 2023; Ram, 2023; Kaur, 2020), social wellbeing and academic performance (Baby et al., 2022), gender and psychological wellbeing (Hassan, 2019; Jadav, 2023; Agarwal et al., 2018).

Studies done in India on mental health also focused on a wide array of relation to other variables. However, studies on the positive aspects of mental health are limited. Although, studies on mental health in relation to locus of control and socio-demographic variables were carried out highlighting the relationship between these variables, most of

these studies were confined to psychological wellbeing, stress, depression and anxiety with only one relevant study exploring social wellbeing. No studies have been done on emotional wellbeing. It is also worth noting that there is a dearth of studies on mental health with regard to Nagaland. Available studies in Nagaland have explored the prevalence of mental health focusing on parameters such as emotional problem, hyperactivity, peer problem, conduct problem and prosocial behaviour (Keyho et al., 2019). Although, review of studies highlighted significant findings on mental health in relation to various variables, evidence remains inconclusive with regard to level of mental health, emotional, social and psychological wellbeing in relation to locus of control, level of education, status of employment and gender. Moreover, most of the studies were confined to adults, adolescents and young people with a small age range. These highlight the need to explore the mental health of educated youth as research is limited on this section of population. Educated youth play a significant role in contributing to the progress of society, particularly in Naga society which has a vibrant educated youth population. As such, it is important to study this section of the population to better understand their mental health status. In addition, there is also a need to examine level of mental health according to locus of control which is yet to be explored in respect to educated Naga youth and such study may provide insight as to how young Nagas respond to events that occur in their life in relationship with emotional, social and psychological factors. Another important variable in the present study is level of education. Although studies in the past have been carried out to understand the relationship between education and mental health, no specific studies on population with higher level of education and lower level of education among Naga youth have been

undertaken. Therefore, the present study will examine the level of mental health according to level of education and examine its relation to emotional, social and psychological wellbeing across a wide range of educated Naga youth. Moreover, unemployment is a major challenge in Nagaland and the state is unable to provide employment to thousands of educated youth. There are limited studies addressing this problem and the impact it may have on the mental health of youth. As such, the present study will examine mental health and its relation to status of employment among educated Naga youth. Lastly, gender equality is a sensitive topic especially with respect to traditional gender roles and customary laws which are still prevalent in Naga society and there is a need to explore the difference in gender on mental health of Naga youth in light of gender ideology and gender inequality. Therefore, the present study felt the need to include gender as a variable of study and examine its relation to mental health. The researcher hopes to fill a gap in the literature on positive mental health in carrying out a study examining the level of mental health and emotional, social and psychological wellbeing in relation to locus of control, level of education, status of employment and gender among educated Naga youth.

## CHAPTER – 3

### METHODOLOGY

#### 3.1 Sample and Sampling Method

The sample of the study consisted of 600 (332 females and 268 males) educated Naga youth in the age range of 15-35 years. Data was collected from participants residing in two districts of Nagaland i.e. Kohima district which is the capital of the state and Dimapur district which is the main commercial district. These two districts were selected for the study considering the concentration of a vibrant population consisting of individuals from all tribes and from various parts of the state living in these two districts. Young people come to these two districts because of the accessibility to better educational facilities and employment opportunities as compared to rural districts. These two districts are also well connected to other parts of the country. Incidental sampling or convenient sampling method was used in this study.

#### 3.2 Operational Definitions

*3.2.1 Mental Health:* In the present study mental health referred to a person's level of wellbeing in terms of emotional wellbeing, social wellbeing and psychological wellbeing. Individuals were also categorized into three levels of mental health which were flourishing, languishing and moderately mentally healthy. Mental health continuum short form (2009) was used to measure mental health.

*3.2.2 Locus of Control:* In the present study there were two categories of locus of control i.e. internal locus of control and external locus of control. People with internal locus of

control believe that they control the outcomes in their life through their own efforts whereas people with external locus of control believe that outcomes in their life are controlled by external factors such as luck, chance, fate or powerful others and they do not have control over it. Rotter's locus of control scale (1966) was used to measure locus of control.

*3.2.3 Youth:* The researcher considered the age range of 15-35 years as youth in the present study.

*3.2.4 Status of Employment:* Two groups by status of employment (i.e. employed and unemployed) were considered in the present study.

*3.2.4.1 Educated Unemployed Youth:* For the present study, educated unemployed youth referred to those individuals in the age range of 15-35 years who are matriculate or above and are presently unemployed.

*3.2.4.2 Educated Employed Youth:* For the present study, educated employed youth refers to those individuals in the age range of 15-35 years who are matriculate or above and are presently employed.

*3.2.5 Level of Education:* Two levels of education were used in the present study which included higher level of education (hereafter meaning graduate or above) and lower level of education (hereafter meaning matriculate or higher secondary).

*3.2.6 Gender:* In the present study, gender referred to male and female.

### **3.3 Inclusion Criteria**

- An individual in the age group of 15-35 years having education level up to matriculation and above

- An individual presently residing in Dimapur or Kohima district of Nagaland

### **3.4 Exclusion Criteria**

- An individual suffering from any mental disorders/learning disabilities (verified through personal inquiry)
- An individual under the influence of alcohol or drugs

### **3.5 Description of Tools:**

The tools used for data collection are described below:

**3.5.1 Mental Health Continuum Short Form (MHC - SF):** The MHC - SF is a scale developed by Keyes (2009) that indicates a person's current level of positive feeling and positive functioning. The MHC - SF is an abridged version of the MHC long form and comprises of 14 items wherein, three of the items represent emotional wellbeing, five items represent social wellbeing and the last six items represent the six dimensions of Ryff's (1989) model of psychological wellbeing. Responses are scored on a five-point Likert type scale ranging from never, about once a week, 2/3 times a week, almost every day and every day. The items are summed with a total score ranging from 0 to 70. The subscale scores for emotional wellbeing ranges from 0 to 15, social wellbeing ranges from 0 to 25 and psychological wellbeing ranges from 0 to 30. The scale can be administered to individuals aged 12 and above. The scale also provides the level of positive mental health by categorizing individuals as flourishing, languishing or moderately mentally healthy. Internal consistency reliability of the MHC - SF

among Naga youth was assessed using the Chronbach's Alpha and the results highlighted very high internal consistency ( $\alpha = .914$ ).

**3.5.2** Locus of Control Scale: The locus of control scale developed by Rotter (1966) consists of 29 items and measures an individual's level of internal/external control. The responses in the locus of control scale are forced choice-based responses indicating that the respondent must select the statement they agree with the most from an 'a' or 'b' option provided for each item on the scale. The scale has 29 items out of which 6 are filler items and are not scored. Higher scores on the scale indicate an external locus of control and lower scores on the scale indicates an internal locus of control. The split half reliability of the scale is between 0.65 and 0.79. Internal consistency was measured on a sample of 600 Naga youth using Chronbach's Alpha and it was found that the internal consistency reliability of the scale was acceptable ( $\alpha = .602$ ).

**3.5.3** Socio-Demographic Questionnaire: A self-report demographic questionnaire was also given to all the participants. It included questions on age, present residence (Kohima/Dimapur), tribe, gender (female/male), level of education (higher level of education/lower level of education) and status of employment (employed/unemployed).

### **3.6 Procedure**

The research was conducted on educated Naga youth in the age range of 15-35 years. The researcher obtained the informed consent to participate in the research before collecting the required data from the participants. Instructions were given to the



participants and they were briefed about the purpose of the research and confidentiality was ensured. Thereafter, three questionnaires i.e. mental health continuum short form, locus of control scale and a socio-demographic questionnaire were given to the participants. They were asked to read the instructions carefully before answering. There was no time limit and the researcher provided assistance, if required, at any stage of collecting the data. The time taken to complete the three questionnaires was approximately 20-25 minutes. After the data was collected, scoring of the data was done as per the instructions given in the manuals of the questionnaires.

### **3.7 Statistical Analysis**

The researcher used both descriptive statistics and inferential statistics to analyze the data. Descriptive statistics was used to summarize the characteristics of the population in the study. The characteristics of the sample were described using the following:

- Mean
- Standard deviation
- Frequency
- Percentage
- Pie chart
- Chronbach's Alpha

Inferential statistics was used to compute the differences and interaction effects between the variables under study. The statistics used for this purpose included:

- MANOVA

- Between subjects ANOVA
- Pairwise comparisons
- Bonferroni adjustment
- Chi-square test

### **3.8 Ethical Considerations**

- Participants were briefed about the purpose of the research
- Participants were assured about anonymity and confidentiality
- Participants were given the freedom to withdraw from the research at any given time
- The researcher assured the participants that no distress would be caused to them as a result of participating in the study

## **CHAPTER 4**

### **RESULTS**

This chapter presents the results analyzed by the researcher using Statistical Package for Social Sciences version 21 (SPSS 21). The purpose of this chapter is to answer the research questions and objectives and test the hypotheses that have been formulated for this study. The different statistical designs used in the study and the results of these statistical procedures are as follows:

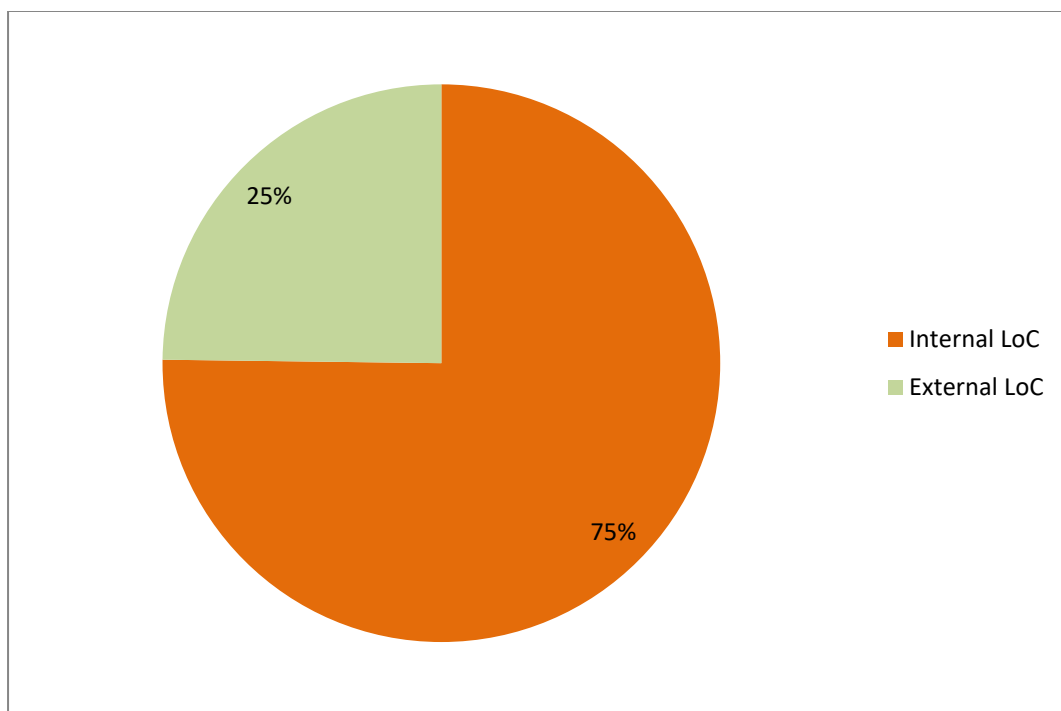
1. Descriptive statistics
2. Inferential statistics

#### **4.1 Description of the Study Sample**

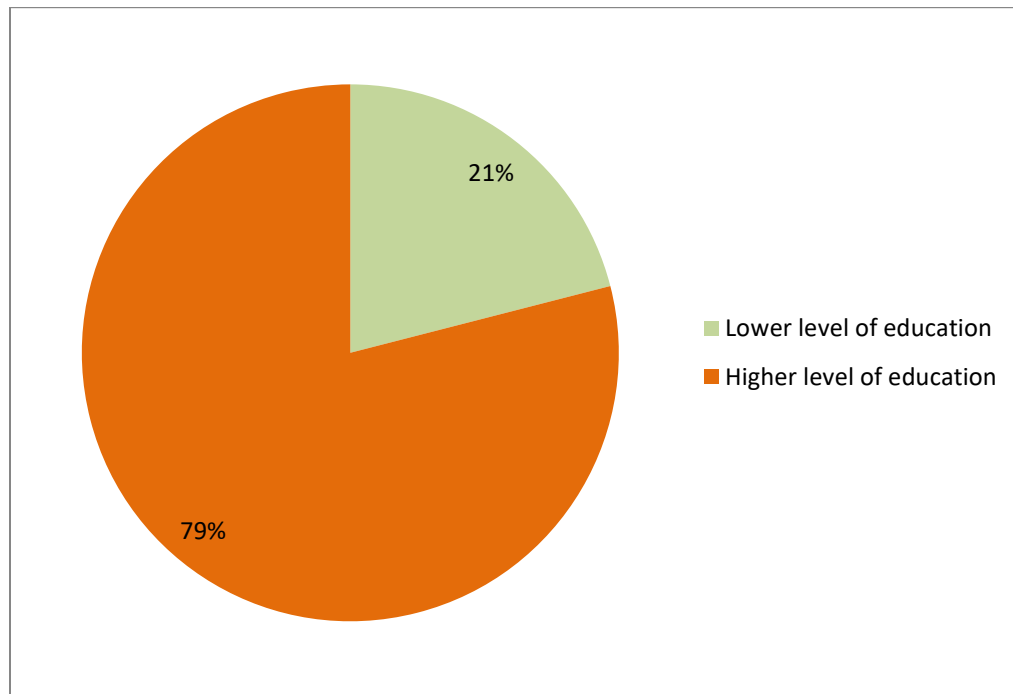
In the present study, the sample consisted of 600 participants within the age range of 15 to 35 years (mean age of 25 years). Table 4.1.1 highlighted that a predominant majority of the participants had internal locus of control (75.2%) and a quarter of the participants had external locus of control (24.8%). In addition, it was found that majority of the participants had higher level of education (79%) and around a quarter had lower level of education (21%). Regarding status of employment, little more than half of the participants were unemployed (57.3%) and the remaining were employed (42.7%). Lastly, with regard to gender, majority of the participants were females (55.3%) and the rest of the participants were males (44.7%).

