

# A Mediation Analysis on Social Support to the Effect of Interdependent Happiness in Mental Health Concerns

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## Abstract

The concept of "interdependent happiness", which is happiness obtained by achieving interdependent goals, which is more common in interdependent daily life. This happiness can somehow provide by the people around the individual or their social supports. This study is a descriptive-mediation analysis approach that aimed to explore effect of interdependent happiness to mental health concerns such as depressive and anxious moods mediated by social support. Three-hundred participants from the BS Psychology program of LSPU Sta. Cruz and LCBA were the participants of this study. The result of the study suggests the interdependent happiness affects the student's social support. Social support and interdependent happiness have an alleviating effect to depressive and anxious moods. Social support demonstrates its mediation effect on the interdependent happiness to the mental health concerns of the students in participants. Workbook of activities in facilitating connections is recommended as part of the output of the study.

*Keywords: positive psychology, mental health, depression, anxiety, social support*

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## 1. INTRODUCTION

Positive psychology is the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions. What kind of impact does happiness have on people, particularly students? Individuals in collectivist societies are more prone to advocate for a socially oriented definition of happiness. Previous research on the effects of happiness and well-being, on the other hand, has mostly focused on how a person's personal definition of happiness influenced beneficial scholastic and psychological outcomes. Happiness is defined by a number of variables. The concept of being optimistic, as defined by positive psychology, is somewhat related with the concept of happiness. Positive emotions as joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe and love play a central role in the treatment and can function as a kind of protection against stress, anxiety and depression. Happiness is a state of mind in which a person appreciates life, whether or not they have someone to cling to; even if they only have a single penny in their pocket; living a contented and satisfied existence. The happy and joyful men and women who are focused, enthusiastic, optimistic, and not depressed are unaffected by the chaotic environment we live in. Relevant to the RA 11036 or also known as The Philippine Mental Health Act of 2017 has created a framework for the management and delivery of hospital- and community-based mental healthcare in the nation, with explicit legislative provisions to ensure the rights of individuals receiving mental healthcare and treatment are maintained.

Depression and other mental health issues such as worry and despair thrive in the absence of happiness. Loss of pleasant mood, lack of involvement, and lack of sensed meaning are common signs of depression and anxiety. Psychology has done a good job of treating a variety of mental health issues, but it has fallen far short of maximizing human potential, abilities, and happiness. Positive psychology arose as a result of this. It aims to reassert the importance of positive aspects of human nature, such as happiness, virtues, personal strengths, and altruism, within the study of psychology.

Traditional ways to working with children and families in schools focus on difficulties and disruptions, which is especially important in this time of epidemic when mental health issues affect the most vulnerable. Due to the necessity for a qualified or licensed therapist to direct therapy, therapeutic therapies are costly. Exploration of positive psychology's integration into school psychology offers the concept of positive psychology as a solution to modify this focus.

Today's students are at risk of developing depression and other mental health problems. They are exposed to the stresses that life throws upon them. However, the researcher intends to provide a meaningful intervention through his study that can assist teenagers in the community in discovering their intrapersonal talents to help them cope with depression. This isn't simply a motivator and a cure for the students who will be a part of this research. Due to this concerns, Lyubomirsky (2002) stated the happiness have this 'undoing effect' to negative emotions and concerns towards mental health. This could

be a game-changer in terms of addressing depression and other mental health concern's undiscovered fundamental cause and 1250 proving the efficacy as an alternative to therapy and proposed by Positive Psychology, the newest discipline of psychology.

Happiness' definition must be broadened to include not only the "individual/subjective" aspect of happiness, but also the study of interdependent happiness led to the discovery of "relationship-based happiness". The concept of "interdependent happiness", which is happiness obtained by achieving interdependent goals, which is more common in interdependent daily life. Interdependent happiness is a relationship-oriented state of harmony in which a certain balance between the self and significant others is achieved. This happiness can somehow provide by the people around the individual or their social supports. It is quite crucial nowadays due to the pandemic and everybody needs someone to lean on. If one's happiness is likely to elicit another's unhappiness by instilling negative emotions like envy or jealousy, one's own happiness is discounted. Given with this notion, this paper will further investigate if this interrelation happiness can alleviate mental health concerns of students amidst of this pandemic.

