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## Development and Validation of the Intrapersonal Peace Scale

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**Citation:** Euckie Udo Immanuel (2022) Development and Validation of the Intrapersonal Peace Scale, *British Journal of Psychology Research*, Vol.10, No.1, pp. 36-51

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**ABSTRACT:** *This work reports on a new scale, the Intrapersonal Peace Scale. The report is in four phases: Initial validation of the scale, involving 303 undergraduates; Confirmatory Factor Analysis, involving 2, 677 community sample; Concurrent validity of the scale, involving 77 undergraduates, and Norms, age and gender differences in intrapersonal peace, involving 5009 respondents. The author used Factor and Item Analyses, Pearson correlation coefficients and Analysis of Variance for data analysis. The Scale has three factors. The factors are: 1. Intrapersonal Harmony, 2. Intrapersonal Disequilibrium, and 3. Intrapersonal Dissonance. The three factors were confirmed via Confirmatory Factor Analysis with good indices. The scale correlated significantly with various constructs, namely: anxiety, depression, psychological wellbeing, spiritual intelligence and assertiveness, and there are age and gender differences in intrapersonal peace. The new scale, which is a major contribution to peace research, can be used in clinical and research contexts to evaluate people's inward peacefulness.*

**KEYWORDS:** intra-personal, peace, scale, reliability, validity

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### INTRODUCTION

Even though peace is very much needed in the world, it appears elusive. However, works on peace have rarely addressed the intrapersonal dimension. Peace starts with individuals and then spreads to society. Intra-personal peace is an enduring, inward state characterized by cognitive, emotional, somatic, environmental and existential harmony. It is an attitude of calmness with oneself (body, mind and spirit), one's environment, and the world at large. When one is intra-personally peaceful, the person is not easily destabilized by chaos in the environment such that even in the midst of commotion in the environment (physical, social, spiritual), the person can think coherently, and respond in such a manner as to experience a positive outcome. Sigmund Freud (1923; 1957) wrote that human behavior is influenced by unconscious processes, which work defensively to manage socially unacceptable ideas, motives, desires, and memories which might otherwise cause distress. In his psychoanalysis, Freud wrote that repression works defensively to conceal unwanted, uncomfortable mental contents and their accompanying distress, but that the concealed thoughts, emotions, or memories may still influence conscious thoughts and feelings as well as behavior (Freud, 1957). Mental illness arises when these unconscious contents are in conflict with each other. Thus, the human person has an inner world that can be likened to a seething cauldron. As the person widens the scope of the conscious (for instance, through psychotherapy, self awareness, etc.), the person becomes less conflicted, more integrated, and more peaceful.

Although peace is a desirable personal state associated with wellbeing (Diener & Tov, 2007; Hanley et al., 2014; Immanuel, 2017) and people across the globe talk and discuss peace (African Union, 2020; De Rivera, 2004; Galtung, 1969; Institute for Economics and Peace, 2019; International Alert, 2015; Okoro, 2013; Sinha, 2019; UNDP, 2020; United Nations, 2012), few scholars (e.g., Nelson, 2014) have bothered to measure peace. Nelson (2014), targeting intrapersonal peace, sees peace as a personality trait. However, the scale Nelson developed to measure personal peacefulness contained other constructs that are not really intrapersonal peace. Items in the Self-Perceptions Scale (Nelson, 2014) include: “I am self-accepting of my weaknesses and failures”, and “I punish myself for my mistakes and failures” (reverse scored). Studies investigating demographics of intrapersonal peace are in short supply.

This work is an attempt to bridge the gap in literature by presenting the intrapersonal peace scale (IPPS) that measures peace within the individual. To the best of the author’s knowledge, there is no psychometrically robust measure of intrapersonal peace in literature. When there is no measure of intrapersonal peace, discussion of intrapersonal peace becomes elusive. The work is divided into four phases, namely: Study 1. Initial validation of the Intrapersonal Peace Scale (Exploratory Factor Analysis); Study 2. Construct validity of the Intrapersonal Peace Scale (Confirmatory Factor analysis); Study 3. Convergent and Discriminant validity of the Intrapersonal Peace Scale; Study 4. Norms, age and gender differences in intrapersonal peace.

