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Investigating the relationship between length of time spent practicing Mind Body Practices (MBP)/ Meditative Movements (MM), self-perceived stress, higher self-awareness and burnout using multiple regression analysis.

Abstract

There is little research on the relation between length of practise of Mind Body Practises (MBP) / Meditative Movements (MM) and the level of self-perceived stress, higher self-awareness and level of burnout. Studies conduct so far were experimental in nature. They focused entirely on novices and investigated psycho-biometric measures. This study aimed to investigate the relationship between length of time spent practicing Mind Body Practices (MBP) / Meditative Movements (MM), self-perceived stress, higher self-awareness and burnout. A multiple regression analysis was used to examine the data. The research was conducted as an online survey on Qualtrics, an online platform for surveys. It consisted of three existing, validated scales: a) the PSS-10 (Perceived Stress Scale): a scale that measures the level of self-perceived stress during the last month, B) the Mindful Attention Awareness Scale: a scale that assesses the amplitude of present awareness, and C) the first part of the Copenhagen Burnout Inventory: a scale used to assess the degree of personal burnout someone is experiencing. Further questions asked for the age and gender of the participants, about the participants´ practices and how long in years they have been practicing. Self-perceived mindful awareness was highest in participants with most years of experience. Self-perceived stress and level of burnout showed a decrease with length of practice, although not significant. The result shows that mindful awareness is a positive predictor for length of time of practise.

Introduction

Stress, Burnout and increased mindful awareness may be seen as markers for todays meritocratic societies (Schwartzhoffer, 2009, p.vii). While burnout as a consequence of prolonged stress is acknowledged as lifestyle diseas (Singh, 2008,p.1; Schwartzhoffer, 2009), increased mindful awareness is promoted as antidot (Singh, 2008; Nedeljkovic et al., 2012, p.1178; Uhlig et al., 2010, p.6; Greeson, et al., 2015, p.186)

Greeson et al. (2015, p.186) emphasis the well established consequences from prolonged exposure to stress like patient care, substance use and raised rates of suicide in academic environments. According to McGrath (1970), cited in Weinberg and Gould (2015, p.80) exhibition to demanding circumstances with important consequences in a case of failure that individuals are unable to cope with is termed stress. Research has shown that stress causeses higher hormonal output of cortisol which is suggested for example to be a reason for cardio-vascular diseases (Nedeljkovic et al., 2012). Human beings are exposed to stress in different settings like in the workfield (Klein et al., 2011,; Theorell, 2000), in social environments, or in personal relations. A long history of research in professional athlets has shown that anticipated stress leads to negative physical reactions like: stiffness, earlier muscle fatigue, a narrowed visual field - termed tunnel view, and coordination difficulties. Consequences of acute physical effects might be serious injuries, depression and lower self-esteem (Weinberg and Gould, 2015, pp.80-83).

Despite other harmful conditions caused by stress one of the most prominent one is named burnout. It is well established that long term experiences of stress may lead to burnout (Harris, 2001; Sharkey & Sharples, 2003, cited in Schure et al., 2008; Singh, 2008). Emotional exhaustion, depersonalisation or lower personal accomplishment are recognised symptoms (Klein, 2011, p.1).

On the other hand it seems as increased mindful awarness may moderate the effects of stress and burnout. Different methods like Taijiquan, Qigong, Meditation, Mindfulness or Yoga are used to cultivate mindful awareness, altough in some disciplines this may just be one part of the methodology. There is scientific evidence that suggests that Mind-Body Practices may support physical and mental health (Greeson et al. , 2015; Klein and Adams, 2004; Jahnke et al., 2010; Wang et al., 2010a,b, cited in Nedeljkovic et al., 2012). Jin (1989) and Esch et al. (2007), cited in Nedeljkovic et al.(2012) found that the practise of Taijiquan was able to reduce salivary cortisol levels in participants up to four weeks after a beginners Taijiquan course. Similar effects were found in the practise of Qigong (Lee, Ryu, & Chung, 2000; Lee, Lee, Kim, & Moon, 2003; Lee et al., 2003, cited in Lee et al., 2004) and meditation (Creswell et al., 2014; Singh et al.,2012). Increased Cortisol levels are known to be a predictor for stress and cardiovascular diseases (Rosmond and Bjorntorp, 2000; von Kanel et al., 2001; Lovallo and Gerin, 2003; Rozanski et al., 2005; Brotman et al., 2007; Steptoe et al., 2007; Chida and Steptoe, 2010; Hamer et al., 2010, cited in Nedeljovic, 2012). On the other hand, mind-body exercises are known to increase body

awareness which may enhance a resource activating embodiment (Gyllensten et al., 2010; Uhlig et al., 2010, cited in Nedeljovic, 2012). This has been reported to decrease cortisol levels and consequentially lead to a lower stress perception (Carney et al., 2010, cited in Nedeljovic, 2012).

Up to this point most of the research conducted, focused either on novices, or on college students, or on elder populations, or on small samples. Most of the studies were experimental in nature and focused on psychobiological measures like cortisol levels, heart rate, alpha amylase (Nedeljkovic et al., 2012;). It remains uncertain how the long term practise of MBP / MM affects individuals stress perception, their level of experienced burnout and the experience of mindful awareness. Therefore, this research asked whether longer term practitioners of MBP/MM benefit from their practise in terms of higher stress resilience, higher self-awareness and lower burnout symptoms? It was hypothesised that self-awareness positively predicts length of time as a practitioner of MBP/MM whilst perceived stress and burnout are negative predictors.

Some Terms used in this paper need to be explained in this section.

MBP / MM

Mind-body practises are defined „as methods focusing on the interactions among the brain, mind, body, and behaviour, with the intent of using the mind to affect physical functioning and promoting health. Larkey (2009), cited in Payne (2013) recommends to gather these under the abbreviation of "MM - Meditative Movement". Practises like Qigong, Taijiquan, Mindfulness, Meditation and Yoga, besides others, are known as MBP / MM (U.S. National Institutes of Health, 2010).

Qi-Gong

Based on Acton MW (2009), cited in Ponzio et al. (2015) Qi-Gong is a practise that comprises movement, controlled breathing, and meditation. Its practise promotes stablity of physical and psychological health. Ponzio et al. (2015) concedes that up to this point the mechanisms involved are not fully understood. There is inconstistent methodology and terminology.

Taijiquan

Taijiquan is acknowledged as a rich martial art system that strengthens physical appearence, calms the mind by its meditating character, is popular for its medical effect on disbalances in the body, and known for its "mindful and gentle"(Nedeljkovic, 2012,p.1172) slow-motion like movements. German public health services like the DAK promote especially certified training courses in Taijiquan and Qi-Gong for the purpose of health and menatl prevention (DAK, 2018).

Meditation

The term of meditation entails as much inconstistent concepts as there are schools that promote their different teachings. Keown (2004) defines meditation from a buddhist perspective as a bouquet of techniques and practices to concentrate and focus the mind. Johnson (2009) expands on the hinduistic approach of the selfmanipulation of mind to obtain effects, such as inner transformation. There are well known meditation methods derived from christian, muslim or judaistic schools. There are simple methods that emphasis on breathing practices, body mindfulness, and other schools are more complex and involve visualisations, transformations, gestures and ritual formulaes (Blakemore and Jennett, 2001). This might suggest that not any kind of meditation has the same effect on mind and body or on mind or on the body. According to Sleczek (2018) the Buddha instructed his students according to their mental abilities different teachings based on their developmental state.

Mindfulness

The practise of mindfulness has emerged from buddhist teachings on how to deal with the suffering from reality. It is made up of different methods that develop or shift the focus back to the acceptance of an individuals awareness of the present moment. The methodology of mindfulness can be found in different therapeutical settings of third wave cognitive behavioural therapy: ACT of Stephen Hayes, DBT of Marsha Linehan, and MBSR of Jon Kabat-Zinn (Barker, 2010, pp. 168-180).

Method section

A questionnaire investigated whether there is a relationship between the length of time practicing MBP / MM and the amount of self-perceived stress, self-awareness and experienced burnout. It was a combination of three existing, validated scales, demographic questions, the years of practise in total and the kind of practise. The survey was provided in English and German. The participants information sheet, the demographic questions, the Copenhagen Burnout Inventory, and the debriefing were translated into German by the researcher. The PSS-10 and the MAAS were available as validated scales in German. The survey was available online on Qualtrics an online platform for surveys. The participants were provided an anonymous link to the survey by social networks, messengers and email. The data was then analysed in a multiple regression analysis in SPSS version 25.0.

Ethics statement

The study, including the consent procedure, was approved by Dr.Ann Walker and the DE300-19J Module Team. According to the guidance of British Psychological Society (2013) and the Open University (2019) all participants were shown a participants information sheet that included a consent form at the beginning of the survey. It informed the participants about the nature of the study, the time

participants may invest, its procedures, data collection and anonymization of all personal data. Participants were informed about their right to withdraw at any time. All participants were asked to provide informed consent electronically in order to proceed. Therefore, a check box was provided at the end of the participants information sheet. At the end of the survey they had to agree that the data may be used in the research.

(The ethical approval form, the partcipants information sheet, the consent form, and the debriefing instructions may be found in attached datafiles Appendix B named: AppB_Ali signed-off project proposal.docx, AppB_Consent_debrief, AppB_Marked DE300 Survey project proposal form.docx.)

Participants

A sample of 104 participants responded to the survey. It is uncertain from which countries the responses were recorded since no geographical data was recorded. 3 participants did not consent and 2 did not agree that the data may be used in the research project. 13 participants did not finish their response. 3 files were preview data. 2 participants finished the survey but did not respond to the scales. Responses from 81 participants were valid for the analysis. The average age of the participants was 38.61 (SD=15.44). While 33 responses were recorded in German, 48 responses were done in English.
The sample was purposive hence participants were recruited from different clubs, associations and groups associated with Taijiquan, Qigong, Wing Tsun and meditation practice from all around the world. Individuals, and friends were invited to participate by social networks through a) Facebook b) Messenger, c) WhatsApp and d) Threema. A second campaign with 250 invitations to participate was targeted to the administration of clubs, associations, teachers of clubs, Masters and Grandmasters by email. The text of the Email was:

> "Dear Friends and colleagues,
> my university just approved my research project. The aim of the research is to get a better understanding of how the time you spend all the years practising your particular practise (Taijiquan, Qigong, Wing Tsun, Meditation, any form of Wushu) contributes in your stress resilience, level of awarenss and resilience in Burnout. It is a Survey that will take you less than 15 minutes to respond to. It is entirely anonymous. The project needs to sample at least 100 participants to be regarded as valid. Thus, I want to ask you to share it with friends, teachers, peers that practise taijiquan, qigong, wushu, wing tsun or any kind of meditation.
> Best regards Ali"
> Understanding how time spent on MM practise may affect self-perceived stress, awareness and burnout. An online survey conducted as project work for a bachelors degree investigates how time may influence the effect of MM on factors like stress, awareness and burnout openss.qualtrics.com

> https://openss.qualtrics.com/jfe/form/SV_26sy5bGD1PfNOGp"

A third campaign roled out on Messenger by targeting 117 individuals of 8 public Facebook groups. The invitation read:

> I hope not to bother you. Asking you for your precious time taking part in a research. Particularly in a survey that aims to shade more light on how practises like Qigong, Taijiquan and Wing Tsun make people more resilient to stress and burnout the longer they practise. I am looking for those with years of practise. Experts, professionals like you. Studies so far only dealt with beginners. And they all prove that there is an effect. But how is the effect in those that practise long time? This is not done so far scientifically. The research still needs 20 participants to be regarded valid. Here is the link to the research: https://openss.qualtrics.com/jfe/form/SV_26sy5bGD1PfNOGp
> Please share the link with your students and peers.
> Best regards Ali-Reza Djassemi

Since the studies focus was on long term practice it was neccessarry to recruite participants that have at least 5 years of experience in their practice. Individuals with less than four years of practice may still be regarded as beginner (xxxx). For ethical reasons the University restricted the participants age. It was only allowed to recruit individuals older than 18years.