## 1.1 Statement of the Problem

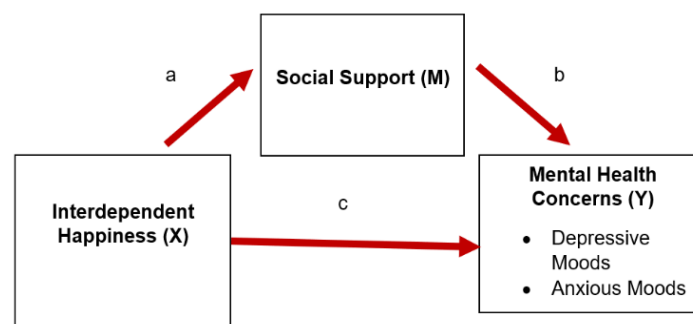
This study aimed to determine the effect of interdependent happiness to the depressive and anxious moods mediated by social support. Specifically, this answered the following questions:

1. What is the perceived level of the student's interdependent happiness?
2. What is the perceived level of social support of the students?
3. What is the degree of the mental health concerns in terms of:
  - 3.1 Depressive Moods
  - 3.2 Anxious Moods
4. Does interdependent happiness have significant effect on the social support of the students?
5. Do interdependent happiness and social support have significant effect to the:
  - 5.1 depressive moods
  - 5.2 anxious moods
6. Do interdependent happiness and social support have significant effect on the anxious Moods of the students?
7. Does social support mediate the effect of interdependent happiness to the mental health concerns?

## 2. METHODOLOGY

### 2.1 Research Design

To gather information about current existing conditions in the field of study of choice, a quantitative approach, specifically a descriptive-mediation analysis research method, was developed. Mediation analyses are used to investigate the underlying mechanism or process by which one variable influences another variable via a mediator variable in order to better understand a known relationship. A variable is a mediator between a predictor and an outcome if the predictor variable first has an effect on the mediator variable, and this in turn influences the outcome variable.



**Figure 1. Model Diagram of Mediation Analysis**

**Model Diagram of Mediation Analysis.** Path a = the effect of interdependent happiness to the social support; Path b = the effect of social support to the depressive moods; Path c = the effect interdependent happiness to the depressive moods with the mediator in the model

The researcher specifically selected 300 college students using the Beck Depression Inventory, Interpersonal Support Evaluation List and the General Anxiety Disorder-7. The participants were students of Laguna State Polytechnic University Main Campus and Laguna College of Business and Arts.

### 2.3 Research Instrument

In accumulating data, the researcher adapted four standardized self-report questionnaires. The questionnaires are composed of measuring scale in relevance to a number of statements that may or may not apply to the respondent given that they are rating themselves as they see themselves in the present time not as they wish to be in the future. A statement notifying the respondents that there are no right, or wrong answers are given with the directions.

In determining the level of depression among the respondents in this study, an inventory test was used, the Beck Depression Inventory or BDI. It has 21 items, each of which describes four levels of a given symptom of depression. The respondent was asked to indicate which of the description best fits how he or she has been feeling in the past week or more. The items are scored to indicate the level of the depressive Moods. BDI is extremely quick and easy to administer and has good test-retest reliability. Hence, it is widely used, especially in research on depression. A persistent score of 17 or above indicates that the respondent may need medical treatment as listed in American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (Beck, AT, Steer RA. Internal Consistencies of the Original and Revised Beck Depression Inventory. *J Clin Psychol.* 1984 Nov; 40(6):1365-7).

The following chart indicates the relationship between total score and level of depression.

Classification	Total Score	Level of Depression
Low	1- 10	These ups and downs are considered normal
	11 – 16	Mild mood disturbance
Moderate	17 – 20	Borderline clinical depression
	21 – 30	Moderate depression
Significant	31 – 40	Severe depressions
	Over 40	Extreme depression

The General Anxiety Disorder-7 (GAD-7) is a 7-item self-administered instrument that uses some of the DSM-V criteria for GAD (General Anxiety Disorder) to identify possible cases of GAD while also measuring anxiety symptom severity. It can also be used to screen for panic, social anxiety, and PTSD. It is designed to be used quickly and effectively in a primary care setting.

