ADAPTATION OF THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY – 3 (YPI-23) (SHORT FORM)

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Abstract

The purpose of this study is to adapt a personality inventory which was suitable for Myanmar culture in Myanmar language, and to explore personality traits of people who were living in Yangon, Myanmar. This research approach was a quantitative in the study. A total sample size of 512 participants who were living in Yangon was used in this study. Their age ranged from 18 years and above 60. The 22 subscales out of 52 subscales from Minnesota Multiphasic Personality Inventory – 3 (MMPI-3) was used to assess the personality of participants in Yangon. There was total 181 items from 22 subscales. This test contained True/False response format. Factorial analysis of data, Pearson Product Moment Correlation Coefficient, test-retest reliability, descriptive and percentage methods was used with SPSS. According to the result of Pearson (r) value is over 0.70, 20 subscales of YPI-23, except THD and ASB, are acceptable indicating that there is a strong relationship between 2 variables and there is a positive relationship, meaning as one variable increases, the other tends to increase as well. Items with lower than 0.7 values are less acceptable meaning that there is not strong relationship between 2 variables and there is a negative relationship, meaning as one variable increases, the other tends to decrease. Nevertheless, as the result of factor analysis, all 181 items from 22 subscales involved in YPI-23 except these four items (EID-173, THD-14, NFC-48, and AGGR-18) were acceptable to measure personality. Therefore, YPI-23 scale had high reliability and validity. It can be used as an instrument in the Myanmar cultural setting. Moreover, cultures have very different attitudes toward mental health, societal expectations, and emotional expression. The MMPI-3 adaptation should take into account local standards about psychological well-being. The YPI-23 is a multi-step process that requires collaboration among Union Civil Service Board, Central Institude of Civil Service of Myanmar, Officer Testing Team, and Mental Health Hospital.

Keywords: Personality trait, reliability, validity.

Introduction

Personality is an individual's collection of interrelated behavioral, cognitive and emotional patterns that biological and environmental factors influence; these interrelated patterns are relatively stable over long time periods, but they change over the entire lifetime (Corr, Philip J, et al., 2009). Personality plays an important role in how individuals view and interact with the others. The study of the personality psychology attempts to explain the tendencies that underlie differences in behavior. Personality psychologists strive to understand the factors that contribute to individual characteristics, explore how personalities develop and change and help individuals understand their own personalities so they can make decisions that suit their best interests (*Friedman, Howard, et al., 2016).*

Personality can be determined through a variety of tests. Two main tools to measure personality are projective tests and objective measures. Projective tests assume personality is primarily unconscious and assess individuals by how they respond to an ambiguous stimulus. Examples of projective tests are story-telling, drawings, or sentence-completion tasks (Murray,

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Henry A, 1943). Objective tests assume personality is consciously accessible and that it can be measured by self-report questionnaires. Research on psychological assessment has generally found objective tests to be more valid and reliable than projective tests (Butcher JN, Bubany S, et.al., 2013). One of the most common self-report inventories is the Minnesota Multiphasic Personality Inventory (MMPI).

Although numerous personality theories exist, most major ones fall into one of four major perspectives; psychoanalytic perspective, humanistic perspective, trait perspective, and social cognitive perspective. Each of these perspectives on personality attempts to describe different patterns in personality, including how these patterns form and how people differ on an individual level.

Sigmund Freud's psychodynamic perspective of personality explain that personality is based on the dynamic interactions of these three components: the id, ego and super-ego. The id acts according to the pleasure principle, demanding immediate gratification of its needs regardless of external environment; the ego then must emerge in order to realistically meet the wishes and demands of the id in accordance with the outside world, adhering to the reality principle. Finally, the superego inculcates moral judgment and societal rules upon the ego, thus forcing the demands of the id to be met not only realistically but morally. The superego is the last function of the personality to develop. (Carver, et al., 2004).

The humanistic perspective of personality focuses on psychological growth, free will, and personal awareness. It takes a more positive outlook on human nature and is centered on how each person can achieve their individual potential. Humanistic therapy can effectively treat various mental health conditions, including anxiety, depression, interpersonal issues, and personality disorders (Elliott R, 2016).