*Table 4.1.1 Socio-Demographic Characteristics of Participants*

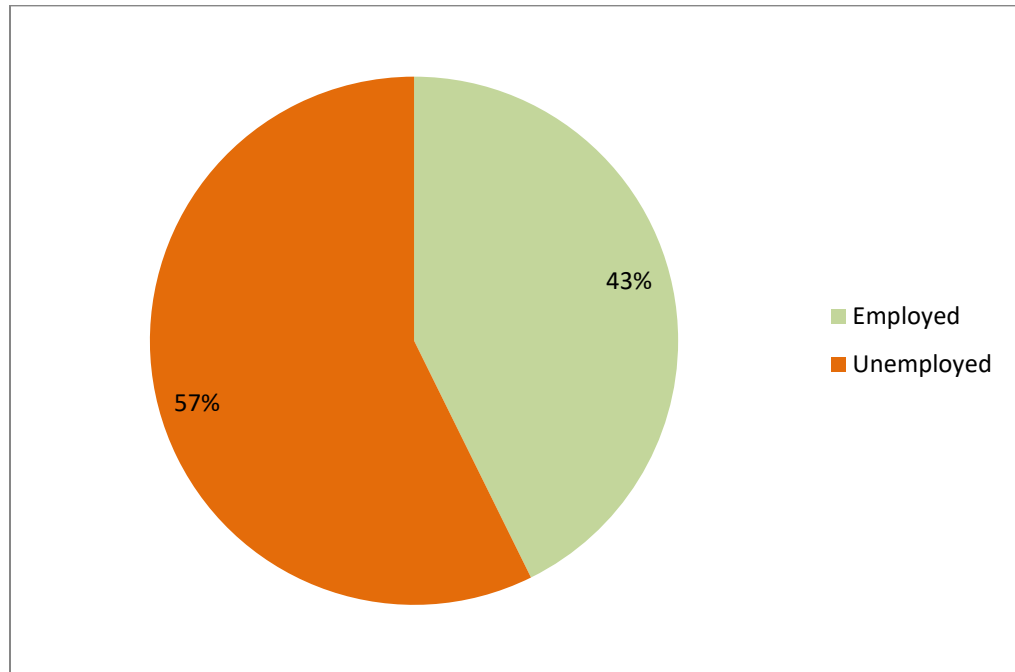
<b>Grouping</b>			<b>N</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Locus of Control (LoC)</b>					
Internal LoC			600	451	75.2 %
External LoC			600	149	24.8%
<b>Level of Education</b>					
Lower Level of Education			600	126	21%
Higher Level of Education			600	474	79%
<b>Status of Employment</b>					
Employed			600	256	42.7%
Unemployed			600	344	57.3%
<b>Gender</b>					
Female			600	332	55.3%
Male			600	268	44.7%



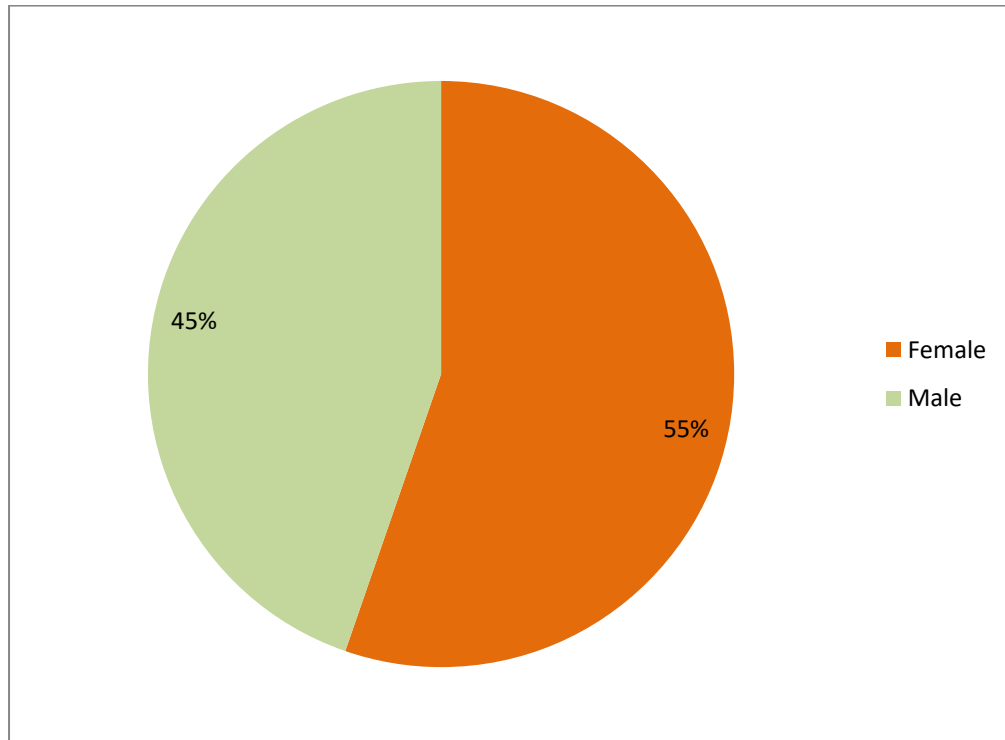
***Fig. 4.1.1 Distribution of data according to locus of control among educated Naga youth***



***Fig. 4.1.2 Distribution of data according to level of education among educated Naga youth***



***Fig. 4.1.3 Distribution of data according to status of employment among educated Naga youth***



***Fig. 4.1.4 Distribution of data according to gender among educated Naga youth***



## 4.2 Distribution of Sample in Terms of Languishing, Moderate and Flourishing Mental Health

Objective 1 of the present study was to assess the status of mental health among educated Naga youth. This was addressed in this section using the categories of mental health namely languishing, moderately mentally healthy and flourishing. Frequency, percentage and chi-square were used to assess the categories of mental health of participants. In addition, the distribution of languishing, moderately mentally healthy and flourishing according to gender, level of education, status of employment and locus of control were also examined.

**Table 4.2.1 Distribution of Sample by Mental Health Categories**

Groupings	Languishing	Moderate	Flourishing	Total	$X^2$	$df$	$p$ Value
<b>Total Sample of Mental Health</b>	133 (22.2%)	274 (45.7%)	193 (32.2%)	600			
<b>Locus of control</b>							
Internal LoC	85 (18.9%)	199 (44.1%)	167 (37%)	451	23.32*	2	.000
External LoC	48 (32.2%)	75 (50.3%)	26 (17.5%)	149			
<b>Level of Education</b>							
Lower Level of Education	44 (35%)	57 (45.2%)	25 (19.8%)	126	19.24*	2	.000
Higher Level of Education	89 (18.8%)	217 (45.8%)	168 (35.4%)	474			
<b>Status of Employment</b>							
Unemployed	106 (30.8%)	150 (43.6%)	88 (25.6%)	344	38.81*	2	.000
Employed	27 (10.6%)	124 (48.4%)	105 (41%)	256			
<b>Gender</b>							
Female	82 (24.7%)	156 (47%)	94 (28.3%)	332	5.86**	2	.05
Male	51 (19%)	118 (44%)	99 (37%)	268			

\*significant at the .01 level \*\*significant at the .05 level

Table 4.2.1 represents the overall data in terms of the three mental health categories among educated Naga youth. The findings show that the highest numbers of participants were in the moderately mentally healthy category (45.7%), followed by flourishing (32.2%) and the least, but notable, number of participants were in the languishing category (22.2%).

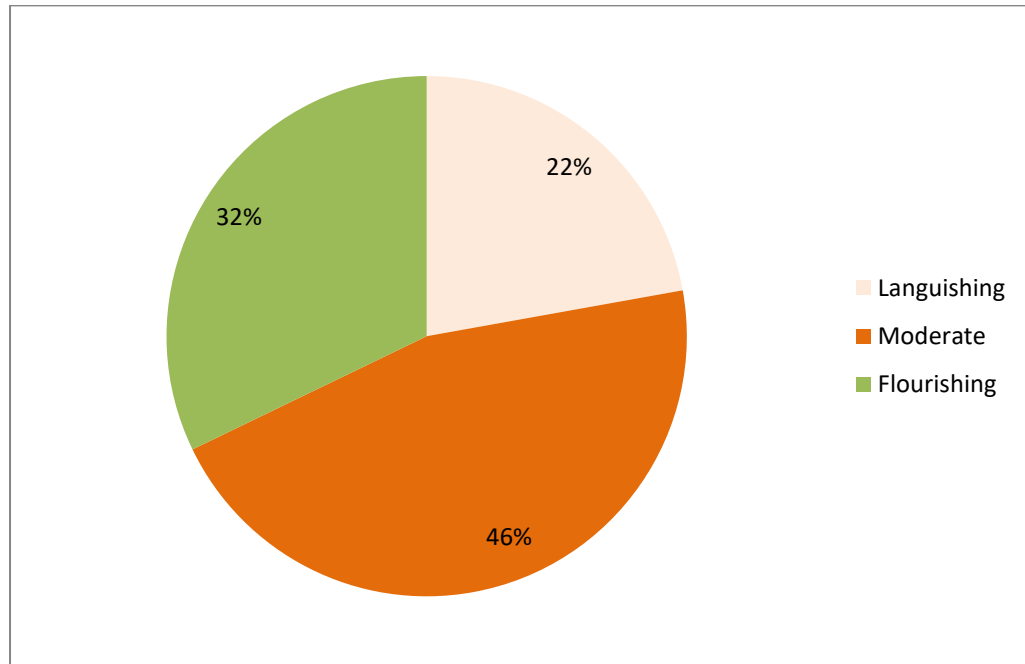
When examining the mental health of participants according to locus of control, a good majority of participants in both internal (44.1%) and external (50.3%) locus of control were moderately mentally healthy. In addition, a greater number of participants with internal locus of control were flourishing (37%) and only a few were languishing (18.9%). On the other hand, a greater number of participants with external locus of control were languishing (32.2%) and the least number of participants were flourishing (17.5%). Moreover, chi-square showed a significant association between locus of control and the three mental health categories ( $X^2 = 23.32, p = .000$ ).

According to level of education, a majority of participants with lower level of education were moderately mentally healthy (45.2%) followed by languishing (35%) and a small number of participants were flourishing (19.8%). The results also indicated that a greater number of participants with higher level of education were moderately mentally healthy (45.8%) and a fair number of participants were flourishing (35.4%) followed by the least number of participants in the languishing category (18.8%). In addition, chi-square showed a significant association between level of education and the three mental health categories ( $X^2 = 19.24, p = .000$ ).

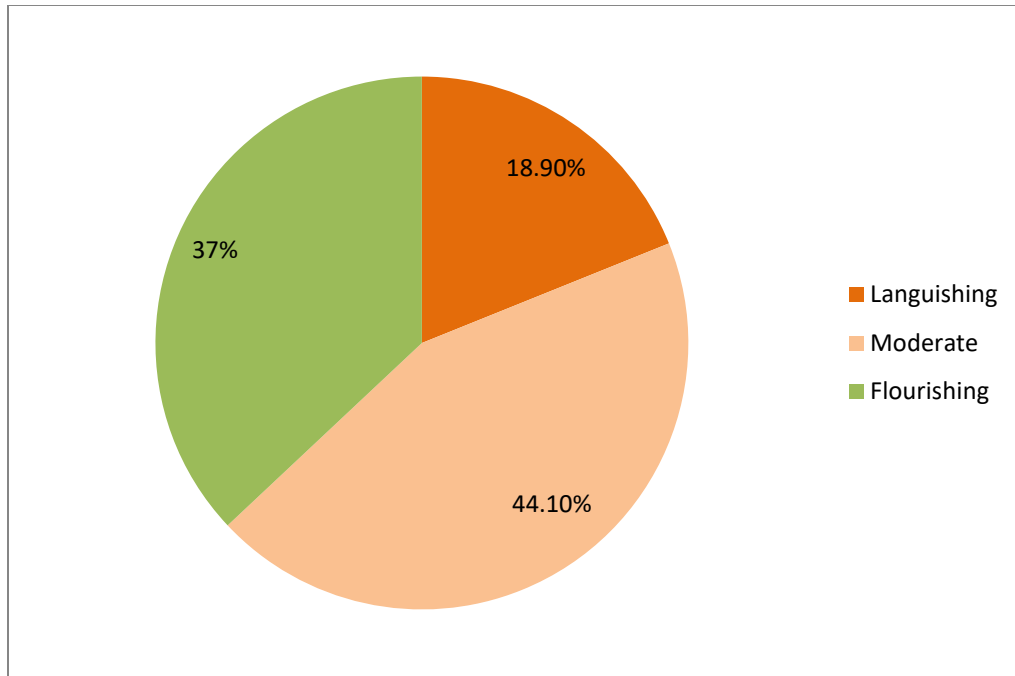
With regard to the status of employment, the results highlighted that almost half of the unemployed participants (43.6%) as well as employed participants (48.4%) were

moderately mentally healthy (43.6%). In addition, a quarter of the unemployed participants were languishing (30.8%) while only a few number of employed participants were languishing (10.6%). On the other hand a quarter of unemployed participants were found to be flourishing (25.6%) while a good number of employed participants were flourishing (41%). Chi-square was found to be significant indicating an association between status of employment and the three categories of mental health ( $X^2 = 38.81, p = .000$ ).