**Intra-personal peace scale:** The Intrapersonal Peace Scale (IPPS) measures intrapersonal peace - inner peace, harmony within an individual. Here is the instruction for the scale – “Read each statement and respond as it truly applies to you, using the scale provided”. Response options are: *Disagree Totally (1), Disagree (2), Disagree half the time (3), Agree (4) and Agree Totally (5)*. Sample items include: “Even though the world is in turmoil, I am calm within”; “I am easily affected by commotion around me”, “It is as if there is war inside of me”. Some items (3, 4, 5, 6, 8, and 9) are reverse-scored (when used as full-scale). Higher scores suggest greater tendency in that particular dimension of the scale. The items of the scale were generated by the author based on her personal and clinical experiences, personal observation of people in daily life, and literature on peace studies (Diener & Tov, 2007; Freud, 1957; Nelson, 2014). The original items generated were 27 items. The 27-item IPPS was subjected to face and content validity by three psychologists. Based on their comments, 14 items that measure other constructs or that were ambiguous were deleted. The remaining thirteen items were used for the validation study. The process of validation of the IPPS was done in three studies.

## Study 1: Initial Validation of the Intrapersonal Peace Scale

### Methodology

#### Participants

Participants were 303 undergraduates (male n=165, 54.5%, female n=138, 45.5%) drawn from the University of Nigeria, Nsukka. The age range of the participants were 16 – 32 years (Mean age = 21.23, SD=2.35). Two hundred and ninety-nine (98.7%) of the participants were single, while 4 (1.3%) were married. On ethnicity, 299 (98.7%) were Igbo, 2 (.7%) were

Hausa, and 2 (.7%) belonged to other ethnic groups. On religion, 220 (72.6%) were catholic, 53 (17.5%) were Pentecostal, 18 (5.9%) were protestant, 2 (.7%) were Muslim, and 10 (3.3%) belonged to other religious affiliations.

### Procedure

The study was carried out in the University of Nigeria, Nsukka. The researcher's assistants distributed forms containing the scales in the randomly selected three Faculties (Agriculture, Physical Sciences and Social Sciences). In every Faculty, the researcher randomly picked two Departments, and from each Department, two classes. All the people in the selected classes that were willing to fill the forms participated in the study. Three research assistants helped in the administration and collection of questionnaire forms. After filling the forms, the research assistants collected them, went through them to make sure they were properly filled. Three hundred and three questionnaire forms were valid for computation using the Statistical Package for Social Sciences, 20.

### Data Analysis

The author used exploratory design; and Exploratory Factor Analysis for data analysis to ascertain the number of factors in the IPPS, as well as Item Analysis to test for the internal consistency of the scale items.

### Result

Factor analysis was performed on the data. Extraction method was principal component analysis. Rotation method was Varimax with Kaiser Normalization. Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .79; Chi-Square = 1275.19. Bartlett's Test of Sphericity –  $df = 78$ ,  $p < .001$ .

**Table 1: Rotated Component Matrix for the Intrapersonal Peace Scale**

Indicators	Components		
	Factor 1	Factor 2	Factor 3
1. I am at peace with myself	.77		
2. Even though the world is in turmoil, I am calm within	.71		
3. I am easily affected by commotion around me		.77	
4. I notice that I am "panicky"		.83	
5. It is as if there is war inside of me			.48
6. In hostile situations, I become disorganized		.67	
7. In times of trouble, I usually find a place of peace inside me	.46		
8. In my life, I don't know what peace is			.77
9. I don't know how to be quiet			.70
10. In the midst of conflict I am calm	.53		
11. I see peace wherever I am	.74		
12. There is harmony in my life	.80		
13. I experience calmness in my soul	.84		

Factor 1=Intrapersonal Harmony (IH); Factor 2=Intrapersonal Disequilibrium; Factor 3=Intrapersonal Dissonance

As table 1 shows, Exploratory factor analysis (Principal Component Analysis, Varimax rotation, with Kaiser Normalization) resulted in three factors, namely: Factor 1 (7 items) – Intrapersonal Harmony (1, 2, 7, 10, 11, 12, 13); Factor 2 (3 items) – Intrapersonal Disequilibrium (3, 4, 6); and Factor 3 (3 items) – Intrapersonal Dissonance (5,8,9).

Item analysis shows that all the 13 items of the Intrapersonal Peace Scale (IPPS) - Full-scale  $\alpha = .73$ . Factor 1 – Intrapersonal Harmony  $\alpha = .82$ ; Factor 2 – Intrapersonal Disequilibrium  $\alpha = .70$ ; and Factor 3 – Intrapersonal Dissonance  $\alpha = .61$ .

