Chapter VI

Phase III- Exploration of the Psycho-social Health Concomitants of Equanimity

Introduction to Chapter VI

The factor analysis identified six dimensions of equanimity - Reduced Hedonic Craving, Tolerance for Distress, Reduced Reactivity, Inter-connectedness, Affective Equipoise and Impartial view. Following the development of the scale of equanimity, the research focused on the study of the psycho-social health concomitants of equanimity.

Emotional reactivity, neuroticism, loneliness, social media addiction, well-being and general health were selected as the psycho-social health concomitants of the study based on the review of the few studies which are available in the literature. This chapter describes the relationship of equanimity with the proposed psycho-social health parameters.

The exploration of the linkages of equanimity with the above variables would also help in establishing the Convergent validity of the developed scale and help in understanding the practical applications of equanimity.

6.1. Objectives of Phase III of the Study:

1. To examine the effect of the socio-demographic variables (gender, age, and level of education) on the various dimensions of equanimity (Reduced Hedonic Craving, Tolerance for Distress, Reduced Reactivity, Inter-connectedness, Affective Equipoise, and Impartial view).

2. To study the relationships between equanimity and its psycho-social health parameters such as emotional reactivity, neuroticism, loneliness, social media addiction, well-being, and general health.

3. To examine how equanimity predicts the various psycho-social health parameters such as emotional reactivity, neuroticism, loneliness, social media addiction, well-being, and general health.

4. To explore the effect of the level of spiritual practices on equanimity

6.2. Operationalization of the Psycho-social Health Concomitants of Equanimity

The psycho-social health variables of the research are operationalized as below:

- ***Emotional Reactivity***: It refers to the activation, intensity, and duration of one's emotional responses for both positive and negative emotions. It is assessed by the 18-item Perth Emotional Reactivity Scale PERS-S (Preece et al., 2018)
- ***Neuroticism***: It is a dimension of personality that consists of traits of anxiety, depressed mood, hostility, self-consciousness, impulsiveness, and feeling vulnerable. Neuroticism is assessed by the Big Five Inventory (John & Srivastava, 1999).
- ***Loneliness***: Loneliness is defined as the difference between desired and actual social contact and is assessed via a six-item scale UCLA Loneliness Scale (ULS-6) by Neto (1992).
- ***Social Media Addiction***: It refers to the usage of online activities which includes elements of increased desire, tolerance, withdrawal symptoms, functional impairment, mood modifications, and relapse. Social media addiction is assessed by the Bergen Social Media Addiction Scale (Andreassen et al., 2016).
- ***Well-being***: Well-being is assessed in terms of emotional well-being, psychological well-being, and social well-being through the Mental Health Continuum Short Form (MHC-SF) by Keyes (2009). Emotional well-being or hedonic well-being pertains to how happy, interested, and satisfied the person is with their life. Psychological well-being consists of the facets of positive relationships with others, environmental mastery, autonomy, a feeling of purpose in life, personal growth, and self-acceptance (Ryff & Keyes, 1995). Social well-being refers to a sense of social acceptance and integration, social coherence, social actualization, and social contribution (Keyes, 1998).
- ***General Health:*** The general health of the individual was assessed with the help of three items pertaining to the perception of general health, presence of chronic illness, and capacity to perform day-to-day activities.
- ***Spiritual Practices***: To assess this variable, four items were developed regarding one's spiritual practices such as meditation, yoga, prayers, and religious activities like *satsang*/ *seva*.

6.3. Hypotheses

Based on the objectives of the study, the hypotheses are outlined below.

6.3.1. Equanimity and Socio-demographic variables

A study by Rogers et al., (2021) suggested that there were no significant differences found between male and female responses on the Equanimity Scale-16 (ES-16). However, results indicated a significant positive correlation between age and the ES-16 scale indicating that older age was associated with higher equanimity scores.

In the Equanimity Scale (EQUA-S) developed by Juneau et al. (2020), a significant difference was found between males and females for the Even-mindedness sub-scale, however, no significant differences were found between males and females on the Hedonic Independence sub-scale. In addition, results revealed a significant positive correlation between the Hedonic Independence sub-scale and age, but no significant correlation with age was noted with the Even-mindedness sub-scale. Based on the review of literature, the following hypotheses were framed concerning equanimity and the socio-demographic variables of age, gender, and education.

H_1 There will be no significant difference between males and females with respect to total equanimity

H_2 There will be no significant difference between males and females with respect to the dimensions of equanimity:

a. Reduced Hedonic Craving,
b. Tolerance for Distress
c. Reduced Reactivity
d. Inter-connectedness
e. Affective equipoise
f. Impartial view

H_3 There will be a significant difference between the various age groups with respect to the total equanimity

H_4 There will be a significant difference between the various age groups with respect to the dimensions of equanimity of:

a. Reduced Hedonic Craving,
b. Tolerance for Distress
c. Reduced Reactivity
d. Inter-connectedness
e. Affective equipoise
f. Impartial view

H_5 There will be no significant difference between the groups with different levels of education with respect to total equanimity

H_6 There will be no significant difference between the groups with different levels of education with respect to the dimensions of equanimity:

a. Reduced Hedonic Craving,
b. Tolerance for Distress
c. Reduced Reactivity
d. Inter-connectedness
e. Affective equipoise
f. Impartial view

6.3.2. Equanimity and Psycho-social Health Concomitants

The relationships between equanimity and various psycho-social health concomitants were reviewed. The hypotheses were framed below based on the studies found in the review of the literature.

A few studies have linked the relationship between equanimity and neuroticism. The even-mindedness sub-scale of the Equanimity Scale (EQUA-S) by Juneau et al (2020) was found to be significantly negatively correlated with the neuroticism dimension of the Big Five Inventory (BFI). In another study, the neuroticism scale of the BFI correlated positively with the Barriers to Equanimity Scale which suggests that as neuroticism increases, the perceived barriers to equanimity also increase (Weber, 2017).

Desbordes et al. (2015) have suggested that equanimity may manifest as a reduction in emotional reactivity in terms of the activation, intensity, and duration of maladaptive emotions. A meta-

analysis study reported that reduced cognitive and emotional reactivity is a key mechanism of the positive outcomes of mindfulness-based interventions which may include training in equanimity (Gu et al., 2015).

In the context of loneliness, Lindsay et al. (2019) demonstrated that cultivating an acceptance orientation (equanimity) toward present-moment experiences is a significant mechanism for reducing feelings of loneliness. With respect to addictive behavior, a study by Juneau et al. (2020) found that the hedonic Independence sub-scale of EQUA-S was found to be negatively correlated with reward sensitivity and impulsivity which are core components of addiction.

Concerning the variable of well-being, the Equanimity Scale-16 developed by Rogers et al. (2021) was found to be significantly positively correlated with the Satisfaction with Life Scale. Equanimity was also proposed as a significant contributor to the enhancement of well-being by Desbordes et al. (2015).