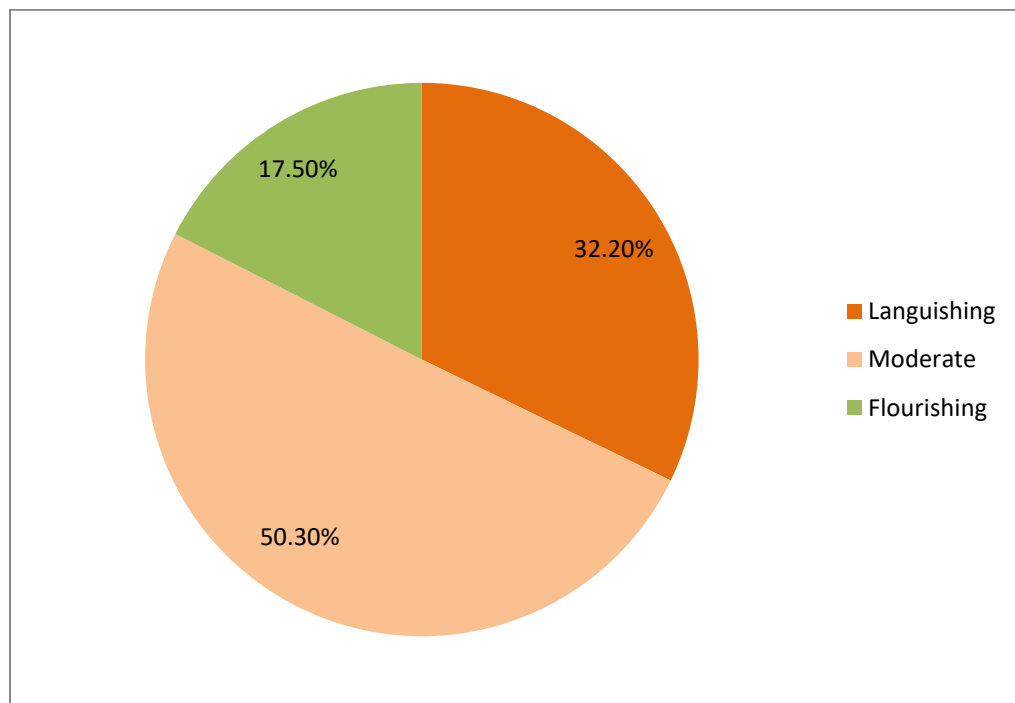
According to gender, majority of both females (47%) and males (44%) were moderately mentally healthy. Further, more numbers of males were flourishing (37%) while a little more than a quarter of females were flourishing (28.3%). On the other hand, more number of females were languishing (24.7%) as opposed to fewer number of males who were languishing (19%). The chi-square found a significant association between gender and the three mental health categories ( $X^2 = 5.86, p = .05$ ).



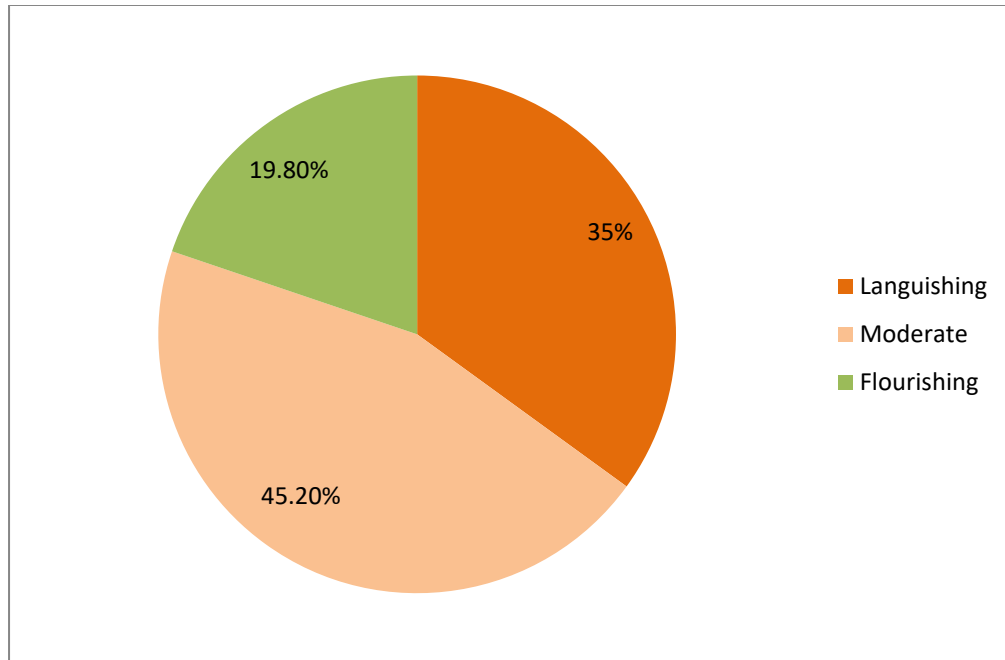
*Fig. 4.2.1 Distribution of total sample by mental health categories*



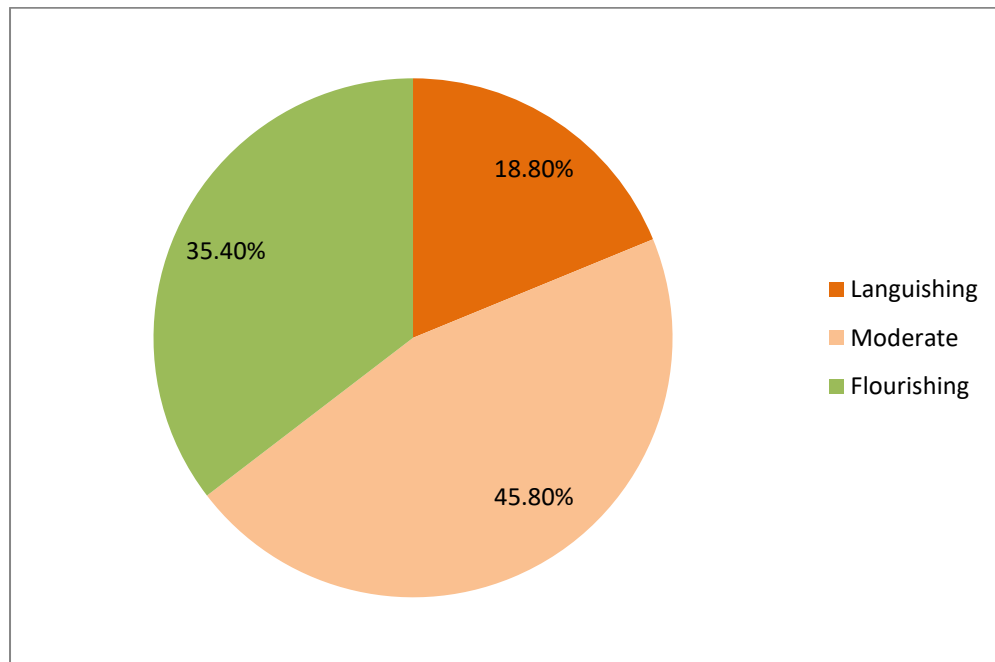
***Fig. 4.2.2 Distribution of sample in terms of languishing, moderate, and flourishing among Naga youth with internal locus of control***



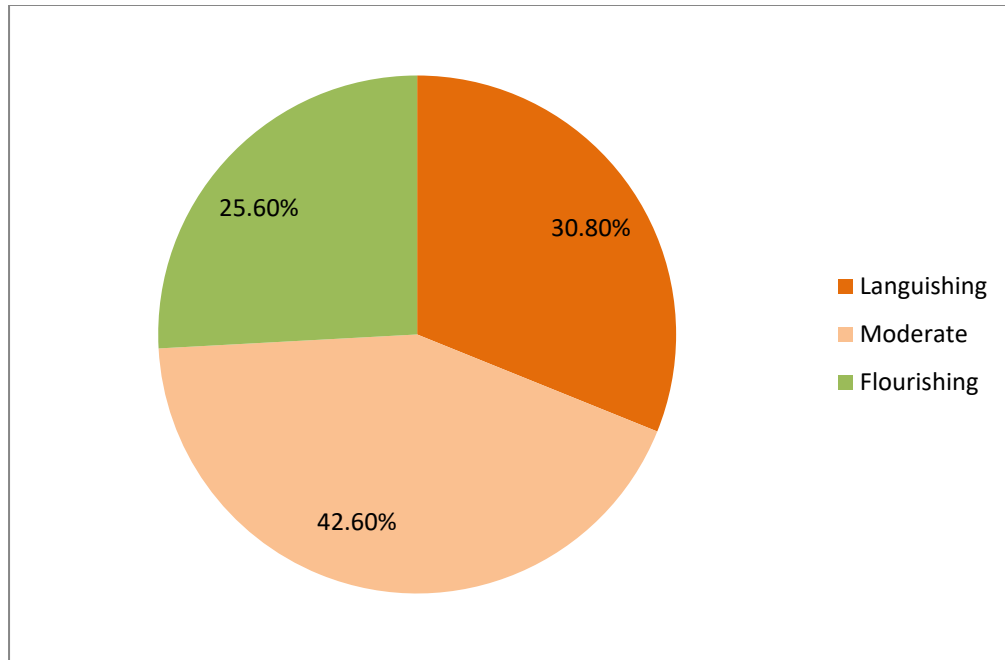
***Fig. 4.2.3 Distribution of sample in terms of languishing, moderate, and flourishing among Naga youth with external locus of control***



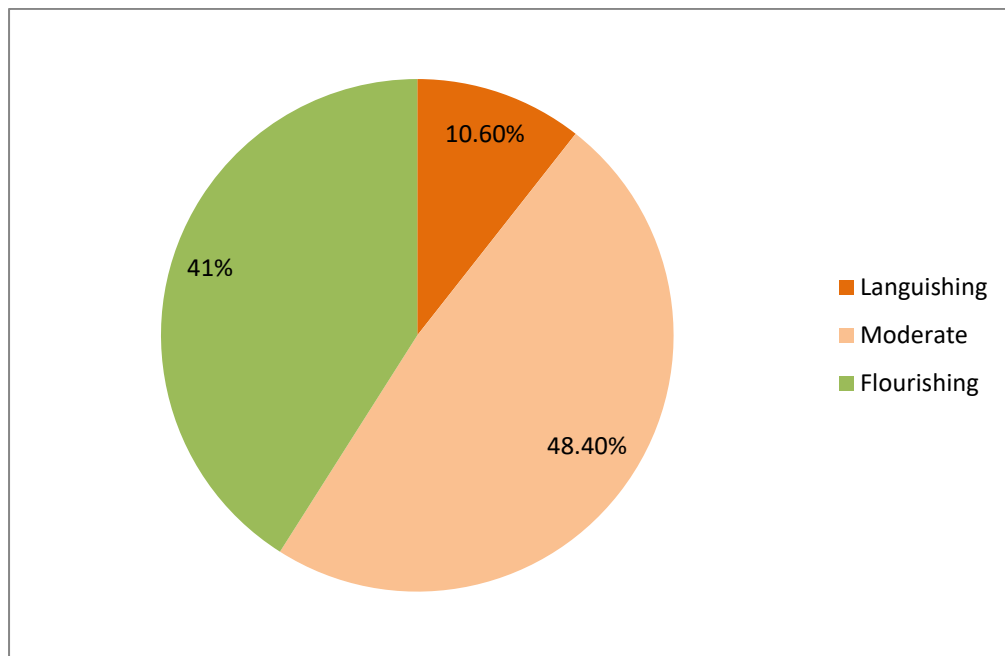
***Fig. 4.2.4 Distribution of sample in terms of languishing, moderate, and flourishing among Naga youth with lower level of education***



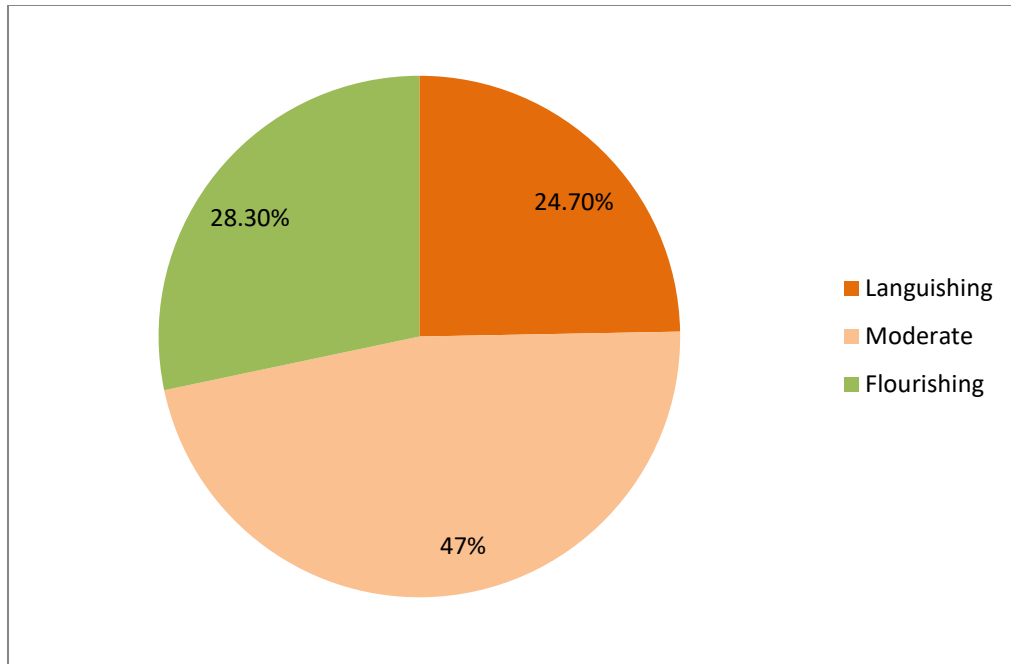
***Fig.4.2.5 Distribution of sample in terms of languishing, moderate, and flourishing among Naga youth with higher level of education***