The social cognitive perspective of personality emphasizes the importance of observational learning, self-efficacy, situational influences, and cognitive processes. Social cognitive theory is also utilized in the field of public health to develop programs aimed at health promotion. Understanding how observational learning and self-efficacy influence health behaviors allow researchers to create programs that foster healthier behaviors and choices (Robinson MD, Klein RJ, et al., 2019).

Finally, the trait perspective of personality is centered on identifying, describing, and measuring the specific traits that make up human personality. By understanding these traits, researchers believe they can better comprehend the differences between individuals (Fleeson W, Jayawickreme E, 2015). MMPI is a psychological test which assesses personality traits and psychopathology. In this study, some of the items from the MMPI-3 had been used.

Objectives

The main objectives of the present study were to adapt a personality inventory which is suitable for Myanmar culture in Myanmar language, and to explore the personality traits of people ranging from 18 years and above 60 who are living in Yangon, Myanmar.

Methodology

Participants

This research encompassed sum total 512 participants residing in diverse regions of Yangon (Total N=512). This study was structured in two distinct trials. For the test-retest phase, the initial trial commenced with 60 participants in the first round, and in the subsequent round, 47 participants persisted in the study (N=47). They answered this questionnaire twice after 2 weeks passed. In the second trial, 467 participants were enlisted (N=465). The participants were students, teachers, staff from University of Yangon, employees and employers from Samparoo Company Limited, owners and workers from pawnshops, gold and jewelry shops, groceries, Botahtaung Hostel and persons with physical disabilities. Their age of oldest participant was 77 years and the age of youngest participant was 18 years. Their education levels were from middle school level to Post Graduate level.

Instruments

This research approach was a quantitative in the study. It contained True/False response format and took around 15 to 30 minutes to answer all the items. Participants were administered using demographic form. The 22 subscales out of 52 from Minnesota Multiphasic Personality Inventory - 3 (MMPI-3) used to assess personality of the participants.

No.	Trait	Description	What is measured	Total Item
1.	EID	Emotional / Internalizing Dysfunction	Problems associated with mood and affect	12
2.	THD	Thought Dysfunction	Problems associated with disordered thinking	9
3.	BXD	Behavioral / Externalizing Dysfunction	Problems associated with under-controlled behavior	4
4.	ASB	Antisocial Behavior	Rule breaking and irresponsible behavior	4
5.	PER	Ideas of Persecution	Self-referential beliefs that others pose a threat	7
6.	HPM	Hypomanic Activation	Over activation, aggression, impulsivity, and grandiosity	10
7.	SUI	Suicidal / Death Ideation	Direct reports of suicidal ideation and recent attempts	7
8.	HLP	Helplessness / Hopelessness	Belief that goals cannot be reached or problems solved	7
9.	SFD	Self-Doubt	confidence, feelings of uselessness	7
10.	NFC	Inefficacy	Belief that one is indecisive and inefficacious	9

No.	Trait	Description	What is measured	Total Item
11.	STR	Stress	Problems involving stress and nervousness	4
12.	CMP	Compulsivity	Engaging in compulsive behaviors	7
13.	ARX	Anxiety-Related Experiences	Multiple anxiety-related experiences such as catastrophizing, panic, dread, and intrusive ideation	12
14.	ANP	Anger Proneness	Becoming easily angered, impatient with others	10
15.	BRF	Behavior-Restricting Fears	Fears that significantly inhibit normal behavior	7
16.	SFI	Self-Importance	Beliefs related to having special talents and abilities	10
17.	DSF	Disaffiliativeness	Disliking people and being around them	7
18.	SHY	Shyness	Feeling uncomfortable and anxious in the presence of others	7
19.	AGGR	Aggressiveness	Instrumental, goal-directed aggression	11
20.	PSYC	Psychoticism	Disconnection from reality	10
21.	NEGE	Negative Emotionality / Neuroticism	Anxiety, insecurity, worry, and fear	14
22.	INTR	Introversion /Low Positive Emotionality-Revised	Social disengagement and anhedonia	6

There are 5 scales in this assessment. They are (1) Higher-Order (H-O) Scales, included EID, THD, BXD, (2) Restructured Clinical (RC) Scales, included ASB, PER, HPM, (3) Internalizing Scales, included SUI, HLP, SFD, NFC, STR, CMP, ARX, ANP, BRF, (4) Interpersonal Scales, included SFI, DSF, SHY, and (5) Personality Psychopathology Scales, included AGGR, PSYC, NEGE, INTR.