## **Study 2: Construct validity of the Intrapersonal Peace Scale**

### **Methodology**

#### **Participants**

Participants in this study comprised two thousand six hundred and seventy seven (2677) persons drawn from the Niger Delta region of Nigeria. They consisted of 1337(49.9%) male and 1340 (50.1%) female respondents whose age ranged from 11 to 76 years (mean= 24.7 and SD = 14.7). The participants demographics are: 2114 (79.0%) singles; 551 (20.6%) married; 7 (0.3%) separated/divorced; 4 (0.1%) widow; 1 (.0%) widower; 823 (30.7%) persons had primary education; 867 (32.4%) persons completed secondary school; 341 (12.7%) had Ordinary National Diploma; 598 (22.3%) had Higher National Diploma/Bachelor's degree and 48 (1.8%) had Higher degree; Students = 1676 (62.6%), Civil servants = 505 (18.9%), Artisans/Traders = 189 (7.1%), Business Executives = 144 (5.4%), Clergy = 7 (0.3%), Unemployed = 68 (2.5%) and others = 88 (3.3%). The states of origin of the participants were: Rivers = 566 (21.1%), Bayelsa = 503 (18.8%), Delta = 729 (27.2%), Akwa Ibom = 622 (23.2%), Edo = 105 (3.9%) and Ondo = 152 (5.7%).

#### **Procedure**

The researcher's assistants approached the indigenes in their home communities in the Niger Delta. Only participants who agreed and were willing to participate in the study were given the questionnaire forms to fill. 25 research assistants who were indigenes of the various communities in the Niger Delta helped to distribute the questionnaire forms to various communities. Every person in those communities that were literate enough to understand the research materials and were willing to fill the forms, were given the forms to fill. Duly completed forms were scored, coded and inputted into the Statistical Package for the Social Sciences, 20 (SPSS) for data analysis.

#### **Data Analysis**

The author used Confirmatory Factor Analysis for data analysis.

#### **Result**

The analysis was conducted utilizing LISREL 8.80. The parameters and cut-offs adopted were Root Mean Square Error of Approximation (RMSEA) range <.050 to .080. Scholars

suggested that RMSEA between .06 and .08 is considered poor (see Hu & Bentler, 1998). Other CFA parameters and their parameter values include Comparative fit index (CFI), Non-normed fit index (NNFI) and incremental fit index (IFI). A robust parameter value should be between the range of .90 to .99 (see Bentler, 1990). The CFA for the three factor solution suggested in the exploratory factor analysis showed good model fits, although the value of their *RMSEA* .06 is not very robust. However, their confidence intervals did not cross zero (see Table 2). Interestingly, other parameters of CFA were good, CFI =.95, NNFI = .95 and IFI=.93 (Table 2). These values pointed to the fact that the three structure model are good.

**Table 2: Model fit for the three factors - Confirmatory Factor Analysis (CFA)**

		<i>NNFI</i>	<i>CFI</i>	<i>IFI</i>	<i>RMSEA</i>	<i>LLCI</i>	<i>ULCI</i>
Three factors model		.93	.95	.95	.06	.06	.07

*LLCI* = Lower limit confidence interval; *ULCI* = Upper limit confidence interval  
Chi-square for PTPB-Friend  $\chi^2(62) = 738.16, p = .01$ .

### Study 3: Concurrent Validity

#### Methodology

##### Participants

Participants were 77 final year undergraduate students (male n=26, 31.7%, female n=51, 62.2%) drawn from an intact final year students' class in Psychology Department, University edc of Nigeria, Nsukka. The age range of the participants were 18 – 33 years (Mean age = 24.36, SD=2.73). Seventy-three (89.0%) of the participants were single, while 4 (4.9%) were married. 73 (89.0%) were from the Igbo ethnic group, 4 (4.9%) belonged to other ethnic groups. 39 (47.6%) were Catholics, 11 (13.4%) were Protestants, 25 (30.5%) were Pentecostals, 2 (2.4%) belonged to other religious backgrounds.

##### Instrument

The scales used for the concurrent validity were: the Generalized Anxiety Disorder Scale-2 (GAD-2), the Patient Health Questionnaire-2 (PHQ-2), the World Health Organization Index of Wellbeing-5 (WHO-5), the Spiritual Intelligence Self-Report Inventory (SISRI-24), and the Assertive Behavior Inventory (ABI).

**Generalized Anxiety Disorder Scale-2 (GAD-2):** The original seven-item Generalized Anxiety Disorder scale (GAD-7: Spitzer, Williams, Kroenke et al., Spitzer, Kroenke, Williams, & Lowe (2006) was shortened to two items (Kroenke, Spitzer, Williams, Monahan, & Löwe (2007). These are the first two items of the original 7-items scale. Item 1 is about feeling nervous, anxious or on edge. Item 2 is about not being able to stop or control worrying. The GAD-2 is scored on a 4-point scale ranging from 0 to 3. The higher the score, the stronger the anxiety experienced. Its psychometric property is similar to the longer version. Indices of GAD-2 as a screening tool for anxiety include: sensitivity = 86%,



specificity = 83%, Positive Likelihood Ratio = 5.0. Staples, Dear, Gandy, Fogliati, Fogliati, Karin, Nielssen, & Titov (2019) reported good discriminant validity for the GAD-2.