This is calculated by assigning scores of 0, 1, 2, and 3 to the response categories, respectively, of “not at all,” “several days,” “more than half the days,” and “nearly every day.” GAD-7 total score for the seven items ranges from 0 to 21.

0–4: minimal anxiety  
 5–9: mild anxiety  
 10–14: moderate anxiety  
 15–21: severe anxiety

In measuring the interdependent happiness, the researcher used the Interdependent Happiness Scale (HIS) by Hitokoto & Uchida. It showed HIS to be 1) valid across Japan, U.S.A., Germany, and Korea, 2) correlated with theoretically related measures, and 3) the degree to which it is related to general well-being is stronger in Asian countries than in Western countries, and also stronger in rural areas than in urban areas within Japan (Hitokoto & Uchida, 2014). Lastly to gauge the perceived level of social support of the students, the researcher used the Interpersonal Support Evaluation List by Cohen and Hoberman (1986). A 12-item measure of perceptions of social support. This measure is a shortened version of the original ISEL (40 items; Cohen & Hoberman, 1983). This questionnaire has three different subscales designed to measure three dimensions of perceived social support.

### 2.4 Statistical Treatment

The table summarizes the statistical tools used to analyze and interpret the data. The statistical methods were the following:

Variable	Statistical Tool or Test	
<b>Respondents' Level of Interdependent Happiness</b>		
Interpersonal Harmony Ordinariness Quiescence	Weighted Mean, Standard Deviation	Summary/Descriptive Statistics only
<b>Respondents' Level of Social Support</b>		
Interpersonal Support	Weighted Mean, Standard Deviation	Summary/Descriptive Statistics only
<b>Respondents' Level of Depressive Moods</b>		
Depressive Moods	Weighted Mean, Standard Deviation	Summary/Descriptive Statistics only
<b>Respondents' Level of Anxious Moods</b>		
Anxious Moods	Weighted Mean, Standard Deviation	Summary/Descriptive Statistics only
<b>Suggested Analysis/Objective</b>		
Effect of Interdependent Happiness to Social Support (mediator)	Simple Linear Regression	Inferential Statistics
Effect of Interdependent Happiness and Social Support (mediator) to the Mental Health Concerns in terms of Depressive and Anxious Moods	Multiple Regression	Inferential Statistics
Mediation Effect/Analysis	Sobel Test	Inferential Statistics

**Table 1:** Statistical Plan for Data Analysis

The table shown above is the summarized table of what the researcher used to analyze the data statistically. The analysis was separated in two aspects; descriptive and inferential statistics. As for the demographics of the respondents the researcher used a frequency distribution and percentage. Level of interdependent happiness, social support, anxious and depressive moods the researcher used mean and standard deviation. For the test of effects among variables, the research used multiple regression and Sobel test.

### 3. RESULTS AND DISCUSSION

#### Level of Interdependent Happiness

**Table 2.** Level of Interdependent Happiness

Statement	MEAN	SD	REMARKS
I believe that I and those around me are happy.	3.69	0.84	Strongly Agree
Although it is quite average, I live a stable life.	3.93	0.95	Strongly Agree
I do not have any major concerns or anxieties.	2.68	1.16	Somewhat Agree
I feel that I am being positively evaluated by others around me.	3.63	0.96	Strongly Agree
I make significant others happy.	4.04	0.78	Strongly Agree
I can do what I want without causing problems for other people.	3.52	1.09	Strongly Agree
I believe that my life is just as happy as that of others around me.	3.09	1.16	Somewhat Agree
I believe I have achieved the same standard of living as those around me.	3.07	1.06	Somewhat Agree
I generally believe that things are going well for me in its own way as they are for others around me.	3.73	1.00	Strongly Agree
<b>Overall</b>	<b>3.49</b>	<b>1.09</b>	<b>High Degree of Happiness</b>

Note:

Range  
4.20 – 5.00

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Adjectival Response  
Strongly Agree

Descriptions  
= Very High Degree of Happiness

3.40 – 4.19	-	Somewhat Agree	= High Degree of Happiness
2.60 – 3.39	-	Neither Agree/Disagree	= Moderate Degree of Happiness
1.80 – 2.59	-	Somewhat Disagree	= Low Degree of Happiness
1.00 – 1.79	-	Strongly Disagree	= Very Low Degree of Happiness

Table 2 presents the degree of interdependent happiness accordance to the responses of three hundred (300) respondents.