Based on the review of the literature, the following hypotheses were tested to study the relationship between equanimity and the psycho-social health parameters

H_{7a} Equanimity will be significantly negatively correlated with total emotional reactivity

H_{7b} Equanimity will be significantly negatively correlated with positive emotions reactivity

H_{7c} Equanimity will be significantly negatively correlated with negative emotions reactivity

H_{7d} Equanimity will be significantly negatively correlated with the activation, duration, and intensity of both positive and negative emotions

H_{8a} Equanimity will be significantly negatively correlated with neuroticism

H_{8b} The dimensions of equanimity such as Tolerance for Distress and Reduced Reactivity will be significantly negatively correlated with neuroticism

H_{9a} Equanimity will be significantly negatively correlated with loneliness

H_{9b} The equanimity dimensions of Inter-connectedness and Impartial View will be significantly negatively correlated with Loneliness

H_{10a} Equanimity will be significantly negatively correlated with social media addiction

H_{10b} The dimensions of Reduced Hedonic Craving will be significantly negatively correlated with social media addiction

H_{11a} Equanimity will be significantly positively correlated with total well-being

H_{11b} Equanimity will be significantly positively correlated with emotional well-being, psychological well-being, and social well-being

H_{12} Equanimity will be significantly positively correlated with general health

To understand how equanimity predicts the various psycho-social health parameters, the following hypothesis was framed:

H_{13} Equanimity will significantly predict the psycho-social health concomitants of:

a. Emotional reactivity

b. Neuroticism

c. Loneliness

d. Social media addiction

e. Well-being

f. General health

6.3.3. Spiritual Practices and Equanimity

The review of the literature reported that the practice of mindfulness meditation is associated with enhanced equanimity. Hadash et al (2016) found that mindfulness training led to reductions in reactivity to unpleasant hedonic tone. However, in their study mindfulness training did not lead to an expected increase in the attitude of acceptance. Another study involved 82 meditation novices who participated in a mindfulness training intervention. Results showed that the cultivation of mindfulness states was associated with an increase in manifestations of equanimity i.e., elevated acceptance and decreased hedonic-based avoidance (Shoham et al., 2018).

Juneau et al. (2020) explored the relationship between the practice of mindfulness and equanimity. The results indicated that the more experience participants had in the practice of mindfulness, the higher their equanimity scores, thus demonstrating that trait equanimity appears to be linked with

mindfulness practices. In an intervention study, it was found that the participants through the cultivation of mindfulness meditation developed de-centering skills, which led to enhanced equanimity in the presence of a negative stimulus (Lomas et al., 2015).

To understand the effect of spiritual practices on equanimity, the hypothesis was framed as follows:

H_{14} There will be a significant positive correlation between equanimity and the spiritual practices of:

a. Meditation

b. Yoga

c. Prayer/mantras

d. Religious activities such as seva/satsang

H_{15} There will be a significant difference in the dimensions of equanimity between individuals with low and high levels of spiritual practices of:

a. Meditation

b. Yoga

c. Prayer/mantras

d. Religious activities such as seva/satsang

6.4. Method

The method of the study is described in detail below.

6.4.1 Sample

The study of the psycho-social health concomitants of equanimity was carried out on the sample of 800 participants on which the scale was developed. The sample characteristics and the procedure for data collection are described in detail in the previous chapter. The summary of the sample characteristics is highlighted in the table below:

Table 14

Sample Characteristics

Variable	Category	N= 800	Percentage
Gender	Female	532	66 %
	Male	268	34 %
Age	18-30	334	41 %
	31-45	184	23 %
	45-60	187	24 %
	60 and above	95	12 %
Education	$10/12^{th}$ standard	62	8 %
	Graduation	337	42 %
	Post-graduation	401	50 %

6.4.2. Tools:

The tools used in the research include:

i. ***Items for Demographic characteristics***: Data was procured for the demographic characteristics of age, gender, educational qualification, and religion.

ii. ***Developed Scale on Equanimity:*** The developed scale on equanimity consisted of 22 items and had a satisfactory Cronbach alpha of .82. The scale consisted of six factors of Reduced hedonic craving, Tolerance for distress, Reduced reactivity, Inter-connectedness, Affective Equipoise, and Impartial view.

iii. ***Perth Emotional Reactivity Scale-Short form (PERS-S)*:** The PERS-S (Preece et al., 2018) is the shorter form of the original 30-item PERS. It consists of 18 items that measure an individual's emotional reactivity in terms of the activation, intensity, and duration of one's emotional responses for both positive and negative emotions. Two composite scores, the General Positive Reactivity and the General Negative Reactivity can be derived along with six sub-scale scores. The PERS-S displays high internal consistency reliability and its validity is supported with significant correlations with measures of psychopathology (Preece et al., 2018).

iv. ***Neuroticism Dimension of the Big Five Inventory (BFI):*** In this study, only the eight items of the neuroticism dimension of the BFI developed by John & Srivastava (1999) have been used in the study. These items assess the traits of anxiety, depressed mood, hostility, self-

consciousness, impulsiveness, and vulnerability. The BFI is one of the most renowned personality assessment tools which measures an individual on the five key dimensions of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Studies have reported that the BFI can predict individual differences over a wide range of settings including mental health, job satisfaction, work performance, and health behaviors (Barrick & Mount, 1991; Judge et al., 2002; Raynor & Levine, 2009).

v. ***UCLA Loneliness Scale (ULS-6):*** This six-item scale developed by Neto (1992) assesses loneliness as the difference between desired contact and actual social contact. Studies confirm that the ULS-6 provides a brief, psychometrically satisfactory measure of loneliness among various populations such as immigrants (Neto, 2002), and older adults (Neto, 2014). In this study, the response options of the ULS-6 were increased from four to five to have a similar format for responding across the research protocol.

vi. ***Bergen Social Media Addiction Scale (BSMAS):*** The BSMAS (Andreassen et al., 2016) is an adaptation of the Bergen Facebook Addiction Scale (Andreassen et al., 2012), and consists of six items reflecting core addiction elements such as increased desire, tolerance, withdrawal symptoms, functional impairment, mood modifications, and relapse. The scale's psychometric properties have been found adequate in studies across many cultures such as Iran (Lin et al., 2017), Italy (Monacis et al., 2017), and Hungary (Bányai et al., 2017).

vii. ***Mental Health Continuum Short Form (MHC-SF)*****:** The MHC-SF by Keyes (2009) is a comprehensive measure of well-being consisting of 14 items. Three items represent emotional well-being, six items represent psychological well-being and five items represent social well-being. Cross-cultural studies across the Netherlands, Iran, and South Africa support the three-dimensional structure of the MHC-SF (Joshanloo et al., 2013). In this study, the response options of the MHC-SF were reduced from six to five to have a similar format for responding across the research protocol.

viii. ***Items related to General Health:*** Three items assessed the general health of the participants on a five-point scale. The first item assessed evaluation of general health ranging from Excellent (1) to Poor (5). The second item was related to the capacity in performing work and day-to-day activities and was rated on a five-point scale ranging from

Excellent capacity (1) to Severely Impaired capacity. These two items were adapted from the Health Survey (SF-12) by Ware et al. (1996). The third item was framed by the researchers about the presence of chronic illness or health problems such as hypertension, pain, diabetes and was rated on a five-point scale ranging from I do not suffer from any chronic illness or disease (1) to I suffer from very severe chronic illness or disease (5).

ix. ***Items related to Spiritual Practices***: Four items were framed by the researchers to assess the level of spiritual practices of the participants in meditation, yoga, prayer, and religious activities such as *Seva*/satsang. Response options ranged from Never to Daily.