**Patient Health Questionnaire-2 (PHQ-2):** The original nine-item Patient Health Questionnaire (PHQ-9: Kroenke, Spitzer, & Williams (2001) were shortened to two items (Kroenke, Spitzer, Williams, Monahan, & Löwe (2007)). These are the first two items of the original 9-items scale. Item 1: Little interest or pleasure in doing things. Item 2: Feeling down, depressed or hopeless. The PHQ-2 is scored on a 4-point scale ranging from 0 to 3. The higher the score, the stronger the depression experienced. Its psychometric property is similar to the longer version. Indices of PHQ-2 as a screening tool for major depressive disorder include: sensitivity = 97.6%, specificity = 59.2%, Positive Predictive Value (PPV) = 15.4. Indices of PHQ-2 as a screening tool for any depressive disorder include: sensitivity = 90.6%, specificity = 65.5%, Positive Predictive Value (PPV) = 36.9 (Kroenke, Spitzer, & Williams (2003). Staples, Dear, Gandy, Fogliati, Fogliati, Karin, Nielssen, & Titov (2019) reported excellent discriminant validity for the PHQ-2.

**World Health Organization Index of Wellbeing-5 (WHO-5):** The IPPS was administered together with the World Health Organization Well-Being Index (WHO-5) (Topp et al., 2015). The WHO-5 consists of five items, for example, "I have felt cheerful and in good spirits". It assesses how people have been feeling in the last two weeks. The responses are scored from 0 to 5. The results are in the range of 0-25, where higher scores indicate a high level of well-being. The findings of the review by Topp et al. (2015) show that the WHO-5 is a highly useful tool that can be applied to compare well-being between groups. Cronbach's alpha of the scale was .82 (Yallop et al., 2013).

**Spiritual Intelligence Self-Report Inventory (SISRI):** The IPPS was administered together with the Spiritual Intelligence Self-Report Inventory (SISRI-24). The SISRI was developed by King (2008). The full-scale was made up of 24 items divided into four subscales: (i) The critical existential reasoning, (ii) The personal meaning production, (iii) The transcendental awareness, and (iv) The conscious state expansion. The author administered the Transcendental Awareness (TA) sub-scale, which has 7 items. Examples of items in the scale are: "I recognize aspects of myself that are deeper than my physical body", "I am aware of a deeper connection between myself and other people". The scale goes from "strongly disagree" to "strongly agree" on a scale of "0 to 4." It's a five-point Likert scale, with the lowest score being 0 and the highest being 96. Higher scores show that the participants' level of spiritual intelligence is high, whereas a low score shows a low rate of spiritual intelligence. The coefficient of reliability provided by King (2008) for the scale is .92, while its underlying factors range from .78 to .91. Alpha for the TA sub-scale, as reported by King (2008) is .89.

**Assertive Behavior Inventory (ABI):** Immanuel (2019) developed the Assertive Behavior Inventory (ABI). The scale measures ability to express one's needs, desires, and feelings in an honest manner, without undue anxiety, devoid of passivity and aggression. The full-scale comprised 15 items, which is classified into a 5 point Likert-type response, thus: 1 (Never), 2 (Rarely), 3 (Occasionally), 4 (Usually) and 5 (Always). The ABI is designed to assess assertive behavior in both the young and older adults aged 11 years and above. The Assertive Behavior Inventory (ABI) has three factors, namely: Assertive, Aggressive, and Passive

behaviors. The 15-item has Cronbach's coefficient Alpha of .84. However, the author used only the 5-item Assertive Behavior sub-scale in this study. Examples of items that measure assertive behavior include: "I compliment a person close to me for her/his beautiful appearance"; "I tell a person who is annoying me in a public situation to stop", etc. It has alpha of .74.

### Procedure

The author prepared the study scales with demographic information in a two-page document and administered to the participants in their classroom. They spent about 15 minutes responding to the form. The author collected their responses, scored and fed them into the Statistical Package for the Social Sciences (IBM) version 20 for data analysis.

### Data Analysis

The author used the Pearson correlations to analyze the data.

### Result

Correlations were ascertained between various dimensions of the Intrapersonal Peace Scale (IPPS) and other constructs. Correlations between Intrapersonal Harmony and the other dimensions of the IPPS are: Intrapersonal Disequilibrium =  $-.12$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – that Intrapersonal Harmony and Disequilibrium are measuring diverse constructs. Intrapersonal Dissonance =  $-.21$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – that Intrapersonal Harmony and Dissonance are measuring diverse constructs. Full-scale =  $.70$ ;  $p < .01$ . This is highly significant, suggesting that the sub-scale, Intrapersonal Harmony has a lot in common with the full-scale.