Procedure

Departments of Myanmar, English, and Psychology from University of Yangon, helped for the translation of MMMPI-3 into Myanmar Language. The data collection procedure was as follows. At first, participants were informed that the participation is voluntary, the data they provide will be kept confidential and that data will be used only for research purpose. They were also reassured that they can withdraw from the study at any time. After getting their permissions, the questionnaires were distributed to participants. They completed the questionnaires manually and the data were collected grouped.

At the beginning of each questionnaire, an overview will be provided. All participants must be filled in a demographic form. The researcher disclosed how to answer the items first. The chosen answer is to be indicated by a tick (✓) in the appropriate chart on the answer sheet. This test took around 15 to 30 minutes to answer all the items. The responses of each participant were scored according with the scoring key. After completing the score procedure, the obtained data were computed with Statistical Package for Social Sciences (SPSS). The same data collection procedure was employed for the test-retest analysis in this study. For test-retest, the time interval between the first trial and the second trial was two weeks.

Results and Discussion

Table 1. Demographic Characteristics of Respondents (N=465)

Demographic Characteristics	Frequency	Percentage
Gender		
Male	158	34.0
Female	307	66.0
Age		
18 to 20	244	52.5
21 to 40	177	38.1
41 to 60	39	8.4
Above 60	5	1.1
Religion		
Buddhism	433	93.1
Christianity	20	4.3
Islam	6	1.3
Hinduism	6	1.3
Education		
Middle School	38	8.2
High School	81	17.4
Under Graduate Degrees	302	64.9
Post Graduate Degrees	44	9.5
Marital Status		
Single	376	80.9
Married	88	18.9
Divorce	1	0.2

In Table 1, out of 465 respondents, more than half were females with 66% and males were 34%. In the context of religious status, 93.1% were Buddhism 4.3% were Christianity, Islam and Hinduism were each 1.3% of participants. For educational status, 9.5%were

postgraduate, 64.9% were undergraduate as well as high school graduate and middle school were 17.4% and 8.2% respectively. Regarding to marital status, 80.9% respondents answered “single”, 18.9% answered “married” and 0.2% answered “divorce”.

Table 2 - Showing test-retest reliability (N=47), Alpha reliability and Validity (N=465)

No.	Trait	Total Item	Deleted Item	Alpha Reliability	Retest Reliability	Sig	Validity
1.	EID	12	1	**.59**	**.79**	.0001	**.64**
2.	THD	9	1	.44	**.67**	.0001	**.67**
3.	BXD	4	0	.07	.17 (NS)	.243(NS)	**.54**
4.	ASB	4	0	.32	.50	.0001	**.58**
5.	PER	7	0	**.58**	**.83**	.0001	**.65**
6.	HPM	10	0	**.65**	**.83**	.0001	**.56**
7.	SUI	7	0	**.80**	**.89**	.0001	**.68**
8.	HLP	7	0	.51	**.78**	.0001	**.72**
9.	SFD	7	0	**.76**	**.88**	.0001	**.64**
10.	NFC	9	1	**.67**	**.81**	.0001	**.54**
11.	STR	4	0	.24	**.76**	.0001	**.71**
12.	CMP	7	0	.31	**.74**	.0001	**.68**
13.	ARX	12	0	**.75**	**.90**	.0001	**.65**
14.	ANP	10	0	**.78**	**.89**	.0001	**.72**
15.	BRF	7	0	.53	**.65**	.0001	**.55**
16.	SFI	10	0	**.77**	**.89**	.0001	**.61**
17.	DSF	7	0	**.64**	**.79**	.0001	**.67**
18.	SHY	7	0	**.58**	**.71**	.0001	**.69**
19.	AGGR	11	1	**.55**	**.83**	.0001	**.56**
20.	PSYC	10	0	**.65**	**.75**	.0001	**.63**
21.	NEGE	14	0	**.80**	**.88**	.0001	**.59**
22.	INTR	6	0	.52	**.72**	.0001	**.65**

According to table 2, the results of the test-retest reliability, it was found that all 21 scales were significant at 0.0001 level except BXD. These results show that all of scales except BXD can discriminate between high-scoring individuals and low-scoring individuals on the scale. But according to the result of validity value, all scales were high level of validity meaning that all items of 22 scales were accurately measuring what it is intended to measure. In other words, the results can be trusted to reflect the true concept being assessed. According to the result of factor analysis, 4 items were discarded from this assessment. Although the reliability values of my test, Yangon Personality Inventory-3 (YPI-23), including test-retest reliability and Cronbach’s alpha, are slightly lower than expected, the validity remains strong when compared to the original MMPI-3. Considering the strong validity evidence from the original scale and the relevance of the items, all 181 items will be used in the final version of the test.