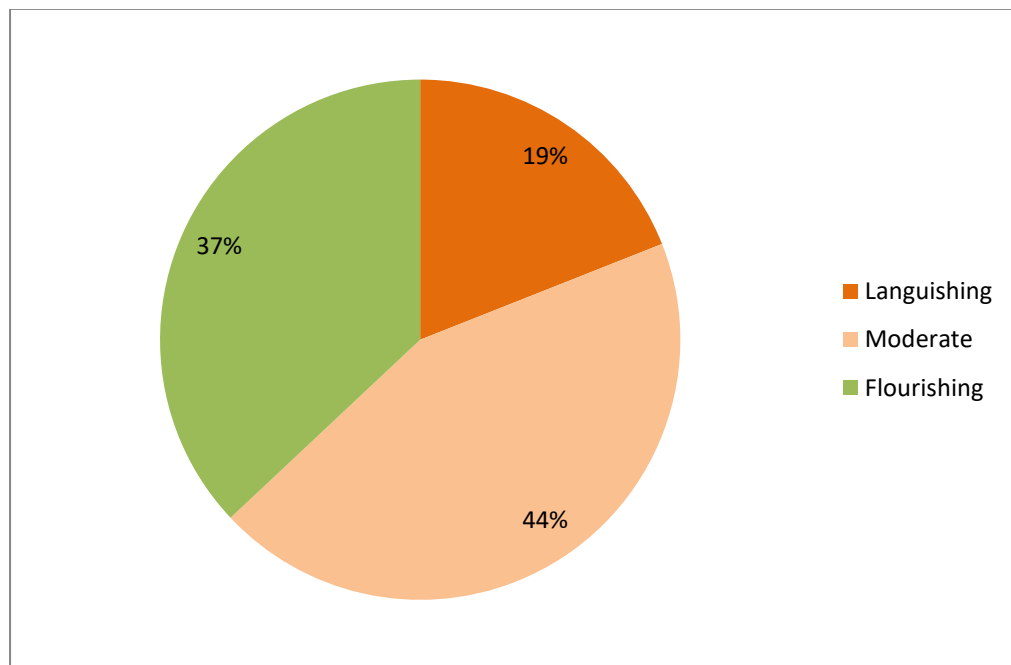
***Fig.4.2.6 Distribution of sample in terms of languishing, moderate, and flourishing among unemployed Naga youth***



***Fig.4.2.7 Distribution of sample in terms of languishing, moderate, and flourishing among employed Naga youth***



***Fig.4.2.8 Distribution of sample in terms of languishing, moderate, and flourishing among Naga female youth***



***Fig.4.2.9 Distribution of sample in terms of languishing, moderate, and flourishing among Naga male youth***



### **4.3 Multivariate Analysis of Variance (MANOVA)**

Multivariate Analysis of Variance was employed in this study. MANOVA is a procedure for comparing multivariate sample means and it is used when there are two or more continuous dependent variables and two or more categorical independent variables. In the present study, MANOVA was used because the data comprised of four independent categorical variables which are locus of control (internal locus of control and external locus of control), level of education (lower level of education and higher level of education), status of employment (employed and unemployed) and gender (males and females). Further, the continuous dependent variables included the three dimensions of mental health namely, emotional wellbeing, social wellbeing and psychological wellbeing.

#### **4.3.1 Assumptions Testing for Multivariate Analysis of Variance**

Before the multivariate main effects testing are conducted, there are several preliminary assumptions that must be tested. According to Pallant (2016) there are several assumptions that must be met for a valid outcome in the multivariate analysis of variance testing. Each assumption is discussed as follows:

**Continuous Dependent Variables:** MANOVA assumes that there should be two or more continuous dependent variables. Therefore, in the present study, three main dependent variables on mental health were considered. These include the scores on emotional wellbeing, social wellbeing and psychological wellbeing.

**Categorical Independent Variables:** MANOVA also assumes that there should be at least one categorical independent variable with at least two levels or groups. In keeping with this assumption, the present study had four categorical independent variables with two levels each which were:

1. Locus of control – internal locus of control and external locus of control
2. Level of education – lower level of education and higher level of education
3. Status of employment – employed and unemployed
4. Gender – female and male

**Adequate Sample Size:** According to Pallant (2016), the sample size is sufficient when the number of participants is greater than the number of variables. In this study, the sample size ( $N = 600$ ) exceeded the total number of variables which was 7 (3 dependent variables and 4 independent variables). Therefore, the sample size was found to be adequate.

**Normality:** To check for normality, statistical analysis was conducted to see if the data was normally distributed. In a study by Ghasemi and Zahediasl (2012), it was highlighted that Kolmogorov-Smirnoff and Shapiro Wilks tests for normality be used when the sample size is small (less than 50) while absolute value of skewness and kurtosis may be considered when sample size is large ( $> 300$ ) (Mishra et al., 2019). Therefore, in this study, skewness and kurtosis were considered as the choice for normality testing due to the large sample size ( $N = 600$ ). Hair et al. (2010) indicated that for a large sample size ( $> 300$ ), normality depends on the skewness value between -2 to +2 and kurtosis values between -7 to +7 as the reference values. Curran et al. (1996), also suggested the same values for skewness and kurtosis while assessing multivariate normality. Therefore, in the present study, the results (table 4.3.1.1) showed that the skewness and kurtosis values were within the assumed range. It suggested that the dependent variables (emotional, social and psychological wellbeing) were normally distributed across the groups of independent variables (locus of control, level of education, status of employment and gender). Therefore, taking into consideration the skewness and kurtosis values of the data, the normality assumption was met.

***Table 4.3.1.1 Normality Test for Locus of Control, Level of Education, Status of Employment and Gender on Mental Health***

<b>Independent variable</b>	<b>Dependent variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
Internal LoC	Emotional WB	-0.679	-0.383
	Social WB	0.001	-0.661
	Psychological WB	-0.479	-0.285
External LoC	Emotional WB	-0.262	-0.787
	Social WB	0.296	-0.441
	Psychological WB	-0.070	-0.749
Lower Level of Education	Emotional WB	-0.017	-1.193
	Social WB	0.423	-0.281
	Psychological WB	-0.159	-0.519
Higher Level of Education	Emotional WB	-0.714	-0.138
	Social WB	0.027	-0.685
	Psychological WB	-0.399	-0.495
Employed	Emotional WB	-0.973	0.659
	Social WB	0.035	-0.689
	Psychological WB	-0.403	-0.540
Unemployed	Emotional WB	-0.279	-0.913
	Social WB	0.176	-0.641
	Psychological WB	-0.334	-0.562
Female	Emotional WB	-0.614	-0.558
	Social WB	-0.035	-0.758
	Psychological WB	-0.364	-0.528
Male	Emotional WB	-0.566	-0.553
	Social WB	0.162	-0.664
	Psychological WB	-0.368	-0.472

**Multicollinearity:** The assumption of multicollinearity was also checked in this study.

There should be no high multicollinearity between the dependent variables.

Multicollinearity refers to a strong correlation between the dependent variables and it occurs when predicted variables are highly (0.9 and above) correlated (Tabachnick and Fidell, 2016). From table 4.3.1.2, the correlations between the dependent variables were all found to be significant and within the required levels (i.e. below 0.9) and indicated a moderate correlation between the dependent variables which is acceptable.

**Table 4.3.1.2 Multicollinearity Analysis for Social, Psychological and Emotional Wellbeing (WB)**

Dependent variables		Emotional WB	Social WB	Psychological WB
Psychological WB	<b>Pearson Correlation</b>	.647**		
	<b>Sig. (2-tailed)</b>	.000		
Social WB	<b>Pearson Correlation</b>			.673**
	<b>Sig. (2-tailed)</b>			.000
Emotional WB	<b>Pearson Correlation</b>		.589**	
	<b>Sig. (2-tailed)</b>		.000	

\*\* Correlation is significant at the 0.01 level.

**Multivariate Outliers:** Multivariate outliers are defined as respondents with a relatively out of the ordinary score regarding various items. To test for multivariate outliers, a calculation of Mahalanobis distance is done for each case to determine whether each case extremely deviate from the central distance of the remaining cases. Table 4.3.1.3 showed the maximum value of Mahalanobis distance found when examining each case. The maximum value should not cross the critical value which was 16.27 for three degrees of freedom. In the result shown in table 4.3.1.3, the maximum value of one case in the present study was 16.30 which slightly exceeded the critical value (16.27). Pallant (2016) suggested that when there is only one outlier with a score above the critical value, we may determine whether to include or exclude the case by analyzing the difference between the critical value and the outlying score. As such in the present result, only one case exceeded the critical value with a difference of 0.3 suggesting that it was not an extreme outlier. Furthermore, sensitivity analysis was conducted by running the MANOVA once with the outlier included and then once after removing the outlier. The analyses yielded similar results indicating that the outlier did not significantly affect the main results.

***Table 4.3.1.3 Mahalanobis Distance for Social, Psychological and Emotional Wellbeing (WB)***

<b>Mahalanobis distance</b>	<b>Maximum value</b>	<b>df</b>	<b>Critical value</b>
Social WB			
Psychological WB			
Emotional WB	16.30	3	16.27

**Homogeneity of Covariance:** On checking for homogeneity of covariance, Box's M-test, which is a parametric test used to compare variation in multivariate samples, was adopted in the study. More specifically, this test determines if the variables being studied are similar for each group of the independent variable. From table 4.3.1.4, the results showed that Box's M value 105.03 with an associated p value of 0.08 was not significant ( $p > .005$ ). Therefore, it can be concluded that the covariance matrices between the groups were assumed to be equal.

*Table 4.3.1.4 Homogeneity of Covariance values*

<b>Box's Test of Equality of Covariance Matrices</b>	
Box's M	105.03
F	1.23
Sig.	.08

**Test for Equality of Variances:** Levene's test of equality of variances analyze whether the variances of each dependent variable are equal across the groups. From table 4.3.1.5, social wellbeing and psychological wellbeing were found to be non-significant with a  $p > .05$ , indicating that the assumption of equal variances across the groups is met for these categories. On the other hand, the results showed that emotional wellbeing was significant with a  $p < .05$  indicating a possible existence of heteroscedasticity. In such cases, a more conservative alpha level may be used to interpret the univariate results in the main analysis (Tabachnick and Fidell, 2013). This is done using Bonferroni adjustment of the alpha level.

***Table 4.3.1.5 Test for Equality of Variances***

	<b>F</b>	<b>df</b>	<b>Sig.</b>
Emotional WB	3.619	13 (586)	.000
Social WB	1.294	13 (586)	.211
Psychological WB	1.332	13 (586)	.189



#### 4.4 Analysis of Multivariate Main Effects

The data was found acceptable for multivariate analysis after the assumptions testing. For this purpose, the three dimensions of mental health i.e. emotional wellbeing, social wellbeing and psychological wellbeing were used for this analysis. Accordingly, a factorial MANOVA was run using SPSS version 21 and yielded the following results on i) the multivariate main effects, ii) between – subjects effects (univariate ANOVA), iii) interaction effects (two - way and three- way), iv) pairwise comparisons and v) estimated marginal means to address the following objectives and hypotheses:

##### ***Objectives:***

- To examine the role of locus of control on mental health of educated Naga youth
- To examine the role of levels of education on mental health of educated Naga youth
- To examine the role of status of employment on mental health of educated Naga youth
- To examine the gender differences in mental health of educated Naga youth

##### ***Hypotheses:***

H<sub>1</sub>. There will be a significant difference between youth with internal locus of control and youth with external locus of control on mental health

H<sub>2</sub>. There will be a significant difference between youth with lower level of education and youth with higher level of education on mental health

H<sub>3</sub>. There will be a significant difference between employed and unemployed youth on mental health

H<sub>4</sub>. There will be a significant difference between male and female educated Naga youth on mental health

***Table 4.4.1 Multivariate Main Effect of Gender, Level of Education, Status of Employment and Locus of Control on Mental Health***

<b>Groupings</b>	<b>F</b>	<b>Pillai's trace (V)</b>	<b>Sig.</b>	<b><math>\eta_p^2</math></b>
LoC	6.601	0.033	0.000	0.033
Level of Education	5.207	0.026	0.001	0.026
Status of Employment	1.478	0.008	0.219	0.008
Gender	3.382	0.017	0.018	0.017

When there are assumptions violations in MANOVA, Pillai's trace test is recommended for use as it is robust to assumptions violations. Therefore, in the present study Pillai's trace was used to examine the significant differences between the groups of dependent variables. If the significance of Pillai's Trace is below 0.05, one can assume that there is a difference between the groups of dependent variables (Pallant, 2010). Furthermore, Partial eta squared ( $\eta_p^2$ ) was used to determine the effect size of independent variables on the dependent variables. Each multivariate main effects result are explained individually in the respective sections that follows.

#### 4.4.2 Test of Between-Subjects Effects

The between-subjects effects provide univariate results to examine the effects of each independent variables (i.e. locus of control, level of education, status of employment and gender) on the different dependent variables (i.e. emotional, social and psychological wellbeing). It is recommended to adopt the significant level accordingly with the Bonferroni adjustment (Pallant, 2016). The Bonferroni adjustment reduces the chance of a type-1 error that can lead to misinterpretation and finding significant results when there are none. Therefore, the new alpha level is adjusted from 0.05 to  $0.05/4 = 0.0125$ . The new adjusted alpha level of 0.0125 is taken into consideration when interpreting the significance level of the following between-subjects effects. The between-subjects effects are explained individually in the respective section that follows.

