

Strengthening Validity Evidence of Multidimensional Personality Inventory (MDPI) Through Convergent-Discriminant Validity and Simulated Contrasted Group Method

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Abstract

A multidimensional personality inventory (MDPI) was initially devised in 2013 (Zeb, 2013) to provide a culturally and religiously relevant personality assessment by including the Islamic personality philosophy. For the said purpose, four subscales were proposed: religiosity, psychopathology, mental health, and optimism. The validity of MDPI was established through a factor analytic approach (Zeb et al., 2013). To further enhance the validity of the inventory, the present study was proposed, which included two validity studies of M.D.P.I. Study one established MDPI's convergent and discriminant evidence by correlating it with scales. Results revealed that the tests measuring the same construct were significantly positively correlated. In contrast, the ones that differed from each other yielded negative or non-significant correlations, proving the construct validity of MDPI. The second study used a simulated contrasted group approach, which showed significant differences between the contrasted groups on the measured construct. The present study boosted confidence in the psychometric properties of MDPI and answered the shortcomings mentioned in the development phase of MDPI.

Introduction

Humans are endowed with self-awareness, distinguishing them from other species (Smith, 2009). This self-awareness is intimately intertwined with the concept of personality, a complex and multifaceted aspect of human existence that has fascinated psychologists for centuries (Jones et al., 2017). Understanding the intricacies of human personality is vital, as it lies at the core of what makes us unique among all living creatures (Kajonius & Johnson, 2018). As described by Berger (2004), personality encompasses a constellation of consistent behavioral patterns and intrapersonal processes that originate within an individual. It is a dynamic and organized set of characteristics that profoundly shapes an individual's thoughts, emotions, motivations, and behaviors across various life situations. Pervin (1970) further expounds on personality as a reflection of an individual's structural and dynamic properties, manifesting in their responses to specific circumstances.

Throughout history, numerous theories have emerged to elucidate the development of personality and its associated traits. Freud (1953), Eysenck (1967), Rogers (1971), and many others have contributed to this ongoing quest for understanding. These theories, rooted in Western thought, have been cultivated by observing Western populations. However, an alternative perspective—often overlooked—is the Islamic approach to personality. The Islamic perspective on human personality, deeply rooted in religious influence, underscores the intricate relationship between individuals and their Creator. It introduces a distinctive dimension to our comprehension of human nature, asserting that religiosity, as exemplified in Islamic doctrines, wields significant influence over an individual's psychological wellbeing. This viewpoint finds reinforcement in Quranic teachings, as exemplified by Quran 10:62,

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which implies that individuals with strong religious beliefs tend to experience heightened happiness and reduced psychological distress.

Moreover, the Islamic perspective introduces a novel facet of personality—optimism. The Quran contains numerous verses that underscore the significance of optimism while discouraging pessimism. Optimism, characterized by a positive outlook on life's experiences, closely aligns with heightened levels of mental contentment. An illustrative Quranic verse from Surah Az-Zumar (39:53) encapsulates this perspective: "(Muhammad) tell my servants who have committed injustice to themselves, do not despair of the mercy of God. God certainly forgives all sins. He is All-forgiving and All-merciful".

This Islamic viewpoint on human personality necessitates an exploration of the intricate dynamics linking religiosity, mental well-being, psychopathology, and optimism. Personality, in its entirety, comprises a mosaic of attributes encompassing beliefs, motivations, emotions, cognitive patterns, and behaviors. Mental health, in turn, embodies the positive manifestations of these attributes, such as forgiveness, empathy, and respect for others. Conversely, when these attributes manifest negatively, they indicate psychopathological tendencies characterized by delusions, hallucinations, despondency, irritability, and waning interest, among other clinical symptoms. Thus, a comprehensive personality assessment mandates the comprehensive examination of an individual's character's affirmative and adverse facets.