Measures

Demographic data included age (≥18 years) and gender. Participants were asked about their practises. Check boxes were available for Taijiquan, Qigong, Mindfulness, Meditation and Other. Additionally, a freetext box was available to name the other practise. The years participants were practising was recorded on a slider.

PSS-10 - Perceived Stress Scale

The PSS-10 was used to measure the degree to which life in the past month has been experienced as unpredictable, uncontrollable and overwhelming (Cohen, 1994) on a 5-point likert scale (5=”very often”, 4=”fairly often”, 3=”sometimes”, 2=”almost never”, 1 = “never”). The direction of answers was changed from the original scale to suite the order of the following scales in order to prevent participants from confusing any answers (5 = “never”, 4=”almost never”, 3=”sometimes”, 2=”fairly often”, 1=”very often”). After reversing the scores on the four positively stated items (Items 4, 5, 7, and 8), a PSS-10 total score was obtained by summing up the items. While in the original direction higher scores indicate a higher level of perceived stress (das.nh.gov, n.a.) the changed direction of answers caused that lower scores

indicate a higher level of perceived stress. There are no cut-off scores, hence the PSS is not a diagnostic instrument (das.nh.gov, n.a.). The scale showed a high reliability. Cronbach´s Alpha for the PSS-10 was 0.906.

MAAS - Mindful Attention Awareness Scale

The Mindful Attention Awareness Scale assesses the amplitude of present awareness (Brown et al., 2003) on a 6-point likert scale (1 = "Almost Always", 2 = "Very Frequently", 3 = "Somewhat Frequently", 4 = "Somewhat Infrequently", 5 = "Very Infrequently", 6 = "Almost Never"). Cronbach´s Alpha for the MAAS was 0.902, thus, the scale may be considered as reliable.

CBI - Copenhagen Burnout Inventory

The Copenhagen Personal Burnout Inventory is part of the Copenhagen Psychosocial Questionnaire assessing personal physical and mental exhaustion (Kristensen, 2004). It assessed the frequency of six items: „How often do you feel …": "tired, physically, emotionally exhausted, unable to go on, weak and prone to illness." The items were rated on a 5-point likert scale (1 ="never/almost never", 2 = "rarely", 3 = "occasionally", 4 = "often" to 5 = "always"). The scale was reliable. Cronbach´s Alpha for the CBI was 0.876.

(The survey may be found in the attached file Appendix C named: AppC_effect_of_long_term_english.docx, AppC_effect_of_long_term_german.docx.)

Results

Total Analysis of all practise groups

The average years that participants were practicing was 13.06 years (SD=13.13). The average self-perceived stress reported was 29.05 (SD=8.11). The average self-perceived awareness reported was 4.26 (SD=0.84). The average self-perceived level of Burnout reported was 43.96 (SD=19.55) [App.A Fig.1.0]. The number of participants in each discipline was: Qigong (n=11), Taijiquan (n=15), Mindfulness (n=35), Meditation (n=50), Others (n=13).

Results of Multiple Regression

The results of the multiple regression indicated that the model explained 24.1% of the variance [App.Fig.1.2]. The results indicated that the model was a significant predictor of length of time of practise, F(3,76)=8,030, p=.000 [App.Fig.1.4]. While mindful awareness contributed significantly to the model (B= 5.288, p=.005), self-perceived stress (B=.196, p=.241) and level of burnout (B=-.119, p=.128) did not [App.A Fig.1.1]. The final predictive model was: Length of time = -9.913 + (.196*self perceived

stress)+(5.288*mindfulness)+(-.119*level of burnout). The direction of the formula seems to be influenced by a strong negative relationship between years of practice and level of burnout.

Assumptions of Multiple Regression

The relationship between self-perceived stress, mindful awarenss, burnout and the years of practise is linear. Scatterplots show that this assumption had been met [App.A Fig.1.5 - 1.7]. There is no multicollinearity in the data. Analysis of collienearity statistics show this assumption has been met, as VIF scores were well below 10, and tolerance scores above 0.2 (VIF_PSS_10 = 1.049 and .95, VIF_MAAS = 1.34 and .75, VIF_CBI = 1.32 and .76) [App.A Fig.1.1]. The values of the residuals are independent. The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2 (Durbin-Watson = 1.986) [App.A Fig.1.2]. The variance of the residuals is constant. The plot of standardised residuals vs standardised predicted values showed no obvious signs of funnelling, suggesting the assumption of homoscedasticity has been met [App.A Fig.1.8]. The values of the residuals are not normally distributed. The P-P plot for the model suggested that the assumption of normality of the residuals may have been violated. However, as only extereme deviations from normality are likely to have a significant impact on the findings, the results are still valid [App.A Fig.1.9]. There are no influential cases biasing the model. Cook´s Distance values were all under 1, suggesting individual cases were not unduly influencing the model [App.A Fig.1.10].

Review of the predictive statistical model on two data sets of participants

Length of time = -9.913 + (.196*self perceived stress)+(5.288*mindfulness)+(-.119*level of burnout)
A calculation may be able to predict the years an individual would need to practice in order to have a certain level of stress, burnout and awareness.

Participant no.81

The values of participant no. 81 were used: (PSS-10: 47), (MAAS: 5,4), (CBI: 16,67).
The highest score possible in PSS_10 would be 50. This means lowest level of stress. We would predict a long experience. The highest score possible for MAAS would be 6. This means highest level of awareness. We would predict a long experience. The lowest score possible for CBI would be 0. This translates into lowest level of burnout. We would predict a long experience. The participant actually claimed to have an exeperience of 50 years of practise. The result of the predicitive statistical model computes 25 years.

Participant no.11

The same procedure was undertaken for participant no.11: (PSS-10: 19), (MAAS: 3,27), (CBI: 87,50).
A low score in PSS-10 may predict a high level of stress. This may predict short experience.

A medium score in MAAS may predict a medium range in awareness. This may predict a medium time of experience. A high level of CBI may predict a high level of burnout. This may predict a short time of experience. The participant actually claimed to have an exeperience of 1 year of practise. The result of the predicitive statistical model computed 0,69 years.

Seperate Analysis for the group of Mindfulness and Meditation

There was the intention to look closer at the data for a seperate analysis for each discipline. Since the number of samples of Mindfulness (n=35) and Meditation (n=50) were the only to perform a reliable analysis on the basis of n samples, it was decided to sum up the data of participants that practise Mindfulness and Meditation (n=65).

Results of Multiple Regression

The average years that participants were practicing was 10.29 years (SD=10.90). The average self-perceived stress reported was 27.49 (SD=7.4). The average self-perceived awareness reported was 4.13 (SD=0.77). The average self-perceived level of Burnout reported was 44.3 (SD=19.92) [App.A Fig.2.0]. The results of the regression indicated that the model explained 22.4% of the variance [App.A Fig.2.1]. The results indicated that the model was a significant predictor of length of time of practise, F(3,61)=5,883, p=.001 [App.A Fig.2.2]. While mindful awareness contributed significantly to the model (B= 4.506, p=0.02), self-perceived stress (B=-0.21, p=0.22) and level of burnout (B=-0.12, p=0.11) did not. The final predictive model was: Length of time = 2.686 + (-.210*self perceived stress) +(4.506*mindfulness)+(-.118*level of burnout).

Assumptions of Multiple Regression

The relationship between self-perceived stress, mindful awarenss, burnout and the years of practise is linear. Scatterplots show that this assumption had been met [App.A Fig.2.3 - 2.5]. There is no multicollinearity in the data. Analysis of collienearity statistics show this assumption has been met, as VIF scores were well below 10, and tolerance scores above 0.2 (VIF_PSS_10 = 1.018 and 0.98, VIF_MAAS = 1.38 and 0.73, VIF_CBI = 1.39 and 0.72) [App.A Fig.2.6]. The values of the residuals are independent. The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2 (Durbin-Watson = 1.502) [App.A Fig.2.1]. The variance of the residuals is constant. The plot of standardised residuals vs standardised predicted values showed no obvious signs of funnelling, suggesting the assumption of homoscedasticity has been met [App.A Fig.2.7]. The values of the residuals are not normally distributed. The P-P plot for the model suggested that the assumption of normality of the residuals may have been violated. However, as only extereme deviations from normality are likely to have a significant impact on the findings, the results are still valid [App.A Fig.2.8]. There are no influential

cases biasing the model. Cook´s Distance values were all under 1, suggesting individual cases were not unduly influencing the model [App.A Fig.2.9].
As the R^2 of both analysis were only between .24 - .22 and only mindful awareness was statistically significant (.005 - .02) the models may not be regarded as reliable to predict the dependant variable.

Discussion

This is the first survey based study that investigated the relationship between length of time of practise of MBP / MM and levels of self-perceived stress, mindful awareness, and burnout. The study resulted in two predictive models. These may be used to calculate the length of practise for three independent variables after answering the PSS-10, the MAAS, and the CBI. But, these may also be used to calculate the level of self-perceived stress, or awareness, or burnout when two of the mean values are known and a certain length of practise is given. The first (Length of time = -9.913 + (.196*self perceived stress) +(5.288*mindfulness)+(-.119*level of burnout)) may be used for a population exercising any MBP / MM. The second (Length of time = 2.686 + (-.210*self perceived stress)+(4.506*mindfulness)+(-.118*level of burnout)) may be used for a sample entirely practising meditation, or mindfulness, or both. However, referring to Frost (2020) a low R^2 in combination with statistical significant independant variables could be considered reliable for a predictive model on personality chracteristics due to the complexity of human nature. In combination with not significant independant variables the model may not be considered reliable. Thus, both models need to be used with caution. Only mindful awareness is statistically significant. R^2 resulted in values between a fifth or a quarter for the prediction of the dependent variable. Thus, suggesting there may be other, more contributing factors that need to be investigated in future research.