The result indicates that the interdependent happiness is "MODERATE" in items such as I do not have any major concerns or anxieties, with the mean score of 2.68 (SD = 1.16); item I believe that my life is just as happy as that of others around me, with the mean of 3.09 (SD = 1.16); and lastly, item I believe I have achieved the same standard of living as those around me obtained a mean of 3.07 (SD = 1.00)

On other hand, it scored "VERY HIGH" on succeeding items such as I believe that I and those around me are happy, with the mean of 3.36 (SD = 0.84); Although it is quite average, I live a stable life, with the mean of 3.93 (SD = 0.95); I feel that I am being positively evaluated by others around me with the mean of 3.63 (SD = 0.96); I make significant others happy, with the mean of 4.04 (SD = 0.78); I can do what I want without causing problems for other people, with the mean of 3.52 (SD = 1.09); and lastly I generally believe that things are going well for me in its own way as they are for others around me, with the mean of 3.26 (SD = 1.00)

Younger students, according to the survey, are happier. This is consistent with the widely accepted U-shaped relationship between happiness and age, which states that happiness declines with age before reaching middle age (Galamos et. al, 2020)

According to the findings of Moghadam and colleague (2016), contact with family and the relationship with parents were significantly related to student happiness. This is consistent with the widely accepted attachment theory, according to which individuals must communicate meaningfully with one another in order to live a happy life.

### Level of Social Support

**Table 3.** Level of Social Support

Statement	MEAN	SD	REMARKS
If I wanted to go on a trip for a day (for example, to the country or mountains), I would have a hard time finding someone to go with me.	2.25	0.96	Poor
I feel that there is no one I can share my most private worries and fears with.	2.11	1.09	Poor
If I were sick, I could easily find someone to help me with my daily chores.	2.85	0.91	Excellent
There is someone I can turn to for advice about handling problems with my family.	3.06	1.01	Excellent
If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.	2.74	0.98	Excellent
When I need suggestions on how to deal with a personal problem, I know someone I can turn to.	3.22	0.88	Excellent
I don't often get invited to do things with others.	2.22	0.90	Poor
If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).	2.42	1.06	Poor
If I wanted to have lunch with someone, I could easily find someone to join me.	3.06	0.85	Excellent
If I was stranded 10 miles from home, there is someone I could call who could come and get me	3.03	0.87	Excellent
If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.	2.28	0.93	Poor
<b>Overall</b>	<b>2.61</b>	<b>0.95</b>	<b>High Degree of Social Support</b>

**Note:**

Range	Adjectival Response	Descriptions
3.26 – 4.00	- Excellent	= Very High Degree of Social Support
2.51 – 3.25	- Good	= High Degree of Social Support
1.76 – 2.50	- Poor	= Low Degree of Social Support
1.00 – 1.75	- Very Poor	= Very Low Degree of Social Support

Table 3 presents the degree of social/interpersonal support accordance to the responses of three hundred (300) respondents.

The result indicates that the interdependent happiness is "LOW" in items such as If I wanted to go on a trip for a day (for example, to the country or mountains), I would have a hard time finding someone to go with me, with the mean score of 2.25 (SD = 0.96); I feel that there is no one I can share my most private worries and fears with., with the mean of 2.11 (SD = 1.09); I don't often get invited to do things with others obtained a mean of 2.22 (SD = 0.90); If I had to go out of town

for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, 1254 etc.) with mean of 2.42 (SD = 1.06) and lastly, item If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it obtained a mean of 2.28 (SD = 0.93)

On other hand, it scored “HIGH” on succeeding items such as If I were sick, I could easily find someone to help me with my daily chores, with the mean of 2.85 (SD = 0.91); There is someone I can turn to for advice about handling problems with my family, with the mean of 3.06 (SD = 1.01); If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me with the mean of 2.74 (SD = 0.98); When I need suggestions on how to deal with a personal problem, I know someone I can turn to, with the mean of 3.22 (SD = 0.88); If I wanted to have lunch with someone, I could easily find someone to join me, with the mean of 3.06 (SD = 0.86); and lastly If I was stranded 10 miles from home, there is someone I could call who could come and get me, with the mean of 3.03 (SD = 0.87).