The cultural tapestry of Pakistan is rich and diverse, marked by its unique socio-cultural norms, values, and collective consciousness. In light of the profound socio-cultural disparities that distinguish the Pakistani population from their Western counterparts, it becomes paramount to develop and validate indigenous personality assessment tools that resonate with the intricacies of this distinct cultural context. Pakistani society is inherently collectivistic, emphasizing harmonious interpersonal relationships characterized by forgiveness, patience, and care. These cultural attributes significantly influence individuals' personality traits and behaviors within this society. Moreover, child-rearing practices in Pakistan are tailored to cultivate these attributes, reinforcing their prominence in the local population. Therefore, personality assessment instruments must be designed with these cultural nuances in mind to yield valid and reliable insights into the Pakistani population's personalities.

A significant proportion of personality assessment tools available today have been developed in Western contexts. Based on the Big Five approach, these instruments, such as the NEO PI-R (Ben-Porath & Waller, 1992; Costa & McCrae, 1992), have achieved global recognition and use. However, their origins in Western cultures pose limitations when applied to non-Western populations, like Pakistan. These instruments often fail to capture a vital dimension of personality—religiosity. Religion, particularly Islam, wields immense influence on personality development in Eastern countries, with Pakistan being no exception. The Islamic faith guides individuals in adhering to a set of beliefs, values, and practices that significantly shape their personality attributes. For instance, practices like refraining from premarital sex, strictly prohibited in Islam, reflect the influence of religious norms on personal behavior. Moreover, Islam delineates a clear set of ethical do's and don'ts, and restraining one's desires to seek divine approval fosters a sense of transcendence, contributing to the individual's overall personality development.

Considering these differences, the initial Study of MDPI endeavored to address this cultural gap by developing and validating the Multidimensional Personality Inventory (MDPI) tailored to the Pakistani cultural context, which included religiosity, optimism, mental health, and psychopathology. It was assumed that religiosity, a cornerstone of the Islamic faith, would positively correlate with optimism and mental health, nurtured by Islamic principles. Conversely, religiosity is anticipated to negatively correlate with psychopathology, given the reassuring belief in a Supreme Deity capable of altering challenging circumstances. Conversely, psychopathology is expected to be inversely correlated with mental health,

religiosity, and optimism. These four dimensions are not regarded in isolation but as interconnected facets of personality that collectively contribute to an individual's psychological makeup.

Furthermore, we successfully achieved this objective in a paper published in F.W.U. Journal of Social Sciences (Zeb et al., 2013) by creating a valid personality inventory, known as the MDPI (Multidimensional Personality Inventory). In order to give a brief refresher to our original Study (Zeb et al., 2013), our Study was conducted in three distinct phases. Phase I was dedicated to the development of the MDPI, Phase II involved an Exploratory Factor Analysis (E.F.A.), and Phase III focused on the Confirmatory Factor Analysis of the MDPI.

The first draft of MDPI contained 594 statements, which underwent qualitative item analysis and two minor pilot studies. Subsequently, we reduced the item pool to 394 statements for further analysis using principal component analysis with oblimin rotation ($N = 769$). The Scree plot confirmed a four-factor solution for the inventory, explaining 50% of the variance. A total of 264 items loaded successfully onto the MDPI subscales, each exhibiting a factor loading above .30, along with high internal consistency of the subscales, surpassing .90. Confirmatory factor analysis was carried out with a sample size of $N = 954$ respondents and model fit indices were examined. Initially, the model needed to meet the criteria for a good fit. However, after incorporating covariances, we achieved a satisfactory model fit, with Comparative Fit Index (CFI) and Tucker-Lewis Fit Index (TLI) values exceeding .90 and a Root Mean Error of Approximation (R.M.S.E.A.) below .05. This refinement left us with a total of 187 items in the MDPI, with coefficient alpha values for the subscales ranging from .78 to .95 and Split-Half reliability ranging from .79 to .91 (for details See Zeb, Riaz, Jahangir, 2013). The final form of MDPI now consists of 187 items with four subscales.

As the initial objective of developing a culturally and linguistically relevant tool was addressed in 2013, there was a need further to enhance the psychometric proof of the new scale. For this reason, two studies were undertaken to support the validity of MDPI.

Rational of Study

The current study underscores the importance of rigorous assessment of psychological tools, which remains integral in the ever-evolving field of psychometrics. Although designed with meticulous care, the MDPI scale still provides room for enhancing its psychometric properties. The present study is a testament to our unwavering commitment to ensuring its validity and reliability.

