



**HEALTH, WELLBEING &**

**QUALITY OF LIFE**

**A STATISTICAL SURVEY TO ASSESS THE QUALITY OF LIFE OF CLASS OF 2014  
B.SC HONOURS ENVIRONMENTAL SCIENCES, GOVERNMENT COLLEGE UNIVERSITY, LAHORE**

**COURSE: HEALTH & ENVIRONMENT**

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## PROLOGUE

Well-being has been defined as evaluating life as satisfying and generally experiencing more positive states and emotions than negative ones. Such evaluations may include meaning and purpose, affective reactions such as joy and sadness, and satisfaction with life as a whole as well as in domains such as work, family life, and housing.

These subjective evaluations and positive life orientations and experiences are related to a wide range of health outcomes including cardiovascular disease, immune functioning, and mortality. Academic researchers have long studied well-being and its antecedents and consequences, but only recently have public health practitioners begun to focus on the importance of assessing well-being for resiliency, adaptation to illness, disease progression, and other health outcomes.

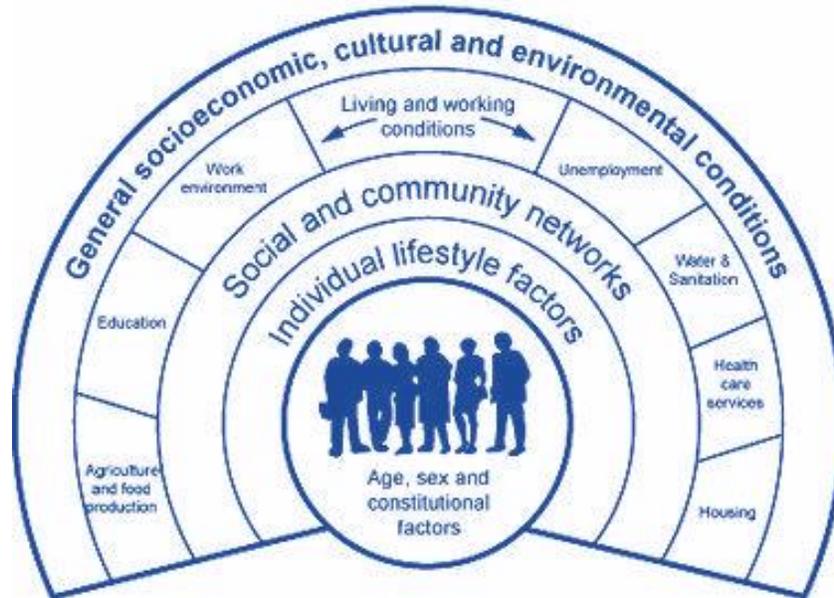
This focus is motivated by evidence showing that well-being is causally related to health and longevity. Such assets or protective factors (e.g., positive affect, satisfaction, vitality) that compose well-being domains might serve to mediate protective physiological responses that are health enhancing (e.g., lower cortisol levels) or to more effectively moderate stressful responses (quell negative arousal), minimizing allostatic load (wear and tear on the body). Over time, these protective factors and processes may confer advantages such as greater resiliency associated with more successful age-related transitions over the life course.

Studies have related lower life satisfaction levels, operationalized with a single question, with greater prevalence of poor health, disability, smoking, obesity, and physical inactivity. Moreover, the prevalence of smoking, obesity, physical inactivity, and heavy drinking increases as levels of social and emotional support decrease.

Other studies have revealed regional differences in well-being. These difference may be associated with measurement issues (e.g., concept equivalence, response styles), cultural values (e.g., individualism vs. collectivism), socioeconomic factors (e.g., income levels, equality), or the interaction of these and other factors.

Widely used scales and items used in many countries and groups, such as the Satisfaction with Life Scale (SWLS), and overall happiness have been studied in relation to these cross-cultural issues. The SWLS is one of the most extensively used and cross-culturally validated instruments in well-being research, demonstrating that asking people about what they think and how they feel about their lives offers valid information about an individual's life circumstances and social context relative to other groups. The SWLS also has shown acceptable convergent and discriminant validity with both subjective and objective well-being indicators. Domain-specific life satisfaction items were developed for cross-cultural use, and have been shown to be robust measures. Including multiple questions that tap into different well-being domains is useful for cross-cultural research. This understanding could support future public health research and focus interventions and evaluations on enhancing population health.

The following figure shows the cumulative effect of socio-economic, cultural and environmental conditions on the individual's physical and social wellbeing:



## STUDY OBJECTIVES

A Questionnaire based study conducted to identify the overall quality of life of a representative sample of educated youth in Pakistan. The study shall help in identifying the key determinants which contribute towards the overall physical and social wellbeing of individuals. The study shall also help the participants assess their quality of life and understand the key elements which need to be included in order to improve the overall life status.

## METHODOLOGY

The study questionnaire has been retrieved from the database of Dr. Donald Epstein, a renowned wellbeing models developer<sup>1</sup>. The questionnaire has been designed in a way to highlight the key determinants of overall quality of life of an individual. The questionnaire was distributed amongst 31 students of Health & Environment Course, Semester VIII, B.Sc Honours Environmental Sciences, SDSC, G.C. University, Lahore. A total time of 25 minutes was given to each individual to complete the questionnaire without any help.

The study questionnaire has been divided into six major sections with their corresponding relative scales for assessment. Section I deals with Physical State of an individual, with questions about presence and incidence of physical pain and other physical problems. Section II deals with Mental/Emotional State of an individual, with questions about moodiness, depression, fidgetiness, and restlessness. Section III deals with Stress Evaluation, inquiring about stress

<sup>1</sup> <http://www.donaldepstein.com/pdf/newlongitudinal.pdf>

relative to family, health, finance, work, etc. Section IV deals with determinants of enjoyment in life while, Section V and VI deal with Overall Quality of Life and Overall Impressions respectively.

The observations of the study have been statistically analyzed using Statistical Package for the Social Sciences, SPSS Version 20. Some questionnaire elements were not answered by all respondents so they were excluded in the overall analysis.

## OBSERVATIONS AND RESULTS

The overall impressions gained from the study questionnaire have been concluded in the figure below:

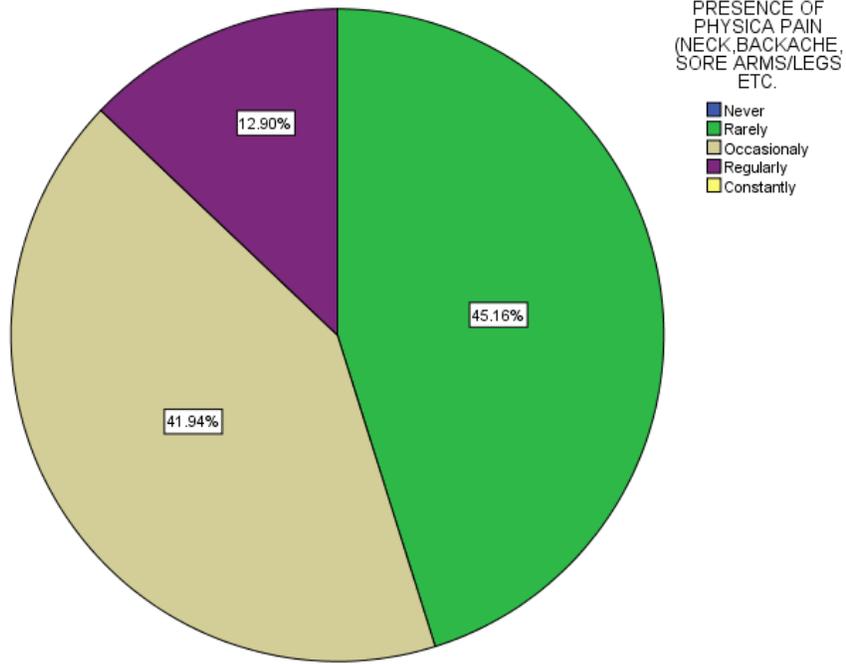
VARIABLE	RESPONSE	FREQUENCY	PERCENTAGE
My overall physical wellbeing	Better	21	67.7
	Same	9	29.0
	Worst	1	3.2
Overall emotional/mental state	Better	20	64.5
	Same	7	22.6
	Worst	4	12.9
Ability to handle stress	Better	21	67.7
	Same	9	29.0
	Worst	1	3.2
Overall enjoyment of life	Better	26	83.9
	Same	5	16.1
	Worst	0	0.0
Overall quality of life	Better	24	77.4
	Same	7	22.6
	Worst	0	0.0

77.4% respondents described their overall quality of life as 'better' as compared to 22.6% respondents who feel no difference in the overall quality over time. 67.7% respondents described their overall physical wellbeing and ability to handle stress as 'better', while 64.5% stated that their overall emotional/mental state is 'better' than before. A higher percentage of respondents, 83.9% claim to enjoy their life more than before.