The Intrapersonal Harmony (IH) dimension of the IPPS did not correlate significantly with the Intrapersonal Disequilibrium (IDE) and Intrapersonal Dissonance. This is likely because IDE and ID measure different constructs from IH. IH dwells on peacefulness and harmony within individuals, whereas IDE dwells on inner disturbance and disorganization, on the one hand, and ID dwells on internal conflict and discord. However, all the sub-dimensions of the IPPS – IH, IDE, and ID - correlated significantly with the Full-Scale (Total Score). This is expected as each of the sub-scales is a part of the whole scale.

Correlations between Intrapersonal Harmony and the other constructs are: anxiety =  $-.30$ ;  $p < .01$ . This is significant, suggesting a negative relationship between the two constructs (Intrapersonal Harmony vs. anxiety). This is an evidence of the concurrent validity of the Intrapersonal harmony dimension of the IPPS. Depression =  $-.25$ ;  $p < .05$ . This is significant, suggesting a negative relationship between the two constructs (Intrapersonal Harmony vs. depression). This is further evidence of the concurrent validity of the Intrapersonal harmony dimension of the IPPS. Further, the IH correlated negatively with anxiety and depression. This means that as intrapersonal peace/harmony increases, anxiety and depression tend to decrease. This is because anxiety and depression are aspects of emotional disorder; whereas anxiety is about difficulty relaxing, depression is about gloom and despair in the midst of challenges. Where the intra-personally peaceful person is calm and collected, the anxious is edgy, and the depressed is dejected.

Psychological wellbeing = .39;  $p < .01$ . This is significant, suggesting a positive relationship between the two constructs (Intrapersonal Harmony vs. psychological wellbeing). This is further evidence of the concurrent validity of the Intrapersonal harmony dimension of the IPPS.

Spiritual Intelligence = .30;  $p < .01$ . This is significant, suggesting a positive relationship between the two constructs (Intrapersonal Harmony vs. spiritual intelligence). This is further evidence of the concurrent validity of the Intrapersonal harmony dimension of the IPPS. Assertiveness = .38;  $p < .01$ . This is significant, suggesting a positive relationship between the two constructs (Intrapersonal Harmony vs. assertiveness). This is further evidence of the concurrent validity of the Intrapersonal harmony dimension of the IPPS.

On the other hand, the IH correlated positively with psychological wellbeing, spiritual intelligence and assertiveness, such that as intrapersonal peace/harmony increases, psychological wellbeing, spiritual intelligence and assertiveness also increase. This shows that all these constructs augur with peacefulness and emotional, spiritual and social wellbeing.

Correlations between Intrapersonal Disequilibrium and the other dimensions of the IPPS are: Dissonance = .46;  $p < .01$ . This is significant, suggesting a positive relationship between the two constructs (Intrapersonal Disequilibrium vs. Dissonance). This is further evidence of the concurrent validity of the Intrapersonal Disequilibrium dimension of the IPPS. Full-scale = .54;  $p < .01$ . This is significant, suggesting that the sub-scale, Intrapersonal Disequilibrium has a lot in common with the full-scale.

Anxiety = .22;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Disequilibrium and GAD-2 measure diverse constructs. Depression = .22;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Disequilibrium and PHQ-2 measure diverse constructs.

Wellbeing = -.13;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Disequilibrium and WHO-5 measure diverse constructs. Spiritual Intelligence = -.10;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Disequilibrium and SISRI measure diverse constructs. Assertiveness = -.13;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Disequilibrium and ABI-AS measure diverse constructs.

Correlation between Intrapersonal Dissonance and Full-scale = .42;  $p < .01$ . This is significant, suggesting that the sub-scale, Intrapersonal Dissonance has something in common with the full-scale. Correlation between Intrapersonal Dissonance and other constructs are: Anxiety = .12;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Dissonance and GAD-2 measure diverse constructs. Depression = .29;  $p < .01$ . This is significant, suggesting concurrent validity – Intrapersonal Dissonance and PHQ-2 have something in common; conflict within the self is significantly and positively correlated to depression.



Wellbeing =  $-.05$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Dissonance and WHO-5 measure diverse constructs. Spiritual Intelligence =  $.06$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Dissonance and SISRI measure diverse constructs. Assertiveness =  $-.06$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – Intrapersonal Dissonance and ABI-AS measure diverse constructs.

Correlation between Intrapersonal Peace Scale (IPPS) Full-scale and other constructs are: Anxiety =  $-.10$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – IPPS Full-scale and GAD-2 measure diverse constructs. Depression =  $.01$ ;  $p > .05$ . This is not significant, suggesting discriminant validity – IPPS Full-scale and PHQ-2 measure diverse constructs. Wellbeing =  $.25$ ;  $p < .05$ . This is significant, suggesting a positive relationship between the two constructs (IPPS Full-scale vs. Depression). This is further evidence of the concurrent validity of the Intrapersonal Peace Scale-Full-scale.