We undertook a factor structure analysis in the initial stages of its development to establish its preliminary validity. However, we remain cognizant that test development and validation have an inherent iterative nature, with each measurement instrument passing through its evolution. Consequently, we have embarked upon two additional studies, each poised to enhance and further validate the MDPI.

In Study I, our primary objective is the comprehensive assessment of the MDPI scale's convergent and discriminant validity. This critical examination involves comparing well-established and standardized scales, a pivotal step in ascertaining whether our scale authentically measures the psychological constructs it purports to target. Our pursuit in Study I is to furnish unequivocal evidence of the MDPI's validity, leaving no room for ambiguity.

Study II introduces a novel dimension to our validation efforts by deploying the Simulated Contrasted Group Method. Here, we address a limitation identified in our main Study and strategically widen the scope of our research. Acknowledging that the MDPI scale's original design catered to a Muslim sample, we discerned an absence in our primary study data—specifically, the nonbeliever demographic. In response, Study II artfully integrates an atheist sample into our research framework through simulation. This deliberate inclusion serves a dual purpose: enhancing the overall test validity and extending the reach of our findings, thus

rendering them more applicable and generalizable. Our unwavering dedication to robust psychometric research signifies our firm commitment to preserving the MDPI scale's validity and reliability as a tool for personality assessment. We aim to customize it seamlessly to Pakistan's distinct cultural context while preparing it for broader applicability beyond the country's borders.

Objectives of Study

The primary objective of Study I was to bolster the validity of the MDPI developed in 2013. While factor analysis serves as compelling evidence for the construct validity, augmenting this validation with additional evidence is recommended to bolster confidence in the research findings. To achieve this, we established construct validity through convergent validity, discriminant validity, and the contrast group method.

Convergent validity operates under the assumption that if two measures are conceptually or theoretically linked, a positive correlation between them should be observed. Conversely, discriminant validity posits that if two measures assess distinct concepts, they should exhibit no significant association with each other. In the contrast group method, two dissimilar groups are selected, sharing common traits except for the one being measured. Significant differences between these groups on the measures indicate the accurate assessment of the construct.

Study 1 Establishment of Convergent and Discriminant Validity of MDPI

Method

Research Design

As the respondents filled out eight different psychological tests, a Correlational study design was done to collect data from the respondents.

Sample

The sample comprised 96 postgraduate students from the Departments of Psychology and the Institute of Education and Research. A convenience sampling technique was used to select the participants. The sample's age range was between 20 to 39 years ($M=22$, $SD=2.03$). The sample consisted of 28.12% males and 71.85% females.

Instruments

Multidimensional Personality Inventory (MDPI)

MDPI in its initial formulation (Zeb et al., 2013) resulted in a scale comprising a total of 187 items, effectively measuring the four identified dimensions of personality: Religiosity, Psychopathology, Mental Health, and Optimism. It is a Likert format scale with four options, with scores ranging from 0 to 3. The religiosity scale included 62 items, the Psychopathology scale 66 items, the Mental health scale 42 items, and the Optimism scale 13 items. Within this revised MDPI, the sub-scales demonstrated varying levels of internal consistency, with coefficient alpha values ranging from .78 to .95, while Split-Half reliability scores spanned from .79 to .91.

Depression Anxiety Stress Scale Urdu Version (D.A.S.S.)

To establish convergent validity for the psychopathology scale of MDPI, we used the D.A.S.S. as it also measures depression, anxiety, and stress. D.A.S.S. (Lovibond & Lovibond, 1995) contains 42 items in a Likert format. Responses range from 0 to 3. D.A.S.S. encompasses three sub-scales for anxiety, depression, and stress, each containing 14 items. The Urdu-translated version of D.A.S.S. (Faroqui & Habib, 2010) was used in the present Study. D.A.S.S. yields a coefficient alpha that ranges from .91 to .94 for the subdimensions and .97 for the total score.