Despite that the present study extend previous research by suggesting an overall stress and burnout buffering effect of MBP / MM, although not significant. Previous research reported significant effects of stress reduction after Taijiquan, Qigong, Meditation or Mindfulness interventions (Nedeljkovic et al., 2012, p.1177; Greeson et al., 2015, p.186,190; Creswell et al., 2014, pp.6-8; Singh et al., 2012, p.52; Zou et al., 2018, pp.14-16). These studies were control studies with interventions ranging from four to sixteen weeks. Baseline levels of perceived stress were recorded before the intervention and controled afterwards. The present study depicted a present status of participants´ perception of stress.

Taking into account that the present study found significant levels of mindful awareness this suggests that with experience the effect of mindful awareness increases. Consequentially, it may also explain why stress and burnout levels are not significantly lower in participants with long experience in MBP /MM. It may be possible that individuals with high levels of mindful awareness may perceive stressful life circumstances and consequentially indicators of burnout less difficult than those with little or no training.

This is in line with results from previous studies. For instance Klein et al. (2016, p.8) reported slightly higher levels of stress in individuals in training. According to the literature (Batchelor, 1997, p.93-99; Barker, 2010, p.180) individuals develop an acceptance while becoming better in coping with the demands. Being mindful is understood as being present with how things are, to understand how phenomenons like behaviour, habits or emotions arise and fade off. Nedeljkovic et al. (2012, p.1177-1178) point to their and prior findings that stress protecting effects of MBP / MM may arise from a "mindful embodiment of effortless stability and calmness in motion". Zou et al. (2018, p.16) point out that Taijiquan or Yoga practicioners may be able to cope with stressful daily hassles by achieving a meditative state of mind which is frequently exercised by being present. It may be important for future research to examine the frequency of practise. This may be a strong factor influencing the expertise in a discipline. It may be possible that an individual practises roughly 12 years but only once a month for a couple of hours while another individual practises 6 years for a quarter hour on a daily basis.
An issue that needs to be emphasised for the present study, due to its implications for further critic and future research, is that it treated different disciplines of MBP / MM, gender and age as equal. While this was only possible because findings of prior studies suggest that all MBP/MM have the development of mindful awareness in common(Nedeljovic, 2012; Uhlig et al., 2010; Singh et al., 2012; Creswell et al., 2014), and the researcher aimed to sample a "professional", experienced population, this resulted in a diverse sample with two major issues. One issue is that research on the PSS-10 (Klein et al., 2016, p.7) reported that women showed higher values of stress compared to men and pointed to results from prior studies with similiar findings. A seperate multiple regression analysis was conducted for a split group by gender but the findings are not reported as this would exceed the limits of this work. The findings can be found in the Appendix [App.A Fig. 3 - 3.7]. Another issue that needs to be considered is that the sample size may have been insufficient. Although Cohen et al. (2007, p.101) explain that there is no right or wrong for the correct sample size, they suggest a dependency on the purpose and the nature of the population examined. Further, they claim an increased reliabilty and the usage of stronger statistical methods with a larger sample size. But the most important point to take away is the recommendation of having a minimum of thirty cases per variable. According to Gorard (2003), cited in Cohen et al. (2007, p.102) a phenomenon with high potential of variability increases the sample size. Referring to Borg and Gall (1979), cited in Cohen et al. (2007, p.102) each major subgroup may aim for more than 100 cases and twenty to fifty for the subdivisions. The table "Frequencies" [App.A Fig.4] shows that only the disciplines Mindfulness and Meditation had sufficient sample sizes for a reliable analysis. Finally, the data may be affected by response bias due to the self-report nature of the study.

Conflict of interest

The researcher studies Wing Tsun since nine years, Taijiquan in the Yang family style for eight, and Chen family style for six years. Further studies of Judo, MMA, Shaolin Kung Fu and Qi-Gong accompany the studies. In his early teens the author was disciple of the Shotokan Karate lineague. In 2016 the author turned to Tibetan Buddhist Teachings of the Diamond Way Kagyü Lineague to support his development; and took refuge in Lama Ole Nydahl.

word-count: 4897 / 5000

Reference-List

Barker, M. (2010) `Mindfulness approaches` in Barker, M., Vossler, A., Langdridge, D. (eds.) Understanding counselling and psychotherapy, Milton Keynes, The Open University

Batchelor, S., (1997) Buddhism without beliefs. London: Bloomsbury. [Online] Available at http://www.ahandfulofleaves.org/documents/Buddhism%20Without%20Beliefs_A%20Contemporary%20Guide%20to%20Awakening_Batchelor.pdf (accessed at 30 March 2020)

Blakemore, C. and Jennett, S. (2001) *The Oxford Companion to the Body*, Oxford University Press, [Online], Available at http://www.oxfordreference.com.libezproxy.open.ac.uk/view/10.1093/acref/9780198524038.001.0001/acref-9780198524038-e-603?rskey=BMqIvx&result=7 (accessed at 19 June 2018)

Britisch Psychological Society (2013) Ehtics Guidelines for Internet-mediated Research, [Online]. Available at https://www.bps.org.uk/sites/www.bps.org.uk/files/Policy/Policy%20-%20Files/Ethics%20Guidelines%20for%20Internet-mediated%20Research%20%282017%29.pdf (Accessed 09 December 2019)

Brown, K.W. and Ryan, R.M. (2003) Mindful Attention Awareness Scale,[Online]. Available at https://ggsc.berkeley.edu/images/uploads/The_Mindful_Attention_Awareness_Scale_-_Trait_(1).pdf (Accessed 01 Januar 2020)

Cohen, S. (1994) Perceived Stress Scale, [Online]. Available at http://www.mindgarden.com/documents/PerceivedStressScale.pdf (Accessed 01 Januar 2020)

DAK (2018), Tai-Chi und Qigong: Gesundheitskurse der Krankenkasse, [Online], https://www.dak.de/dak/leistungen/tai-chi-und-qigong-1092400.html (accessed at 16 July 2018)

das.nh.gov (n.a.) Perceived Stress Scale, [Online]. Available at https://das.nh.gov/wellness/Docs/Percieved%20Stress%20Scale.pdf (Accessed 08 March 2020)

Frost, J. (2020) ´How To Interpret R-squared in Regression Analysis´, *Statistics by Jim*, [Blog], Available at https://statisticsbyjim.com/regression/interpret-r-squared-regression/

Greeson, J.M., Toohey, M.J., Pearce, M.J. (2015) ´An adapted, four-week Mind-Body Skills group for medical students: Reducing Stress, Increasing Mindfulness, and enhancing self-care´, *EXPLORE, vol. 11, no. 3, pp. 186-192* , [Online]. Available at http://dx.doi.org/10.1016/j.explore.2015.02.003 (Accessed 21 March 2020)

Johnson, W. J. (2009) *A Dictionary of Hinduism*, Oxford University Press, [Online], Available at http://www.oxfordreference.com.libezproxy.open.ac.uk/view/10.1093/acref/9780198610250.001.0001/acref-9780198610250-e-1605?rskey=BMqIvx&result=3 (accessed at 19 June 2018)

Klein, J., Grosse Frie, K., Blum, K., von dem Knesebeck, O. (2011) ´Psychological stress at work and perceived quality of care among clinicians in surgery`, BMC Health Services Research, vol.11, no. 109, [Online]. Available at http://biomedcentral.com/1472-6963/11/109 (Accessed 21 March 2020)

Kristensen, T.S. and Borritz, M. (2004) Copenhagen Burnout Inventory ,[Online]. Available at https://nfa.dk/da/Vaerktoejer/Sporgeskemaer/Sporgeskema-til-maaling-af-udbraendthed/Copenhagen-Burnout-Inventory-CBI (Accessed 01 Januar 2020)

Nedeljkovic, M., Ausfeld-Hafter, B., Streitberger, K., Seiler, R., Wirtz, P. H. (2012), ´Taiji practice attenuates psychobiological stress reactivity — A randomized controlled trial in healthy subjects´, *Psychoneuroendocrinology, vol. 37, pp. 1171—1180*, [Online]. Available at https://doi-org.libezproxy.open.ac.uk/10.1016/j.psyneuen.2011.12.007 (Accessed 22 February 2018)

Ponzio, E., Sotte, L., D'Errico, M., Berti, S., Barbadoro, P., Prospero, E., Minelli, A. (2015) „Qi-gong training reduces basal and stress-elicited cortisol secretion in healthy older adults“, *European Journal of Integrative Medicine* 7 194–201 [Online], Available at http://dx.doi.org/10.1016/j.eujim.2015.01.002 (accessed at 21 February 2018).

Rowland, C. (2016) `Doing your survey project`, in Ness, H. and Kaye, H. (eds.) Investigating Psychology 3, Milton Keynes, The Open University, pp.118

Schure, M.B., Christopher, J., Christopher, S. (2008) ´Mind-Body Medicine and the Art of Self-Care: Teaching Mindfulness to Counselling Students Through Yoga, Meditation and Qigong´, *Journal of Counselling and Development, vol. 86,* [Online]. Available at https://onlinelibrary-wiley-com.libezproxy.open.ac.uk/doi/pdfdirect/10.1002/j.1556-6678.2008.tb00625.x (Accessed 18 October 2019)

Schwartzhoffer, R.V., (2009) Psychology of Burnout: Predictors and Coping Mechanisms, [Online], Nova Science Publishers, Incorporated, New York. Available at https://pmt-eu.hosted.exlibrisgroup.com/permalink/f/h21g24/44OPN_ALMA_DS5191742560002316 (accessed at 22 March 2020)

Singh, Y., Sharma, R., Talwar, A., (2012) ´Immediate and Long-term Effects of Meditation on Acute Stress Reactivity, Cognitive Functions, and Intelligence´, Alternative Therapies, vol. 18, no. 6, [Online]. Available at https://search-ebscohost-com.libezproxy.open.ac.uk/login.aspx?direct=true&db=c8h&AN=108083649&site=ehost-live&scope=site. (accessed at 18 December 2019)

Sleczek, K. (2018) „Not Being a Thing, Mind Can Be Everything“, Buddhism Today 41, California/USA, Diamond Way Buddhist Centers USA

The Open University (2019) `Recruitment and consent` , *DE300-19J Week 14 Study Guide: Block 3 start: Doing your project and Writing your research protocol* , [Online]. Available at https://learn2.open.ac.uk/mod/oucontent/view.php?id=1475405&section=4.3.3 (Accessed 02 December 2019)