People's perceptions of themselves and their surroundings are influenced by their perceived social support. According to a meta-analysis, not having a network of meaningful relationships in life predicts mortality more than smoking or physical activity (Holt-Lunstad and Smith, 2012).

**Level of Depressive Moods (Beck’s Depression Inventory)**

**Table 4.** Degree of Depressive Moods

Inventory	MEAN	SD	REMARKS
Beck’s Depression Inventory 1	1.79	0.80	Low Degree of Depressive Moods
Beck’s Depression Inventory 2	1.76	0.94	Low Degree of Depressive Moods
Beck’s Depression Inventory 3	1.89	0.87	Low Degree of Depressive Moods
Beck’s Depression Inventory 4	1.78	0.87	Low Degree of Depressive Moods
Beck’s Depression Inventory 5	2.04	0.78	Low Degree of Depressive Moods
Beck’s Depression Inventory 6	2.11	1.14	Low Degree of Depressive Moods
Beck’s Depression Inventory 7	1.80	0.79	Low Degree of Depressive Moods
Beck’s Depression Inventory 8	2.11	0.90	Low Degree of Depressive Moods
Beck’s Depression Inventory 9	1.57	0.72	Low Degree of Depressive Moods
Beck’s Depression Inventory 10	2.17	1.23	Low Degree of Depressive Moods
Beck’s Depression Inventory 11	2.08	0.92	Low Degree of Depressive Moods
Beck’s Depression Inventory 12	2.06	0.85	Low Degree of Depressive Moods
Beck’s Depression Inventory 13	1.83	0.94	Low Degree of Depressive Moods
Beck’s Depression Inventory 14	2.24	1.08	Low Degree of Depressive Moods
Beck’s Depression Inventory 15	2.89	0.67	High Degree of Depressive Moods
Beck’s Depression Inventory 16	1.87	0.87	Low Degree of Depressive Moods
Beck’s Depression Inventory 17	2.24	0.87	Low Degree of Depressive Moods
Beck’s Depression Inventory 18	1.65	0.74	Low Degree of Depressive Moods
Beck’s Depression Inventory 19	1.30	0.61	Low Degree of Depressive Moods
Beck’s Depression Inventory 20	2.00	0.95	Low Degree of Depressive Moods
Beck’s Depression Inventory 21	1.71	0.98	Low Degree of Depressive Moods
<b>Overall</b>	<b>1.96</b>	<b>0.88</b>	<b>Low Degree of Depressive Moods</b>

Note:

Range	Descriptions
3.26 – 4.00	= Very High Degree of Depressive Moods
2.51 – 3.25	= High Degree of Depressive Moods
1.76 – 2.50	= Low Degree of Depressive Moods
1.00 – 1.75	= Very Low Degree of Depressive Moods

Table 4 presents the degree of depressive moods accordance to the responses of three hundred (300) respondents. The result indicates that majority of the respondents have “LOW” interpretation in depressive Moods with ranging means of 1.79 to 2.24; SD ranges from 0.61 to 0.80. On other hand, it scored “HIGH” on item with the mean of 2.89 (SD = 0.67)

**Level of Anxious Moods (GAD-7)**

**Table 5.** Degree of Anxious Moods

Statement	MEAN	SD	REMARKS
Feeling nervous, anxious, or on edge	2.49	0.91	Low Degree of Anxious Moods
Not being able to stop or control worrying	2.56	0.97	High Degree of Anxious Moods
Worrying too much about different things	2.81	0.99	High Degree of Anxious Moods
Trouble relaxing	2.43	0.99	Low Degree of Anxious Moods
Being so restless that it is hard to sit still	2.17	0.99	Low Degree of Anxious Moods
Becoming easily annoyed or irritable	2.74	1.00	High Degree of Anxious Moods
Feeling afraid, as if something awful might happen	2.77	1.04	High Degree of Anxious Moods
<b>Overall</b>	<b>2.57</b>	<b>0.98</b>	<b>High Degree of Anxious Moods</b>