Life Orientation Test-Revised (LOT-R)

Life Orientation Test-Revised (LOT-R; Scheier et al., 1994) consists of 10 items assessing Optimism/Pessimism in a Likert format. Responses are scored along five options: strongly agree to disagree strongly. Item numbers 2, 5, 6, and 8 are filler items that are not counted towards the total score. The current study applied it along with the Optimism scale in MDPI to see their convergent validity. The scale exhibits an alpha reliability of 0.80

Index of Religiosity (I.R.)

Index of Religiosity (Aziz & Rahman, 1996) comprises 27 items in Likert format with four options. The scale assesses religiousness in a Muslim context comprising religious faith, religious doctrine, and religious effect. The internal consistency of the test is .83. The Index of Religiosity evaluates in Urdu, thereby facilitating the establishment of convergent validity for the religiosity scale of MDPI.

Warwick-Edinburgh Mental Wellbeing Scale (W.E.M.W.B.S.).

WEMWBS (Tennant, Hiller, Fishwick, Platt, Joseph, Weich & Stewart 2007) assessed individuals' mental health and was used in this study to establish the convergent validity of the mental health scale developed in the original development of MDPI. It consists of 14 items with five response choices. Respondents rate their well-being over the past two weeks, choosing from response options ranging from 1 to 5. Validity of the scale was established on a U.K. student population demonstrating strong support for construct validity through convergent and discriminant evidence, with a coefficient alpha of 0.89 and a test-retest reliability of 0.83.

Procedure

Given that MDPI demonstrated sound psychometric properties in the first Study (Zeb et al., 2013), this second Study aimed to validate the scale further. Each MDPI subscale was correlated with a scale that measured the same construct to establish its convergent evidence. For the said purpose—the Index of Religiosity, Life Orientation Test-Revised, Depression, Anxiety, Stress Scale, and Warwick-Edinburgh Mental Wellbeing Scale—were applied to the sample. The Psychopathology Scale of MDPI and D.A.S.S. established discriminant validity for the other scales employed in the Study.

A sample of students from Peshawar University, specifically from the Institute of Education and Research, and Psychology was selected. Students with available class time were gathered in a classroom setting, where they were introduced to the researcher. Since all scales were self-report inventories with clear instructions, no specific researcher-led instructions were required. Participants were provided with the questionnaires and instructed to provide their honest opinions. After completing the tests, participants returned them to the researcher. Interested students were briefed on the Study's nature.

Study 2 Construct validity through the Simulated Contrasted Group Method

One challenge encountered during the test development phase (Zeb, 2013) of data collection for MDPI stemmed from the unavailability of a less religious sample in Pakistan. Most individuals in Khyber Pakhtunkhwa exhibit a higher degree of religiosity than those in other provinces. This discrepancy can be attributed to the geographical location of the province and its comparatively lower level of modernization. To reduce this issue, an effort was made to select a sample from more progressive areas of Pakistan, such as Lahore and Islamabad. However, the results did not substantially alter the trend toward religiosity. The responses to

belief statements remained consistent across the different provinces, indicating that the diverse sample needed to compensate for this limitation adequately.

Additionally, some known atheists provided socially desirable answers when the scale was administered. That is, they presented themselves as believers, although they were not. As Pakistan is an Islamic state where individuals practice the principles of Islam, people hide their accurate opinions in such scales. A Muslim catering to blasphemous ideas is not socially accepted and faces the risk of harm. Similarly, the scale was deemed inappropriate for individuals of other religions, as they might perceive it as discriminatory when asked questions like, "I believe that Prophet Muhammad (P.B.U.H.) is the last messenger of God." Consequently, in light of these shortcomings, it was decided to create a simulated scenario in which, instead of searching for such cases in society, they can be factitiously created, and people's opinions are solicited on the said scales.

Furthermore, finding literate individuals with psychological problems for applying these scales posed a significant challenge during the data collection stage of validating the personality inventory. It required substantial effort to locate and assess such patients. To address this, the present study utilized the role-playing technique to simulate situations and apply it within a contrasted group method strategy.