***Table 4.4.2 Between-Subjects Effects Analysis for Gender, Level of Education, Status of Employment and Locus of Control on Emotional, Social and Psychological Wellbeing (WB)***

<b>Groupings</b>	<b>Dependent Variable</b>	<b>F</b>	<b>Sig.</b>	<b><math>\eta_p^2</math></b>
<b>LoC</b>	Emotional WB	5.557	.019	.009
	Social WB	11.587	.001	.019
	Psychological WB	18.902	.000	.031
<b>Level of Education</b>	Emotional WB	11.485	.001	.019
	Social WB	12.593	.000	.021
	Psychological WB	8.592	.004	.014
<b>Status of Employment</b>	Emotional WB	3.921	.048	.007
	Social WB	1.898	.169	.003
	Psychological WB	3.158	.076	.005
<b>Gender</b>	Emotional WB	9.927	.002	.017
	Social WB	4.383	.037	.007
	Psychological WB	3.763	.053	.006

#### 4.4.3 Interaction Effects Between the Independent Variables on Mental Health

When examining the two way interaction effect between the independent variables on mental health (table 4.4.3), the results showed that there was no interaction effect between gender and level of education ( $V = 0.010$ ,  $F = 1.951$ ,  $p = 0.120$ ,  $\eta_p^2 = 0.010$ ) on mental health. Similar result was found for gender and status of employment ( $V = 0.005$ ,  $F = 0.990$ ,  $p = 0.397$ ,  $\eta_p^2 = 0.005$ ) indicating no significant interaction effects between gender and status of employment on mental health. No significant interaction effect was also found between gender and locus of control ( $V = 0.003$ ,  $F = 0.590$ ,  $p = 0.622$ ,  $\eta_p^2 = 0.003$ ) on mental health.

On examining the interaction effects between level of education and status of employment, the results were non-significant ( $V = 0.002$ ,  $F = 0.392$ ,  $p = 0.759$ ,  $\eta_p^2 = 0.002$ ) suggesting no significant interaction between level of education and status of employment on mental health. With regard to level of education and locus of control, the results were not significant ( $V = 0.006$ ,  $F = 1.203$ ,  $p = 0.308$ ,  $\eta_p^2 = 0.006$ ) indicating that there were no significant interaction effects between level of education and status of employment on mental health. In addition, no significant interaction effects were found in status of employment and locus of control on mental health ( $V = 0.995$ ,  $F = 0.906$ ,  $p = 0.438$ ,  $\eta_p^2 = 0.995$ ).

Furthermore, when we look at the three-way interaction effects of the independent variables on mental health, the result showed that gender, level of education and status of employment did not have a significant interaction effect on mental health ( $V = 0.005$ ,  $F = 1.001$ ,  $p = 0.392$ ,  $\eta_p^2 = 0.005$ ). In a similar manner, the three-way interaction effects between gender, level of education and locus of control were also not significant ( $V = 0.004$ ,  $F = 0.842$ ,  $p = 0.471$ ,  $\eta_p^2 = 0.004$ ). However, the results depicted that gender, status

of employment and locus of control had a significant interaction effect on mental health ( $V = 0.015$ ,  $F=2.878$ ,  $p = 0.035$ ,  $\eta_p^2 = 0.015$ ). Therefore a pairwise comparison was computed to see the effects of these three combined independent variables on mental health.

**Table 4.4.3 Combined Interaction Effects of Gender, Level of Education, Status of Employment and Locus of Control on Mental Health**

Groupings	F	Pillai's trace	Sig.	$\eta_p^2$
Gender x Level of Education	1.951	0.010	0.120	0.010
Gender x Status of Employment	0.990	0.005	0.397	0.005
Gender x LoC	0.590	0.003	0.622	0.003
Level of Education x Status of Employment	0.392	0.002	0.759	0.002
Level of Education x LoC	1.203	0.006	0.308	0.006
Status of Employment x LoC	0.906	0.995	0.438	0.005
Gender x Level of Education x Status of Employment	1.001	0.005	0.392	0.005
Gender x Level of Education x LoC	0.842	0.004	0.471	0.004
Gender x Status of Employment x LoC	2.878	0.015	0.035	0.015

#### 4.4.4 Pairwise Comparison for Gender, Status of Employment and Locus of Control

Gender, status of employment and locus of control were found to have a three way significant interaction effect on mental health. Therefore, a pairwise comparison test with gender, locus of control and status of employment was performed to examine whether there were differences among these three variables on mental health. The results (table 4.4.4) showed that internal locus of control had a significant effect on mental health of both employed and unemployed youth across both gender groups with a mean difference of 6.840 ( $p = .000$ ) for females and mean difference of 7.927 ( $p = .000$ ) for males. However, external locus of control did not significantly affect mental health of both employed and unemployed across the gender groups.

**Table 4.4.4 Pairwise Comparison for Gender, Status of Employment and Locus of Control**

Gender	LoC	(I) Status of Employment	(J) Status of Employment	Mean (M)	Mean Difference (I-J)	Sig.
Female	Internal	Unemployed	Employed	36.703	-6.840*	.000
	LoC	Employed	Unemployed	43.542	6.840*	.000
Female	External	Unemployed	Employed	30.907	-4.808	.076
	LoC	Employed	Unemployed	35.778	4.808	.076
Male	Internal	Unemployed	Employed	37.466	-7.927*	.000
	LoC	Employed	Unemployed	45.393	7.927*	.000
Male	External	Unemployed	Employed	34.848	-6.921	.107
	LoC	Employed	Unemployed	41.769	6.921	.107

#### 4.4.5 Examining the Role of Locus of Control on Mental Health

The results as shown in table 4.4.1 (multivariate main effects), indicated that a significant difference exist between participants with internal locus of control and those with external locus of control on mental health,  $V = 0.033$ ;  $F(3,584) = 6.601$ ,  $p = 0.000$ ;  $\eta_p^2 = 0.033$ . In addition, the results also highlighted that the significant main effects of locus of control on mental health accounted for 3.3% of the variance.

In assessing the between subjects effects as shown in table 4.4.2, the result showed no significant difference in locus of control on emotional wellbeing ( $F = 5.557$ ,  $p = 0.019$ ,  $\eta_p^2 = 0.009$ ). However, significant differences were found in locus of control on social wellbeing ( $F = 11.587$ ,  $p = 0.001$ ,  $\eta_p^2 = 0.009$ ) and psychological wellbeing ( $F = 18.902$ ,  $p = 0.000$ ,  $\eta_p^2 = 0.031$ ) respectively. This indicated that participants with internal and external locus of control significantly differed in social wellbeing and psychological wellbeing. In addition, the estimated marginal means (table 4.4.5) for social wellbeing indicated that youth with internal locus of control ( $M = 12.06$ ) had slightly higher mean score than youth with external locus of control ( $M = 10.37$ ). Similarly, in terms of psychological wellbeing, youth with internal locus of control ( $M = 17.47$ ) had higher mean score than youth with external locus of control ( $M = 14.70$ ).

Therefore,  $H_1$  which states that “there will be a significant difference between youth with internal locus of control and youth with external locus of control on mental health” is partially accepted.

***Table 4.4.5 Estimated Marginal Means for Mental Health and Locus of Control***

<b>Dependent Variable</b>	<b>LoC</b>	<b>Mean</b>	<b>Std. Error</b>
Emotional WB	Internal LoC	9.34	.288
	External LoC	8.67	.319
Social WB	Internal LoC	12.06	.441
	External LoC	10.37	.489
Psychological WB	Internal LoC	17.47	.514
	External LoC	14.70	.571



#### 4.4.6 Examining the Role of Levels of Education on Mental Health

In the results on multivariate main effect for level of education as shown in table 4.4.1, a significant difference was found between participants with lower level of education and those with higher level of education on mental health,  $V = 0.026$ ;  $F(3,584) = 5.207$ ,  $p = 0.001$ ;  $\eta_p^2 = 0.026$ , with a multivariate main effect accounting for 2.6% of the variance.

Furthermore, from table 4.4.2, the tests of between-subjects effects can be examined for significant differences in level of education for each of the three dimensions of mental health i.e emotional wellbeing, social wellbeing and psychological wellbeing. The result showed significant differences in level of education on emotional wellbeing ( $F = 11.485$ ,  $p = 0.001$ ,  $\eta_p^2 = 0.019$ ), social wellbeing ( $F = 12.593$ ,  $p = 0.000$ ,  $\eta_p^2 = 0.021$ ) and psychological wellbeing ( $F = 8.592$ ,  $p = 0.004$ ,  $\eta_p^2 = 0.014$ ). This indicated that Naga youth with lower level of education and those with higher level of education differed significantly on all three dimensions of mental health. In addition, the estimated marginal means (table 4.4.6) showed that youth with lower level of education ( $M = 8.04$ ) had lower mean score on emotional wellbeing while the mean score for youth with higher level of education ( $M = 9.80$ ) was greater. In terms of social wellbeing, youth with higher level of education ( $M = 12.45$ ) had higher mean score than youth with lower level of education ( $M = 9.85$ ). Additionally, for psychological wellbeing, youth with higher level of education ( $M = 17.26$ ) had greater mean score as opposed to youth with lower level of education ( $M = 14.98$ ).

This indicates that H<sub>2</sub> stating that “there will be a significant difference between youth having lower level of education and youth having higher level of education on mental health” is accepted.

***Table 4.4.6 Estimated Marginal Means for Mental Health and Level of Education***

<b>Dependent Variable</b>	<b>Level of Education</b>	<b>Mean</b>	<b>Std. Error</b>
Emotional WB	Lower Level of Education	8.048	.420
	Higher Level of Education	9.808	.201
Social WB	Lower Level of Education	9.851	.644
	Higher Level of Education	12.45	.309
Psychological WB	Lower Level of Education	14.98	.752
	Higher Level of Education	17.26	.360

#### 4.4.7 Examining the Role of Status of Employment on Mental Health

With regard to the multivariate main effects of status of employment on mental health, the results (table 4.4.1) showed that no significant difference was found between unemployed and employed participants on mental health, ( $V = 0.008$ ,  $F(3, 584) = 1.478$ ,  $p = 0.219$ ;  $\eta_p^2 = 0.008$ ). Moreover, when examining the between subjects effects, no significant differences were found between status of employment on emotional wellbeing ( $F = 3.921$ ,  $p = 0.048$ ,  $\eta_p^2 = 0.007$ ), social wellbeing ( $F = 1.898$ ,  $p = 0.169$ ,  $\eta_p^2 = 0.003$ ) and psychological wellbeing ( $F = 3.158$ ,  $p = 0.076$ ,  $\eta_p^2 = 0.005$ ) indicating that employed and unemployed participants did not differ significantly on these three dimensions of mental health. However, the estimated marginal means as seen in table 4.4.7, showed that employed youth had higher mean scores for emotional ( $M = 10$ ), social ( $M = 12.52$ ) and psychological ( $M = 17.99$ ) wellbeing as opposed to the mean scores of unemployed youth.

On the other hand, table 4.4.3 highlighted that there was a significant interaction effect between gender, locus of control and status of employment ( $F = 2.878$ ,  $p = 0.035$ ,  $\eta_p^2 = 0.015$ ) on mental health. Furthermore, pairwise comparison (table 4.4.4) was conducted to evaluate the differences between gender, locus of control and status of employment on mental health. Upon inspection of the mean scores, it was found that employed youth with internal locus of control had higher mean scores on mental health than unemployed youth with internal locus of control and this was observed across both gender groups.

Therefore,  $H_3$  which states that “there will be a significant difference between employed and unemployed youth on mental health” is partially accepted.

*Table 4.4.7 Estimated Marginal Means for Status of Employment*

<b>Dependent Variable</b>	<b>Status of Employment</b>	<b>Mean</b>	<b>Std. Error</b>
<b>Emotional WB</b>	Unemployed	8.34	.228
	Employed	10.00	.396
<b>Social WB</b>	Unemployed	10.45	.349
	Employed	12.52	.607
<b>Psychological WB</b>	Unemployed	15.01	.407
	Employed	17.99	.708

#### 4.4.8 Examining the Role of Gender on Mental Health

The multivariate main effects as shown in table 4.4.1 highlighted that there was significant difference between males and females on mental health,  $V = 0.017$ ;  $F(3, 584) = 3.382$ ,  $p = 0.018$ ;  $\eta_p^2 = 0.017$ , accounting for 1.7% of variance.

Moreover, as shown in table 4.4.2, the tests of between-subjects effects can be examined for significant gender differences for each of the three dimensions of mental health i.e. emotional wellbeing, social wellbeing and psychological wellbeing. The result highlighted that there were significant differences among males and females on emotional wellbeing ( $F = 9.927$ ,  $p = 0.002$ ,  $\eta_p^2 = 0.017$ ). However, no significant differences were found among males and females on social wellbeing ( $F = 4.383$ ,  $p = 0.037$ ,  $\eta_p^2 = 0.007$ ) and psychological wellbeing ( $F = 3.763$ ,  $p = 0.053$ ,  $\eta_p^2 = 0.006$ ). Additionally, the estimated marginal means (table 4.4.8) indicated that males, as compared with females, had higher mean scores on emotional wellbeing ( $M = 9.77$ ), social wellbeing ( $M = 12.18$ ) and psychological wellbeing ( $M = 17.04$ ).

Thus,  $H_4$  which states that “there will be a significant difference between male and female educated Naga youth on mental health” is partially accepted.

**Table 4.4.8 Estimated Marginal Means for Gender**

Dependent Variable	Gender	Mean	Std. Error
Emotional WB	Female	8.33	.247
	Male	9.77	.349
Social WB	Female	10.49	.378
	Male	12.18	.535
Psychological WB	Female	15.53	.441
	Male	17.04	.624

## **CHAPTER – 5**

### **DISCUSSION**

The discussion of the present study is done based on the findings from descriptive and inferential statistics and with support from related literatures. The objectives of the present study were, i) to assess the status of mental health among Naga youth, ii) to examine the role of locus of control on mental health of educated Naga youth, iii) to examine the role of level of education on mental health of educated Naga youth, iv) to examine the role of status of employment on mental health of educated Naga youth and v) to examine the gender differences on mental health of educated Naga youth. The Chapter also addressed the research question which states “what will be the status of mental health in relation to locus of control and socio-demographic components among educated Naga youth?”.

