Translation and Validation of Moral Identity Questionnaire for Members of Police Force

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Moral identity is linked with people's individual well-being; conversely, little is known about how a person with moral identity relays to one's subjective well-being. The English version Moral Identity Questionnaire was developed to study the "moral development/moral Identity" that would embrace both integrity and the prominence of morality to self-identity. (Black & Reynold, 2016). The purpose of present study is to translate the "Moral Identity Questionnaire" in Urdu language. The sample comprised of (*N*=550) Police officers men *(n* = 283) and women (*n* = 267) with the age ranges from 22 to 48 years (*M* = 34.5; *SD* = 15.97) from Islamabad, Rawalpindi, Lahore and Faisalabad Police headquarters. To collect data from participants' purposive sampling technique was used. Initially the study comprises of three phases: Phase 1 study aimed to translate and validate English version of MIQ into Urdu language. Forward-backward translation method was used to determine the cross-language validity, Urdu version and the original MIQ English versions were administered on bilingual (*N* = 60) police personnel force including men and women with the mean age of 29 years. Reliabilities of both versions were determined by computing test-retest techniques. Phase-II was intended to determine the construct validity using Exploratory Factor Analysis (EFA) on a sample of (*N*=200) police officers including men and women with an age range of 21-35 years. The results showed that two factors i.e., Moral Self and Moral Integrity indicated moral identity. Phase-III of the research was designed to confirm the factorial validity. The findings confirmed the two-factor solution and suggested that MIQ Urdu version can be used as a valid and reliable measure for the assessment of moral identity.

Keywords: Moral Identity, Moral Self, and Moral Integrity.

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Introduction

Moral development refers to the process whereby people form a progressive sense of what is right and wrong, proper and improper. As implied by the term development, human moral sense is commonly seen to involve a movement from simple and finite definitions of right and wrong to more complex ways of distinguishing right from wrong. Throughout history, the moral development has been taken up by many theologians, scientists, and philosophers. Western philosophy provides three common platforms for thinking about human morality (Hergenhahn, 2019). Christianity provides the doctrine of original sin, which holds that all human beings are born with a proclivity towards concupiscence. That is to say, all people will naturally behave selfishly, improperly, without regard for the good of others (Chadwick, 2019). Every individual has the capacity to identify with others on a multitude of variables, including but not limited to shared traits, common familial bonds, or similar interests. These variables may be abstracted to higher order social identities linked to avocational, political, religious, or ethnic groups (Deaux et al., 2015). Together, with many social identities that people possess constitute their social self-schema, defined as an organized and unique knowledge structure in memory that links social identities to the self (Markus, 2017). The social self-schema organizes one's social identities and directs attention to new self-relevant information. This general tendency to differentially process self-relevant information has been shown to occur for diverse characteristics such as gender (Skitka & Maslach, 2016), mathematical aptitude (Lips, 2016), and other kinds of personality traits (Fekken & Holden, 2012). Thus, it seems reasonable to suggest that self-conception can also be organized around moral characteristics and that moral identity is another potential social identity that may be a part of a person's social self-schema.

In order to investigate how individuals, understand morality, it is essential to consider their beliefs, emotions, attitudes, and behaviors that contribute to their moral understanding. Additionally, researchers in the field of moral development consider the role of family and colleagues in facilitating moral development, the role of morality and values, socialization and cultural influences, empathy and altruism, and positive

development, in order to understand what factors, influence morality of an individual (Hardy & Carlo 2011).

Moral Identity

Moral identity is defined as having a self-conception organized around a set of moral traits. It possesses two dimensions “internalization and symbolization”. Internalization is the process in which people possessing traits, and symbolism is the way in which they place on demonstrating these traits to others (e.g., through membership in clubs or the clothes they wear). For example, an internalization item is, “It would make me feel good to be a person who has these characteristics,” whereas a symbolization item is, “I am actively involved in activities that communicate to others that I have these characteristics. The simpler definition of moral identity is "social responsiveness to the needs of others". Moral identity can be viewed from two major theoretical perspectives: social cognitive and character-based (Aquino & Reed, 2012).