In the contrasted group method, confidence is gained in test results by applying the tests on otherwise similar individuals except on the construct being measured. This differentiation was artificially utilized in the study sample by dividing them into two groups: believers and nonbelievers, psychologically stable and unstable, optimists versus pessimists, and mentally healthy versus unhealthy individuals. The scale's construct validity is proved if the contrasted groups show significant differences in the measured construct. Consequently, Role Playing was an alternative approach to the original contrasted group methodology. In role-playing research, participants assume specific roles and act out those identities while responding to research treatments (Bordens & Abbott, 2005). Further details regarding the role-playing approach used in the Study are provided in the procedure section.

Method

Research design

A comparative research design was applied to compare the two contrasted groups. For developing contrasted groups, a simulation technique of role-playing was used in which participants took on the identities in each treatment condition while answering a particular scale.

Sample

A convenience sampling technique was used; a sample of 42 students enrolled in the Master's program in the Department of Psychology (averaging 21 years of age) was selected for the Study. The sample was divided into 20 students in one group and 22 in another. The procedure section explains the data collection process from artificially created contrasted groups.

Instruments

The previously developed and validated Multidimensional Personality Inventory (MDPI, Zeb, 2013) was employed. Detailed information about the scale has been provided earlier.

Procedure

The researcher introduced herself to the 1st semester MSc program students and requested their participation in the research. After expressing their willingness, the students were divided into two groups. The students were told that they would have to enact a persona assigned to them while answering the statements on the test. It was also explained that this exercise will be

repeated four times to portray a different personality characteristic while answering a test. Students were randomly assigned to these conditions each time. In the first trial, group A consisted of 20 students who were instructed to assume how firm believers would answer the questions of the religiosity scale versus group B, consisting of 22 participants who had to think of nonbelievers while answering the religiosity sub-scale. When the psychopathology scale was applied to them, group A was asked to portray how a person without psychological problems would answer these statements.

In contrast, group B had to think of psychologically disturbed individuals while answering. The same procedure was used in applying mental health and optimism scales. Groups A and B were asked to adopt a fictional persona of either a mentally healthy person or one lacking these characteristics and either of an optimist or a pessimist while responding to the statements of the mental health scale and optimism scales.

Some students initially hesitated to think of an atheist while responding to the statements of religiosity scale, as they viewed it as a religious sin, even in the context of role-play. However, they were reassured that they were merely portraying a fictional character and would later be briefed on the reasons for their assigned roles. Consequently, the students agreed to continue their participation in the Study. After completing the inventory, the students were informed about the rationale behind employing the contrasted group method to establish construct validity and why they were asked to engage in role-play behaviors. Upon hearing the explanation, the students felt relieved, as they were assured that assuming the identity of a nonbeliever did not constitute a religious transgression. The two contrasted groups were then compared with the t-test (see the results section).

Results

The correlation matrix among the different scales utilized in the Study strongly supported convergent and discriminant validity. Scales assessing the same constructs exhibited significant positive correlations, while those assessing different constructs demonstrated negative correlations. The complete results are presented in the following table.

Table 1 Convergent-Discriminant evidence of MDPI scales with IR, LOT-R, WEMWBS, and DASS

| Scales | RelMDPI | IndexR | OptMDPI | LOT_R | MhMDPI | WEMWBS | PSYMDPI | DASS |
|---------|---------|--------|---------|--------|--------|--------|---------|------|
| RelMDPI | 1 | | | | | | | |
| Index R | .30** | 1 | | | | | | |
| OptMDPI | .30** | .48** | 1 | | | | | |
| LOT-R | .10 | .35** | .46** | 1 | | | | |
| MhMDPI | .27** | .29** | .42** | .29** | 1 | | | |
| WEMWBS | .12 | .20* | .28** | .32** | .47** | 1 | | |
| PsyMDPI | -.205 | -.42** | -.66** | -.44** | -.34** | -.25* | 1 | |
| DASS | -.28** | -.35** | -.59** | -.41** | -.37** | -.33** | .84** | 1 |

Note: Read Index R as Index of Religiosity and RelMDPI as Religiosity scale of Multidimensional Personality Inventory, OptMDPI as Optimism scale of MDPI, LOT-R as Life Orientation Test- Revised, MhMDPI as Mental Health MDPI, WEMWBS as Warwick-Edinburgh Mental Well-Being Scale, PsyMDPI as Psychopathology scale MDPI, and DASS as Depression Anxiety Stress Scale.