The table below outlines the tools with their sub-scales, mean, and their computed Cronbach Alpha.

Table 15

Description of the Tools

Sr. No	**Scales used with their dimensions**	**No. of items**	**Range Min-Max**	**Mean (SD)**	**Cronbach's Alpha**
1	Developed scale on equanimity - Reduced hedonic craving - Tolerance for distress - Reduced reactivity - Inter-connectedness - Equipoised in the dualities - Impartial view	22	22-110	69.84 (10.45)	.82
2	Perth Emotional Reactivity Scale - Negative activation - Negative intensity - Negative duration - Positive activation - Positive intensity - Positive duration	18	18-90	59.35 (10.06)	.86

3	Big Five Inventory Neuroticism dimension	8	8-40	22.01 (5.27)	.81
4	UCLA Loneliness Scale	6	6-30	12.59 (4.68)	.82
5	Bergen Social Media Addiction Scale	5	5-25	13.45 (5.06)	.83
6	Mental Health Continuum - SF - Emotional Well-being - Psychological Well-being - Social Well-being	14	14-70	53.81 (9.38)	.91
7	General health	3	3-15	13.24 (1.45)	.61
8	Spiritual Practices Items related to the practice of Meditation, Yoga, Prayer and Seva/Satsang	5	5-25	11.42 (3.96)	.65

6.4.3 Procedure

The procedure of data collection and ethics adhered to in the research are described in detail in the previous chapter. The next section will focus on the results of the study.

6.5. Data Analysis

The data was analyzed using appropriate statistics such as t-test, ANOVA, Correlation, and Regression Analysis. The results are described below.

6.6. Results of the Study:

The hypotheses framed concerning equanimity and socio-demographic variables such as age, gender, and level of education were tested. The results are outlined below.

6.6.1 Equanimity and Gender

It was hypothesized that there will be a significant difference between the male and female participants with respect to total equanimity and the dimensions of equanimity (Reduced Hedonic

Craving, Tolerance for Distress, Reduced Reactivity, Inter-connectedness, Affective Equipoise, and Impartial view).

Welch's t-test was used for analysis. The Welch's t-test has been recommended when the sample sizes are unequal (Delacre et al., 2017). As the sample sizes were 532 females and 268 males, Welch's t-test was used to test this hypothesis. The results are presented in the Table below:

Table 16

Results of t-test showing Mean Differences among Genders with respect to Equanimity

Dimensions of Equanimity	**Females (N=532)**	**Males (N=268)**	***Welch's t***	***p***	**Hedge's *g***
	Mean (SD)	**Mean (SD)**			
Reduced Hedonic Craving	14.55 (5.00)	14.58 (4.84)	-.10	.92	-
Tolerance for Distress	12.35 (3.29)	12.76 (3.09)	-1.73	.08	-
Reduced Reactivity	14.13 (2.60)	15.00 (2.61)	-4.46	.001	.33
Inter-connectedness	12.55 (2.16)	12.47 (2.26)	.51	.60	-
Affective Equipoise	9.13 (2.41)	9.25 (2.19)	-.72	.46	-
Impartial view	6.77 (1.95)	6.52 (2.00)	1.67	.09	-
Total Equanimity	69.47 (10.76)	70.58 (9.77)	-1.46	.14	-

The results from the table indicate that there are no significant differences among males and females with respect to the dimensions of equanimity except for the dimension of reduced reactivity. There was a significant difference in the dimension of Reduced Reactivity for males (M = 15.00, SD = 2.61) and females (M = 14.13, SD = 2.60), t (533) = -4.46, $p < .001$.

The effect size was calculated by using Hedges *g*. Hedges' g provides a measure of effect size weighted according to the relative size of each sample and is a better alternative to Cohen's d when

sample sizes are significantly different (Statistical Engineering Division, 2018; Zach, 2021). The effect size was found to be .33 which suggests a small-moderate effect size. Thus, these findings imply that there are no significant gender differences in equanimity except for a small effect in the dimension of reduced reactivity.

6.6.2 Equanimity and Age

It was hypothesized that there will be a significant difference between the various age groups with respect to the dimensions of equanimity. The four age groups considered in the present study were 18-30, 31-45, 46-60, and 61 years and above. One-way ANOVA was conducted to test the differences among the various age groups and the results are reported below.

Field (2013) has recommended referring to the Levene test for homogeneity of variance while conducting the ANOVA. If Levene's test is significant, then the assumption of homogeneity of variance has not been met. In this case, Welch's *F* ratio needs to be referred to. Following this recommendation by Field (2013), the Welch's *F* ratio was referred to in the cases that did not meet the assumption of homogeneity of variance and has been indicated by (W) in the table below.

Table 17

Results of ANOVA showing Mean Differences among different Age-groups with respect to the Dimensions of Equanimity

Dimensions of Equanimity	18-30 (N=334)	31-45 (N=184)	46-60 (N=187)	60 and above (N=95)	F/ Welch	*p*
Reduced Hedonic Craving	13.37 (4.45)	15.58 (4.85)	14.90 (4.97)	16.08 (5.78)	12.78 (W)	.001
Tolerance for Distress	12.07 (3.29)	12.44 (3.27)	12.89 (3.00)	13.27 (3.15)	4.83	.001
Reduced Reactivity	13.98 (2.69)	14.35 (2.73)	15.08 (2.25)	14.79 (2.71)	8.80 (W)	.001
Inter-connectedness	12.59 (2.12)	12.51 (2.41)	12.74 (1.87)	11.89 (2.54)	2.80 (W)	.04
Affective equipoise	8.82 (2.32)	9.59 (2.32)	9.23 (2.34)	9.43 (2.29)	4.93	.001

Impartial view	6.65 (2.00)	6.65 (2.00)	6.91 (1.88)	6.72 (1.91)	1.35	.25
Total Equanimity	67.48 (9.53)	70.97 (11.05)	71.75 (10.31)	72.19 (11.10)	10.45	.001