Theorell, T. (2000) ´Working conditions and health.´, in Berkman, L.F., Kawachi, L. (eds.) *Social Epidemology, pp.95-117,* Oxford University Press, [Online], Available at http://ebookcentral.proquest.com/lib/open/detail.action?docID=679614. (accessed at 21 March 2020)

Uhlig, T., Fongen, C., Steen, E., Christie, A. Ødegård, S., (2010) ´Exploring Tai Chi in rheumatoid arthritis: a quantitative and qualitative study´, *BMC Musculoskeletal DIsorders, vol.11, no. 43*, [Online]. Available at http://www.biomedcentral.com/1471-2474/11/43 (Accessed 24 March 2020)

U.S. National Institutes of Health (2010) [Online] https://nccih.nih.gov/health/integrative-health#hed4 (Accessed 18 October 2019)

Weinberg, R.S., and Gould, D. (2015) “Arousal, Stress, and Anxiety”, *Foundations of sport and exercise psychology*, Champaign, Human Kinetics

Zou, L., Sasaki, J.E., Wei, G.-X., Huang, T., Yeung, A.S., Neto, O.B., Chen, K.W., Hui, S.S. (2018) Éffetcs of Mind-Body Exercises (Tai Chi/Yoga) on Heart Rate Variability Parameters and Perceived Stress: A Systematic Review with Meta-Analysis of Randomized Controlled Trials`, *Journal of*

Clinical Medicine, vol. 7, no. 404, [Online], Available at http://dx.doi.org/10.3390/jcm7110404 (accessed at 21 February 2020)

Appendix A

Descriptive Statistics Total

	Mean	Std. Deviation	N
How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.	13.06	13.13	80
PSS_Total_Scale	29.05	8.11	80
AAS_Scale_Total	4.25	.84	80
CBI_Scale_Total	43.96	19.55	80

(Fig.1.0)

Coefficients (a)

Model	Unstandardized Coefficients			Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-9.913	10.603		-.935	.353		
	PSS_Total_Scale	.196	.166	.121	1.182	.241	.953	1.049
	AAS_Scale_Total	5.288	1.819	.337	2.907	.005	.745	1.342
	CBI_Scale_Total	-.119	.077	-.177	-1.538	.128	.758	1.320

(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

(Fig.1.1)

Model Summary (b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.491 (a)	.241	.211	11.668	1.986

(a) Predictors: (Constant), CBI_Scale_Total, PSS_Total_Scale, AAS_Scale_Total

(b) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

(Fig.1.2)

Correlations

		How many years have you practiced MM / MBP (any type)?	PSS_Total_Scale	AAS_Scale_Total	CBI_Scale_Total
Pearson Correlation	How many years have you practiced MM / MBP (any type)?	1.000	.218	.448	-.360
	PSS_Total_Scale	.218	1.000	.205	-.161
	AAS_Scale_Total	.448	.205	1.000	-.488
	CBI_Scale_Total	-.360	-.161	-.488	1.000
Sig. (1-tailed)	How many years have you practiced MM / MBP (any type)?	.	.026	.000	.001
	PSS_Total_Scale	.026	.	.034	.077
	AAS_Scale_Total	.000	.034	.	.000
	CBI_Scale_Total	.001	.077	.000	.
N	How many years have you practiced MM / MBP (any type)?	80	80	80	80
	PSS_Total_Scale	80	80	80	80
	AAS_Scale_Total	80	80	80	80
	CBI_Scale_Total	80	80	80	80

(Fig.1.3)

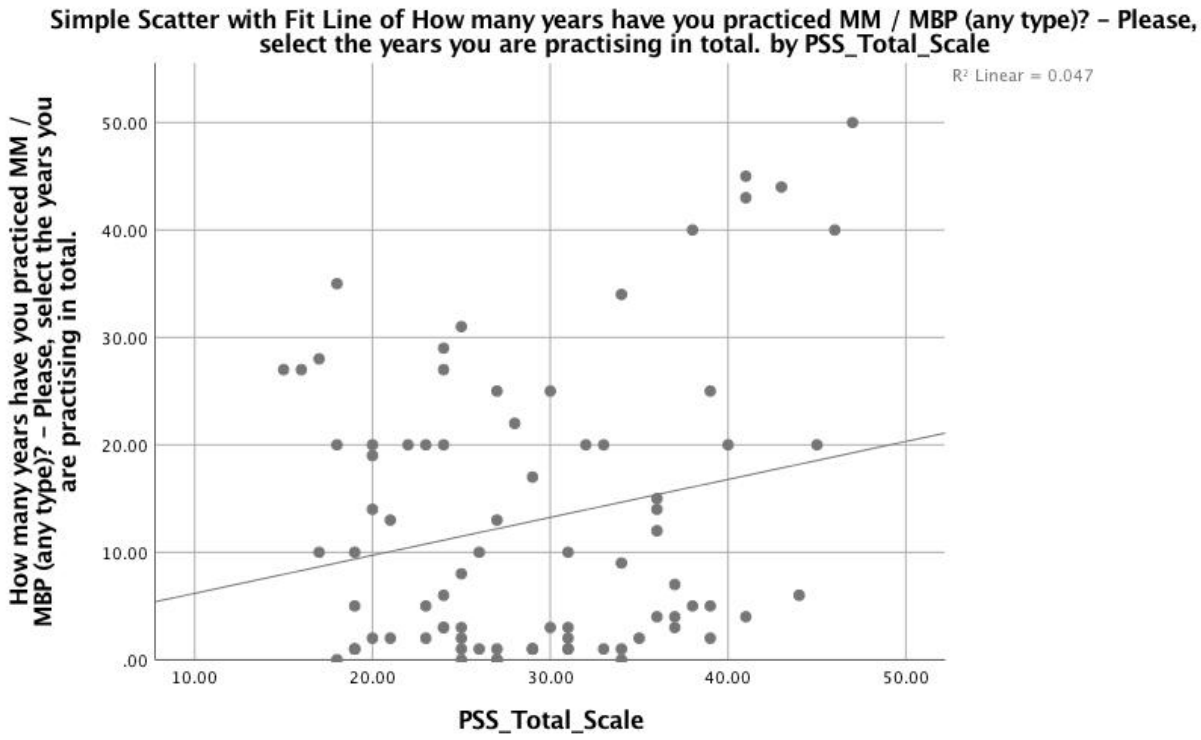
ANOVA (a)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3280.178	3	1093.393	8.030	.000b
	Residual	10348.510	76	136.165		
	Total	13628.688	79			

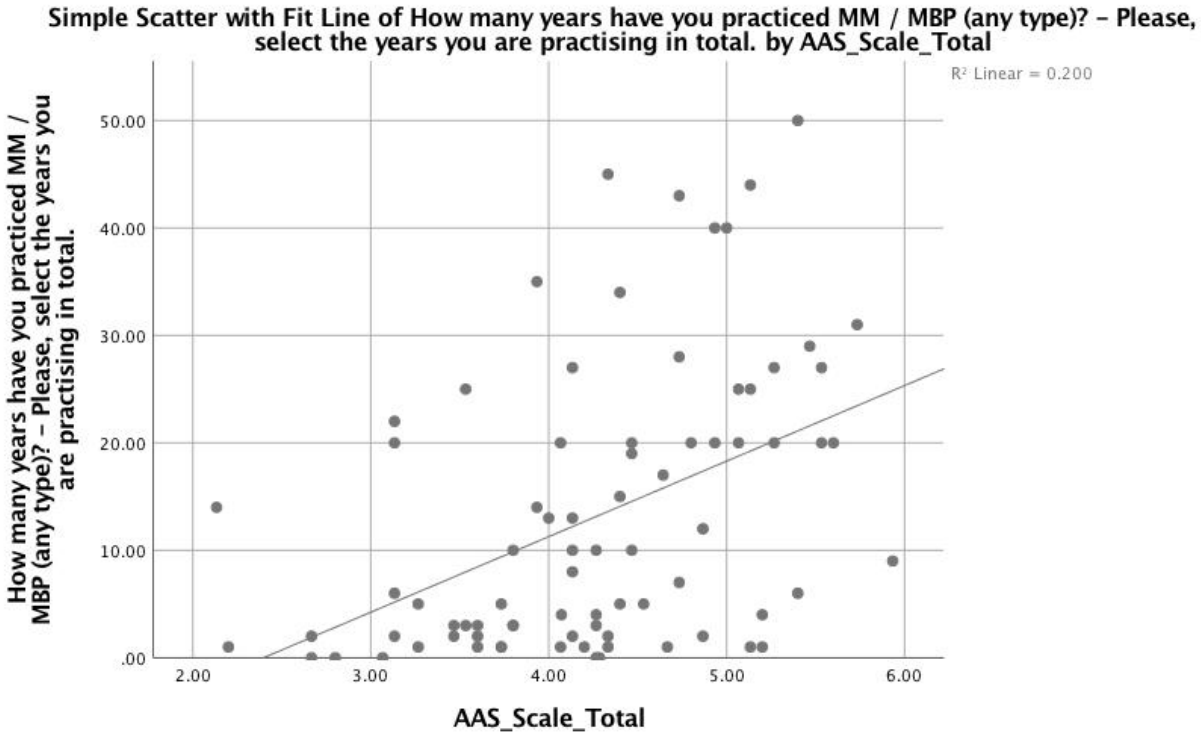
(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