Table 2 t-value showing differences on Religiosity scale between believers and non-believers

| Variable | Believers (n=20) | | Non-believers (n=22) | | <i>t</i> (40) | <i>P</i> | Cohen's d |
|-------------|---------------------|-----------|-------------------------|-----------|---------------|----------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | | | |
| Religiosity | 181.30 | 9.044 | 45.54 | 35.32 | 16.681 | .000 | 5.26 |

Table 3 t-value showing differences on psychopathology scale between psychiatric and non-psychiatric group

| Variable | Psychiatric patients (n=20) | | Normal (n=22) | | <i>t</i> (40) | <i>p</i> | Cohen's d |
|-----------------|--------------------------------|-----------|------------------|-----------|---------------|----------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | | | |
| Psychopathology | 134.68 | 37.01 | 12.25 | 26.90 | -12.154 | .000 | 3.78 |

Table 4 t-value showing differences on Mental Health between individuals posing mentally healthy and non-healthy persons

| Variable | Mentally healthy (n=22) | | Mentally unhealthy (n=20) | | <i>t</i> (40) | <i>P</i> | Cohen's d |
|---------------|----------------------------|-----------|------------------------------|-----------|---------------|----------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | | | |
| Mental Health | 130.30 | 8.68 | 40.40 | 21.08 | 17.728 | .000 | 5.57 |

Table 5 t-value showing differences on Optimism scale between contrasted groups of optimists and pessimists

| Variable | Optimists (n=20) | | Pessimists (n=22) | | <i>t</i> (40) | <i>P</i> | Cohen's d |
|----------|---------------------|-----------|----------------------|-----------|---------------|----------|-----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | | | |
| Optimism | 36.10 | 5.04 | 12.10 | 8.42 | 10.87 | .000 | 3.45 |

Discussion

The primary objective when developing a new test is to bolster its validity evidence, and one form of validity evidence that contributes to this is construct validity. A strong demonstration of convergent validity for a scale serves as compelling proof that it accurately measures the intended characteristic. In the development phase, the construct validity of the Multidimensional Personality Inventory (MDPI) was established through a factor analytic approach that encompassed four distinct dimensions of personality. To further substantiate the validity of MDPI subscales, comparable scales with robust psychometric properties were selected for comparative purposes.

The findings yielded robust convergent validity evidence for the inventory, with all scales displaying positive and significant associations with their counterparts. Specifically, a correlation of .30 was observed between the Religiosity Scale and the Index of Religiosity. It's worth noting that the Index of Religiosity, consisting of only 27 items, offers a more concise measure of religiosity. MDPI's Religiosity Scale comprises 62 items, capturing a broader spectrum of human conduct, from beliefs to ethical behavior. This disparity between the two scales accounts for the significant yet not exceedingly high correlation, illustrating the incremental validity of the MDPI.

The notably strong positive correlation ($r=.84$) between the Psychopathology scale of MDPI and the Depression, Anxiety, Stress Scale (DASS) indicates that both scales measure a similar construct. Given that these scales are designed to assess a construct significantly deviating from routine behavior, such a high correlation is expected. Despite the substantial differences in the

statements employed by these two scales, nonetheless, gauge the same construct based on similar symptoms, thus explaining the high correlation.

The Mental Health Scale of MDPI exhibited a significant positive correlation with the Warwick-Edinburgh Mental Health Scale (WEMWBS) ($r=.47$), while the Optimism scale displayed a significant positive correlation with the Life Orientation Test-Revised (LOT-R) ($r=.46$). However, these correlations, although substantial, did not surpass the .70 threshold. The language factor may contribute to this difference, as WEMWBS and LOT-R are presented in English, whereas the Mental Health Scale and Optimism Scale are in Urdu. Language nuances can affect the interpretation of statement meanings. Nevertheless, the results indicate that despite the language distinction, both measures conveyed similar meanings to the respondents, thus leading to a significant positive correlation. Additionally, this highlights the effectiveness of developing the Mental Health and Optimism Scales, as their Urdu versions encapsulated the constructs more comprehensively than their English counterparts.