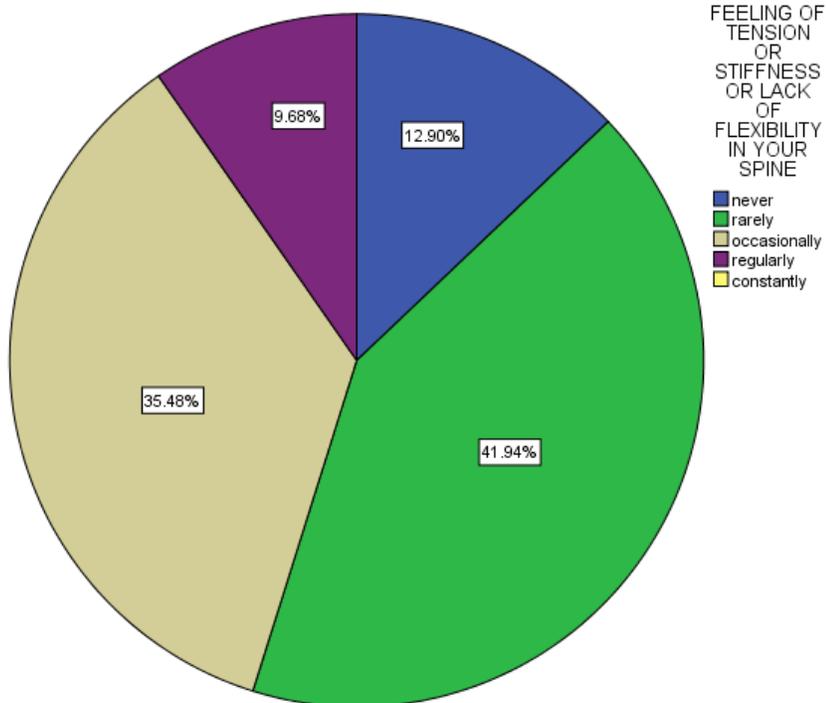
Observations for each category are summarized in the graphs below:

## SECTION I: PHYSICAL STATE

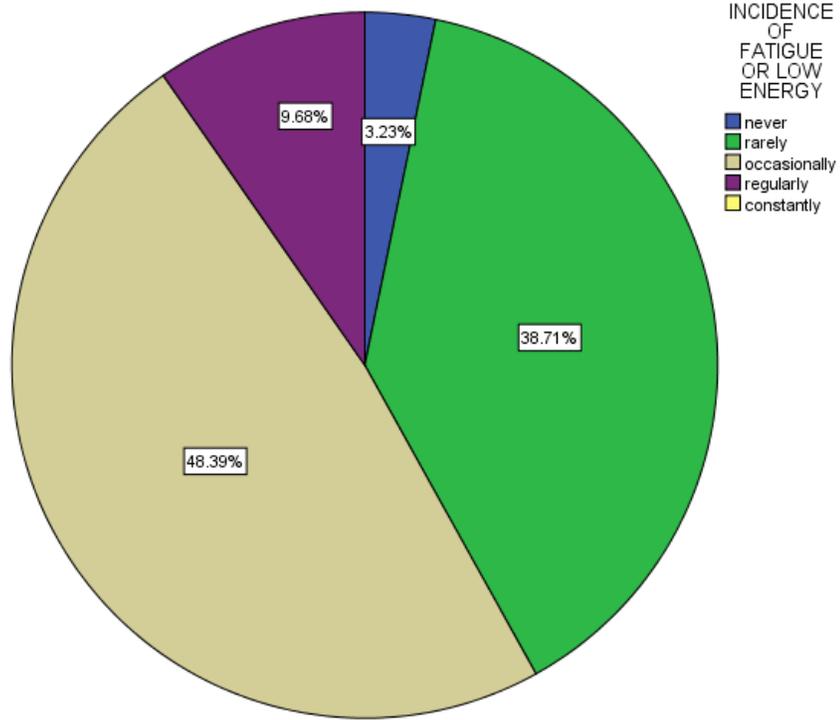
Presence of Physical Pain:



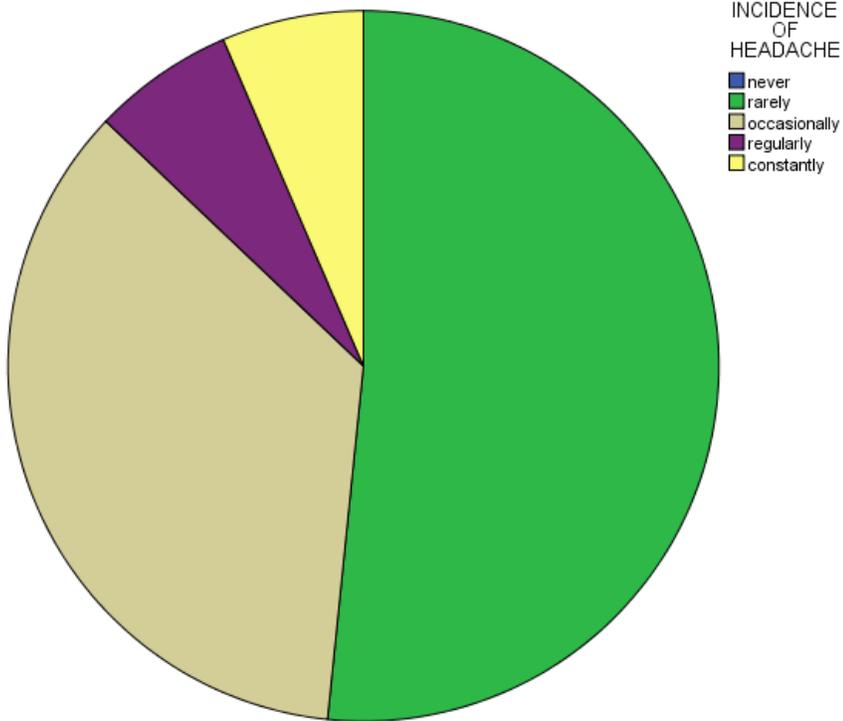
Feeling of tension:



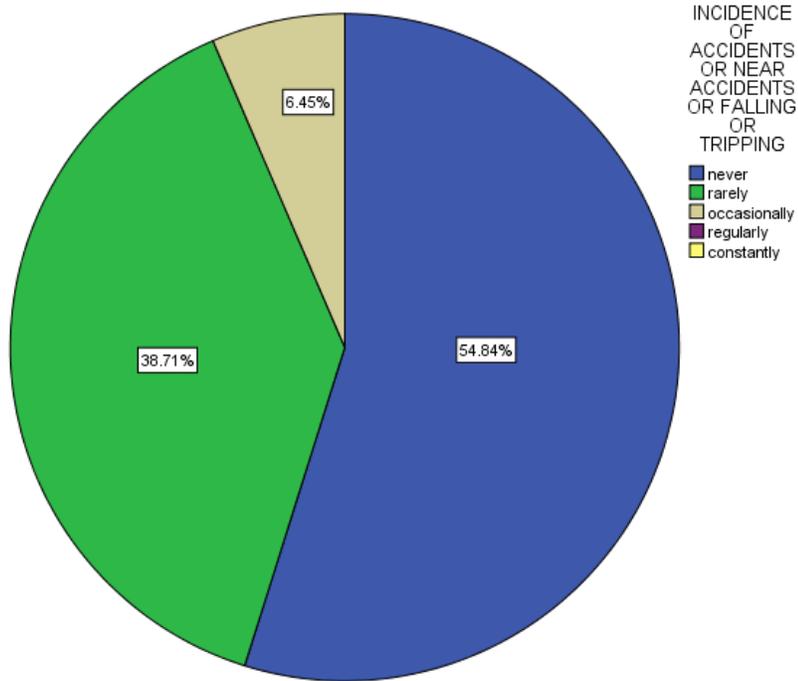
Incidence of Fatigue and Low Energy:



Incidence of Headaches:

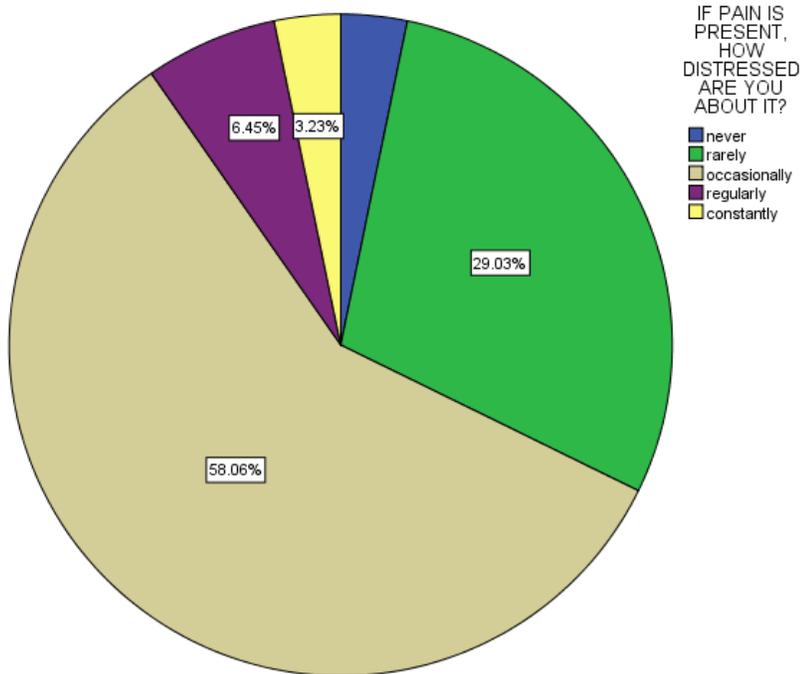


Incidence of Accidents:

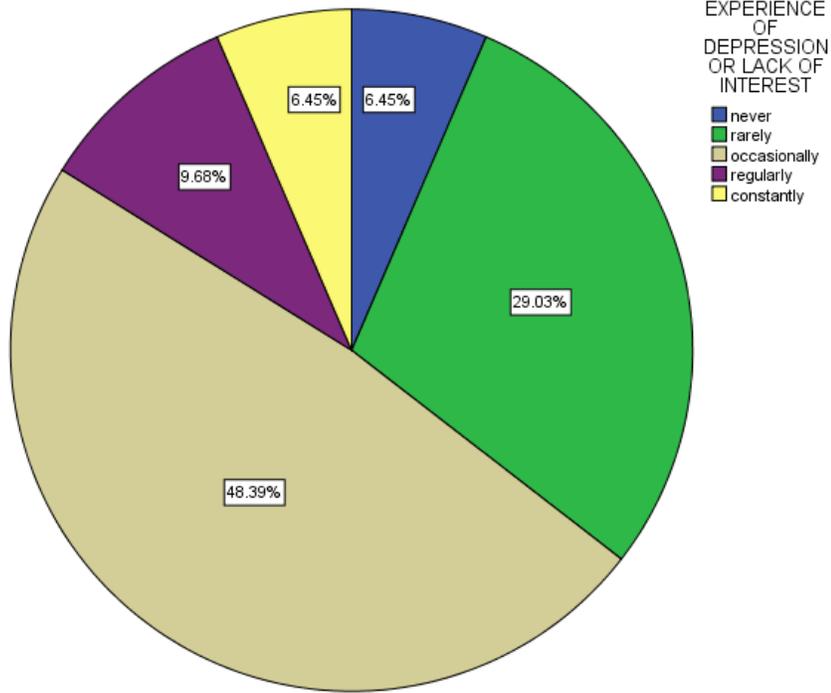


SECTION II: MENTAL/EMOTIONAL STATE

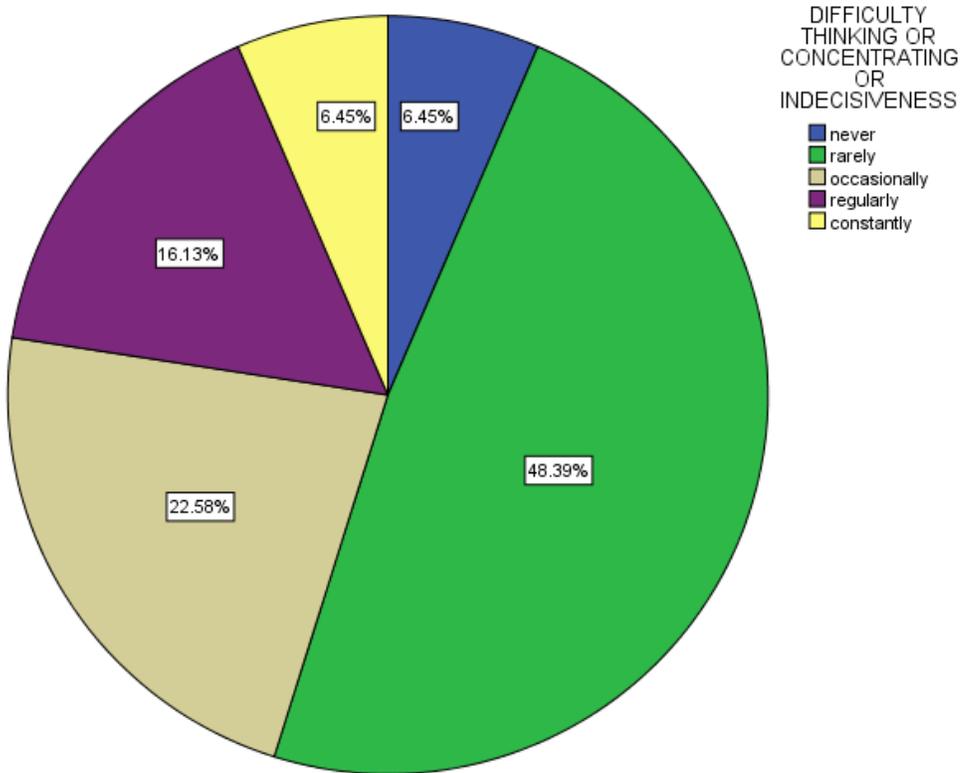
Distressed from Pain:



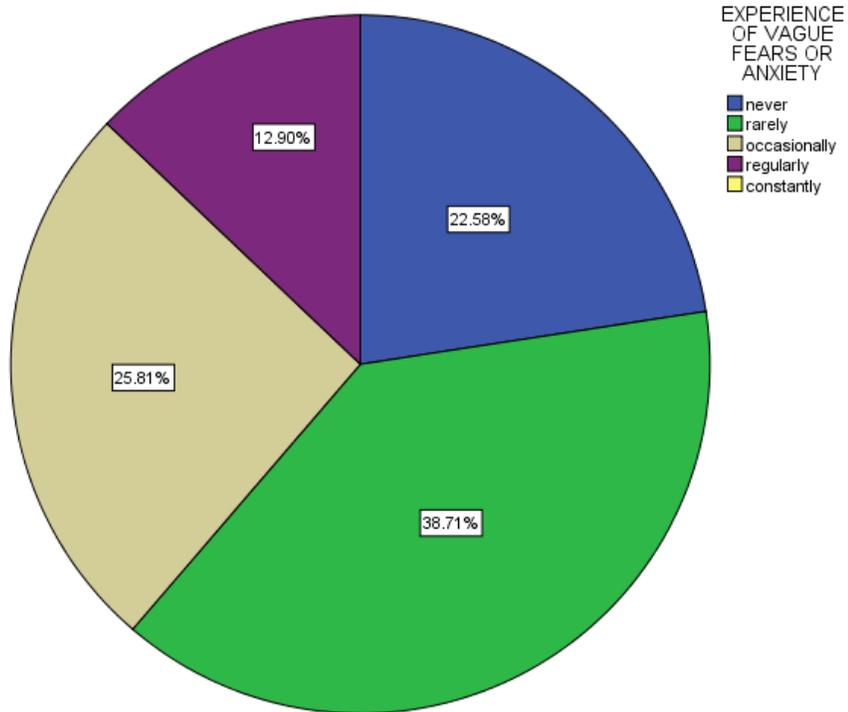
Depression:



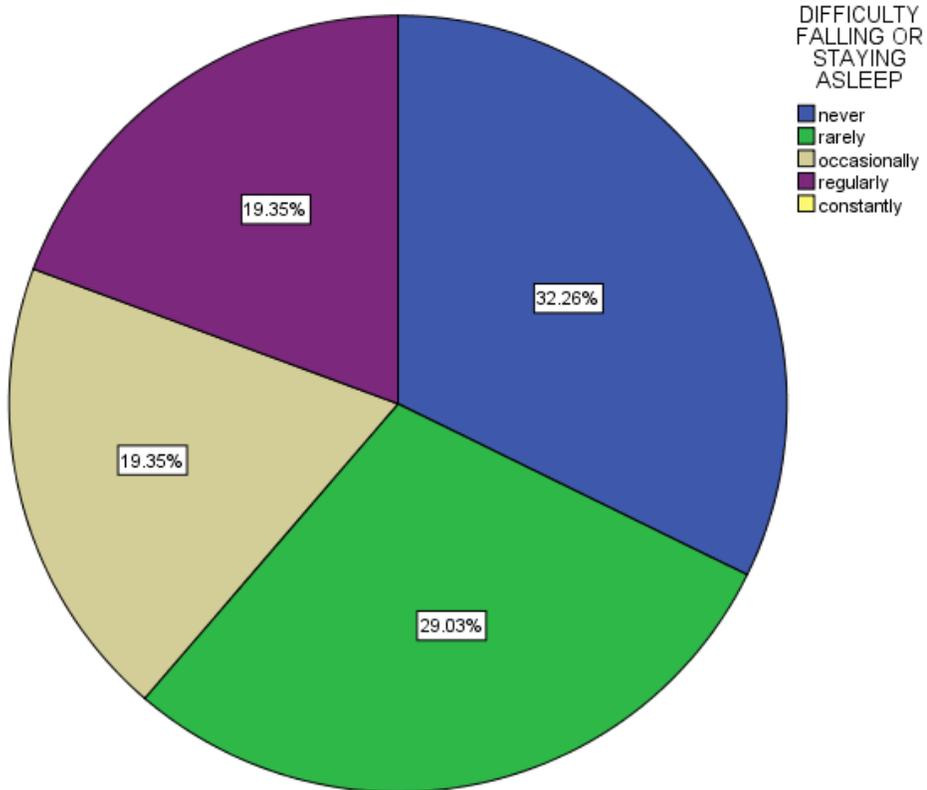
Difficulty in concentrating:



Anxiety:

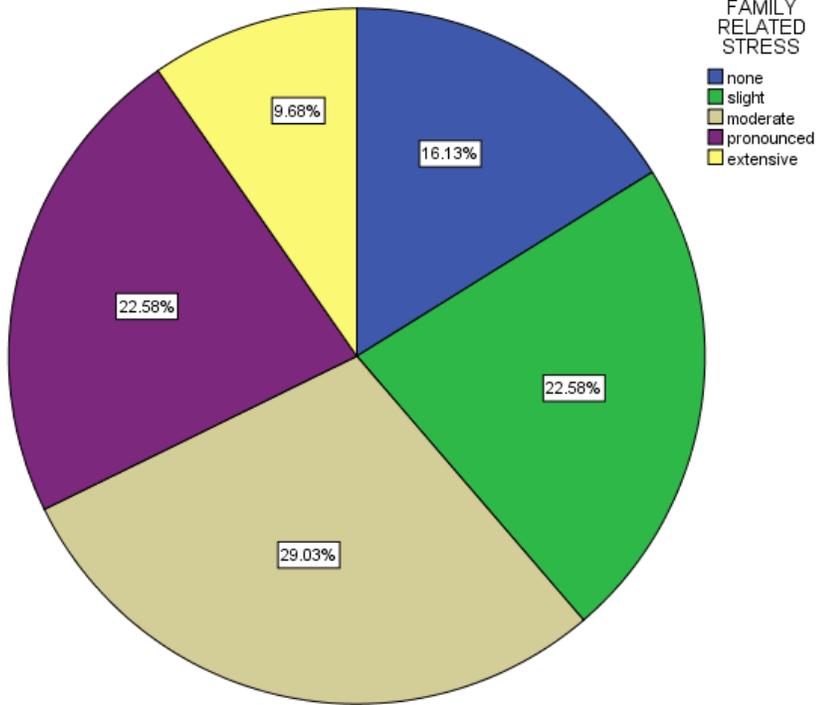


Difficulty in sleeping:

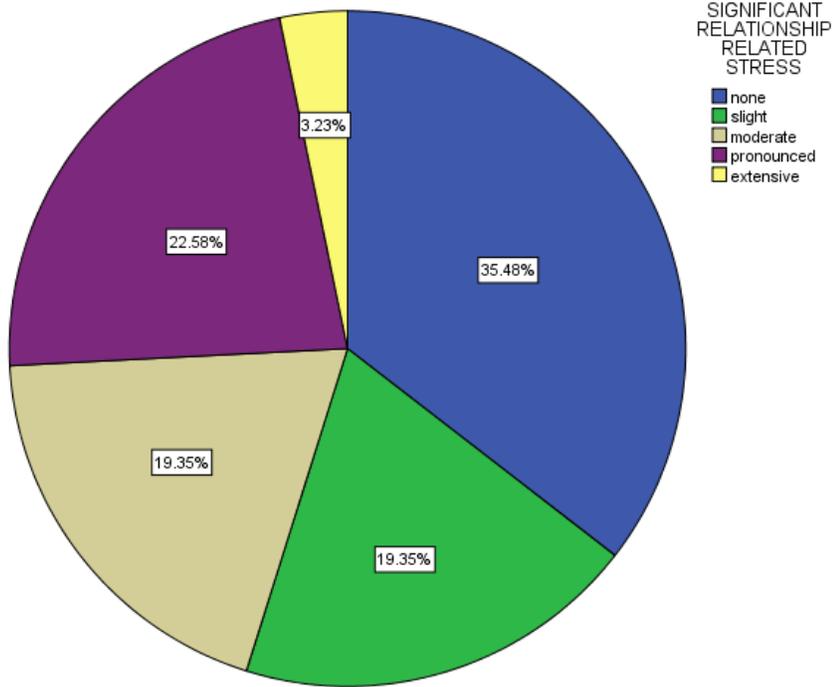


### SECTION III: STRESS EVALUATION

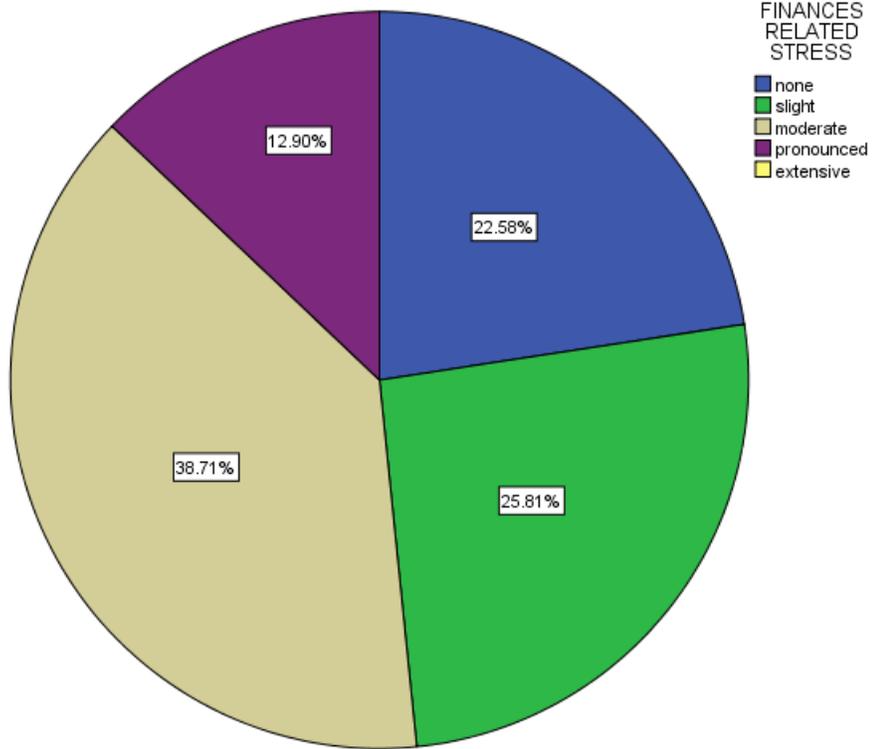
Family related stress:



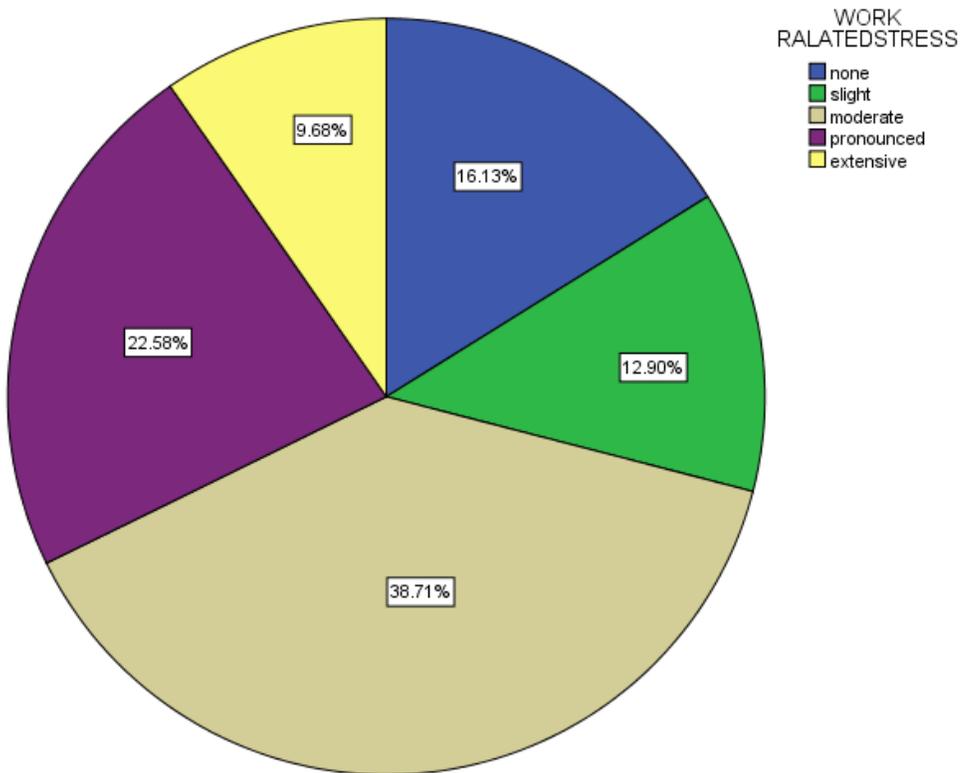
Significant Relationship related stress:



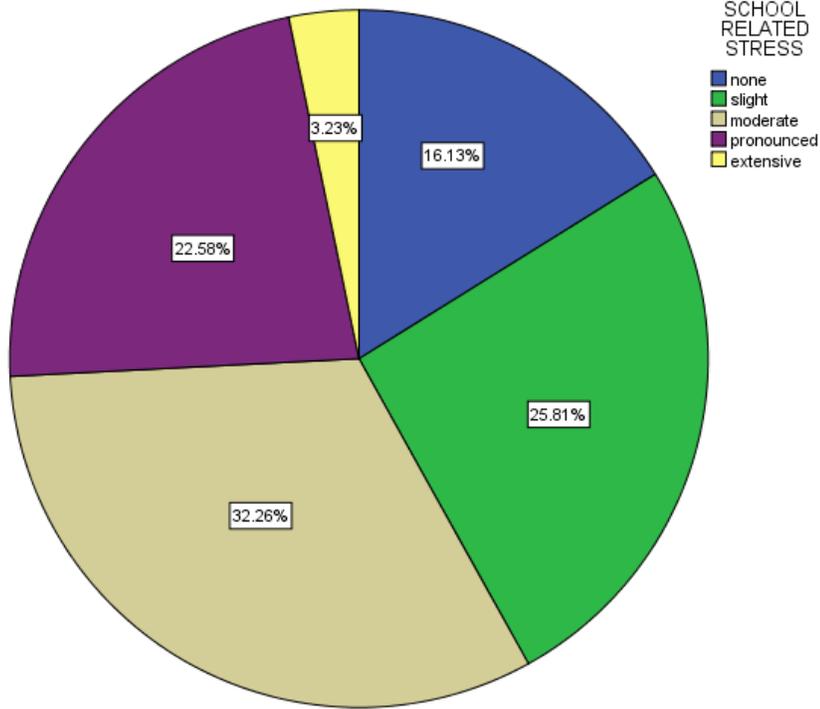
Finances related stress:



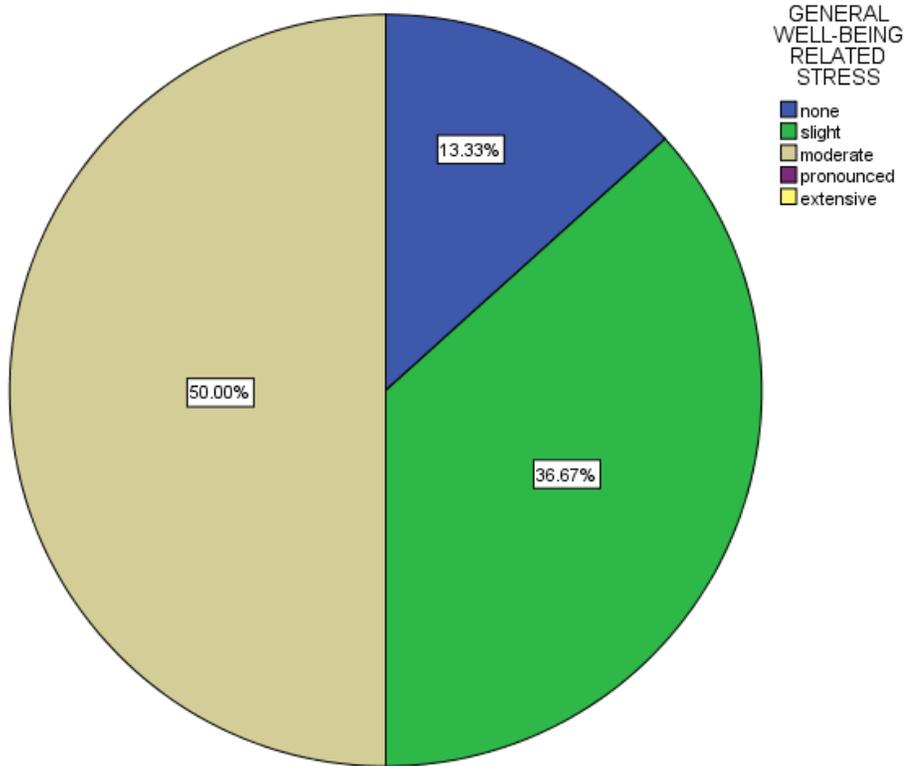
Work related stress:



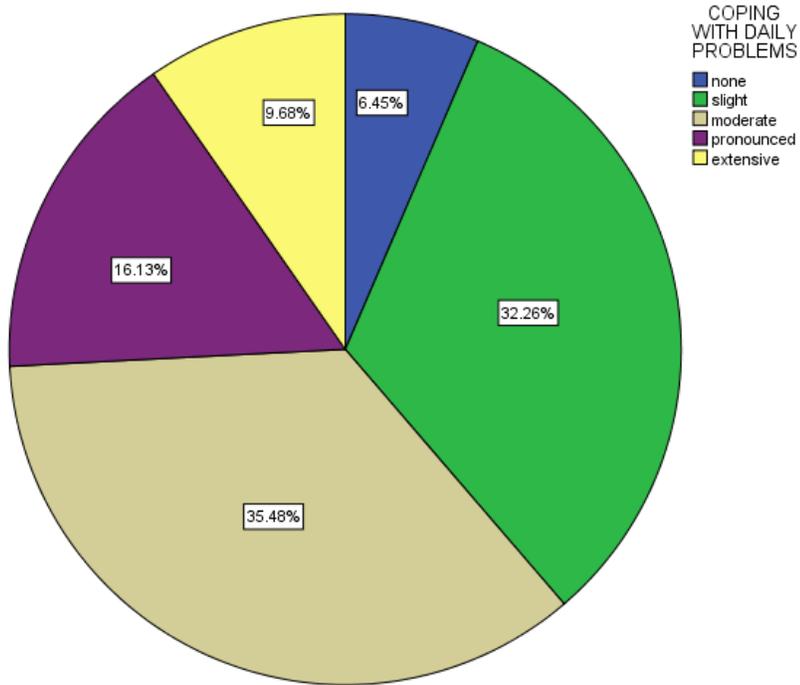
Study related stress:



General Wellbeing related stress:

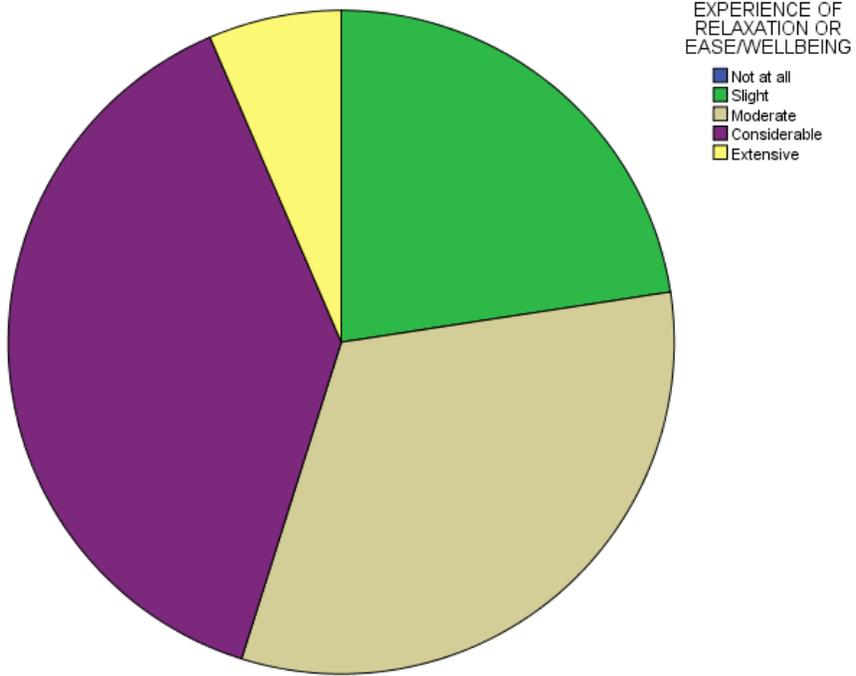


Coping with daily problems:

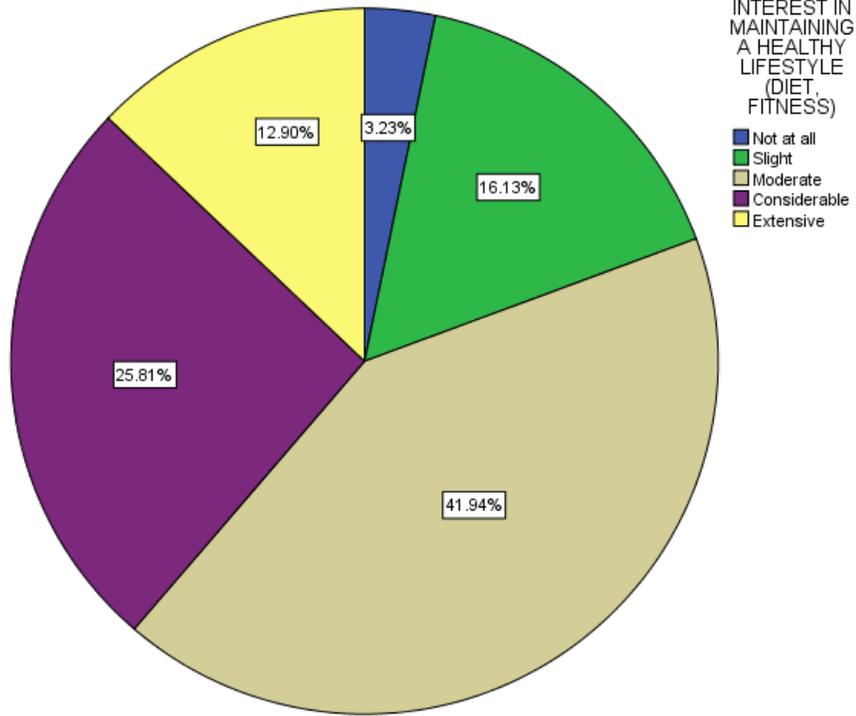


#### SECTION IV: LIFE ENJOYMENT

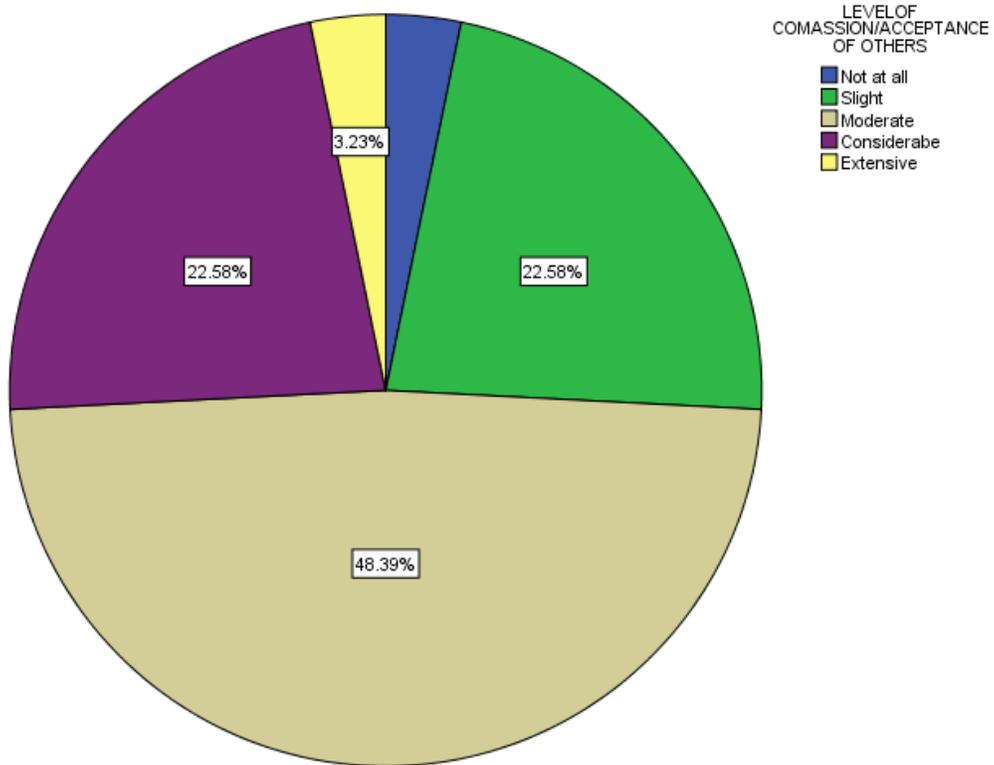
Experience of Relaxation:



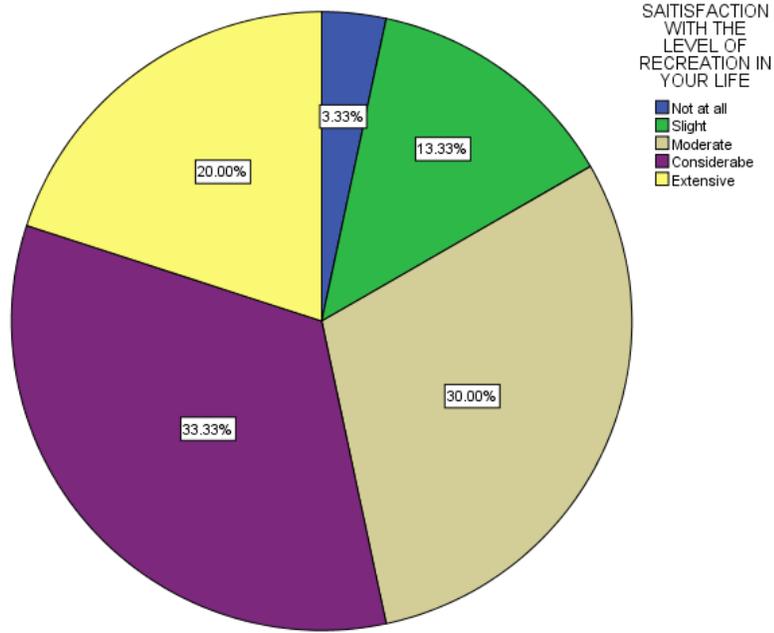
Interest in maintaining healthy lifestyle:



Level of Compassion for others:

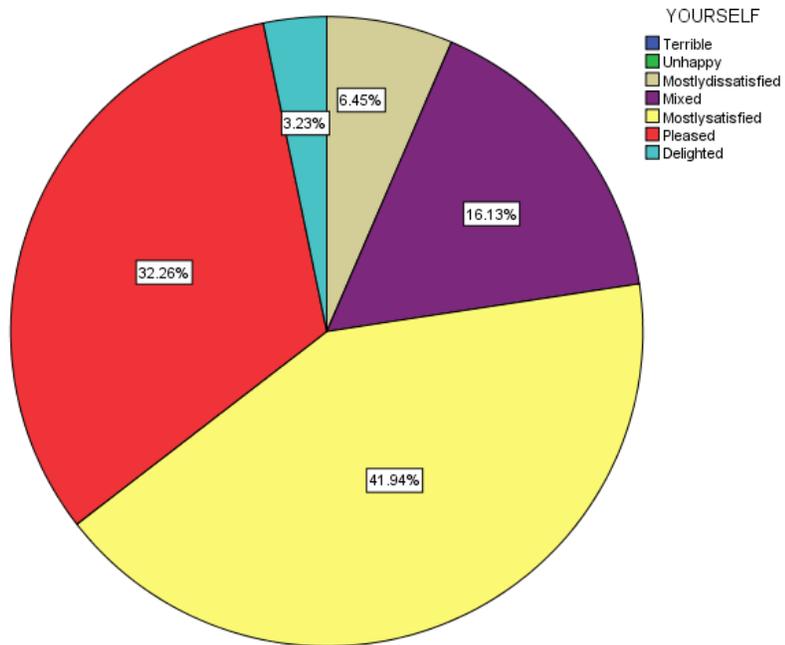


Satisfaction with recreation in life:

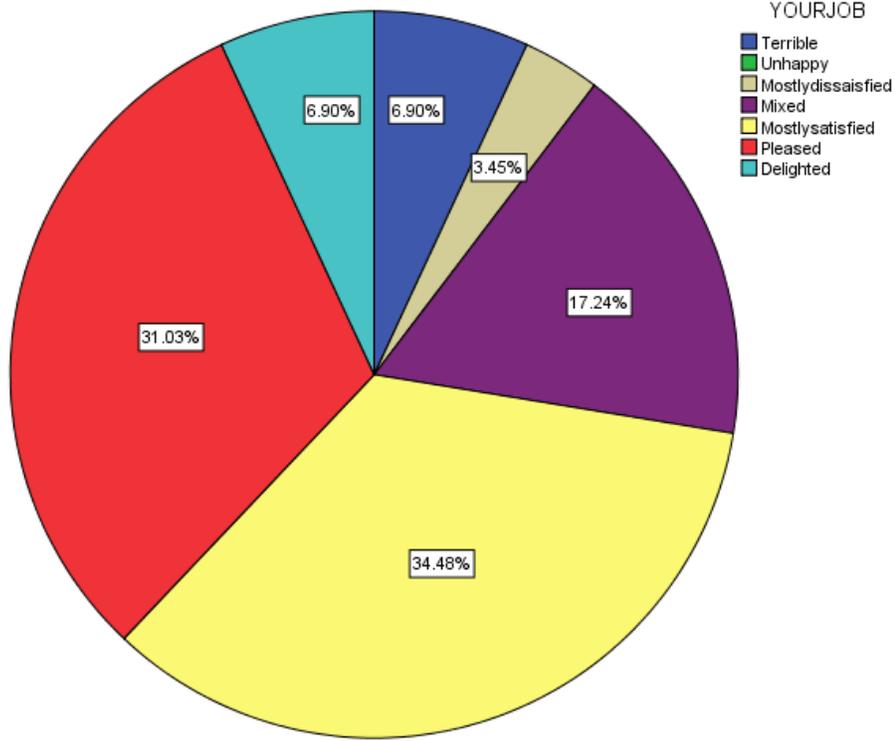


## SECTION V: OVERALL QUALITY OF LIFE

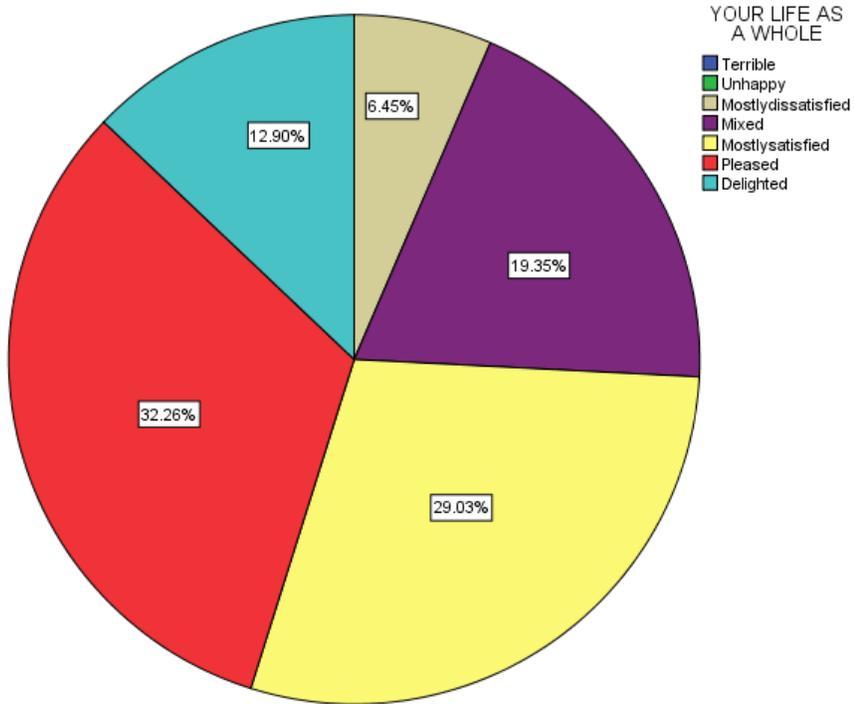
Feelings about Yourself:



Feelings about your work:



Feeling about life as a whole:



**CROSS TABULATIONS:**

**PRESENCE OF PHYSICA PAIN (NECK,BACKACHE,SORE ARMS/LEGS ETC. \* OVERALL MY PHYSICAL WELLBEING IS Crosstabulation**

Count

		OVERALL MY PHYSICAL WELLBEING IS			Total
		Better	Same	Worse	
PRESENCE OF PHYSICA PAIN (NECK,BACKACHE,SORE ARMS/LEGS ETC.	Rarely	10	4	0	14
	Occasionally	10	3	0	13
	Regularly	1	2	1	4
Total		21	9	1	31

**PRESENCE OF PHYSICA PAIN (NECK,BACKACHE,SORE ARMS/LEGS ETC. \* OVERALL MY MENTAL/EMOTIONAL STATE IS Crosstabulation**

Count

		OVERALL MY MENTAL/EMOTIONAL STATE IS			Total
		Better	Same	Worse	
PRESENCE OF PHYSICA PAIN (NECK,BACKACHE,SORE ARMS/LEGS ETC.	Rarely	9	3	2	14
	Occasionally	9	3	1	13
	Regularly	2	1	1	4
Total		20	7	4	31

**PRESENCE OF PHYSICA PAIN (NECK,BACKACHE,SORE ARMS/LEGS ETC. \* OVERALL MY ABILITY TO HANDLE STRESS Crosstabulation**

Count

		OVERALL MY ABILITY TO HANDLE STRESS			Total
		Better	Same	Worse	
PRESENCE OF PHYSICA PAIN (NECK,BACKACHE,SORE ARMS/LEGS ETC.	Rarely	9	5	0	14
	Occasionally	8	4	1	13
	Regularly	4	0	0	4
Total		21	9	1	31

**PRESENCE OF NEGATIVE OR CRITICAL FEELINGS ABOUT YOURSELF \* OVERALL MY MENTAL/EMOTIONAL STATE IS Crosstabulation**

Count

		OVERALL MY MENTAL/EMOTIONAL STATE IS			Total
		Better	Same	Worse	
PRESENCE OF NEGATIVE OR CRITICAL FEELINGS ABOUT YOURSELF	never	2	0	0	2
	rarely	9	3	1	13
	occasionally	6	3	2	11
	regularly	3	0	1	4
	constantly	0	1	0	1
Total		20	7	4	31

**FAMILY RELATED STRESS \* OVERALL MY MENTAL/EMOTIONAL STATE IS Crosstabulation**

Count

		OVERALL MY MENTAL/EMOTIONAL STATE IS			Total
		Better	Same	Worse	
FAMILY RELATED STRESS	none	5	0	0	5
	slight	5	1	1	7
	moderate	5	3	1	9
	pronounced	3	2	2	7
	extensive	2	1	0	3
Total		20	7	4	31

**WORK RALATEDSTRESS \* OVERALL MY ABILITY TO HANDLE STRESS Crosstabulation**

Count

		OVERALL MY ABILITY TO HANDLE STRESS			Total
		Better	Same	Worse	
WORK RALATEDSTRESS	none	3	2	0	5
	slight	3	1	0	4
	moderate	8	4	0	12
	pronounced	6	0	1	7
	extensive	1	2	0	3
Total		21	9	1	31

**EXPERIENCE OF RELAXATION OR EASE/WELLBEING \* OVERALL MY PHYSICAL WELLBEING IS**

**Crosstabulation**

Count

		OVERALL MY PHYSICAL WELLBEING IS			Total
		Better	Same	Worse	
EXPERIENCE OF RELAXATION OR EASE/WELLBEING	Slight	4	3	0	7
	Moderate	8	2	0	10
	Considerable	8	3	1	12
	Extensive	1	1	0	2
Total		21	9	1	31

**LEVEL OF COMASSION/ACCEPTANCE OF OTHERS \* OVERALL MY MENTAL/EMOTIONAL STATE IS**

**Crosstabulation**

Count

		OVERALL MY MENTAL/EMOTIONAL STATE IS			Total
		Better	Same	Worse	
LEVEL OF COMASSION/ACCEPTANCE OF OTHERS	Not at all	0	0	1	1
	Slight	4	2	1	7
	Moderate	10	3	2	15
	Considerabe	5	2	0	7
	Extensive	1	0	0	1
Total		20	7	4	31

**TIME DEVOTED TO THINGS YOU ENJOY \* OVERALL MY QUALITY OF LIFE IS Crosstabulation**

Count

		OVERALL MY QUALITY OF LIFE IS		Total
		Better	Same	
TIME DEVOTED TO THINGS YOU ENJOY	Slight	4	2	6
	Moderate	4	2	6
	Consilederab	9	3	12
	Extensive	5	0	5
	7.00	1	0	1
Total		23	7	30

## CONCLUSION:

It can be concluded that Class of 2014, B.Sc. Honours Environmental Sciences is generally satisfied with its overall quality of life with most of the respondents enjoying their lives, with optimum balance between life, work and studies.

## RECOMMENDATIONS:

A small range of respondents seemed despaired from life hence, following recommendations are given to improve the overall quality of life:

**Understand the aspects of your life and experiences that most closely connect with the quality of life desired.** Which of your behaviors impact your quality of life? A few decades of research on what correlates most with quality of life gives us categories like the ones listed below with a useful mnemonic of 'PERMA' <sup>[1]</sup> :

- P: Positive emotions: The moments and extended periods we have of different positive moods, including feelings of happiness, gratitude, closeness, confidence, peacefulness and awe-inspired.
- E: Engagement: Periods of time when we are so engaged with the activity we're working on that we have a clarity of focus, time seems less relevant, and we are challenged at a level to which we're attracted. This is frequently associated with 'Eustress', which the positive opposite to distress.
- R: Relationships: The quality of our relationships with others is very highly correlated with our overall quality of life. The strength of our social support structure or 'Personal Safety Net' <sup>[2]</sup> is fundamental to our coping skills and resiliency when facing challenges in our lives. Our relationships are also a primary source of many of the other aspects of quality of life, especially positive emotions.
- M: Meaning: How well our work and other endeavors connect with a "greater purpose" contributes enormously to our self esteem and confidence to continue our efforts. The opposite is a feeling that we are wasting our time on trivial tasks that do not contribute to a greater cause. A sense of meaning is often easier to come by if what we do connects with addressing the needs of a community we care about.
- A: Accomplishment: A sense of accomplishment is closely tied to how well we feel we are able to complete our "to do" lists. But it can also include the simple positive emotion that comes from completing an already-solved problem like a sudoku puzzle, or level of a video game. <sup>[3]</sup>
- H: Health: Not referenced in the original list, but worth including here, is the quality of our physical well-being, including how much pain we're in, how much mobility we have, and how much we can do physically. According to Gallup's research on global well being <sup>[4]</sup>, the quality of

our sleep plays a critical role in overall quality of life - if we aren't getting enough good rest, we are far more likely to be emotionally overwhelmed or otherwise less productive.