Spiritual Intelligence =  $.23$ ;  $p < .05$ . This is significant, suggesting a positive relationship between the two constructs (IPPS Full-scale vs. Spiritual IQ). This is further evidence of the concurrent validity of the Intrapersonal Peace Scale-Full-scale. Assertiveness =  $.23$ ;  $p < .05$ . This is significant, suggesting a positive relationship between the two constructs (IPPS Full-scale vs. Assertiveness). This is further evidence of the concurrent validity of the Intrapersonal Peace Scale-Full-scale.

#### **Study 4: Norm, Age and Gender Differences in Intrapersonal Peace**

##### **Methodology**

##### **Participants**

The author employed data from 5,009 respondents. These were from more than 16 ethnic groups, covering more than 18 States of the Federal Republic of Nigeria. These include: 2493 (49.8%) men and 2516 (50.2%) women; 4119 (82.2%) single, 872 (17.4%), 8(.2%) divorced, and 10 (.2%) widows and widowers; 902 (18%) had basic education, 2649 (52.9%) had high school education, 556 (11.1%) had National Diploma certificate, 778 (15.5%) had Bachelors Degree, 27 (.5%) had higher degree. Their religious affiliations are: 2630 (52.5%) 623 (12.4%) Catholics, 1478 (29.5%), 161 (3.2%), 117 (2.3%) others. Their age range is 11-76, Mean = 23.21, Standard Deviation = 10.12.

##### **Procedure**

Respondents filled forms containing the Intrapersonal Peace Scale and demographic information such as gender, age, marital status, etc. Only persons who gave the consent to participate in the study filled the forms. Proprietors of schools, community leaders, and parents gave permission for the juveniles to participate in the study. The author and research assistants collected the completed forms immediately after completion. The author and research assistants sorted them out, scored them, keyed them into computer for data analysis.

**Result****Table 3: Mean Scores on different dimensions of the Intrapersonal Peace scale**

Scale Dimensions	Mean	Standard Deviation	N
Harmony	24.27	5.84	5009
Disequilibrium	8.90	2.73	5009
Dissonance	8.71	3.19	5009
Full Scale	41.90	7.90	5009

Based on the mean scores of the participants (Table 3), scores above the mean indicate greater intrapersonal harmony, disequilibrium, dissonance, and intrapersonal peace.

**Table 4: Mean scores on Intrapersonal Harmony according to age**

Age Category	Mean	Standard Deviation	N
Juvenile	23.21	5.96	2442
Adults:	25.28	5.53	2567
Total	24.27	5.84	5009

As Table 4 shows, juveniles scored less (Mean = 23.21) than adults (Mean = 25.27). The difference is significant,  $F(1, 5007) = 162.92$ ,  $p < .001$ ; therefore, for juveniles, scores above 23 indicate high intrapersonal harmony, and for the adults, scores above 25 indicate intrapersonal harmony.

**Table 5: Mean scores on Intrapersonal Disequilibrium according to age**

Age Category	Mean	Standard Deviation	N
Juvenile	8.91	2.78	2442
Adults:	8.89	2.68	2567
Total	8.90	2.73	5009

As Table 5 shows, scores of juveniles (Mean = 8.91) and adults (8.89) are similar. The difference is not significant,  $F(1, 5007) = .032$ ,  $p > .05$ ; therefore, for juveniles, as well as adults, scores above 9.00 indicate high intrapersonal disequilibrium.

**Table 6: Mean scores on Intrapersonal Dissonance according to age**

Age Category	Mean	Standard Deviation	N
Juvenile	8.99	3.02	2442
Adults:	8.45	3.33	2567
Total	8.71	3.19	5009

As Table 6 shows, juveniles scored higher (Mean = 8.99) than adults (Mean = 8.45). The difference is significant,  $F(1, 5007) = 36.61$ ,  $p < .001$ ; therefore, for juveniles, scores of 9.00 and above, and for adults, scores of 8.00 and above indicate intrapersonal dissonance.

**Table 7: Mean scores on Intrapersonal Peace (Full Scale) according to age**

Age Category	Mean	Standard Deviation	N
Juvenile	40:68	8.09	2442
Adults	43:07	7.54	2567
Total	41:90	7.90	5009

As Table 7 shows, juveniles scored less (Mean = 40.68) than adults (Mean = 43.07). The difference is significant,  $F(1, 5007) = 116.72$ ,  $p < .001$ ; therefore, for juveniles, scores of 41.00 and above, and for adults, scores of 43.00 and above indicate intrapersonal peace.

Further, One-Way analysis of variance was used to compare men and women in the various dimensions of the IPPS.