Note:

Range		Descriptions
3.26 – 4.00	-	= Very High Degree of Anxious Moods
2.51 – 3.25	-	= High Degree of Anxious Moods
1.76 – 2.50	-	= Low Degree of Anxious Moods
1.00 – 1.75	-	= Very Low Degree of Anxious Moods

Table 5 shows the degree of anxious Moods accordance to the responses of three hundred (300) respondents.

The result indicates that the anxious Moods is "HIGH" in items such as not being able to stop or control worrying, with the mean score of 2.56 (SD = 0.97); item worrying too much about different things, with the mean of 2.81 (SD = 0.99); becoming easily annoyed or irritable, obtained a mean of 2.74 (SD = 1.00) and lastly, feeling afraid, as if something awful might happen obtained a mean of 2.77 (SD = 1.04)

On other hand, it scored "LOW" on succeeding items such as Feeling nervous, anxious, or on edge, with the mean of 2.49 (SD = 0.91); Trouble relaxing, with the mean of 2.43 (SD = 0.99); and lastly being so restless that it is hard to sit still, with the mean of 2.17 (SD = 0.99)

**Table 6. Effect of Interdependent Happiness and Social Support of BS Psychology Students**

Dependent Variable – Social Support						
Model	Estimate	SE	t	p	Decision	Remarks
(Constant)	3.557	0.301	11.82	< .001		
Interdependent Happiness	0.476	0.058	8.267	< .001	Reject	Significant
R Value	0.605		F Value	46.467		
R Squared	0.366		p value	< .001		

Table 6 shows a linear regression analysis on the association of interdependent happiness and social support of the respondents. It is hypothesized that the interdependent happiness does not associate with the social support. The results showed that there is a significant effect on social support by the interdependent happiness,  $R = 0.605, p < 0.001$ . Results show that the 36.60% of the variance explained by interdependent happiness,  $F(1,298) = 46.467, p < 0.001$ . Thus all in all, this result of the study revealed that interdependent happiness significantly associates with social support of the respondents.

In a study conducted by Motamedi and colleagues (2008) Individuals who received favorable social support are expected to have a more positive outlook on life, a higher level of satisfaction, and better functioning than those who do not.

The findings revealed a significant and positive relationship between social support dimension (informational, appraisal, and so on) and happiness; that is, people who received more social support were happier (Keykhosravi et.al, 2015).

**Table 7. Effect of Interdependent Happiness and Social Support (mediator) to the Depressive Moods among students**

Dependent Variable – Depressive Moods						
Model	Estimate	SE	t	p	Decision	Remarks
(Constant)	36.12	8.37	4.32	< .001		
Interdependent Happiness	-6.82	1.23	-5.55	< .001	Reject	Significant
Social Support	-2.780	2.61	1.06	< .001	Reject	Significant
R Value	0.461		F Value	16.5		
R Squared	0.212		p value	< .001		

Table 7 shows a multiple linear regression analysis on the effect of interdependent happiness and social support to the depressive Moods of the students. It is hypothesized that the interdependent happiness and social support does not have effect on the depressive moods. The results showed that interdependent happiness and social support significantly affects the depressive Moods of the students,  $R = 0.461, p < 0.001$ . Results show that the 21.2% of the variance explained by interdependent happiness and social support,  $F(1,298) = 16.50, p < 0.001$ .

Research evidence indicates a significant negative relationship between social support and psychological disorders including depression and stress (Alimoradi, Asadi, Asadbejgy, & Asadnia, 2014; Bukhari & Afzal, 2017; Kugbey, 2015).