Note. (W) Indicates that Welch statistic is used for mean comparison in case of unequal variance

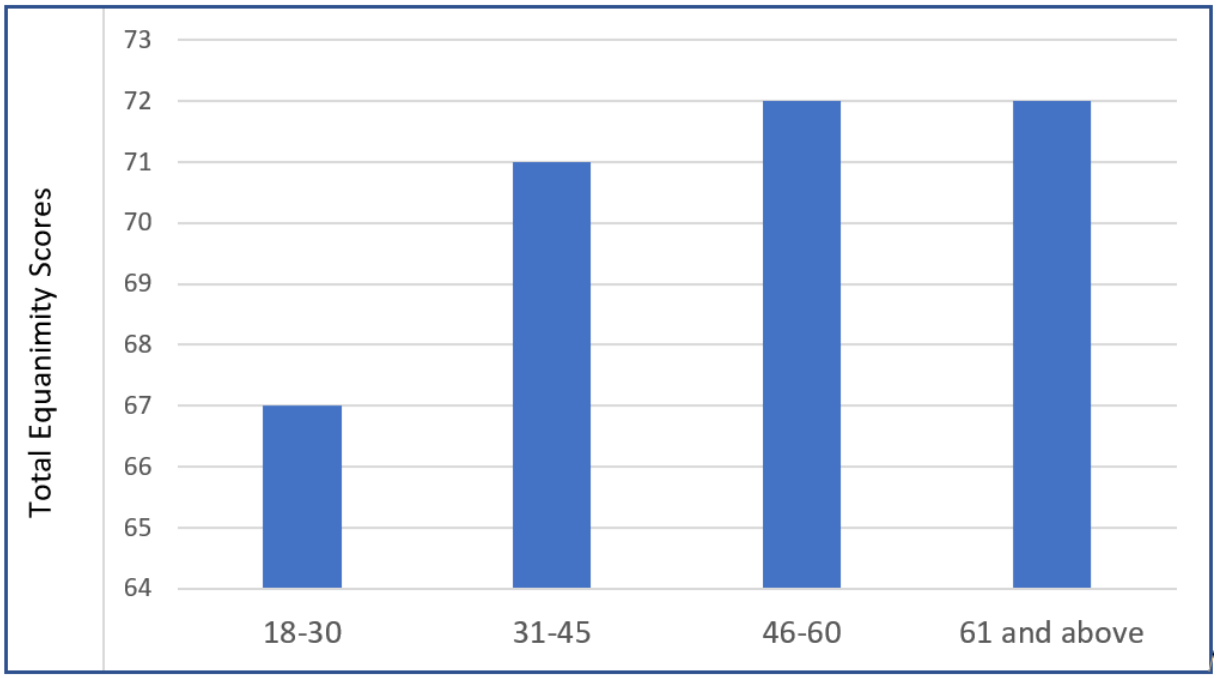
The results from the above table suggest that there is a significant difference among the various age groups with respect to Total equanimity. There was a significant difference between the various age-groups in the dimensions of Reduced Hedonic Craving, Tolerance for Distress, Reduced Reactivity, Inter-connectedness and Affective equipoise. There is no significant difference found among the different age groups for the dimension of Impartial view.

Field (2013) recommends that when sample sizes are unequal, Hochberg's GT2 post-hoc test should be used. As the sample sizes between the various age groups were unequal as seen in the table above, post-hoc analysis for the total equanimity scores was done using Hochberg's GT2 test. Hochberg's GT2 post-hoc test suggested that the 18-30 years age group (M=67.48, SD= 9.53) differed significantly from all other age groups in their total equanimity scores. There was no statistically significant difference found in total equanimity scores between the other age groups.

These results indicate that total equanimity is significantly less in the 18-30 age group compared to the other age groups. The figure below illustrates the increase in equanimity after the age of 18 years and its subsequent stabilization.

Figure 31

The relation between Age and Equanimity



6.6.3. Equanimity and Level of Education

It was hypothesized that there will be no significant difference between the level of education with respect to the dimensions of equanimity. The three education levels considered in the present study were $10^{th}/12^{th}$ standard, Graduation, and Post-graduation. One-way ANOVA was conducted to test the difference among the groups with various levels of education and the results are reported in the Table below.

Table 18

Results of ANOVA showing Mean Differences among different levels of Education with respect to the Dimensions of Equanimity

Dimensions of Equanimity	$10^{th}/12^{th}$ (N=62)	Graduation (N=337)	Post-graduation (N=401)	F/ Welch	Sig
	Mean (SD)	Mean (SD)	Mean (SD)		
Reduced Hedonic Craving	12.03 (3.99)	13.83 (4.83)	15.56 (4.93)	20.98	.001
Tolerance for Distress	11.69	12.27	12.80	4.49	.01

	(2.97)	(3.26)	(3.21)		
Reduced Reactivity	13.79 (2.35)	14.23 (2.69)	14.68 (2.61)	4.63	.01
Inter-connectedness	12.06 (2.17)	12.38 (2.17)	12.72 (2.21)	3.69	.02
Affective equipoise	8.13 (2.19)	9.01 (2.33)	9.46 (2.31)	10.33	.001
Impartial view	6.34 (1.52)	6.62 (1.99)	6.80 (2.01)	186.91(W)	.09
Total Equanimity	64.05 (7.71)	68.32 (10.10)	72.01 (10.56)	188.62 (W)	.001

Note. (W) Indicates that Welch Statistic is used for mean comparison in case of unequal variance