(b) Predictors: (Constant), CBI_Scale_Total, PSS_Total_Scale, AAS_Scale_Total

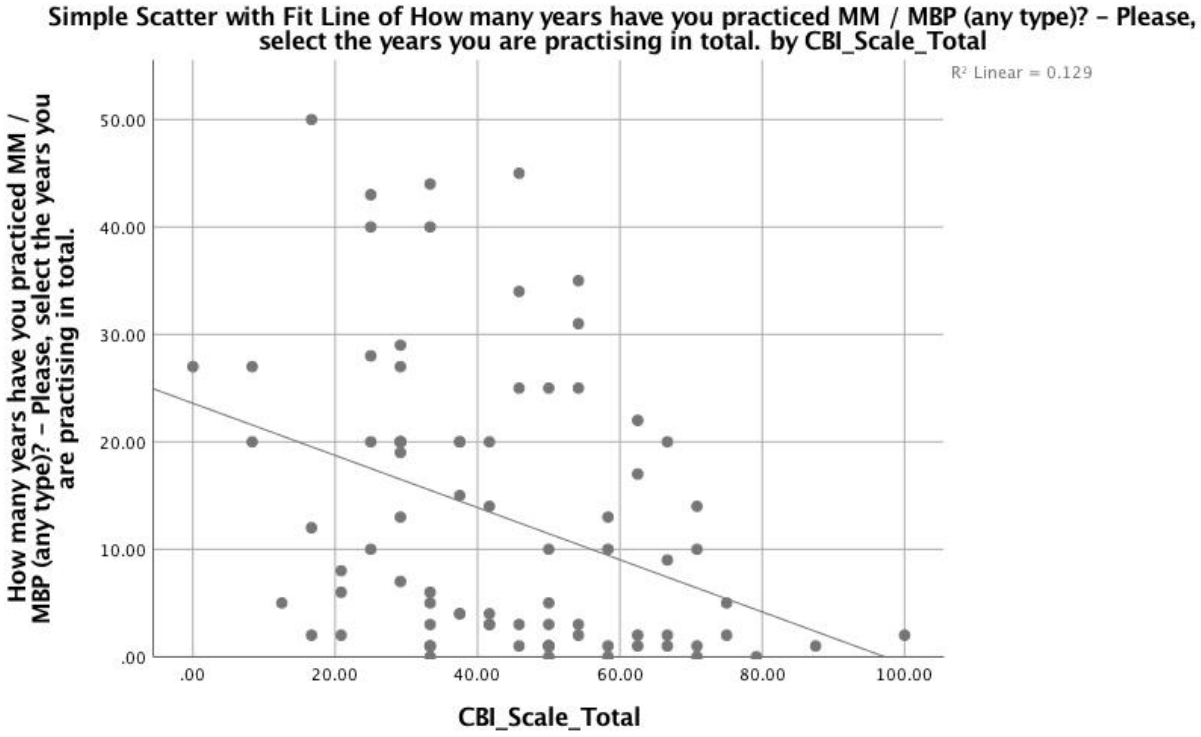
(Fig.1.4)



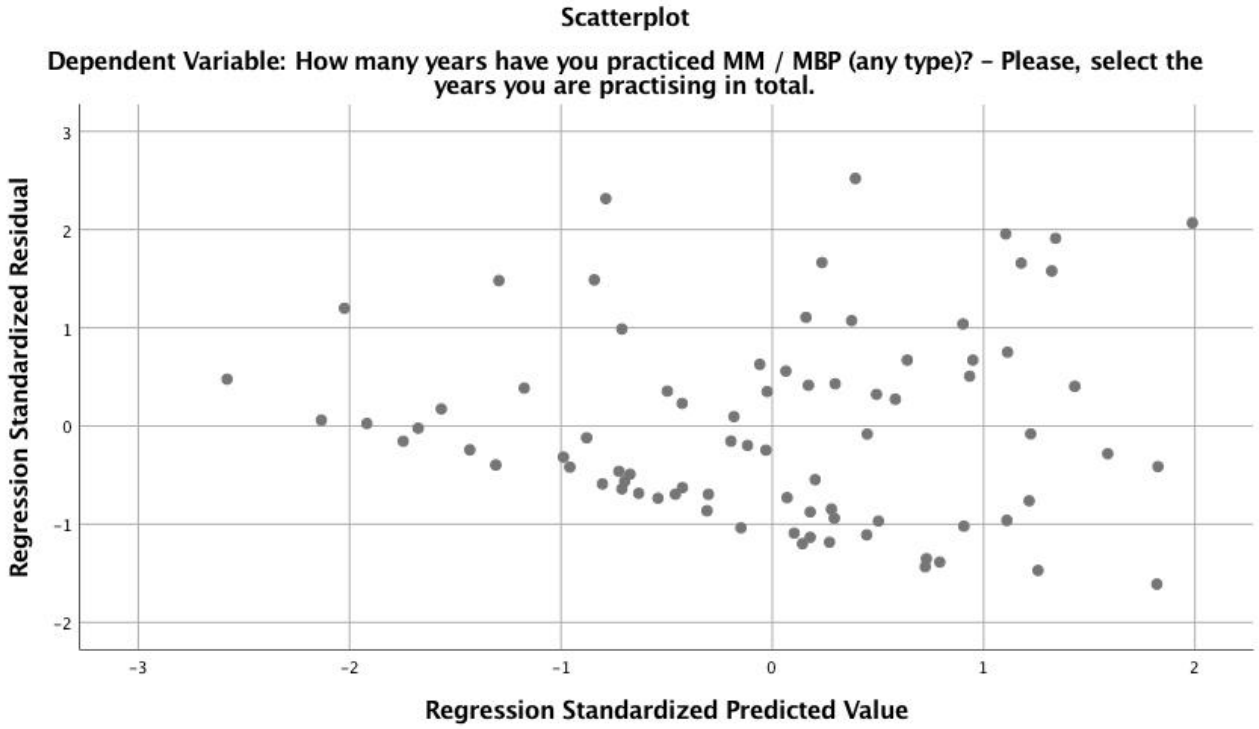
(Fig.1.5)


Simple Scatter with Fit Line of How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total. by AAS_Scale_Total
R² Linear = 0.200
How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
50.00
40.00
30.00
20.00
10.00
.00
2.00
3.00
4.00
5.00
6.00
AAS_Scale_Total

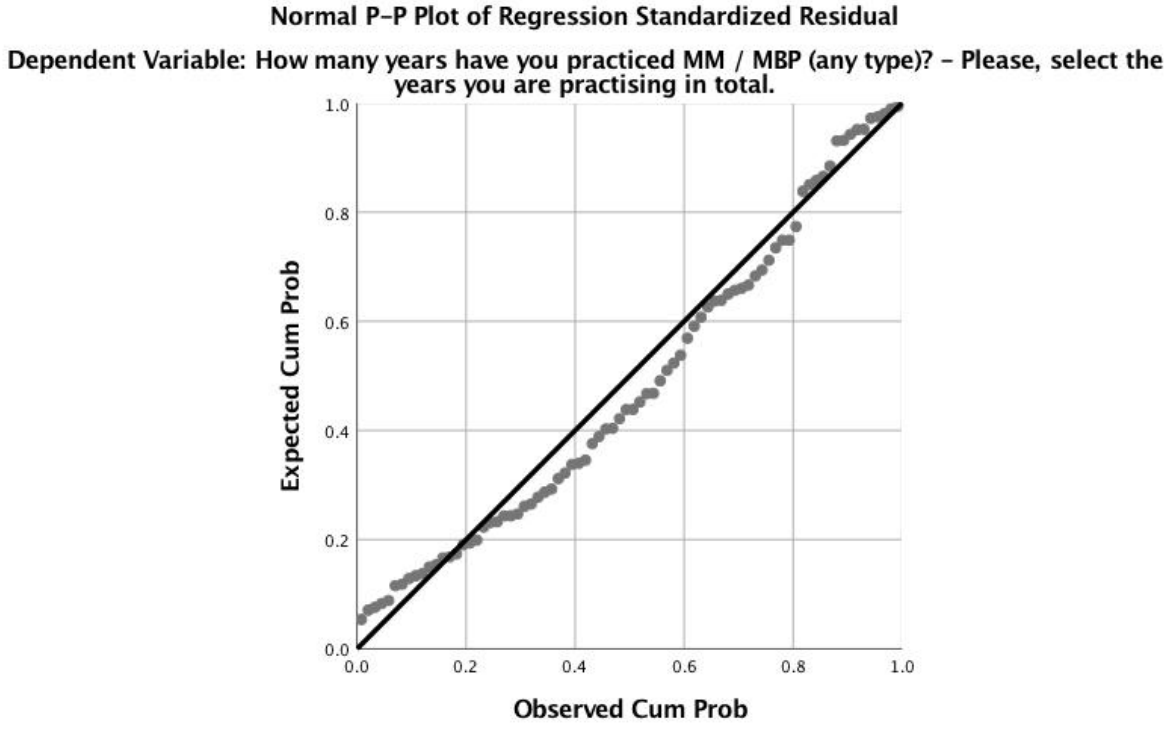
(Fig.1.6)


Simple Scatter with Fit Line of How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total. by CBI_Scale_Total
R² Linear = 0.129
How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
50.00
40.00
30.00
20.00
10.00
.00
.00
20.00
40.00
60.00
80.00
100.00
CBI_Scale_Total

(Fig.1.7)


Scatterplot
Dependent Variable: How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
Regression Standardized Residual
Regression Standardized Predicted Value
3
2
1
0
-1
-2
-3
-2
-1
0
1
2

(Fig.1.8)


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

(Fig.1.9)

Residuals Statistics (a)

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-3.56	25.870	13.062	6.444	80
Std. Predicted Value	-2.580	1.988	.000	1.000	80
Standard Error of Predicted Value	1.430	4.434	2.509	.720	80
Adjusted Predicted Value	-4.344	26.232	12.999	6.500	80
Residual	-18.788	29.405	.000	11.445	80
Std. Residual	-1.610	2.520	.000	.981	80
Stud. Residual	-1.671	2.574	.003	1.007	80
Deleted Residual	-20.23	30.676	.0631	12.063	80
Stud. Deleted Residual	-1.691	2.676	.007	1.019	80
Mahal. Distance	.199	10.418	2.963	2.369	80
Cook's Distance	.000	.119	.014	.021	80
Centered Leverage Value	.003	.132	.038	.030	80

a Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

(Fig.1.10)

Descriptive Statistics

	Mean	Std. Deviation	N
How many years have you practiced MM / MBP (any type)?	10.292	10.904	65
PSS_Total_Scale	27.492	7.399	65
AAS_Scale_Total	4.1286	.772	65
CBI_Scale_Total	44.294	19.922	65

(Fig.2.0)