**Table 8. Effect of Interdependent Happiness and Social Support (mediator) to the Anxious Moods among students** 1256

Dependent Variable – Anxious Moods						
Model	Estimate	SE	t	p	Decision	Remarks
(Constant)	26.158	4.615	5.668	< .001		
Interdependent Happiness	-2.185	0.678	-3.224	0.002	Reject	Significant
Social Support	-0.334	1.441	-0.232	< .001	Reject	Significant
R Value	0.514		F Value	5.20		
R Squared	0.264		p value	< .001		

Table 8 shows a multiple linear regression analysis on the effect of interdependent happiness and social support to the anxious moods of the students. It is hypothesized that the interdependent happiness and social support does not have effect on the anxious moods. The results showed that interdependent happiness and social support significantly affects the anxious mood of the students,  $R = 0.514$ ,  $p < 0.001$ . Results show that the 26.4% of the variance explained by interdependent happiness and social support,  $F(1,298) = 5.20$ ,  $p < 0.001$ .

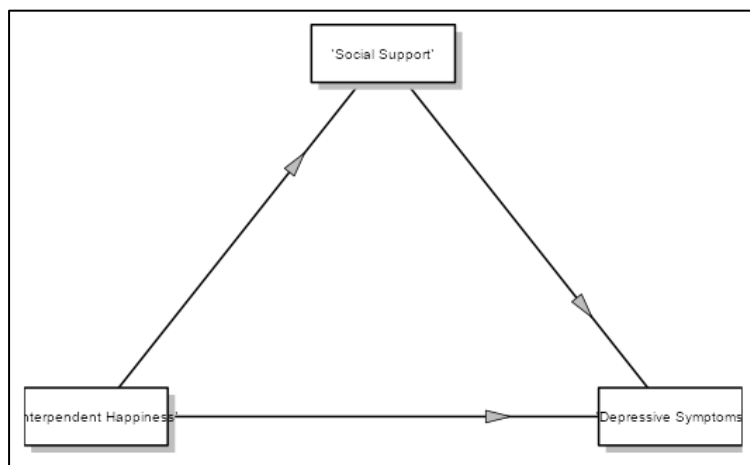
Through three dimensions: warmth, behavioral control, and psychological autonomy-granting, social support promotes positive self-concepts and social skills, responsibility and competence, and impulse control, resulting in a low level of psychological problems such as depression and anxiety (Oswald et. al, 1994)

**Table 9. Mediation Analysis on Social Support thru Interdependent Happiness to the Depressive Moods of the Students**

Type	Effect	Estimate	SE	p	Analysis
Indirect	Interdependent Happiness $\Rightarrow$ Social Support $\Rightarrow$ Depressive Moods	-0.089	0.143	< .001	Significant
Component	Interdependent Happiness $\Rightarrow$ Social Support	-0.032	0.042	< .001	Significant
	Social Support $\Rightarrow$ Depressive Moods	2.776	2.581	< .001	Significant
Direct	Interdependent Happiness $\Rightarrow$ Depressive Moods	-6.822	1.214	< .001	Significant
Total	Interdependent Happiness $\Rightarrow$ Depressive Moods	-6.911	1.222	< .001	Significant

Mediation analysis via Sobel Test was utilized to determine if social support mediates the effect of interdependent happiness to the depressive moods of the students. The analysis reveal that the interdependent happiness has significant direct inverse effect on depressive moods ( $\beta = -6.822$ ,  $p < 0.001$ ). Result also showed that social support mediates the effect of interdependent happiness to the depressive moods ( $\beta = -0.09$ ,  $p < 0.001$ ). This means that interdependent happiness is directly and indirectly related to depressive moods of the students by mediation of social support. This suggests that students who have interdependent happiness experienced through their social support which, in turn, can lower down their depressive moods.