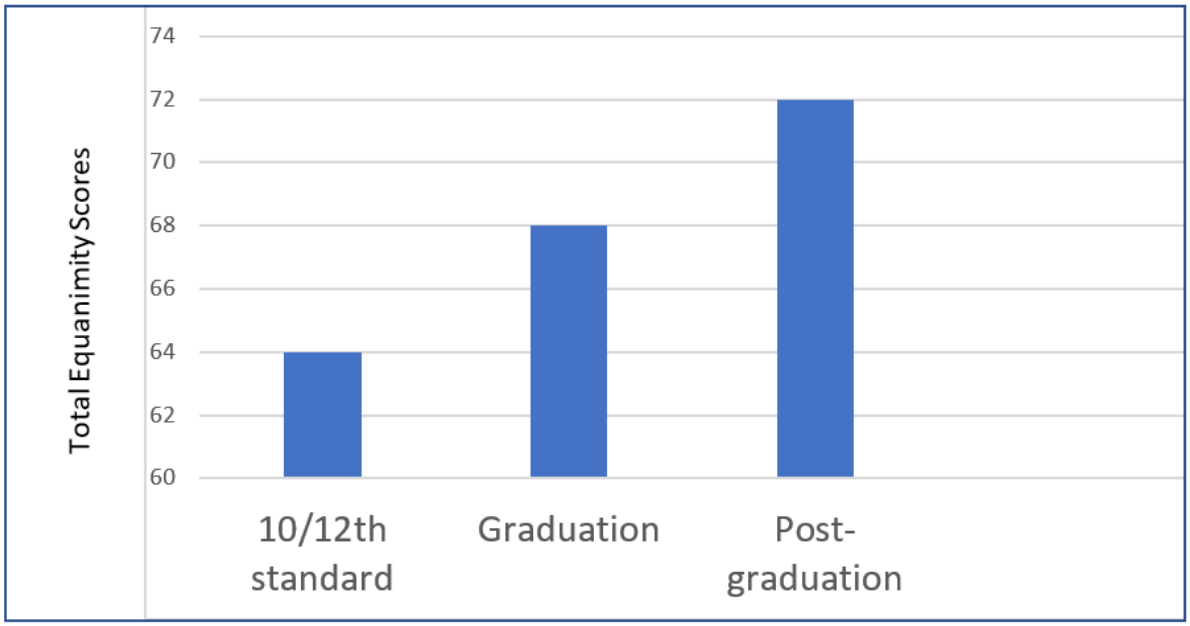
The results from the above table suggest that there is a significant difference among the various level of education groups with respect to Total equanimity.

There were significant differences between the the groups with different levels of education in the dimensions of Reduced Hedonic Craving, Tolerance for Distress, Reduced Reactivity, Inter-connectedness and Affective Equipoise. There are no significant differences between the dimension of the Impartial view and the groups with different levels of education.

As the sample sizes were unequal, Hochberg's GT2 post hoc test was used for the comparison of means of the total equanimity scores. It was found that the mean value of the total equanimity scale was significantly different between the education groups of $10^{th}/12^{th}$ and graduation ($p < .001$), $10^{th}/12^{th}$ and post-graduation ($p < .001$), and Graduation and post-graduation ($p < .001$). The figure below illustrates the relationship between equanimity and level of education.

Figure 32

The Relation between the level of Education and Equanimity



Thus, these findings imply that there are significant differences in equanimity between the various education level groups.

In summary: With respect to socio-demographic variables and equanimity, it was found that there were no significant differences related to gender (except for a small effect in the dimension of reduced reactivity). Significant differences were found in equanimity with respect to the different age groups and levels of education. Specifically, the results suggest that equanimity is significantly less in the 18-30 years age group compared to the other age groups and, equanimity increases with higher levels of education. The next section focuses on the relation between equanimity and the various psycho-social health parameters

6.6.4. Equanimity and Psycho-social Health Variables

Based on the review of the literature, the relationships between dimensions of equanimity with respect to psycho-social health parameters such as emotional reactivity, neuroticism, loneliness, social media addiction, well-being, and general health were assessed. Pearson's Correlation was computed between the dimensions of equanimity and the various psycho-social health parameters as shown in the table below.

Table 19

Correlations between the Dimensions of Equanimity and the Psycho-social Health Parameters

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	`19	20	21	22	23	24
1. Reduced Hedonic Craving	-																							
2. Distress Tolerance	.32**	-																						
3. Reduced Reactivity	.08*	.41**	-																					
4. Inter-connectedness	-.02	.06	.16**	-																				
5. Affective Equipoise	.33**	.38**	.25**	.01	-																			
6. Impartial Attitude	.23**	.27**	.27**	.11**	.33**	-																		
7. Total eqaunimity scale	.71**	.72**	.56**	.28**	.63**	.55**	-																	
8. Neuroticism	-.27**	-.57**	-.57**	-.17**	-.38**	-.29**	-.62**	-																
9. Loneliness	-.11**	-.32**	-.29**	-.17**	-.26**	-.27**	-.37**	.44**	-															
10. Positive activation	-.38**	-.06	.12**	.18**	-.13**	.01	-.16**	-.07	-.16**	-														
11. Postive intensity	-.35**	.01	.20**	.21**	-.10**	.04	-.08*	-.15**	-.18**	.70**	-													
12. Positive duration	-.25**	.09*	.24**	.19**	-.05	.08*	.02	-.24**	-.25**	.68**	.74**	-												
13. Total positive emotion reactivity	-.36**	.02	.21**	.22**	-.11**	.04	-.08*	-.17**	-.22**	.89**	.91**	.90**	-											
14. Negative activation	-.35**	-.57**	-.46**	-.13**	-.46**	-.36**	-.65**	.62**	.41**	.16**	.03	-.03	.06	-										
15. Negative intensity	-.30**	-.47**	-.38**	-.07	-.36**	-.32**	-.54**	.56**	.41**	.11**	.11**	-.03	.07*	.75**	-									
16. Negative duration	-.30**	-.55**	-.48**	-.13**	-.43**	-.31**	-.62**	.61**	.44**	.06	-.01	-.07*	.00	.76**	.76**	-								
17. Total negative emotion reactivity	-.35**	-.57**	-.48**	-.12**	-.45**	-.36**	-.66**	.65**	.46**	.12**	.05	-.05	.05	.91**	.92**	.92**	-							
18. Total emotional reactivity	-.49**	-.43**	-.24**	.04	-.41**	-.25**	-.56**	.41**	.22**	.62**	.58**	.50**	.64**	.74**	.75**	.71**	.80**	-						
19. Social media addiction	-.28**	-.31**	-.16**	.01	-.23**	-.17**	-.35**	.28**	.24**	.05	.02	.00	.03	.33**	.30**	.32**	.35**	.28**	-					
20. Hedonic well-being	-.02	.25**	.34**	.24**	.09**	.16**	.26**	-.43**	-.38**	.33**	.37**	.45**	.42**	-.29**	-.32**	-.33**	-.34**	-.01	-.14**	-				
21. Emotional well-being	.02	.21**	.30**	.27**	.11**	.14**	.26**	-.39**	-.40**	.23**	.30**	.34**	.32**	-.25**	-.29**	-.30**	-.31**	-.04	-.13**	.64**	-			
22. Psychological well-being	-.07*	.18**	.35**	.24**	.06	.14**	.20**	-.39**	-.36**	.37**	.48**	.50**	.50**	-.25**	-.24**	-.31**	-.29**	.07*	-.16**	.69**	.62**	-		
23. Total well-being	-.03	.24**	.37**	.29**	.10**	.16**	.27**	-.46**	-.43**	.35**	.44**	.49**	.47**	-.30**	-.32**	-.35**	-.35**	.01	-.16**	.84**	.88**	.89**	-	
24. General health	.01	.23**	.22**	.13**	.15**	.12**	.22**	-.27**	-.21**	.05	.11**	.12**	.10**	-.24**	-.23**	-.23**	-.25**	-.13**	-.05	.22**	.18**	.16**	.21**	-

**. Correlation is significant at the 0.01 level

*. Correlation is significant at the 0.05 level

a) Equanimity and Emotional Reactivity

It was hypothesized that equanimity will be negatively correlated with total emotional reactivity. The results indicate that there is a significant negative correlation between equanimity and total emotional reactivity ($r = -.56$, $p < .01$).