The socio-cognitive model of moral identity, defined moral identity as a self-conception organized around a set of moral traits, and identified nine traits as essential characteristics of a moral person (e.g., honesty, fairness, hard work etc.). If someone feels that these traits are central to their self-concept, they are proposed to have a strong moral identity and, in turn, be more likely to act in line with these traits. The social cognitive perspective asserts that individuals balance multiple identities within a "working self-concept" and that social cues can activate different images of a self-concept. The character perspective proposes an "intransient moral self" which is central to one's self-concept. This intransient moral self is a powerful force which drives one to act in accordance with a self-image. This stable, character-based self-concept is moral identity. It was also explained that for some individual’s moral identity is their primary self-definition and that for them this commitment is not dependent on situational or social cues. For these individuals, doing the right thing is essential to maintaining their moral image of the self. Such individuals identify themselves in other ways too. For them, acting ethically is more important than their sense of belonging to any other form of identity. For those whose moral identity is not as strong, the competition from other forms of identity causes the individual to be more susceptible to change

behavior based upon social cues and influences that include peer pressure. (Shao et al., 2018).

According to Lapsley and Narvaez (2014), a person with a moral identity `would be one for whom moral constructs are chronically accessible and easily activated for social information-processing'. Such a person would filter their perception of the world and their memories through chronically active moral schemas. Moral identity is a construct at the intersection of moral development and identity formation. It is thought to be a source of moral motivation linking moral reasoning (our judgments about whether certain actions are right or wrong) to behavior. In other words, people with a stronger sense of moral identity will be more likely to do what they know is right, and more likely to show enduring moral commitments.

Surprisingly, psychologists and sociologists conceptualize the moral identity in different ways. It is important to discuss this difference because it is premised on historically dissimilar views of the self. In general, many psychologists maintain that having a moral identity means that being moral is at the core of the self. Alternatively, many sociologists assert that claiming a moral identity does not mean it is central to the self. Rather, the moral identity simply identifies one among a host of identities that an individual may claim. If moral identity is highly regarded by the individual, it is predicted to lead to consistent moral actions throughout his or her life (Damon & Hart, 2019).

The Moral Identity, assesses two basic components of moral identity, those of moral integrity and moral self. We consider both to be components of a broader model of moral cognition, or the conscious and unconscious mental processes that determine whether a given action is right or wrong according to the prevailing moral paradigm. Moral development focuses on the emergence, change, and understanding of morality from infancy through adulthood (Sonnentag & Barnett, 2016). Morality develops across a lifetime and is influenced by an individual's experiences and their behavior when faced with moral issues through different periods of physical and cognitive development. In short, morality concerns an individual's growing sense of what is right and wrong; it is for this reason that young children have different moral judgments and

character than that of a grown adult. According to Black and Reynold (2016), moral identity has two types; 1) Moral Self and 2) Moral Integrity.

Moral self. According to Black (2016), the moral self is concerned with the morality of selfhood (the qualities by virtue of which a person is oneself) that implicates both who a person is (a person's sense of self and identity based on deeply felt concerns, commitments, and attachments) and how a person acts (a person's characteristic ways of thinking).

Moral integrity. Moral integrity is the qualifications of being honest and having strong moral principles; moral uprightness. It is generally a personal choice to hold oneself to consistent moral and ethical standards (Black, 2016). Moral integrity is regarded by many people as the honesty and truthfulness or accuracy of one's actions.

Measures of moral development predicated on Kohlberg's theory. Kohlberg (2019) laid the groundwork for research on what has come to be viewed as the standard model (Walker, 2012), which describes moral development as a progression through six stages loosely corresponding to Piaget's preoperational and operational developmental levels (Kohlberg & Hersh, 2017). Instruments based on Kohlberg's theory and method (Gibbs et al., 2018; Lind, 2018; Rest et al., 2019) typically assess how and why people make moral judgments. Moral Identity based on responses to a series of moral dilemmas, assuming rational decision-making. Bandura et al. (2016) provided a theory and a method for assessing moral disengagement, but focused on explaining deviation from morally responsible behavior. Theories of moral psychology based on personality or moral identity are perhaps better able to explain such motivation.