In the present study, status of mental health was examined using three categories of mental health namely, i) flourishing – which is characterized as having optimal mental health, ii) languishing – which is characterized as having incomplete mental health and iii) moderately mentally healthy – which is characterized as neither flourishing nor languishing. Further, multivariate analysis was carried out to examine emotional wellbeing, psychological wellbeing and social wellbeing which are the three dimensions of mental health.

## **5.1 Status of Mental Health Among Educated Naga Youth**

The status of mental health among educated Naga youth was assessed by computing the frequencies and percentages of the three categories of mental health i.e. flourishing, moderately mentally healthy and languishing. The findings in the present study highlighted that almost half of the participants were moderately mentally healthy (45.7%), followed by flourishing (32.2%) and languishing (22.2%). Previous studies on the prevalence of mental health have also indicated similar findings and have reported that a majority of the population to be moderately mentally healthy followed by flourishing and the least in languishing category. Keyes et al. (2008) in a study on mental health in a South African adult sample found that more than half of the participants were moderately mentally healthy (67.8%), followed by flourishing (20%) and languishing (12.2%). Singh et al. (2015) in a study examining adolescents' mental health, reported that a little more than half of the participants were moderately mentally healthy (51.2%), followed by flourishing (46.4%) and a tiny fraction of the participants were languishing (2.4%). Similarly, Góngora and Solano (2017) in their study on the prevalence of mental health also highlighted that a majority of the participants were moderately mentally healthy (54.9%), followed by flourishing (39.7%) and languishing (5.4%). Keyes (2002) also reported similar findings which showed that a larger proportion of adult participants in a study in United States of America were moderately mentally healthy (65.1%), followed by flourishing (18.1%) and languishing (16.8%). In addition, Pertin and Patra (2022) in their study on a sample of youth from Arunachal Pradesh found that a little more than half of the young people were moderately mentally healthy (52%), followed by flourishing (30%) and languishing (18%). On the contrary, some studies measuring the

level of mental health have reported greater majority of individual in flourishing category as opposed to moderately mentally healthy. Gilmour (2014) in a study on a sample comprising of Canadian adult population found that a substantial majority of the participants were flourishing (76.9%) which was followed by moderately mentally healthy (21.6%) and languishing (1.5%). Similarly, Luitjen et al. (2019) in their study indicated that more than half of the participants were flourishing (54.3%), followed by moderately mentally healthy (40.4%) and languishing (5.3%). From the above studies measuring the level of mental health it is clear that majority of the participant fell either in the moderately mentally healthy or flourishing category. An important observation in the present study is the higher percentage of languishing (22.2%) among Naga youth when compared with those observed in other studies. Gilmour (2014) in a study found languishing to be as low as 1.5%. The high percentage of languishing in the present study may be attributed to the volatile economic and socio-political situation in Nagaland. Decades of insurgency and conflicts have disturbed the economic and socio-political stability of the state. The failure of the state in fulfilling the aspirations of the people and failure to empower the youth have resulted in widespread despair among the Naga youth hindering their holistic development (Neumai, 2015). Therefore, the relatively high percentage of languishing could be indicative of emptiness, hopelessness, despair and stagnant feelings among Naga youth.



## **5.2 Locus of Control and Mental Health**

The findings of the present study showed that participants with internal locus of control (44.1%) and those with external locus of control (50.3%) were moderately mentally healthy. Additionally, it was observed that a good number of participants with internal locus of control were flourishing (37%) in contrast to a lesser number of participants with external locus of control (17.5%). Further, it was observed that more than a quarter of participants with external locus of control (32.2%) were in the languishing category while a lesser percentage of participants with internal locus of control (18.9%) were in the same category.

Study of previous literatures indicated that locus of control is related with mental health. Nwankwo et al. (2017) in a study on the relationship between locus of control and mental health reported that youth with internal locus of control had better mental health as compared to youth with external locus of control. Griffin (2014) in his study observed that internal locus of control was positively related to mental health whereas external locus of control was negatively related to mental health. External locus of control was also found to be a positive predictor of depression and stress. Sidola et al. (2020) in their study also found a positive relationship between internal locus of control and overall mental health and wellbeing. All these studies indicated that individuals with internal locus of control had higher levels of mental health and wellbeing as opposed to individuals with external locus of control.

As an extension to these aforementioned studies, the present study examined the relationship between locus of control and the three mental health categories (flourishing,

languishing and moderately mentally healthy) by examining the frequency and percentage of youth with internal locus of control and those with external locus of control under each category of mental health. This was followed by chi-square tests which revealed a significant association between locus of control and the three categories of mental health ( $X^2 = 23.32, p = .000$ ).

Further, youth with internal locus of control and those with external locus of control were also examined on their emotional, social and psychological wellbeing. Likewise, the finding showed that there was a significant main effect of locus of control on mental health. In addition, it was observed that youth with internal locus of control and those with external of locus of control significantly differed on social and psychological wellbeing. Firstly, with regard to psychological wellbeing, it was found youth with internal locus of control had higher mean score on psychological wellbeing than those with external locus of control. Similar findings were highlighted in previous studies on psychological wellbeing where it was observed that individuals with internal locus of control reported higher levels of psychological wellbeing than individuals with external locus of control (Quevedo & Abella, 2014). Augustina and Dorathy (2021) also highlighted that locus of control was a significant predictor of psychological wellbeing. Hough et al. (2021) in their study found that three components of psychological wellbeing, namely, environmental mastery, self-acceptance and purpose in life had greater influence on the relationship between locus of control and psychological wellbeing.

Secondly, with regard to social wellbeing, the present study found a significant difference in social wellbeing of youth with internal locus of control and those with

external locus of control. Youth with internal locus of control had higher mean score on social wellbeing as opposed to youth with external locus of control. The findings suggested that Naga youth with internal locus of control had better sense of social contribution, integration, social growth, acceptance and social interest (which are aspects of social wellbeing). Although there are limited studies on the overall social wellbeing, a study by Xia et al. (2020) noted that social integration had a significant negative relationship with mental illness and a positive relationship with life satisfaction. Another study by Marks (1998) observed that the sense of being affiliated to a group, whether it is gender or ethnic in nature, has significant impact on locus of control. Moreover, people with internal locus of control were found to possess better social skills and were more assertive (Janelle, 1992).

On the other hand, in the present study, no significant difference in emotional wellbeing was found between youth with internal locus of control and youth with external locus of control indicating that Naga youth, irrespective of the type of locus of control, did not differ on aspects like life satisfaction, interest in life and happiness (all aspects of emotional wellbeing). A significant gap exists in literature examining the relationship between locus of control and emotional wellbeing and thus there is a need to further explore the relationship between these two variables.

Therefore, the hypothesis stating that “there will be a significant difference between youth with internal locus of control and youth with external locus of control on mental health” can be partially supported by the findings of the present study.

### **5.3 Level of Education and Mental Health**

The findings in the present study showed that almost half of the participants in both categories of education i.e. higher level of education (45.8%) and lower level of education (45.2%) were moderately mentally healthy. The findings also highlighted that more than a quarter of the participants with higher level of education (35.4%) were flourishing as opposed to those with lower level of education (19.8%). Several other studies have also reported that people with higher educational attainment had better mental health and higher levels of happiness (David & Singh, 2016, Devin et al., 2012; Sukanya & Chengti, 2015). In addition, education was found to be positively related with flourishing (De Ruyter et al., 2022). Education paves way for individuals to gain access to better opportunities in employment opportunities, financial independence, bigger networking, stronger social support and healthy behaviors (Ilies et al., 2019).

The findings in this study also indicated that a greater number of participants with lower level of education (35%) as compared to participants with higher level of education (18.8%) were languishing. Previous studies have found that illiteracy and lower educational attainment were associated with poorer mental health and in turn young people with poorer mental were at higher risk of dropping out of the education system (Arnett, 2000; Hjorth et al., 2016). Ahorsu et al. (2021) in their study had also concluded that academic stress, depression and suicidal ideation were higher among junior/senior school students than among university students. De Ridder (2013) observed that individuals with lower level of education faced socio-economic constraints and had difficulties in finding employment. As such, the findings of the present study highlighted that educational level played an important role in determining levels of positive mental

health suggesting that even among Naga youth, those with higher level of education had greater positive feelings and functioning as opposed to those with lower level of education. The chi-square test done in this study also showed a significant association between level of education and the three categories of mental health ( $X^2 = 19.24$ ,  $p = .000$ ).

In assessing the role of level of education on the three dimensions of mental health i.e. emotional, social and psychological wellbeing, it was found that there was a significant main effect of level of education on mental health. Further it was observed that Naga youth with higher level of education had higher levels of happiness, satisfaction and interest in life (all characteristics of emotional wellbeing) as compared to those with lower level of education. As such, the present findings were in line with earlier studies on the matter. According to Delhey (2010) having a higher level of education result in attainment of better job opportunities with greater benefits which gives higher autonomy and happiness. Likewise, according to Gull and Dawood (2013), significant differences were seen among individuals with different educational level in terms of satisfaction with life and mood indicating that people with higher education are more likely to have greater sense of wellbeing as compared to people with lower education. In another study by Lee and Yang (2022) a positive correlation between attaining a college degree and emotional wellbeing was observed. In addition, high level of emotional wellbeing was found to have a positive effect on intrinsic motivational learning, expectations and academic success (Latorre-Coscolluela et al., 2022; Salami, 2008).

On examining social wellbeing among Naga youth, it was found that those with higher level of education had higher mean scores on social wellbeing as compared to

those with lower level of education. Baby et al. (2022) in their study indicated a positive relationship between social wellbeing, academic performance and achievement. Students with higher social wellbeing performed better academically and were more successful. Similarly, Keyes (1998) in his study reported that, with the attainment of education, individuals were able to successfully address social challenges that they encounter thereby attaining better social wellbeing. The present study's findings on the relationship between level of education and social wellbeing aligned with earlier studies and highlighted that even among Naga youth, those with higher level of education had better social wellbeing.

With regard to psychological wellbeing, it was found that Naga youth with higher level of education had higher psychological wellbeing contrary to those with lower level of education. Gul and Dawood (2013) in their study reported that people with different educational level significantly differed in their psychological wellbeing and coping strategies suggesting that people with higher level of education had higher psychological wellbeing and were more prone to use positive coping strategies. In the academic setting, Turashvili and Japaridze (2012) indicated that students with higher academic performance had higher levels of psychological wellbeing especially on the dimensions of purpose of life and personal growth. Likewise, other studies have also found similar results highlighting that higher psychological wellbeing leads to better performance in academics (Bordbar et al., 2011; Bowman, 2010).

Therefore, the findings from the present study expand on previous research done on the relationship between level of education and mental health. It is evident from the current findings that Naga youth with lower level of education faced various

disadvantages and as a result were found to have poorer mental health with lower levels of emotional, social and psychological wellbeing than those with higher level of education.

Therefore, the hypothesis stating that “there will be significant difference between youth having higher level of education and youth having lower level of education on mental health” is supported by the findings of the present study.

#### **5.4 Status of Employment and Mental Health**

In analyzing the status of mental health among employed and unemployed Naga youth, the findings showed that almost equal number of both employed (48.4%) and unemployed (43.6%) Naga youth were moderately mentally healthy. Besides, the findings also showed that almost half of the employed (41%) participants were flourishing as opposed to a smaller section of the unemployed (25.6%) participants in this category. Previous studies had reported that individuals who were flourishing in their workplace had higher level of happiness, satisfaction and had strong social connections and autonomy (Bono et al., 2012; Rothmann, 2013). The present findings also showed that there were a greater number of unemployed (30.8%) youth who were languishing as compared to employed youth (10.6%). Keyes (2002) highlighted that individuals who were languishing had grievous limitation in daily activities. As such, the present findings are consistent with some earlier studies which highlighted that unemployment, especially among the working age population, had a significant impact on mental health suggesting that unemployed individuals were more likely to have lower levels of mental health as

compared to employed individuals (Batic-Mujanovic et al., 2017). Similarly, the chi square test done in this study also showed a significant association between status of employment and the three categories of mental health ( $X^2 = 38.81, p = .000$ ).

In assessing the role of status of employment on the three dimensions of mental health i.e. emotional, social and psychological wellbeing, the main effect of status of employment on mental health was not found to be significant. However, when we look at the three-way interaction effect, it was observed that amongst those with internal locus of control, significant differences were found between employed and unemployed with the employed reporting better mental health than the unemployed. This was so in both the gender groups. On the other hand, no such differences by employment status and gender were observed among those with external locus of control. Individuals with internal locus of control tend to attribute events and outcomes to personal factors (Rotter, 1966) and unemployed individuals with internal locus of control may attribute their unemployed status to personal shortcomings/weaknesses which might in turn affect their mental health. Likewise, Pultz et al. (2020) in their study noted that individuals who tend to blame themselves for unemployment had poorer subjective wellbeing. Further, employed individuals with internal locus of control attribute their employment to personal achievements/efforts and as a result, they have higher levels of satisfaction and motivation with regard to their job (Basak & Ghosh, 2011; Ng et al., 2006). The findings of the present study signify that although, status of employment in itself may not significantly affect mental health, when it is combined with personality factor such as locus of control the effect of status of employment can be observed.



Therefore, the hypothesis stating “there will be a significant difference between employed and unemployed youth on mental health” can be said to be partially supported by the findings of this study.

## **5.5 Gender and Mental Health**

In analyzing the status of mental health according to gender, findings highlighted that almost half of both males (44%) and females (47%) were in moderately mentally healthy category. Further, the findings from the present study also highlighted that a greater number of males (37%) as opposed to females (28.3%) were flourishing. On the other hand, a greater number of females (24.7%) as opposed to males (19%) were languishing. This is in line with some previous studies which have also reported that males experience higher flourishing than their female counterparts (Keyes et al., 2007; Matud et al., 2019). Likewise, in another study by Skrzypiec et al. (2018) it was concluded that males had higher optimal mental health associated with flourishing whereas, females were two times more likely to experience absence of mental health (which is associated with languishing). In a similar manner, the present findings also highlighted that a greater proportion of young Naga males experience complete mental health whereas young Naga females were more likely to experience poorer mental health.