**Explore how your mind makes choices.** We make many many choices every day that affect our quality of life, but most of our routines (how we start our day, what we choose to eat) and standard reactions (eating when we're anxious, cursing at other drivers if they frustrate us) are made on autopilot. Analytical thinking and planning is required to measurably change any of our autopilot habits (how we choose our food) or response patterns (how we respond to frustration while driving). Triggering cognitive thinking in time to make better choices is a fundamental skill. For example, if you can feel your emotions starting to take over, you have a limited time window in which you can ask yourself strategic questions and make better choices about what you say or do next.

**Describe your ideal quality of life with those aspects as categories.** What habits do you wish you had? How do you wish you could respond in challenging situations? What would a perfect day include and what would it exclude? Take five minutes now to write up short wish lists with what you'd want in each category.

- Start a gratitude journal or a 'satisfaction index' in your diary as a useful way to keep track of your goals. Make a short list of what you are grateful for in your life within these categories. Regularly quantify your current status within each of the categories/aspects by asking yourself: where are the smallest and biggest gaps?
- Research to help you on your journey. There is a wide range of online sources as well as formal coaching and educational courses. Ask yourself - what have you done in the past to help reduce those gaps? What have others done?
- **Brainstorm** your list of specific goals that, if successfully completed, would help you close those quality of life gaps.

**convert your goals into SMART goals:** SMART is a helpful guideline to be able to make your goals easier to see through. **S**pecific, **M**easurable, **A**ttainable, **R**elevant, **T**ime-bound.

- Experiment with options for making progress on those goals. What triggers or prompts will help you remember to follow through on your intentions? Consider focusing on the easiest to complete quickly <sup>[5]</sup> to get momentum going on your use of these steps to improving your life.

**Collaborate with others in your experiments.** If you want to change a frequent daily habit, like eating healthier or exercising, partnering with people around you makes it easier to succeed. This becomes critical if their behaviors affect yours and vice versa - work together to design experiments you can try together. <sup>[6]</sup>

- For example, one of the easiest ways to eat healthier at home is to reduce the availability of unhealthy food in the home. The choice comes earlier - when food is being purchased - if you're at a grocery store, you can reduce the temptations of unhealthy food by sticking to the perimeter aisles unless there's something you need down one of the center aisles.

**Evaluate the results of your experiments.** Consider using a daily journal to capture your intentions for the day in the first part of the morning, then reviewing and reflecting on the results at the end of the day, and capturing those ideas which can be used to improve results the 'next time around'. If you're collaborating with a partner, make time to review results together. As you fall asleep and drift into an alpha state of consciousness, you may find your mind more capable of epiphanies on how to approach your goals in more productive ways.

**Plan for productive failure.** Experimenting with change doesn't mean you have to stick with everything you do. Figuring out what doesn't work is a huge part of figuring out what does work. <sup>[7][8]</sup>

#### References:

1. <http://www.authentic happiness.sas.upenn.edu/Default.aspx> Flourish
2. <http://www.personalsafetynets.com/>
3. [http://www.ted.com/talks/jane\\_mcgonigal\\_gaming\\_can\\_make\\_a\\_better\\_world.html](http://www.ted.com/talks/jane_mcgonigal_gaming_can_make_a_better_world.html)
4. <http://www.gallup.com/poll/wellbeing.aspx>
5. <http://hbr.org/2011/05/the-power-of-small-wins/ar/1>
6. <http://www.techopedia.com/definition/28410/do-it-with-others-diwo>
7. <http://ed.ted.com/on/myNbnIFE>
8. <http://www.youtube.com/watch?v=4KoPYF Xu-8w>

# APPENDIX A:

## Health, Wellness & Quality of Life Questionnaire

Answer each of the questions below by putting a circle around the number that **best** represents you at this time.

Case Number: \_\_\_\_\_

### I. Physical State

Date: \_\_\_\_\_

Rate the following questions with respect to frequency:

	Never	Rarely	Occasionally	Regularly	Constantly
1. Presence of physical pain (neck/back ache, sore arms/legs, etc.)	1	2	3	4	5
2. Feeling of tension or stiffness or lack of flexibility in your spine.	1	2	3	4	5
3. Incidence of fatigue or low energy.	1	2	3	4	5
4. Incidence of colds and flu.	1	2	3	4	5
5. Incidence of headaches (of any kind).	1	2	3	4	5
6. Incidence of nausea or constipation.	1	2	3	4	5
7. Incidence of menstrual discomfort.	1	2	3	4	5
8. Incidence of allergies or skin rashes.	1	2	3	4	5
9. Incidence of dizziness or light-headedness.	1	2	3	4	5
10. Incidence of accidents or near accidents or falling or tripping.	1	2	3	4	5

### II. Mental/Emotional State

Rate the following questions with respect to frequency:

	Never	Rarely	Occasionally	Regularly	Constantly
1. If pain is present, how distressed are you about it?	1	2	3	4	5
2. Presence of negative or critical feelings about your self.	1	2	3	4	5
3. Experience of moodiness or temper or angry outbursts.	1	2	3	4	5
4. Experience of depression or lack of interest.	1	2	3	4	5
5. Being overly worried about small things.	1	2	3	4	5
6. Difficulty thinking or concentrating or indecisiveness.	1	2	3	4	5
7. Experience of vague fears or anxiety.	1	2	3	4	5
8. Being fidgety or restless; difficulty sitting still.	1	2	3	4	5
9. Difficulty falling or staying asleep.	1	2	3	4	5
10. Experience of recurring thoughts or dreams.	1	2	3	4	5

### III. Stress Evaluation

Evaluate your stress relative to the following:

	None	Slight	Moderate	Personal	Extensive
1. Family.	1	2	3	4	5
2. Significant Relationship.	1	2	3	4	5
3. Health.	1	2	3	4	5
4. Finances.	1	2	3	4	5
5. Sex/Life.	1	2	3	4	5
6. Work.	1	2	3	4	5
7. School.	1	2	3	4	5
8. General well-being.	1	2	3	4	5
9. Emotional well-being.	1	2	3	4	5
10. Coping with daily problems.	1	2	3	4	5

#### IV. Life Enjoyment

Rate the following on a degree scale of 1-5:

	Not at all	Slight	Moderate	Considerable	Extensive
1. Openness to guidance to your "inner voice/feelings."	1	2	3	4	5
2. Experience of relaxation or ease or well-being.	1	2	3	4	5
3. Presence of positive feelings about yourself.	1	2	3	4	5
4. Interest in maintaining a healthy lifestyle (e.g., diet, fitness, etc).	1	2	3	4	5
5. Feeling of being open and aware/connected when relating to others.	1	2	3	4	5
6. Level of confidence in your ability to deal with adversity.	1	2	3	4	5
7. Level of compassion for, and acceptance of, others.	1	2	3	4	5
8. Satisfaction with the level of recreation in your life.	1	2	3	4	5
9. Incidence of feelings of joy or happiness.	1	2	3	4	5
10. Level of satisfaction with your sex life.	1	2	3	4	5
11. Time devoted to things you enjoy.	1	2	3	4	5

#### V. Overall Quality of Life

Evaluate your feelings relative to the quality of life:

	Terrible	Unhappy	Really Dissatisfied	Neutral	Really Satisfied	Happy	Delighted
1. Your personal life.	1	2	3	4	5	6	7
2. Your wife/husband or "significant other".	1	2	3	4	5	6	7
3. Your romantic life.	1	2	3	4	5	6	7
4. Your job.	1	2	3	4	5	6	7
5. Your co-workers.	1	2	3	4	5	6	7
6. The actual work you do.	1	2	3	4	5	6	7
7. The handling of problems in your life.	1	2	3	4	5	6	7
8. What you are actually accomplishing in your life.	1	2	3	4	5	6	7
9. Your physical appearance - the way you look to others.	1	2	3	4	5	6	7
10. Your self.	1	2	3	4	5	6	7
11. Your ability to adjust to change in your life.	1	2	3	4	5	6	7
12. Your life as a whole.	1	2	3	4	5	6	7
13. Overall contentment with your life.	1	2	3	4	5	6	7
14. The extent to which your life has been as you want it.	1	2	3	4	5	6	7

#### VI. Overall Impressions

Answer each of the questions with respect to when you first came to this office:

	Better	Same	Worse
1. Overall my physical well-being is:	1	2	3
2. Overall my mental/emotional state is:	1	2	3
3. Overall my ability to handle stress is:	1	2	3
4. Overall my enjoyment of life is:	1	2	3
5. Overall my quality of life is:	1	2	3