In intrapersonal harmony, men scored lower (Mean = 23.99; SD = 5.90; N = 2493) than women (Mean = 24.55; SD = 5.77; N = 2516). The difference is significant,  $F(1, 5007) = 11.31$ ,  $p < .001$ . It indicates that women are more intra-personally peaceful than men.

In intrapersonal disequilibrium, men scored higher (Mean = 8.91; SD = 2.75; N = 2493) than women (Mean = 8.88; SD = 2.70; N = 2516). The difference is not significant,  $F(1, 5007) = .14$ ,  $p > .05$ .

In intrapersonal dissonance, men scored higher (Mean = 8.80; SD = 3.18; N = 2493) than women (Mean = 8.63; SD = 3.20; N = 2516). The difference is significant,  $F(1, 5007) = 3.77$ ,  $p < .05$ . It indicates that men are more intra-personally dissonant than women.

In intrapersonal peace (Full scale), men scored lower (Mean = 41.51; SD = 8.04; N = 2493) than women (Mean = 42.29; SD = 7.75; N = 2516). The difference is significant,  $F(1, 5007) = 12.26$ ,  $p < .001$ . It indicates that women are more intra-personally peaceful than men.

## DISCUSSION

In Study 1 of this report, it was found that the Intrapersonal Peace Scale (IPPS) has three factors, namely: Intrapersonal Harmony, Intrapersonal Disequilibrium, and Intrapersonal Dissonance. One can use the full-scale or any of the sub-scales for clinical and research purposes depending on the user's interest/focus. To the best of the author's knowledge, the only scale that comes closest to measuring intra-personal peace is that reported by Nelson (2014). But then, the self-perception scale measures self-acceptance, self-compassion, nonviolence, emotions, and the like. Therefore, the IPPS is a major contribution in peace measurement, especially on the intra-personal dimension.

In the second study, the Intrapersonal Peace Scale (IPPS) was subjected to Confirmatory Factor analysis. The three-factor structure of the IPPS was confirmed with good indices. This strengthens the assertion that the IPPS measures intrapersonal peace in three dimensions. The first dimension – Intrapersonal Harmony – contains the items that assess peacefulness within an individual. This can be used in clinical work/researches focused on peace within individuals. The second dimension – Intrapersonal Disequilibrium – contains items that

assess tendency to remain unstable, disturbed and disorganized in the midst of conflict and chaos. The information from this dimension could be useful in psychotherapy with clients that are easily disorganized in conflict/chaotic situations. The third factor/dimension – Intrapersonal Dissonance - assesses discord within individuals. This dimension can be used to assess intrapersonal conflict, and guide therapy outcomes. The scale will be invaluable in peace researches as pertains to individuals' peacefulness behavior, which is lacking in literature.

In the third phase of the study, the Intrapersonal Peace Scale (IPPS) was administered together with other constructs, with varying findings. The Intrapersonal Harmony (IH) dimension of the IPPS did not correlate significantly with the Intrapersonal Disequilibrium (IDE) and Intrapersonal Dissonance. This is likely because IDE and ID measure different constructs from IH. IH dwells on peacefulness and harmony within individuals, whereas IDE dwells on inner disturbance and disorganization, on the one hand, and ID dwells on internal conflict and discord. However, all the sub-dimensions of the IPPS – IH, IDE, and ID - correlated significantly with the Full-Scale (Total Score). This is expected as each of the sub-scales is a part of the whole scale.

Further, the IH correlated negatively with anxiety. This corroborates Sikka et al. (2018) and Braun-Lewensohn et al. (2014). Also, the IH correlated negatively with depression. Liang et al. (2020) reports a correlation between peace of mind and depression. This means that as intrapersonal peace/harmony increases, anxiety and depression tend to decrease. This is because anxiety and depression are aspects of emotional disorder; whereas anxiety is about difficulty relaxing, depression is about gloom and despair in the midst of challenges. Where the intra-personally peaceful person is calm and collected, the anxious is edgy, and the depressed is dejected.

On the other hand, the IH correlated positively with psychological wellbeing. This supports extant literature (Diener & Tov, 2007; Hanley et al., 2014; Immanuel, 2017). IH correlated positively with spiritual intelligence. Studies reported that spiritual intelligence is related positively with resilience (Khosrayi & Nikmanesh, 2014), but negatively with stress (Khosrayi & Nikmanesh, 2014). IH correlated positively with assertiveness. In literature, asserting oneself is associated with personal peace and harmony (Pipaş & Jaradat, 2010; Sitota, 2018). As intrapersonal peace/harmony increases, psychological wellbeing, spiritual intelligence and assertiveness also increase. This shows that all these constructs augur with peacefulness and emotional, spiritual and social wellbeing.