Discussion

Table 1 shows participants' demographic information including gender, age, religion, education, and marital status of participants.

The results of factor analysis are as follows.

(1) Emotional/Internalizing Dysfunction Scale (EID;12 items) – principal components factor analysis was performed on the 12 items EID Scale, resulting the identification of 4 factors: factor I (4 items), factor II (4 items) factor III (2 items) and factor IV (1 item). One item (EID 173) was removed from the scale due to its failure to exhibit significant loading on any of these factors.

(2) Thought Dysfunction Scale (THD; 9 items) – principal components factor analysis was performed on 9 items of THD Scale, leading to the discovery of 3 distinct factors: factor I consisting of 3 items, factor II comprising 2 items, and factor III including 3 items. However, one item (THD 14) had to be removed from the scale because it did not exhibit sufficient loading on any of the factors.

(3) Behavioral/Externalizing Dysfunction Scale (BXD, 4 items) – principal components factor analysis was conducted on the 4 items of the BXD Scale, resulting the identification of two factors: factor I (1 item) and factor II (3 items).

(4) Antisocial Behavior Scale (ASB,4 items) – principal components factor analysis was conducted on the 4 items of ASB Scale, resulting a single dominant factor.

, (5) Ideas of Persecution Scale (PER; 7 items) – principal components factor analysis was conducted on the 7 items of PER Scale, resulting the identification of two factors: factor I (5 items) and factor II (2 items).

(6) Hypomanic Activation Scale (HPM; 10 items) – principal components factor analysis was performed on the 10 items of HPM Scale, resulting the identification of two factors: factor I (7 items) and factor II (3 items).

(7) Suicidal/Death Ideation Scale (SUI; 7 items) – principal components factor analysis was performed on the 7 items of SUI Scale, resulting a single dominant factor.

(8) Helplessness/Hopelessness Scale (HLP;7 items) – principal components factor analysis was performed on the 7 items HLP Scale, resulting the identification of three factors: factor I (3 items), factor II (2 items) and factor III (2 items).

(9) Self-Doubt Scale (SFD; 7 items) – principal components factor analysis was performed on the 7 items of SFD Scale, resulting a single dominant factor.

(10) Inefficacy Scale (NFC; 9 items) – principal components factor analysis was performed on the 9 items of NFC Scale, resulting two factors: factor I (7 items) and factor II (1 item). However, one item (NFC 48) had to be deleted from the scale due to insufficient loading on any factors.

(11) Stress Scale (STR;4 items) – principal components factor analysis was performed on the 4 items of STR Scale, resulting two factors: factor I (2 items) and factor II (2 items).

(12) Compulsivity Scale (CMP; 7 items) – principal components factor analysis was performed on the 7 items of CMP Scale, resulting three factors: factor I (4 items), factor II (2 items) and factor III (1 item).

(13) Anxiety-Related Experiences Scale (ARX; 12 items) – principal components factor analysis was performed on the 12 items of ARX Scale, resulting three factors: factor I (4 items), factor II (5 items), and factor III (3 items).

(14) Anger Proneness Scale (ANP; 10 items) – principal components factor analysis was performed on the 10 items of ANP Scale, resulting three factors: factor I (5 items), factor II (3 items) and factor III (2 items).

(15) Behavior-Restricting Fears Scale (BRF;7 items) – principal components factor analysis was performed on the 7 items of BRF Scale, resulting 2 factors: factor I (6 items) and factor II (1 items).

(16) Self-Importance Scale (SFI;10 items) – principal components factor analysis was performed on the 10 items of SFI Scale, resulting 2 factors: factor I (8 items) and factor II (2 items).

(17) Disaffiliativeness Scale (DSF;7 items) – principal components factor analysis was performed on the 7 items of DSF Scale, resulting 2 factors: factor I (4 items) and factor II (3 items).