Hypothesis H_{7b} suggested that equanimity will be negatively correlated with total positive emotional reactivity. The results indicate that equanimity is negatively correlated with positive emotional reactivity ($r = -.08$, $p < .05$) though the strength of the correlation is very low. Results for hypothesis H_{7c} indicate that equanimity is significantly negatively correlated with negative emotional reactivity ($r = -.66$, $p < .01$). These findings imply that equanimity is more strongly associated with negative emotional reactivity compared to positive emotional reactivity.

Hypothesis H_{7d} suggested that equanimity will be significantly negatively correlated with the activation, duration, and intensity of both positive and negative emotions. The results indicated that equanimity was negatively correlated with the activation ($r = -0.16$, $p < .01$), and intensity ($r = -.08$, $p < .05$) of positive emotions. However, there was no significant correlation between equanimity and the duration of positive emotions and the correlation was in the positive direction ($r = .02$). Equanimity was found to be significantly negatively correlated with the activation ($r = -.65$, $p < 0.01$), intensity ($r = -.54$, $p < .01$) and duration ($r = -.62$, $p < .01$) of negative emotions.

Consistent with previous findings, the above findings imply that equanimity has a more robust relation with the reduction in activation, intensity, and duration of negative emotions as compared to positive emotions.

b) Equanimity and Neuroticism

Equanimity was found to be significantly negatively correlated with neuroticism ($r = -.62$, $p < .01$). The results indicated that neuroticism was significantly negatively correlated with Tolerance for distress ($r = -.57$, $p < 0.01$) and Reduced reactivity ($r = -.57$, $p < .01$). These findings imply that as equanimity increases neuroticism reduces which may be an indicator for the therapeutic potential of equanimity in anxiety disorders.

c) Equanimity and Loneliness

Equanimity was significantly negatively correlated with loneliness ($r = -.37$, $p < .01$). The results also indicated that loneliness was significantly negatively correlated with the two dimensions of equanimity Inter-connectedness ($r = -.17$, $p < .01$) and with Impartial view ($r = -.27$, $p < .01$). These

findings imply that perceived loneliness may decrease with the belief that all beings are interconnected and are essentially the same, along with an impartial view towards others.

d) Equanimity and Social Media Addiction

Equanimity was significantly negatively correlated with social media addiction ($r = -.35$, $p < .01$). The results also indicated that the dimension of Reduced hedonic craving was significantly negatively correlated with social media addiction ($r = -.28$, $p < .01$). Among all the dimensions of equanimity, distress tolerance had the highest negative correlation with social media addiction ($r = -.31$, $p < .01$). These results imply that reduced hedonic craving and distress tolerance skills are significant aspects of social media usage, indicating that the cultivation of equanimity may have potential benefits in addictive behaviors.

e) Equanimity and Well-being

As seen in the above table, there is a significant positive correlation between total scale equanimity and well-being ($r = .27$, $p < .01$). The results indicated that equanimity was significantly positively correlated with emotional well-being ($r = .26$, $p < .01$), psychological well-being ($r = .26$, $p < .01$) and psychological well-being ($r = .20$, $p < .01$). These findings imply that as equanimity increases, emotional, psychological, and social well-being enhances, which may be an indicator of the potential of equanimity in mental health and well-being.

f) Equanimity and General Health

Equanimity was positively correlated with general health ($r = .22$, $p < .01$).

In summary, the above findings indicate that equanimity was negatively correlated with neuroticism, loneliness, emotional reactivity, and social media addiction. Specifically, the results suggest that equanimity is more strongly correlated with negative emotional reactivity compared to positive emotional reactivity. A positive correlation was found between equanimity and well-being and perceived general health.

The next section focuses on understanding how equanimity predicts the various psycho-social health parameters.

6.6.5. Equanimity as a Predictor of Psycho-social Health Parameters

It was hypothesized that equanimity will significantly predict the psycho-social health parameters such as emotional reactivity, neuroticism, loneliness, social media addiction, well-being, and

general health. To test this hypothesis, regression analysis was carried out on the sample of 800 participants. The dimensions of equanimity were used as the independent variable and the psycho-social health parameters were used as the dependent variable.

The table below shows equanimity predicting emotional reactivity.

Table 20

Equanimity predicting Emotional Reactivity

Dependent variable: Emotional Reactivity			
Independent variable: Equanimity	**B**	**β**	**t**
1. Reduced Hedonic Craving	-.68	-.33	-10.82**
2. Tolerance for Distress	-.66	-.21	-6.35**
3. Reduced Reactivity	-.31	-.08	-2.58**
4. Inter-connectedness	.29	.06	2.24*
5. Affective equipoise	-80	-.18	-5.76**
6. Impartial view	-.19	-.03	-1.23

*p <0.05 **p <0.01

R = .60, R^2 = .37, Adj. R^2 = .36, F = 76.34**

A multiple regression analysis was carried out to understand the effect of equanimity on emotional reactivity. The results presented in the table above show that equanimity explains 37% of the variance in emotional reactivity. A significant F ratio suggests that all the dimensions of equanimity put together, significantly contribute to explaining the variation in emotional reactivity (F=76.34).

The standardized Beta values reported in the table above show the independent contribution of the predictor variables to the explanation of emotional reactivity. The dimensions of reduced hedonic craving, tolerance for distress reduced reactivity, and affective equipoise have emerged as significant predictors of emotional reactivity and are negatively related. These findings are

supported by the negative correlations reported previously between emotional reactivity and the dimensions of reduced hedonic craving (r = -.49), tolerance for distress (r = -.43), reduced reactivity (r = -.24), and affective equipoise (r = -.41).

The dimension of inter-connectedness has emerged as a significant predictor of emotional reactivity and is positively related. These findings are supported by the positive correlations (r = .04) with emotional reactivity reported in the correlation table above. The dimension of impartial view has not emerged as a significant predictor.

The next table focuses on the dimensions of equanimity predicting the dependent variable of Neuroticism.

Table 21

Equanimity predicting Neuroticism

Dependent variable: Neuroticism			
Independent variable	**B**	**β**	**t**
1. Reduced Hedonic Craving	-.10	-.09	-3.35**
2. Tolerance for Distress	-.53	-.32	-10.71**
3. Reduced Reactivity	-.75	-.37	-12.95**
4. Inter-connectedness	-.20	-.09	-3.30**
5. Affective equipoise	-.26	-.11	-3.92**
6. Impartial view	-.09	-.03	-1.17

*p <0.05 **p <0.01

R = .69, R^2 = .49, Adj. R^2 = .48, F= 125.71**

As seen in the table above, equanimity explains 49% of the variance in neuroticism. A significant F ratio suggests that all the dimensions of equanimity put together, significantly contribute to explaining the variation in neuroticism (F=125.71).