Model Summary (b)-2

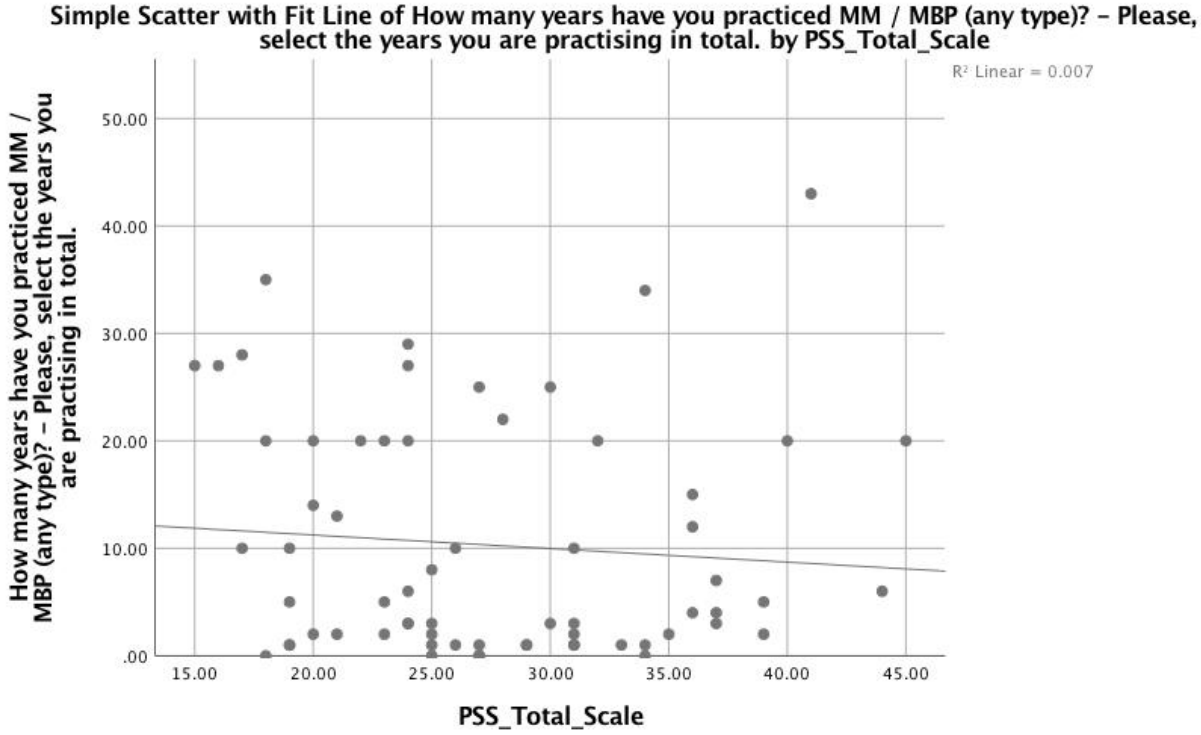
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.474a	.224	.186	9.836	1.502
(a) Predictors: (Constant), CBI_Scale_Total, PSS_Total_Scale, AAS_Scale_Total					
(b) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.					

(Fig.2.1)

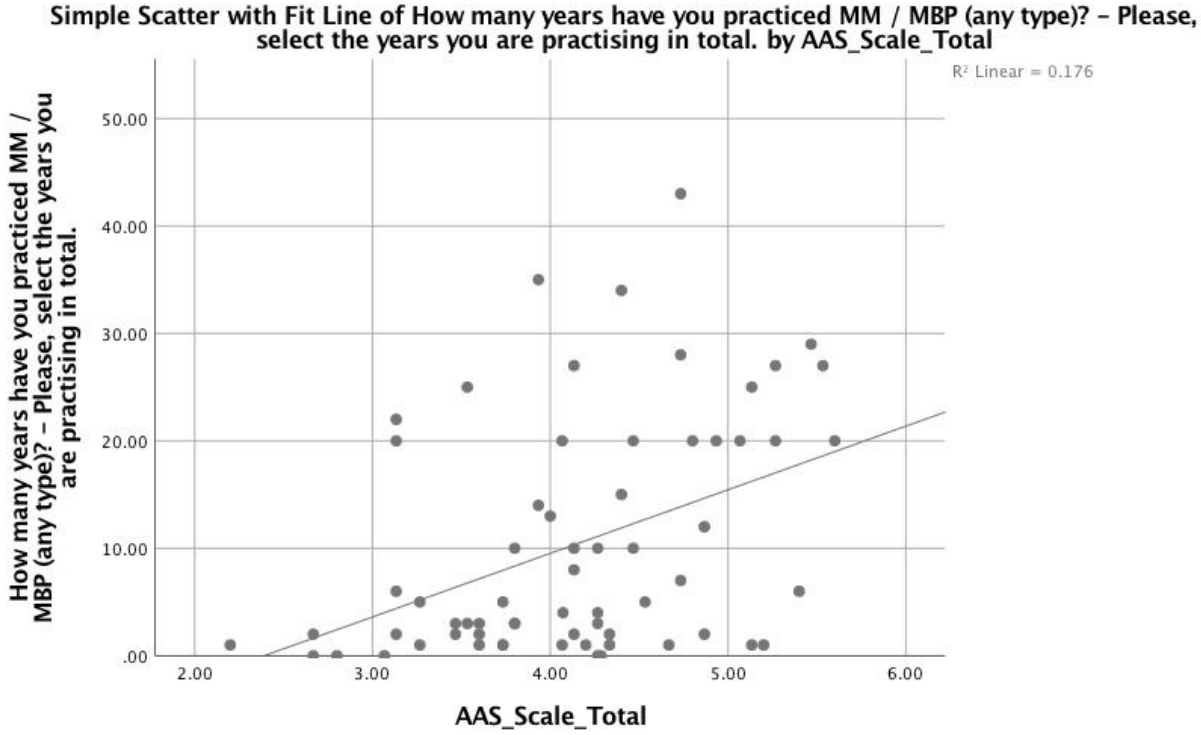
ANOVA (a)-2

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1707.555	3	569.185	5.883	.001b
	Residual	5901.891	61	96.752		
	Total	7609.446	64			
(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.						
(b) Predictors: (Constant), CBI_Scale_Total, PSS_Total_Scale, AAS_Scale_Total						

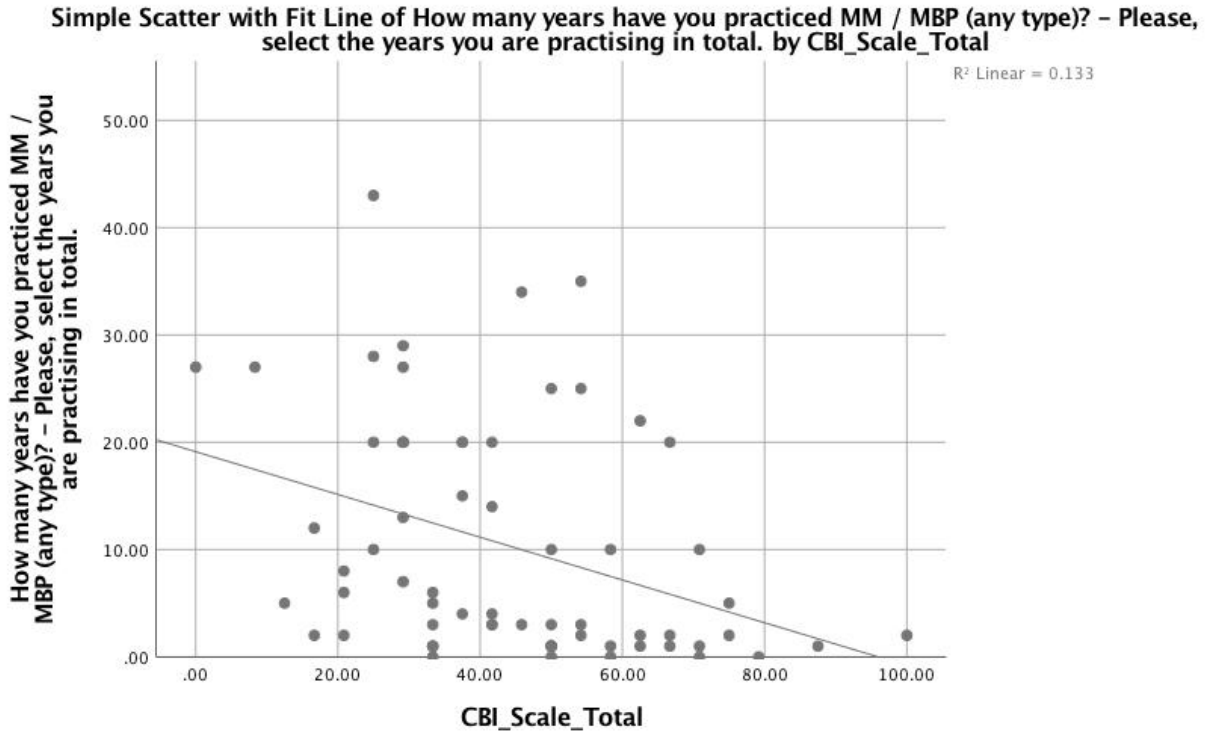
(Fig.2.2)


Simple Scatter with Fit Line of How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total. by PSS_Total_Scale
R² Linear = 0.007
How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
50.00
40.00
30.00
20.00
10.00
.00
15.00
20.00
25.00
30.00
35.00
40.00
45.00
PSS_Total_Scale

(Fig.2.3)


Simple Scatter with Fit Line of How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total. by AAS_Scale_Total
R² Linear = 0.176
How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
50.00
40.00
30.00
20.00
10.00
.00
2.00
3.00
4.00
5.00
6.00
AAS_Scale_Total

(Fig.2.4)



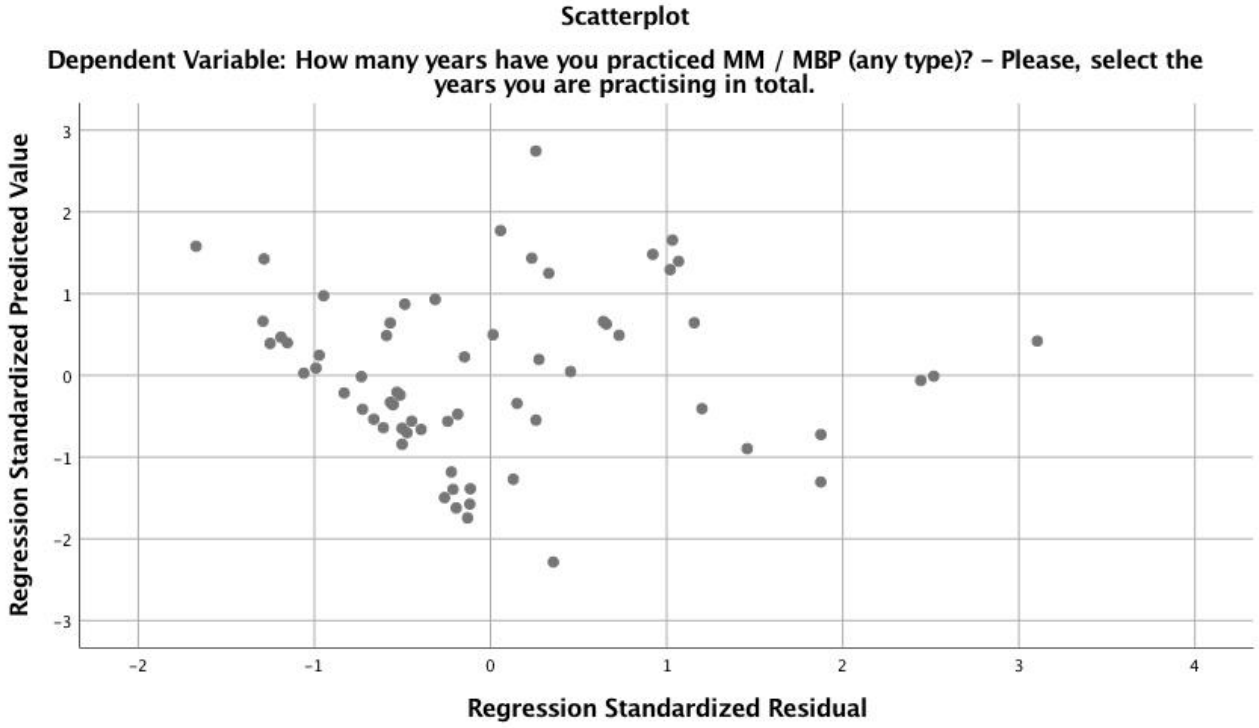
(Fig.2.5)