On comparing Naga male youth and female youth on emotional wellbeing, social wellbeing and psychological wellbeing, it was found that there was a significant main effect of gender on mental health. In addition, it was observed that males and females did not significantly differ in psychological wellbeing and social wellbeing. Previous studies

show conflicting findings with regard to gender and psychological wellbeing. Some studies had reported differences in certain dimensions of psychological wellbeing among males and females highlighting that males had higher self-acceptance and autonomy whereas females had higher personal growth and positive relations (García - Castilla et al., 2020; Matud et al., 2019). On the other hand, some studies have shown no significant differences between males and females on psychological wellbeing and its dimensions (Salleh & Mustaffa, 2016; Waghmare, 2016). Moreover, previous studies on aspects of social wellbeing have found that males and females differed on social support and social isolation indicating that females have higher levels of satisfaction with social support whereas males tend to experience more social isolation than their female counterparts (Kafetsios, 2007; Umberson et al., 2022). Likewise, Sheikh and Shafi (2024) in their study concluded that males had higher emotional and social wellbeing than females but no differences were seen in psychological wellbeing.

On the other hand, a significant difference between Naga male youth and female youth on emotional wellbeing was observed in this study, with males having higher mean scores on emotional wellbeing than females. This indicates that males experienced higher level of happiness, interest and satisfaction with life as compared to their female counterparts. This is in concurrence with a study by Verma and Ura (2022) whose findings revealed that males had higher level of overall happiness than females. Likewise, a study by Brooks et al. (2015) found significant differences among males and females with regard to satisfaction with life. The findings showed that females scored significantly lower on satisfaction with life which also became more pronounced with age.

Considering the patriarchal nature of the Naga society, it is important to explore the impact of gender role ideology on mental health and emotional wellbeing. Some studies in the past have found a positive relationship between egalitarian gender role ideology and emotional wellbeing (Kulik, 2018). Gender equality was found to positively impact wellbeing suggesting that lower level of gender inequality was associated with better wellbeing for both the genders (Bracke et al., 2015). In another study by Ferrant et al. (2017), it was found that people, irrespective of gender, living in countries having better gender parity were happier.

Further, Rashid et al. (2023) investigated the impact of gender role ideology on wellbeing and observed that males with a traditional gender role ideology had higher emotional wellbeing while in females higher emotional wellbeing was seen among those having an egalitarian gender role ideology. A study by Desjarlais et al. (1995) highlighted that among females, gender inequality and gender oppression in public and private domains were fundamental determinants of distress. In power dynamics, males are found to be more dominant than females who face disadvantages both in the public domain (discriminatory wage gap/ work conditions) and private domain (Du, 2001).

Women in the Naga society *prima facie* may appear to enjoy higher status as compared to their counterpart in other societies. However, in reality Naga women continue to be victims of traditional gender biases. Though the state has given equal right to both the genders, women find it difficult to access these rights as traditional gender roles often take precedence over these rights. A study by Rungreangkulkij et al. (2019) relating to gender inequality showed that women, having to conform with traditional gender roles, faced unequal power relationships which adversely impact their mental

health resulting in chronic stress. In agreement with the aforementioned studies, the present study highlighted that Naga males and females significantly differed on emotional wellbeing with males having higher mean scores on emotional wellbeing. However, no significant difference between the genders was found on social and psychological wellbeing.

Therefore, the hypothesis stating that “there will be significant differences in males and female on mental health” is partially supported by the findings of this study.

## **CHAPTER 6**

### **SUMMARY, SUGGESTIONS AND CONCLUSION**

#### **6.1 Summary of the Present Study**

##### **6.1.1 Introduction**

Youth is an important period of a person's life as during this period a person is most vibrant and productive. Because of the vast potentials to positively shape the society youth are considered as leaders of tomorrow. However, youth is also a transitory phase marked with challenges, expectations and pressures from within and from the society. Advancements in various fields, especially information technology, have brought about positive changes in the society; however, this is not without demerits. Progress in information and technology has led to problems like, cyber-crime, low self-esteem, alienation and addictions, among others, significantly impacting the mental health of youth. Moreover, youth is a transitory stage between childhood and adulthood and the challenges that young people face during this transition have far reaching consequences on their physical and mental health. Different agencies have used different age range to define youth and as such there is no unanimity in the definition of youth. In this study, youth was defined as individuals between the ages of 15 to 35 years. This wider age bracket was considered to facilitate broader understanding of the trends and changes in mental health among young people.

Mental health of Naga youth was the focus of the present study. In keeping with the World Health Organization (WHO, 2005) definition of mental health as "a state of well-being in which an individual realizes his or her own abilities, can cope with the

normal stresses of life, can work productively and is able to make a contribution to his or her community”, mental health, in this study, was viewed from a positive lens and not solely as the absence of mental illness. Towards this end, mental health continuum model was utilized to understand the status of mental health among Naga youth. The mental health continuum model was proposed by Keyes (2002) and it measured mental health in terms of three components namely emotional, social and psychological wellbeing. Furthermore, mental health of individuals was categorized into, i) flourishing – which means having optimal mental health, ii) languishing -which means having incomplete mental health and iii) moderately mentally healthy – a category falling in between the two aforementioned categories. As stated earlier, young people face a plethora of challenges and pressures which negatively impacts their health. Factors impacting the mental health of youth include, firstly, education which is crucial in preparing young people to lead fulfilling lives. Without education, young people may face difficulties in achieving their maximum potentials. However, in India, low the enrollment of young people in primary and secondary education, especially in the rural areas, continues to be a concern. Lack of basic education can lead to unemployment, poverty and social isolation thereby negatively affecting an individual’s development as well as the overall development of the society.

Secondly, unemployment is another factor that has a direct link to mental health. The rate of unemployment in Nagaland stood at 27.4% in 2023 - 24 (Periodic Labour Force Survey) which is the state with the highest unemployment rate in India. Lack of employment opportunities and poor skill sets coupled with pressure and competition in securing employment can take a toll on the mental wellbeing of youth. Thirdly, factors

such as the environment and culture may also have a significant influence on young people. It has been reported that youth from rural areas were at higher risk of dropping out of schools and indulge in violence and crimes (Bryer et al., 2017). Due to poor development and limited job opportunities, especially in the rural areas, young people are forced to migrate to bigger cities to fulfill their aspirations and needs. As a result, young people become vulnerable to discriminations, alienation, separation anxiety and cultural shock which adversely affects their sense of wellbeing. All these factors have significant impact on the mental health of youth and as such merit attention and redressal in order for young people to flourish and bring about positive changes in the society.

Locus of control is another aspect of interest in the present study. According to Rotter (1966), locus of control is the general expectancy of the way people respond to events in their lives. Locus of control is viewed in a uni-dimensional continuum with internal locus of control on the one end and external locus of control on the other end. People with internal locus of control tend to respond to events that happen in their life as being within their control whereas people with external locus of control tend to view events that happen in their life as being out of their control (luck, fate etc.). Previous studies have indicated that people with internal locus of control have better mental health, lower levels of anxiety and higher life satisfaction whereas people with external locus of control are found to have lower levels of mental health, are more stressed and have feelings of helplessness (Cvetanovski & Jex, 2007; Roddenberry & Renk, 2010). Given the unique history and socio-political aspects of Nagaland, the present study seeks to understand the role of locus of control on mental health of Naga youth.

With regard to the demographics of Nagaland, 40.2% of the population comprised of youth with a total male literacy rate at 89.1% and female literacy rate of 87.3%.

Despite high literacy rate the state is unable to provide employment to majority of the youth as can be seen by the high unemployment rate (19.3%) in the state.

**6.1.2 Statement of the Problem:** What will be the status of mental health in relation to locus of control and socio-demographic components among educated Naga youth?

### **6.1.3 Rationale of the Study**

Most mental health issues which may have lifelong repercussions have their origin in youth. As such, it is important to understand the status of mental health and its relation to locus of control and different socio-demographic characteristics. In Naga society, mental health continues to be understood as mental illness or madness and is stigmatized. Lack of awareness programmes, poor mental health facilities and lack of mental health professionals have further aggravated the problem. High rate of unemployment, slow economic development and volatile socio-political situation in the state have adversely affected the mental health of Naga youth making them vulnerable to substance abuse as a way of coping with their frustrations. In view of these factors, there is a need to understand how the youth negotiate with all these challenges and the impact of these factors on their mental health.

In a departure from studies done in the past, which have mainly focused on the psychopathological aspects of mental health, this study examined mental health from a positive lens. Furthermore, considering the limited literature on mental health focusing on Nagaland, this study examined the mental health of Naga youth by taking into



consideration the unique situation and demographics of Nagaland in terms of gender, employment and education.

#### **6.1.4 The Objectives Were:**

1. To assess the status of mental health among educated Naga youth
2. To examine the role of locus of control on mental health of educated Naga youth
3. To examine the role of levels of education on mental health of educated Naga youth
4. To examine the role of status of employment on mental health of educated Naga youth
5. To examine the gender difference in mental health of educated Naga youth

#### **6.1.5 The Hypotheses Were:**

H<sub>1</sub>. There will be a significant difference between youth with internal locus of control and youth with external locus of control on mental health

H<sub>2</sub>. There will be a significant difference between youth having lower level of education and youth having higher level of education on mental health

H<sub>3</sub>. There will be a significant difference between employed and unemployed youth on mental health

H<sub>4</sub>. There will be a significant difference between male and female educated Naga youth on mental health

### **6.1.6 Review of Literature**

The researcher did extensive review of studies (both international and Indian) on mental health, locus of control and socio-demographic factors. These studies have focused on topics such as, social media and wellbeing (Marciano & Viswanath, 2023), socio-demographic differences and positive mental health (Vaingankar et al., 2013), gender and happiness (Verma & Ura, 2022), self-control, locus of control and happiness (Ramezani & Gholtash, 2015), gender, academic achievement and locus of control (Khan & Iqbal, 2014), locus of control and psychological wellbeing (Augustina & Dorathy, 2021), employment and mental health (Nasrin et al., 2023) and on gender differences in mental health (Garcia et al., 2019). Further, studies done in India included topics such as psychosocial functioning and mental health (Singh et al., 2015), life satisfaction (Agnes & Akhila, 2023), psychological capital and internal locus of control (Alat et al., 2023). Although, extensive studies on mental health have been done, studies on mental health in the Naga context remains limited. Further, there is inconclusive evidence with regard to the levels of mental health according to locus of control, level of education, status of employment and gender. There are also limited studies looking into the effects of locus of control, level of education, status of employment and gender on the combined emotional, social and psychological wellbeing. Therefore, given the unique cultural and socio-demographic characteristics of the Naga society and considering the challenges faced by the Naga youth the present study examined the status of mental health and also investigate emotional, social and psychological wellbeing in relation to locus of control, level of education, status of employment and gender among educated Naga youth.

### **6.1.7 Methodology**

*Sample and Sampling Method:* The sample size in the present study comprised of 600 educated Naga youth in the age bracket of 15 to 35 years residing in Kohima and Dimapur districts of Nagaland. Incidental or convenient sampling was used in the study.

*Tools Used:*

- Mental health continuum (short form) developed by Keyes (2009) consisting of 14 items measuring emotional, social and psychological wellbeing. Individuals were categorized into three categories namely, flourishing, languishing and moderately mentally healthy.
- Locus of control scale developed by Rotter (1966) consisting of 29 items out of which 6 are filler items and are not scored. Individuals with higher scores on locus of control were categorized under external locus of control and individuals with lower scores were categorized under internal locus of control.
- Socio-demographic questionnaire containing information regarding age, tribe, gender, level of education, status of employment etc.

*Procedure:* The research was carried out on educated Naga youth in the age range of 15 to 35 years. The informed consent form was signed by willing participants before responding to the questionnaires in the study. Participants were briefed about the nature of the study and their choice to withdraw from the study at any stage. They were also informed of the confidentiality of their responses. Proper instructions were given to the participants before responding to the questionnaires. There was no time limit and the time taken to respond to the questionnaires was approximately 20 - 25 minutes.

*Statistical Analysis:* Descriptive and inferential statistics were used to compute the data. Descriptive statistics such as mean, standard deviation, frequency, percentage, pie chart and Chronbach's alpha were used to describe the characteristics of the sample. In addition, inferential statistics such as MANOVA, between subjects ANOVA, pairwise comparisons and Bonferroni adjustment were used to find the differences and interaction effects of the variables under study.

### **6.1.8 Results**

On examining the results of this study, it was found that a majority of the educated Naga youth were in the moderately mentally healthy category (45.7%), followed by more than a quarter in flourishing (32.2%) and a few in the languishing category (22.2%). Likewise, on computing the chi-square analysis among locus of control, level of education, status of employment and gender on the three categories of mental health, it was found that there was a significant association among these variables on mental health.

Secondly, multivariate main effect, between-subjects effects and estimated marginal means were computed to assess the role of locus of control, level of education, status of employment and gender on mental health. The findings highlighted that there was significant difference between internal and external locus of control on mental health. Further, this difference in locus of control was observed in psychological wellbeing and social wellbeing but no significant difference was found on emotional wellbeing.

The findings on the role of level of education on mental health highlighted significant difference in mental health of youth with lower level of education and those with higher level of education. This difference was also observed in all three dimensions of wellbeing i.e. emotional, social and psychological wellbeing.

The findings on the role of status of employment on mental health showed no significant difference in mental health of employed and unemployed participants and no difference was also observed in the three dimensions of mental health. However, when locus of control and gender were taken into account, the effects of status of employment on mental health was observed. Having an internal locus of control influenced the mental health of both employed and unemployed youth. In addition, employed youth with internal locus of control reported better mental health as opposed to unemployed youth with internal locus of control and this was observed across both gender groups.