The standardized Beta values indicate that the dimensions of reduced hedonic craving, tolerance for distress, reduced reactivity, inter-connectedness, and affective equipoise have emerged as significant predictors of neuroticism and are negatively related to neuroticism. These findings are supported by the negative correlations reported in the correlations table between neuroticism and the dimensions of reduced hedonic craving (r = -.27), tolerance for distress (r = -.57), reduced reactivity (r = -.57), inter-connectedness (r = -.17) and affective equipoise (r = -.38). The dimension of the Impartial view has not emerged as a significant predictor of neuroticism.

The next table focuses on the dimensions of equanimity predicting the dependent variable of loneliness.

Table 22

Equanimity predicting Loneliness

Dependent variable: Loneliness			
Independent variable	**B**	**β**	**t**
1. Reduced Hedonic Craving	.03	.03	.88
2. Tolerance for Distress	-.27	-.18	-4.79**
3. Reduced Reactivity	-.23	-.13	-3.55**
4. Inter-connectedness	-.26	-.12	-3.77**
5. Affective equipoise	-.23	-.12	-3.18**
6. Impartial view	-.34	-.14	-4.08**

*p <0.05 **p <0.01

R = .42, R^2 = .18, Adj. R^2 = .17, F= 29.69**

As seen in the table above, equanimity explains 18% of the variance in loneliness. A significant F ratio suggests that all the dimensions of equanimity put together, significantly contribute to explaining the variation in loneliness (F=29.69).

The standardized Beta values indicate that the dimensions of tolerance for distress, reduced reactivity, inter-connectedness, affective equipoise, and impartial view have emerged as significant predictors of loneliness and are negatively related. These findings are supported by the negative correlations between loneliness and the dimensions of tolerance for distress (r = -.32), reduced reactivity (r = -.29), inter-connectedness (r = -.17), affective equipoise (r = -.26) and impartial view (r = -.27). The dimension of reduced hedonic craving has not emerged as a significant predictor of loneliness.

The next table focuses on the dimensions of equanimity predicting the variable of social media addiction.

Table 23

Equanimity predicting Social Media Addiction

Dependent variable: Social Media Addiction			
Independent variable	**B**	**β**	**t**
1. Reduced Hedonic Craving	-.18	-.18	-4.94**
2. Tolerance for Distress	-.30	-.19	-4.91**
3. Reduced Reactivity	-.08	-.04	-1.17
4. Inter-connectedness	.07	.03	.94
5. Affective equipoise	-.16	-.07	-1.98*
6. Impartial view	-.11	-.04	-1.19

*p <0.05 **p <0.01

R = .37, R^2 = .14, Adj. R^2 = .13, F= 21.77**

As seen in the table above, equanimity explains 14% of the variance in social media addiction. A significant F ratio suggests that all the dimensions of equanimity put together, significantly contribute to explaining the variation in social media addiction (F=21.77).

The standardized Beta values indicate that the dimensions of reduced hedonic craving, tolerance for distress, and affective equipoise have emerged as significant predictors of social media

addiction and are negatively related. These findings are supported by the negative correlations reported in the Table between social media addiction and the dimensions of reduced hedonic craving (r = -.28), tolerance for distress (r = -.31), and affective equipoise (r = -.23). The dimensions of reduced reactivity, inter-connectedness and impartial view have not emerged as significant predictors of social media addiction.

The next table focuses on equanimity predicting well-being.

Table 24

Equanimity predicting Well-being

Dependent variable: Well-being			
Independent variable	**B**	**β**	**t**
1. Reduced Hedonic Craving	-.18	-.09	-2.67**
2. Tolerance for Distress	.37	.13	3.34**
3. Reduced Reactivity	.99	.28	7.80**
4. Inter-connectedness	.96	.23	7.01**
5. Affective equipoise	-.03	-.01	-.19
6. Impartial view	.25	.05	1.50

*p<0.05 **p <0.01

R = .45, R^2 = .21, Adj. R^2 = .20, F= 34.91**

As seen in the table above, equanimity explains 21% of the variance in the variable of well-being. A significant F ratio suggests that all the dimensions of equanimity put together, significantly contribute to explaining the variation in well-being (F=34.91).

The standardized Beta coefficients in the table above report that the dimensions of tolerance for distress, reduced reactivity, and inter-connectedness, have emerged as significant predictors of well-being and are positively related. These findings are supported by the positive correlations reported in the Table between well-being and the dimensions of tolerance for distress (r = .24),

reduced reactivity (r = .37), and inter-connectedness (r = .29). The dimension of reduced hedonic craving has emerged as a significant predictor of well-being and is negatively related. These findings are supported by the negative correlation reported between well-being and the dimensions of reduced hedonic craving (r = -.03). The dimensions of affective equipoise and impartial view have not emerged as significant predictors of well-being.

The next table focuses on the dimensions of equanimity predicting perceived general health.

Table 25

Equanimity predicting General Health

Dependent variable: Perceived General health			
Independent variable	**B**	**β**	**t**
1. Reduced Hedonic Craving	-.02	-.08	-2.02*
2. Tolerance for Distress	.07	.16	3.97**
3. Reduced Reactivity	.07	.12	3.08**
4. Inter-connectedness	.06	.09	2.63**
5. Affective equipoise	.05	.08	1.94*
6. Impartial view	.02	.03	.76

*p <0.05 **p <0.01

R = .29, R^2 = .09, Adj. R^2 = .08, F= 12.70**

As seen in the table above, equanimity explains 9% of the variance in general health. A significant F ratio suggests that all the dimensions of equanimity put together, significantly contribute to explaining the variation in emotional reactivity (F=12.70**).

The standardized Beta values reported in the table above indicate that the dimensions of tolerance for distress, reduced reactivity, inter-connectedness, and affective equipoise have emerged as significant predictors of general health. These findings are supported by the positive correlation reported in the Table between general health and the dimensions of tolerance for distress (r = .23),

reduced reactivity (r = .22), inter-connectedness (r = .13), and affective equipoise (r =.15). The dimension of impartial view has not emerged as a significant predictor of general health.

In summary, the findings indicate that equanimity explains the most variance in neuroticism (49 %), followed by emotional reactivity (37%), well-being (21%), loneliness (18%), social media addiction (14%), and general health (9%). These findings highlight the potential of the therapeutic applications of equanimity in mental health and well-being.

Equanimity significantly negatively predicts emotional reactivity, neuroticism, loneliness, and social media addiction. In addition, based on the above findings, equanimity positively predicts well-being and perceived general health.