(18) Shyness Scale (SHY;7 items) – principal components factor analysis was performed on the 7 items of SHY Scale, resulting three factors: factor I (3 items), factor II (3 items), and factor III (1 item).

(19) Aggressiveness Scale (AGGR;11 items) – principal components factor analysis was performed on the 11 items of AGGR Scale, resulting three factors: factor I (5 items), factor II (3 items), and factor III (2 items). However, one item (AGGR 18) had to be deleted from the scale due to insufficient loading on any factors.

(20) Psychoticism Scale (PSYC;10 items) – principal components factor analysis was performed on the 10 items of PSYC Scale, resulting three factors: factor I (5 items), factor II (3 items), and factor III (2 items).

(21) Negative Emotionality/Neuroticism Scale (NEGE;14 items) – principal components factor analysis was performed on the 14 items of NEGE Scale, resulting three factors: factor I (7 items), factor II (3 items), and factor III (3 items).

(22) Introversion/Low Positive Emotionality-Revised Scale (INTR;6 items) – principal components factor analysis was performed on the 6 items of INTR Scale, resulting two factors: factor I (2 items) and factor II (4 items).

According to the table 2, as a result of Cronbach Alpha value is over 0.60, 14 subscales of YPI-23 including EID, PER, HPM, SUI, SFD, NFC, ARX, ANP, SFI, DSF, SHY, AGGR, PSYC, and NEGE indicated a good level of internal consistency reliability for the set of items or variables being measured. However, the remaining 8 subscales, which their alpha value are under 0.60, it generally suggested a lower level of internal consistency reliability for the set of items or variables being measured.

As a result of Pearson (r) value is over 0.70, 20 subscales of YPI-23, except THD and ASB, are acceptable indicating that there is a strong relationship between 2 variables and there is a positive relationship, meaning as one variable increases, the other tends to increase as well. Items with lower than 0.7 values are less acceptable meaning that there is not strong relationship between 2 variables and there is a negative relationship, meaning as one variable increases, the

other tends to decrease. Nevertheless, as the result of factor analysis, all 181 items from 22 subscales involved in YPI-23 except these four items (EID-173, THD-14, NFC-48, and AGGR-18) were acceptable to measure personality.

Conclusion

The purpose of the present study was to adapt the Myanmar version of personality test which was named as YPI-23, based on MMPI-3. This inventory included 22 subscales from MMPI-3. A cohort of 512 participants residing in various regions of Yangon included in this research. This inventory contained True/False response format. To obtain data, the participants must be filled in a demographic form and must be answered all questions. It took around 15 to 30 minutes to answer all items. The responses of each participant were scored with scoring key. Then the obtained data were computed with Statistical Package for Social Sciences statistical method. From the results of factor analysis, four items (EID-173, THD-14, NFC-48, and AGGR-18) were discarded from YPI-23. From the result of the test-retest reliability, all scales from YPI-23, except BXD, were significant at 0.0001 level.

In conclusion, the present study provided a new personality test for Myanmar people based on MMPI-3. The YPI-23 was developed as a first step in Myanmar. It is mentioned that this YPI-23 scales had high reliability and validity. It can be used as an instrument in the Myanmar cultural setting. Moreover, cultures have very different attitudes toward mental health, societal expectations, and emotional expression. The MMPI-3 adaptation should take into account local standards about psychological well-being. Because Myanmar has different attitudes on mental health, psychologists who use the MMPI-3 must be cautious when interpreting scores for conditions such as depression, anxiety, stress, etc. The YPI-23 is a multi-step process that requires collaboration among Union Civil Service Board, Central Institude of Civil Service of Myanmar, Officer Testing Team, and Mental Health Hospital.

Limitations

Limitations in this study mostly lies on sampling method. Since data collection process was done, it was impossible to choose participants from specific townships or sub regions. It was only possible to collect data from those who match the criteria of living in Yangon rather than systematically selecting participants from specific townships or sub regions.

Further Research

Further studies should carry out in different regions in order to gain data insight of Myanmar people personality as a whole. Moreover, it is important to note that this study utilized only 22 subscales out of 52 in the MMPI-3 assessment tool. Therefore, future researchers should incorporate all 52 scales from the MMPI-3 to yield a more accurate and nuanced assessment of human personality.

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