Furthermore, IDE did not correlate significantly with anxiety, depression, psychological wellbeing, spiritual intelligence and assertiveness. This is evident of discriminant validity. This shows that intrapersonal disequilibrium is not related to emotional, spiritual and social wellbeing. Perhaps, it may be a personality construct that may be associated with psychotic tendencies, like schizophrenia and related constructs. Further studies will make this clearer.

Likewise, ID correlated positively with depression, but did not correlate significantly with anxiety, psychological wellbeing, spiritual intelligence, and assertiveness. This implies that intrapersonal dissonance (conflict) is associated with agitation and misery, which are

attributes of depression. However, intrapersonal dissonance (conflict) is not associated with anxiety, emotional, spiritual and social wellbeing. It is characterized by a state of internal turmoil that may be akin to manic psychoses. Again, future studies will make this clearer.

Also, the Full-scale (Total score) is not significantly correlated with anxiety and depression, implying that intrapersonal peace, as a construct, is different from generalized anxiety disorder, and depression. This is an evidence of discriminant validity. However, the full-scale of the IPPS is positively correlated with psychological wellbeing, spiritual intelligence, and assertiveness. This implies that the IPPS full-scale is associated with emotional, spiritual, and social wellbeing.

In study four, in addition to establishing the norms for the various dimensions of the IPPS, the author found that adults scored significantly higher than juveniles in intrapersonal peace (intrapersonal harmony and intrapersonal peace using the full scale), whereas juveniles scored significantly higher in intrapersonal dissonance, with no significant difference in intrapersonal disequilibrium. As already stated, empirical works on intrapersonal peacefulness are scarce. This report contributes data in age differences in intrapersonal peace. Adolescence is a period of turmoil as one strives to establish one's personal and psycho-social identity. As for the adults, they are more peaceful within them in comparison to the juveniles since they are more settled in their identity, and are occupied in their chosen course in life.

Also, the author found that women scored significantly higher than men in intrapersonal peace (intrapersonal harmony and intrapersonal peace using the full scale), whereas men scored significantly higher in intrapersonal dissonance, with no significant difference in intrapersonal disequilibrium. The gender differences could be that women are more resistant to psycho-social stressors than men, and cope better with stress. In society, women face myriads of challenges due to gender roles assigned to them, such as pregnancy, child bearing, child rearing, caring for husbands, and in many instances, working to earn a living to support their families. Also, women face stringent social norms like sexual fidelity in the face of men's infidelity, polygamous relationships (whether as single or married), lower financial status and other socio-cultural and environmental onslaught. These toughen women so that they maintain states of stability in the face of conflicts. On the other hand, in the cultures where this work emanates, men are protected, they hardly participate in domestic chores, tend to cope poorly with stress by bottling up emotions, indulging in sex, substance, gambling, and the like such that in times of heightened conflict, since their resistance is low, they become intra-personally discordant. They also tend to be adversarial in interpersonal exchange, which predisposes them to inner turmoil.

### **Implications to Research and Practice**

The Intrapersonal Peace Scale is an important contribution to peace research and clinical practice. There is now a valid scale to measure personal peace. The norms will enable practitioners place their clients accordingly on diverse dimensions of the IPPS. Further, the age difference in intrapersonal peace is informative, as researchers and practitioners target juveniles for intervention. Also, even though both genders will benefit from interventions that will enhance inner peacefulness, more attention will be focused on boys and men.



## CONCLUSION

This research work has presented a new measure of intrapersonal peace, the Intrapersonal Peace Scale (IPPS). Every Phase of the research report presented further evidence to the strong psychometric properties of the IPPS. To the best of the author's knowledge, this is the first attempt to research on a psychological measure of intrapersonal peace with robust psychometric properties. Therefore, one can rightly say that this is a major scientific work that has highlighted an aspect of reality that has been neglected by social scientists over the years. Now, not only will scholars discuss intrapersonal peace, they have a tool with which to work at creating more evidence-based discussions. When there is no valid scale to measure intrapersonal peace, it becomes difficult to empirically correlate intrapersonal peace with other related constructs. Further, it becomes challenging to assess individuals so as to diagnose their challenges emanating from intrapersonal peacefulness domain. Equally, without such a measure as the Intrapersonal Peace Scale (IPPS), evaluating intervention programs training clients on enhancement of intrapersonal peace becomes a mirage.

## Future Research

The work is limited because research participants were all from Nigeria. It is recommended that further validation work in intrapersonal peace explore other options, which includes ethnic/racial, religious, marital, and educational comparisons. Further, researchers are encouraged to explore constructs that intrapersonal peace can predict. Furthermore, researches on how intrapersonal peace is acquired, develops, inculcated, and the like will be worthwhile endeavors.

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