**Figure 3. Model Diagram of Mediation Analysis on the Depressive Mood**



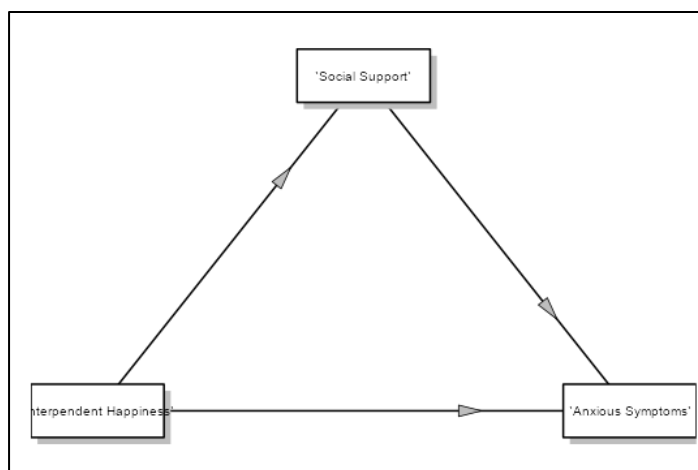
A graphical representation of how interdependent happiness mediated with social support in the effects of alleviation of depressive symptoms.

Such result of this study adheres to the same study conducted by Camara & Padilla, (2017); Dafaalla et al., (2016) and Kugbey, (2015) by making people feel valued and connected to their social networks, social support improves mental health and quality of life. This sense of support is linked to lower levels of mental health problems, acting as a protective factor against depression. Social support from family and friends is a predictor and significantly correlates with depressive symptoms.

**Table 10. Mediation Analysis on Social Support thru Interdependent Happiness to the Anxious Moods of the Students**

Type	Effect	Estimate	SE	p
Indirect	Interdependent Happiness ⇒ Social Support ⇒ Anxious Moods	0.0107	0.048	< .001
Component	Interdependent Happiness ⇒ Social Support	-0.0321	0.042	< .001
	Social Support ⇒ Anxious Moods	-0.3342	1.423	< .001
Direct	Interdependent Happiness ⇒ Anxious Moods	-2.1849	0.670	< .001
Total	Interdependent Happiness ⇒ Anxious Moods	-2.1742	0.671	< .001

Mediation analysis via Sobel Test was utilized to determine if social support mediates the effect of interdependent happiness to the anxious moods of the students. The analysis reveal that the interdependent happiness has significant direct inverse effect on anxious moods ( $\beta = -2.1849, p < 0.001$ ). Result also showed that social support mediates the effect of interdependent happiness to the anxious moods ( $\beta = 0.01, p < 0.001$ ). This means that interdependent happiness is directly and indirectly related to anxious moods of the students by mediation of social support. This suggests that students who have interdependent happiness experienced through their social support which, in turn, can lower down their anxious moods.

**Figure 4. Model Diagram of Mediation Analysis on the Anxious Mood**

A graphical representation of how interdependent happiness mediated with social support in the effects of alleviation of anxious moods.

Previous studies have linked a lack of social support to depression, anxiety, attention issues, social problems, somatic complaints, and low self-esteem. Social support appears to be important because it acts as a buffer against life stressors and promotes health and wellness (Steese et. al, 2006). Although there are findings about the relationships of these internal and external resources with depression and anxiety, we discovered that few general population studies have been conducted, and there has been little attempt to assess the association of social support and coping styles with depression and anxiety (Vildósola et. al, 2012).

#### 4. CONCLUSION AND RECOMMENDATION

Such conclusion were drawn from the findings. The interdependent happiness of the respondents was said to be in high degree. Social supports of the respondents were found out in high degree as well. The level of depressive moods among respondents was said to be Low. The perceived level of anxious moods among respondents is said to be High as well. The results on the effect of interdependent happiness to the social support of the respondents is said to be statistically significant. Therefore, the null hypothesis was rejected. Results from the effect of the interdependent happiness and social support to the depressive moods manifest significant findings. It is safe to conclude that the null hypothesis was rejected. Significant findings emerge from the effect of interdependent happiness and social support on anxious moods. Therefore, the null hypothesis was rejected. In the mediation analysis, interdependent happiness is directly and indirectly related to students' depressive moods via social support. Therefore, the null hypothesis is rejected.

Intervention to mental health concerns among students through positivity and happiness activity. Refer to the researcher's collective workbook of positive psychology enhancing social support/interpersonal relations to improve well-being of students that will help teachers, administrators and other mental health practitioner. Future researchers may utilize other tools in positive psychology in assessing the optimal being in alleviating mental health concerns in the pandemic. Future research can explore other mental health concerns like burnout, stress, job performance etc. to further assess how positive interaction to people have an effect on their functions.

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