Discriminant evidence for MDPI subscales was assessed through the Depression, Anxiety, Stress Scale (DASS) and the Psychopathology Scale of MDPI, which focus on psychological problems like anxiety, depression, and stress. It was anticipated that there would be a clear differentiation in religiosity, mental health, optimism, and psychopathology constructs. Religiosity primarily pertains to human beliefs and ideal modes of conduct. At the same time, optimism reflects a positive life attitude and mental health addresses positive behavior patterns such as forgiveness and self-actualization. Consequently, it was hypothesized that scores on the Religiosity, Mental Health, and Optimism Scales would exhibit either a negative or negligible correlation with the Psychopathology Scale and DASS if the statements accurately measured their respective constructs.

Table 2 provides compelling evidence that all MDPI scales, except the Psychopathology Scale, exhibit negative correlations with DASS. This observation underscores that these scales assess facets distinct from psychological problems.

Collectively, this study substantially enhances the confidence in the validity of MDPI.

Study 2

The results reveal significant differences across all four scales of the MDPI when applied using the simulated contrast group method. These findings suggest that all MDPI scales exhibit construct validity, as the statements effectively discriminate between religious and non-religious individuals on the Religiosity scale, optimists and pessimists on the Optimism Scale, psychological patients and non-patients on the Psychopathology Scale, and mentally healthy and unhealthy individuals in the Mental Health scale.

As research participants attempted to portray themselves with fictitious identities, they often yielded extreme scores. Consequently, Cohen's d values exceeded the -3 to $+3$ range of the normal distribution, indicating that 99% of individuals in one group performed differently from other group members. While these findings may not be readily generalized to different contexts, they underscore the accurate assessment of constructs such as religiosity, psychopathology, mental health, and optimism through the test items. Had individuals failed to exhibit significant differences, it would have suggested that the statements were confusing or interpreted differently by different individuals, making it challenging to gauge their mental states. For instance, if both the person assuming the role of a believer and the one adopting a non-believer identity had both responded "strongly agree" to the statement "Fear of God keeps me from wrongdoing," it would have indicated that the item was not effectively measuring religiosity, as it failed to portray the individuals' beliefs accurately. The study achieved its twofold objectives: (1) to address the scarcity of non-believers in the study and (2) to establish construct validity through the contrasted group method.

Conclusion

In summary, the Multidimensional Personality Inventory (MDPI), designed to provide a culturally and religiously relevant personality assessment rooted in Islamic philosophy, has undergone rigorous scrutiny in this study. We embarked on this research endeavor to fortify the existing validity evidence for MDPI, focusing on convergent and discriminant validity alongside the innovative use of the simulated contrasted group method.

Our initial findings in the first phase of this study, which centered on establishing convergent and discriminant validity, have provided compelling support for the construct validity of MDPI. The positive and significant correlations observed between MDPI and scales measuring similar constructs demonstrate its capacity to gauge the intended aspects of personality effectively. Simultaneously, the absence of significant correlations between MDPI and scales measuring dissimilar constructs underscores its discriminant validity, assuring that it genuinely captures distinct facets of personality.

Our second investigation employed the simulated contrasted group method according to the promising results. This method revealed significant differences between groups, reinforcing our confidence in MDPI's ability to differentiate between individuals based on the specific personality dimensions it assesses. This innovative approach confirmed the robustness of MDPI and addressed some of the initial limitations identified during its developmental phase. In essence, the present study has contributed substantively to validating MDPI as a reliable and culturally attuned instrument for personality assessment. By enhancing its validity evidence through convergent and discriminant validation techniques and the novel application of simulated contrasted groups, we have fortified MDPI's standing as a valuable tool for understanding and assessing personality traits. As a result, MDPI stands poised not only to serve the unique cultural context of Pakistan but also to extend its applicability to broader populations, facilitating a deeper understanding of human personality across diverse settings. This research endeavor reaffirms our commitment to the meticulous development and validation of psychometric instruments, ensuring their relevance and effectiveness in personality assessment.

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