The next section focuses on the effect of spiritual practices on equanimity.

6.6.7. Spiritual Practices and Equanimity

To understand the relationship between spiritual practices and equanimity a correlation analysis was carried out. The table below shows the relation between the practices of meditation, yoga, prayer, and religious activities with total equanimity scores.

Table 26

C*orrelation between Spiritual Practices and Equanimity*

	1	2	3	4	5
1. Equanimity	-				
2. Practice of Meditation	.21**	-			
3. Practice of Yoga	.10**	.52**	-		
4. Prayers/mantras	.01	.27**	.18**	-	
5. Doing religious activities such as seva/satsang	.07*	.32**	.22**	.43**	-

*Correlation is significant at the 0.05 level

**Correlation is significant at the 0.01 level

From the above table, it is seen that equanimity had significant positive correlations with the practice of mediation (r = .21), followed by yoga (r = .10) and religious activities such as *seva/satsang* (r = .07). Thus, hypotheses H_{14a}, $H_{14b,}$ and H_{14d} are accepted. There was no significant correlation found between the spiritual practice of prayer/mantras and equanimity.

Level of Spiritual Practices and Equanimity

Hypothesis H_{15} proposed that there will be a significant difference in the dimensions of equanimity between individuals with low and high levels of spiritual practices. Based on the percentile values, the level of spiritual practices was grouped into Low (below 25 percentile) and High (above 75 percentile). The table below illustrates the difference between the low and high levels of meditation practice on equanimity.

Table 27

Difference between Low and High levels of Meditation Practice on Equanimity

	Low level of meditation practice (N= 218)	**High level of meditation practice (N= 131)**	**Welch's t**	***p***	**Hedge's *g***
	Mean (SD)	**Mean (SD)**			
Reduced Hedonic Craving	13.39 (4.94)	15.93 (5.14)	-4.53	.001	0.50
Tolerance for Distress	12.15 (3.45)	13.12 (2.76)	-2.90	.003	0.30
Reduced Reactivity	14.16 (2.67)	15.10 (2.65)	-3.19	.001	0.35
Inter-connectedness	12.33 (2.25)	12.70 (2.20)	-1.51	.13	--
Affective equipoise	8.83 (2.16)	9.18 (2.59)	-1.30	.19	--
Impartial view	6.42 (2.01)	6.92 (2.00)	-2.28	.02	0.24
Total Equanimity	67.28 (10.50)	72.96 (11.18)	-4.70	.001	0.52

As seen in the table above, there was a significant increase in total equanimity of the high level of meditation compared to the low level of the meditation group. The effect size was calculated by using Hedges *g* as the sample sizes are not equal. The effect size was found to be 0.52 which suggests that the difference between the two groups, is interpreted as a medium effect.

Specifically, our results suggest that there was a significant increase in the dimensions of hedonic craving, tolerance for distress, reactivity, and holding an impartial view of others, among the high-level meditation practice group. The effect sizes as shown in the table above ranged from low to medium effect.

The table below illustrates the difference between a low and high level of yoga practice on equanimity.

Table 28

Difference between Low and High Level of Yoga Practice on Equanimity

	Low level of yoga practice (N= 251)	**High level of yoga practice (N= 118)**	**Welch's t**	***p***	**Hedge's *g***
	Mean (SD)	**Mean (SD)**			
Reduced Hedonic Craving	14.28 (5.15)	14.37 (4.89)	-.16	.86	--
Tolerance for Distress	12.33 (3.26)	12.89 (3.02)	-1.61	.10	--
Reduced Reactivity	14.25 (2.66)	14.86 (2.79)	-1.98	.04	0.22
Inter-connectedness	12.48 (2.14)	12.58 (2.35)	-.41	.67	--
Affective equipoise	9.01 (2.23)	9.52 (2.40)	-1.94	.05	0.22
Impartial view	6.52 (1.97)	6.73 (2.01)	-.94	.34	--
Total Equanimity	68.86 (10.76)	70.95 (10.56)	-1.76	0.8	--

As seen in the table above, the practice of yoga does not have any effect on total equanimity. However, significant differences were found in the dimensions of reduced reactivity and affective equipoise between the low and high-level yoga practice groups. The effect sizes as shown in the table above indicate a low magnitude of difference between the groups.

The table below illustrates the difference between a low and high level of prayer/mantra on equanimity.

Table 29

Difference between Low and High Level of Prayers/Mantras on Equanimity

	Low level of prayer/mantra practice (N= 271)	**High level of prayer/mantra practice (N= 406)**	**Welch's t**	***p***
	Mean (SD)	**Mean (SD)**		
Reduced Hedonic Craving	14.08 (4.61)	14.73 (5.23)	-1.696	.09
Tolerance for Distress	12.46 (3.20)	12.56 (3.29)	-.361	.71
Reduced Reactivity	14.27 (2.62)	14.54 (2.69)	-1.311	.19
Inter-connectedness	12.48 (2.05)	12.56 (2.32)	-.460	.64
Affective equipoise	9.24 (2.21)	9.09 (2.44)	.855	.39
Impartial view	6.71 (1.95)	6.64 (2.03)	.469	.63
Total Equanimity	69.25 (9.80)	70.11 (11.13)	-1.06	.28

As seen in the table above, there are no significant differences among the dimensions of equanimity between the low and high level of prayer/mantra practice groups which indicates that this practice does not have any significant effect on equanimity.

The table below illustrates the difference between a low and high level of religious activities such as *seva/satsang* on equanimity.

Table 30

Difference between Low and High level of Religious Practices such as Seva/satsang on Equanimity

	Low level of religious activities (N= 287)	High level of religious activities (N= 165)	Welch's t	*p*	Hedge's *g*
	Mean (SD)	**Mean (SD)**			
Reduced Hedonic Craving	14.06 (4.69)	15.04 (5.05)	-2.02	.04	0.20
Tolerance for Distress	12.42 (3.31)	13.12 (3.22)	-2.17	.03	0.21
Reduced Reactivity	14.41 (2.59)	14.64 (2.89)	-.86	.39	--
Inter-connectedness	12.41 (2.13)	12.54 (2.42)	-.5	.56	--
Affective equipoise	9.33 (2.15)	9.13 (2.61)	.838	.40	--
Impartial view	6.78 (1.93)	6.70 (2.13)	.43	.66	--
Total Equanimity	69.42 (10.27)	71.16 11.45)	-1.61	.10	--

As seen in the table above, significant differences were only found in the dimensions of hedonic craving and tolerance for distress between the low and high level of religious practices groups. The effect sizes indicate a low magnitude of difference between the two groups.

Thus, in comparison to all the above spiritual practices, it was found that the practice of meditation has the strongest relation with equanimity.

In the next chapter, the findings indicated in both the qualitative and quantitative phases of the study will be discussed and interpreted in connection to the review of existing literature.