Coefficients (a)-2

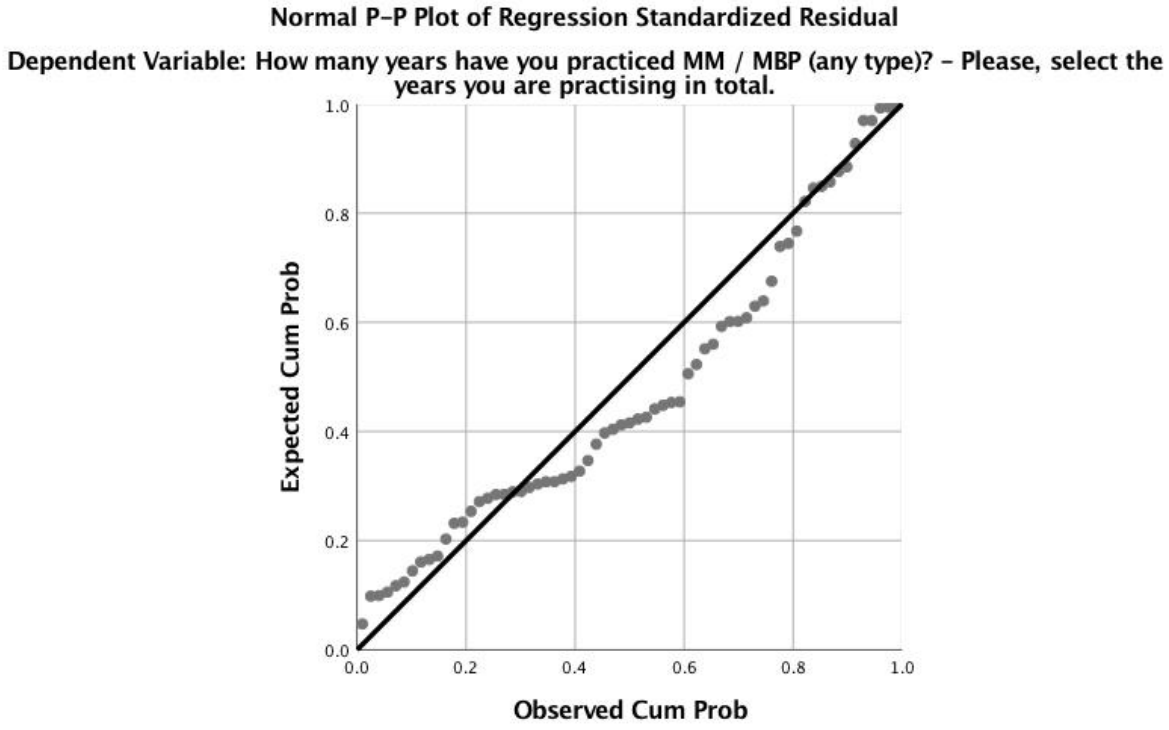
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.686	10.941		.245	.807		
	PSS_Total_Scale	-.210	.168	-.142	-1.252	.215	.982	1.018
	AAS_Scale_Total	4.506	1.871	.319	2.409	.019	.725	1.379
	CBI_Scale_Total	-.118	.073	-.216	-1.620	.110	.718	1.392

(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

(Fig.2.6)


Scatterplot
Dependent Variable: How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
Regression Standardized Predicted Value
Regression Standardized Residual
3
2
1
0
-1
-2
-3
-2
-1
0
1
2
3
4

(Fig.2.7)


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

(Fig.2.8)

Residuals Statistics (a)-2

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-1.504	24.47	10.292	5.165	65
Std. Predicted Value	-2.284	2.745	.000	1.000	65
Standard Error of Predicted Value	1.369	4.300	2.347	.673	65
Adjusted Predicted Value	-2.101	23.969	10.264	5.196	65
Residual	-16.450	30.542	.000	9.603	65
Std. Residual	-1.672	3.105	.000	.976	65
Stud. Residual	-1.734	3.232	.001	1.006	65
Deleted Residual	-17.678	33.095	.028	10.204	65
Stud. Deleted Residual	-1.763	3.521	.011	1.035	65
Mahal. Distance	.256	11.245	2.954	2.339	65
Cook's Distance	.000	.218	.016	.031	65
Centered Leverage Value	.004	.176	.046	.037	65

(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

(Fig.2.9)

Descriptive Statistics				
What is your gender?		Mean	Std. Deviation	N
Male	How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.	18.83	15.35	29
	PSS_Total_Scale	32.07	8.73	29
	AAS_Scale_Total	4.49	.80	29
	CBI_Scale_Total	39.66	17.35	29
Female	How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.	9.78	10.51	51
	PSS_Total_Scale	27.33	7.28	51
	AAS_Scale_Total	4.12	.84	51
	CBI_Scale_Total	46.41	20.46	51

(Fig.3)

Statistics							
What is your gender?			Taijiquan	Qigong	Mindfulness	Meditation	Other
Male	N	Valid	10	8	8	15	9
		Missing	19	21	21	14	20
	Sum		10	8	8	15	9
Female	N	Valid	5	3	27	35	5
		Missing	47	49	25	17	47
	Sum		5	3	27	35	5

(Fig.3.1)

ANOVA (a)							
What is your gender?	Model		Sum of Squares	df	Mean Square	F	Sig.
Male	1	Regression	1475.396	3	491.799	2.400	.092b
		Residual	5122.742	25	204.910		
		Total	6598.138	28			
Female	1	Regression	2011.878	3	670.626	8.988	.000b
		Residual	3506.749	47	74.612		
		Total	5518.627	50			
a Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.							
b Predictors: (Constant), CBI_Scale_Total, PSS_Total_Scale, AAS_Scale_Total							

(Fig.3.2)

Model Summary (b)-3

What is your gender?	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Male	1	.473a	.224	.130	14.315	.557
Female	1	.604a	.365	.324	8.638	.680
(a) Predictors: (Constant), CBI_Scale_Total, PSS_Total_Scale, AAS_Scale_Total						
(b) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.						

(Fig.3.3)

Coefficients (a)-1

What is your gender?	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
			B	Std. Error	Beta			Tolerance	VIF
Male	1	(Constant)	-12.782	21.205		-.603	.552		
		PSS_Total_Scale	.691	.332	.393	2.079	.048	.868	1.152
		AAS_Scale_Total	2.514	3.956	.131	.635	.531	.732	1.367
		CBI_Scale_Total	-.046	.172	-.052	-.269	.790	.825	1.213
Female	1	(Constant)	5.774	10.430		.554	.582		
		PSS_Total_Scale	-.299	.169	-.207	-1.773	.083	.987	1.013
		AAS_Scale_Total	4.684	1.683	.373	2.783	.008	.754	1.326
		CBI_Scale_Total	-.154	.069	-.299	-2.222	.031	.746	1.340
(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.									

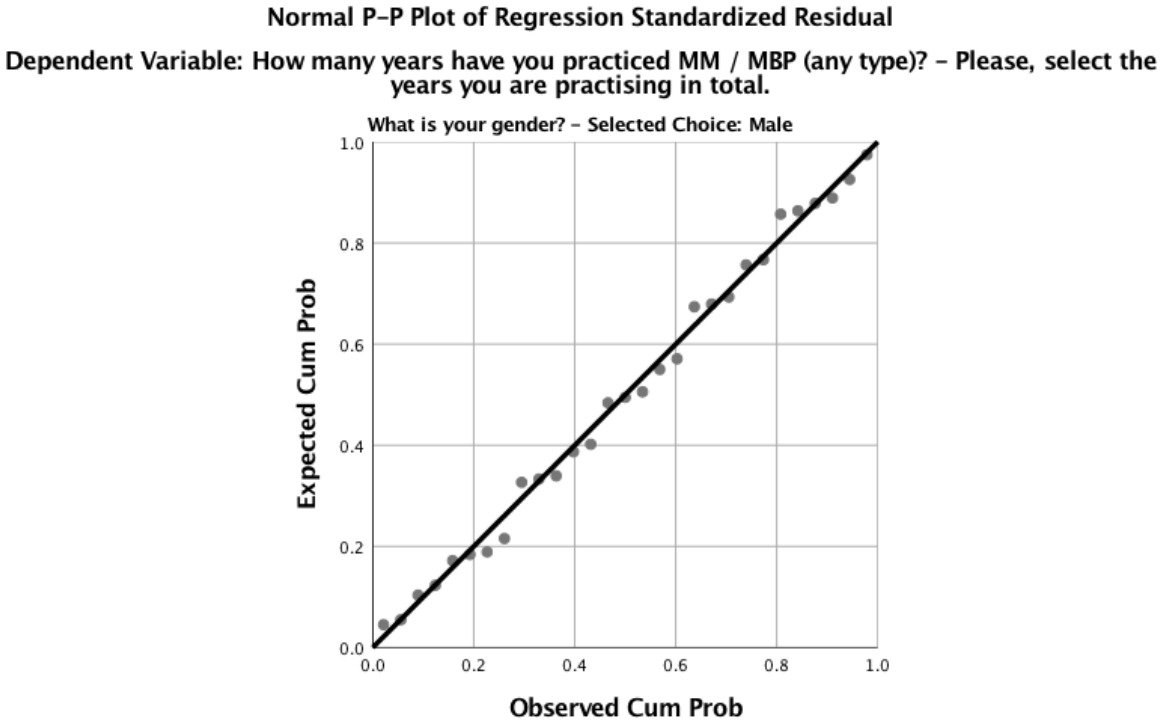
(Fig.3.4)