On the role of gender on mental health, the findings revealed that there was a significant difference in the mental health of males and females. Further, this difference between males and females was observed in emotional wellbeing, however, no difference was observed on psychological wellbeing and social wellbeing.

#### **6.1.9 Discussion**

In the present study, majority of the Naga youth were found to be moderately mentally healthy, followed by flourishing and languishing. This is in line with other previous studies indicating that more individuals from across countries were found to be moderately mentally healthy, followed by flourishing and the least in languishing category (Keyes, 2008; Gongóra & Solano, 2017). When compared to the percentages of

languishing from other studies it was observed that the percentage of languishing in the present study was higher (22.2%). Factors such as sociopolitical instability coupled with insurgency and the failure to empower youth (Neumai, 2015) may have contributed to higher languishing among Naga youth.

Further, a majority of Naga youth with internal locus of control and those with external locus of control were found to be moderately mentally healthy. In addition, a greater number of youth with internal locus of control were seen to be flourishing while a greater number of youth with external locus of control were seen to be languishing. This is in agreement with previous studies on mental health which highlighted that those with internal locus of control had better mental health than those with external locus of control (Nwankwo et al., 2017; Griffin, 2014). Significant effects of locus of control on social and psychological wellbeing were also observed highlighting that youth with internal locus of control had higher social and psychological wellbeing as opposed to those with external locus of control. Further, no significant effect of locus of control was found on emotional wellbeing. Studies in the past have reported similar finding indicating that individuals with internal locus of control had higher levels of psychological wellbeing than individuals with external locus of control. Individuals with external locus of control were found to experience more stress, feel powerless and have poorer self-control (Botha & Dahmann, 2024; Chimezie et al., 2017; Quevedo & Abella, 2014).

The findings on the effects of locus of control on mental health showed that majority of the youth were moderately mentally healthy irrespective of level of education. In addition, a greater number of youth with higher level of education were

flourishing while more number of youth with lower education level were found to be languishing.

Furthermore, it was found that youth with higher level of education and youth with lower level of education significantly differed on all three dimensions of wellbeing i.e. emotional, social and psychological wellbeing, indicating that those with higher level of education had higher emotional, social and psychological wellbeing as compared to those with lower level of education. These findings are in line with previous studies which reported that higher level of educational qualification paves way for better job opportunities and as a result leads to autonomy and happiness (Delhey, 2010). Likewise, studies have also found that higher social wellbeing leads to better academic performance and also showed that highly educated people have higher psychological wellbeing (Baby et al., 2022; Gul & Dawood, 2015).

Findings from the present study also indicated that a majority of both employed and unemployed youth were moderately mentally healthy. In addition, a greater number of employed youth were flourishing while more number of unemployed youth were languishing. However, it was observed that employed youth and unemployed youth did not significantly differ on emotional, social and psychological wellbeing. Although status of employment alone did not significantly affect mental health, when locus of control and gender were taken into account, the effect of status of employment was observed among those with internal locus of control. Furthermore, it was found that having an internal locus of control had a significant effect on mental health of both employed and unemployed youth irrespective of gender. However, no such effects were observed among those with external locus of control. Rotter (1966) highlighted that individuals

with internal locus of control tend to view events and outcomes as being within their control. As such, unemployed youth with internal locus of control may attribute their unemployed status to personal shortcomings which in turn affect their mental health. Similarly, employed youth with internal locus of control may also attribute their employed status to personal achievement and as a result this may impact their mental health in a positive manner.

Lastly, a majority of both males and females were found to be moderately mentally healthy. Further, more numbers of males as compared to females were flourishing while a greater number of females as compared to males were found to be languishing. Past studies reported similar findings which indicated that males, as compared to females, had higher levels of flourishing (Matud et al., 2019; Keyes et al., 2007). In addition, the present findings also showed no significant difference among males and females in social and psychological wellbeing. On the other hand, a significant difference among males and females was observed on emotional wellbeing with males having higher emotional wellbeing than their female counterparts. This suggested that males were more satisfied, interested and happier with life than females. This is in concurrence with earlier studies which reported that males have higher life satisfaction and happiness as compared to females (Brooks et al., 2015; Verma & Ura, 2022). In a patriarchal society like Naga society, factors such as gender inequality and traditional gender roles which impacts wellbeing (Bracke et al., 2015) may adversely affect females more than males.



## 6.2 Suggestions

The present study is one of the few studies conducted using the mental health continuum model. It gives a comprehensive view of the status of levels of mental health (flourishing, languishing and moderately mentally healthy) according to locus of control, level of education, status of employment and gender. It also examined all three aspects of positive mental health namely emotional, social and psychological wellbeing among Naga youth. Considering the limitations of this study, the following suggestions for future research are mentioned below:

- The study was limited to only two urban districts in Nagaland and hence it could not study youth from other districts. Therefore, future studies on mental health may be carried out by widening the sample size to include those from other districts of Nagaland. Also, comparative study between rural and urban population may be undertaken.
- The present study measured the positive aspects of mental health but did not consider measuring underlying psychopathological attributes which may be important in order to better understand the status of mental health among youth. In this regard, further studies can be done utilizing the dual continua model of mental health and mental illness.
- Future studies may also explore mental health in relation to other socio-demographic characteristics like tribe, family type, socio economic status and substance abuse among others.
- Similar studies may also be carried out on the mental health of young people using qualitative methods or mixed methods.

### **6.3 Conclusion**

The present study is one of the few studies carried out to understand the aspects of positive mental health on Naga youth. The study adds to the existing body of research on mental health and sheds light on the status of mental health among youth in the Naga society which has a unique history and diverse cultural background. It also adds to the understanding of emotional, social and psychological wellbeing of young people. The findings of the study have implications in terms of showcasing the need to implement mental health initiatives specially tailored for the youth in the state of Nagaland.

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## Appendix

### **INFORMED CONSENT FORM**

**Researcher:**

*Razouneinu Suokhrrie  
Research Scholar, Dept of Psychology  
Nagaland University*

**Supervisor:**

*Dr. Imlisongla Longkumer  
Assistant Professor, Dept of Psychology  
Nagaland University*

**TITLE OF THE PROJECT:** Mental Health in Relation to Locus of Control and Socio-Demographic Components among Educated Naga Youth.

**DESCRIPTION OF THE STUDY:** This study will look into the status of mental health in relation to locus of control and socio-demographic components among educated Naga youth. In order to do this, the participants of this study will be given three questionnaires to complete, which are provided in the following pages. The researcher is only interested in the evaluation of these variables and how they are related. The researcher is NOT interested in any specific information about an individual. The participants have to be in the age range of 15 to 35 years. The time period required to fill the questionnaires is around 20 to 25 minutes.

**PARTICIPANT RIGHTS:** Your participation in this study is completely voluntary and you may refuse to participate or leave the study at any point of time. If you decide not to participate in the study or withdraw from the study while filling up the questionnaires, it will not result in any penalty.

**CONFIDENTIALITY:** All the data from this study and personal information will be kept confidential and will be accessible only to the researcher. The results of this study will be

reported in groups and you will not be identified in any presentations or publications of the research study.

**RISKS:** There are no known or anticipated risks to you while participating in this study. However if you experience any personal distress during your participation, you may withdraw your participation.

**QUERIES/CONCERNS**

You are encouraged to ask queries/doubts at any time during this study. Please direct your queries to:

***Razouneino Suokhrie - Ph. number: 8131091124 - Email: nsuokhrie93@gmail.com***

**DECLARATION**

I have read and understood the explanations provided to me. I was informed that my participation is voluntary and I may withdraw from the study at any time without penalty.

I voluntarily agree to participate in this study.

Name (optional):

Signature:

Date:

Place:

### **SOCIO-DEMOGRAPHIC CHARACTERISTICS**

1. Age : \_\_\_\_\_
2. Tribe : \_\_\_\_\_
3. Place of birth : \_\_\_\_\_
4. Present address : Kohima /Dimapur
5. Gender of respondent : Male /Female
6. Marital Status : Married /Single /Divorced /Widowed
7. Number of children (if any) : \_\_\_\_\_
8. Type of family : Joint Family /Nuclear Family
9. Number of siblings : \_\_\_\_\_
10. Level of education : Matriculate /HSSLC /Graduate /Post- graduate
11. Status of employment : Employed /Unemployed

## INSTRUCTIONS

*This test contains 29 items, and each item has two options a and b. Please read the choices carefully in every item and place a check mark in the \_\_\_\_\_ that you think is the most appropriate option (either a or b) for you*

1. a. Children get into trouble because their parents punish them too much. \_\_\_\_\_  
b. The trouble with most children nowadays is that their parents are too easy with them. \_\_\_\_\_
2. a. Many of the unhappy things in people's lives are partly due to bad luck. \_\_\_\_\_  
b. People's misfortunes result from the mistakes they make. \_\_\_\_\_
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics. \_\_\_\_\_  
b. There will always be wars, no matter how hard people try to prevent them. \_\_\_\_\_
4. a. In the long run people get the respect they deserve in this world. \_\_\_\_\_  
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries. \_\_\_\_\_
5. a. The idea that teachers are unfair to students is nonsense. \_\_\_\_\_  
b. Most students don't realize the extent to which their grades are influenced by accidental happenings. \_\_\_\_\_
6. a. Without the right breaks one cannot be an effective leader. \_\_\_\_\_  
b. Capable people who fail to become leaders have not taken advantage of their opportunities. \_\_\_\_\_
7. a. No matter how hard you try some people just don't like you. \_\_\_\_\_  
b. People who can't get others to like them don't understand how to get along with others. \_\_\_\_\_

8. a. Heredity plays the major role in determining one's personality. \_\_\_\_  
b. It is one's experiences in life which determine what they're like. \_\_\_\_
9. a. I have often found that what is going to happen will happen. \_\_\_\_  
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. \_\_\_\_
10. a. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action. \_\_\_\_  
b. Many times exam questions tend to be so unrelated to course work that studying is really useless. \_\_\_\_
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it. \_\_\_\_  
b. Getting a good job depends mainly on being in the right place at the right time. \_\_\_\_
12. a. The average citizen can have an influence in government decisions. \_\_\_\_  
b. This world is run by the few people in power, and there is not much the little guy can do about it. \_\_\_\_
13. a. When I make plans, I am almost certain that I can make them work. \_\_\_\_  
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow. \_\_\_\_
14. a. There are certain people who are just no good. \_\_\_\_  
b. There is some good in everybody. \_\_\_\_
15. a. In my case getting what I want has little or nothing to do with luck. \_\_\_\_  
b. Many times we might just as well decide what to do by flipping a coin. \_\_\_\_
16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first. \_\_\_\_

- b. Getting people to do the right thing depends upon ability. Luck has little or nothing to do with it. \_\_\_\_\_
17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control. \_\_\_\_\_  
b. By taking an active part in political and social affairs the people can control world events. \_\_\_\_\_
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings. \_\_\_\_\_  
b. There really is no such thing as "luck." \_\_\_\_\_
19. a. One should always be willing to admit mistakes. \_\_\_\_\_  
b. It is usually best to cover up one's mistakes. \_\_\_\_\_
20. a. It is hard to know whether or not a person really likes you. \_\_\_\_\_  
b. How many friends you have depends upon how nice a person you are. \_\_\_\_\_
21. a. In the long run the bad things that happen to us are balanced by the good ones. \_\_\_\_\_  
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three. \_\_\_\_\_
22. a. With enough effort we can wipe out political corruption. \_\_\_\_\_  
b. It is difficult for people to have much control over the things politicians do in office. \_\_\_\_\_
23. a. Sometimes I can't understand how teachers arrive at the grades they give. \_\_\_\_\_  
b. There is a direct connection between how hard I study and the grades I get. \_\_\_\_\_
24. a. A good leader expects people to decide for themselves what they should do. \_\_\_\_\_  
b. A good leader makes it clear to everybody what their jobs are. \_\_\_\_\_
25. a. Many times I feel that I have little influence over the things that happen to me. \_\_\_\_\_

b. It is impossible for me to believe that chance or luck plays an important role in my life. \_\_\_\_\_

26. a. People are lonely because they don't try to be friendly. \_\_\_\_\_

b. There's not much use in trying too hard to please people, if they like you, they like you. \_\_\_\_\_

27. a. There is too much emphasis on athletics in high school. \_\_\_\_\_

b. Team sports are an excellent way to build character. \_\_\_\_\_

28. a. What happens to me is my own doing. \_\_\_\_\_

b. Sometimes I feel that I don't have enough control over the direction my life is taking. \_\_\_\_\_

29. a. Most of the time I can't understand why politicians behave the way they do. \_\_\_\_\_

b. In the long run the people are responsible for bad government on a national as well as on a local level. \_\_\_\_\_



### **INSTRUCTIONS**

*Please answer the following questions about how you have been feeling during the past month. Place a check mark in the box that best represents how often you have experienced or felt the following:*

<b>During the past month, how often did you feel</b>	<b>NEVER</b>	<b>ONCE OR TWICE</b>	<b>ABOUT ONCE A WEEK</b>	<b>ABOUT 2 OR 3 TIMES A WEEK</b>	<b>ALMOST EVERY DAY</b>	<b>EVERY DAY</b>
1. happy						
2. interested in life						
3. satisfied with life						
4. that you had something important to contribute to society						
5. that you belonged to a community (like a social group, your school, or your neighbourhood)						
6. that our society is a good place, or is becoming a better place, for all people						
7. that people are basically good						
8. that the way our society works made sense to you						
9. that you liked most parts of your personality						
10. good at managing the responsibilities of your daily life						
11. that you had warm and trusting relationships with others						
12. that you had experiences that challenged you to grow and become a better person						
13. confident to think or express your own ideas and opinions						
14. that your life has a sense of direction or meaning to it						