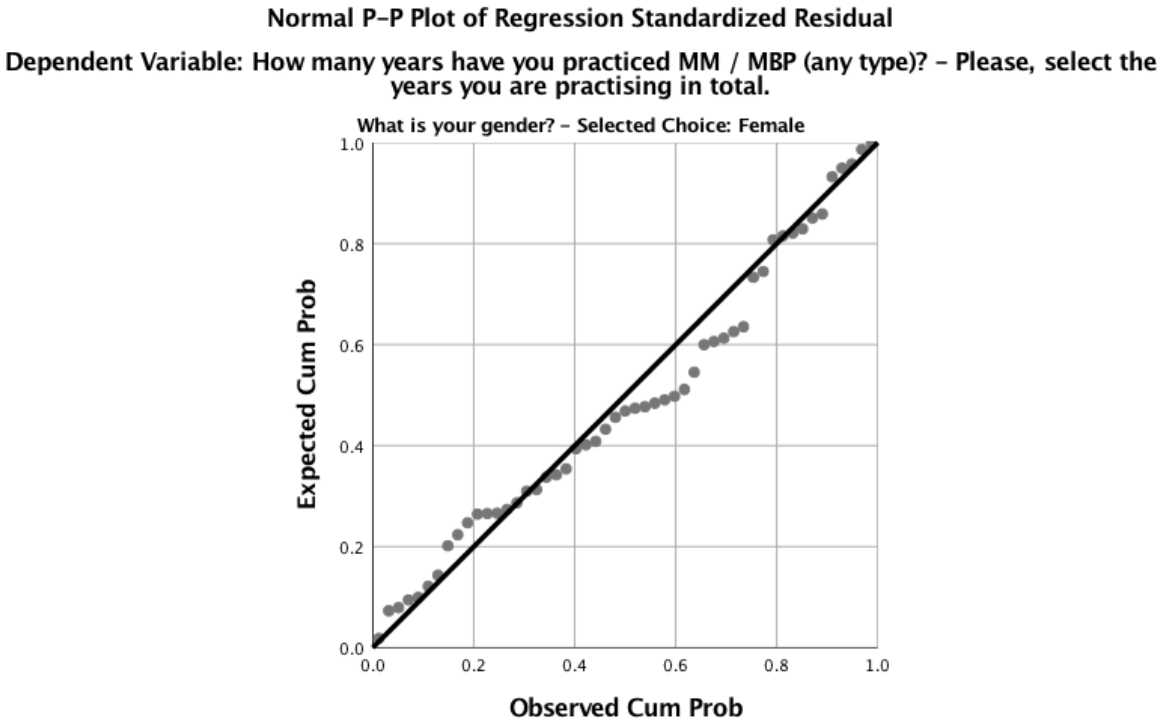
Residuals Statistics (a)-3

What is your gender?		Minimum	Maximum	Mean	Std. Deviati	N
Male	Predicted Value	7.046	32.508	18.828	7.259	29
	Std. Predicted Value	-1.623	1.885	.000	1.000	29
	Standard Error of Predicted Value	3.070	9.621	5.088	1.570	29
	Adjusted Predicted Value	2.457	34.015	18.847	7.868	29
	Residual	-24.242	27.954	.000	13.526	29
	Std. Residual	-1.694	1.953	.000	.945	29
	Stud. Residual	-1.821	2.107	.000	1.010	29
	Deleted Residual	-28.015	32.543	-.0190	15.539	29
	Stud. Deleted Residual	-1.915	2.276	.002	1.038	29
	Mahal. Distance	.322	11.683	2.897	2.666	29
	Cook's Distance	.000	.238	.038	.057	29
	Centered Leverage Value	.012	.417	.103	.095	29
Female	Predicted Value	-3.377	27.204	9.784	6.343	51
	Std. Predicted Value	-2.075	2.746	.000	1.000	51
	Standard Error of Predicted Value	1.290	3.974	2.334	.643	51
	Adjusted Predicted Value	-4.475	27.257	9.719	6.359	51
	Residual	-18.025	24.831	.000	8.375	51
	Std. Residual	-2.087	2.875	.000	.970	51
	Stud. Residual	-2.187	2.933	.004	1.006	51
	Deleted Residual	-19.802	25.855	.0649	9.025	51
	Stud. Deleted Residual	-2.283	3.211	.011	1.037	51
	Mahal. Distance	.135	9.601	2.941	2.241	51
	Cook's Distance	.000	.129	.020	.030	51
	Centered Leverage Value	.003	.192	.059	.045	51

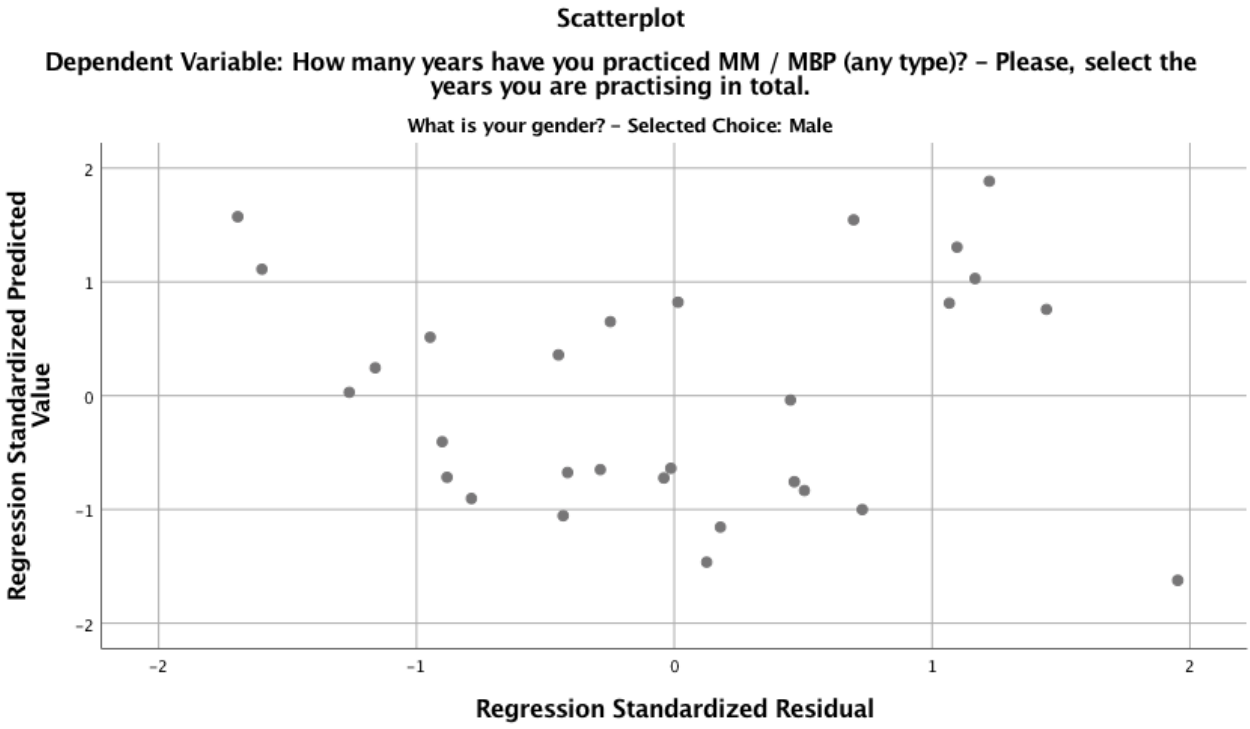
(a) Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.

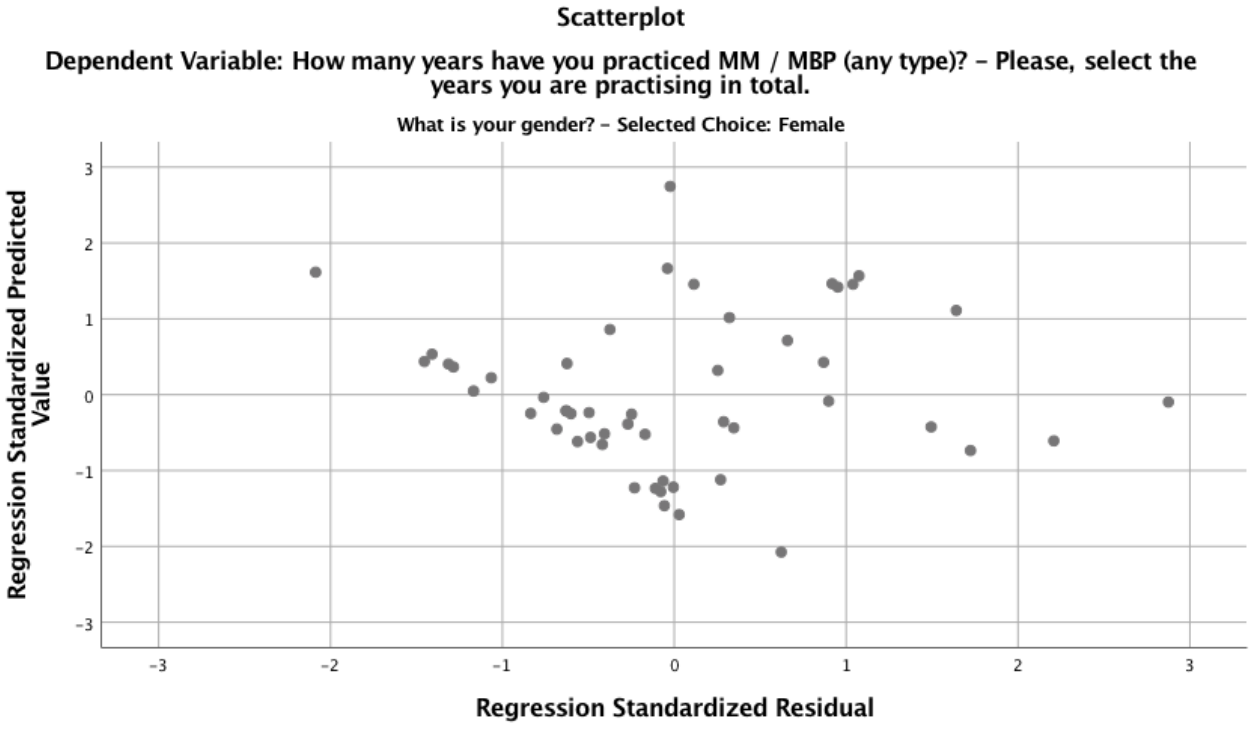
(Fig.3.5)


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.
What is your gender? - Selected Choice: Male
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: How many years have you practiced MM / MBP (any type)? - Please, select the years you are practising in total.
What is your gender? - Selected Choice: Female
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0

(Fig.3.6)


Scatterplot
Dependent Variable: How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
What is your gender? – Selected Choice: Male
Regression Standardized Predicted Value
Regression Standardized Residual
2
1
0
-1
-2
-2
-1
0
1
2


Scatterplot
Dependent Variable: How many years have you practiced MM / MBP (any type)? – Please, select the years you are practising in total.
What is your gender? – Selected Choice: Female
Regression Standardized Predicted Value
Regression Standardized Residual
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3

(Fig.3.7)

Frequencies

		Taijiquan	Qigong	Mindfulness	Meditation	Other
N	Valid	15	11	35	50	14
	Missing	66	70	46	31	67
Sum		15	11	35	50	14

(Fig.4)