Blasi (2015) proposed willpower, integrity, and moral desire as the three essential virtues of moral identity. In this model, he highlighted the inability of the Kohlberg model to account for the discrepancy between moral judgment and action, and outlines a theory that proposes consistency as the overriding moral motivation. He described two motivating forces: self-consistency (acting according to the cognitive appraisal of the morally correct action) and the satisfaction of irrational impulses. It was considers that integrity as composed of both responsibility and identity. The desire for consistency that is part of self-concept is seen in moral identity;

integrity that pertains to identification with moral actions is reflected in moral responsibility

Moral behavior is a product of volition that is it results from conscious reflection on one's first order moral goals and desires (Compassion and kindness), from this point of view, those who always act in manners that is consistent with their first order moral desire to do so because being moral person occupies the highest rank in a hierarchal ordered sets of second order desire. Self-consistency is considered a motivational force for moral behavior, but the lack of consistency does not necessarily signify moral hypocrisy (Monin & Merritt, 2011). Therefore, when people do moral things for immoral reasons, they are moral hypocrites.

Moral integrity must come from internal commitment to moral actions, expressed in external behavior. Integrity and self-consistency are closely related. However, both integrity and self-consistency can be separated from adherence to accepted moral norms. Both are moral only to the extent that actions are moralized. Some theorists have sought to explain moral motivation with reference to individual differences in moral identity. Many of these theories are based on Blasi's model, although most of them focus on morality rather than identity. According to them moral identity is a combination of two components: Moral Self and Moral Integrity. The affective component is an evaluation guided by feelings and emotions, while the cognitive component is information based on evaluating one's life, in which people tend to judge the degree with which their lives fulfil their expectations and resembles their ideal (Lapsley & Yeager, 2013).

Several studies have found that Moral Self is associated with the morality of selfhood (the qualities by virtue of which a person is oneself) that implicates both who a person is (a person's sense of self and identity based on deeply felt concerns, commitments, and attachments) and how a person acts (a person's characteristic ways of thinking) (Black & Reynold, 2016) and moral integrity is the qualifications of being honest and having strong moral principles; moral uprightness. Researches showed that individuals who have more morally integrated have more positive feelings than individuals who have moral self (Diener & Seligman, 2012).

According to Lyubomirsky, King and Diener (2015) moral integrated people are successful in several areas of their lives, including marriage, friendship, income, job performance, and health. People who perceive themselves as more morally integrated perform in a more adaptive way to daily experiences, to decision-making, to perception and interpretation of social situations, and to recovery from negative events, like failure (Abbe, & Lyubomirsky, 2013; Lyubomirsky et al., 2015).

Rationale

The Moral Identity Questionnaire (MIQ) Black and Reynold (2016) has been the most used instrument to measure Moral Identity / Moral Development, and its original version in English has been translated and validated into several languages around the world supporting its two-dimensional structure through these versions. According to Yousaf and Ehtisham (2017), some of items in English version of moral identity was very tough to understand for employed and unemployed Pakistani sample working in government sector. Researches also showed that, the alpha reliability of moral identity questionnaire English version (MIQ) score is low for Pakistani people because of miss understanding most of the items (Aqeel & Nisar, 2019). Thus, the purpose of this study was to translate the Moral Identity Questionnaire (MIQ) in Urdu language and to study their reliability and validity in order to make the questionnaire in native language for research, it will also help in assessing the importance people give both to their moral principles and to acting accordingly. To get better results, there is need to translate and have Urdu version of MIQ for Pakistani population.

Objectives

The main objectives of this study were consisted into three phases.

1. To Translate and Cross Language validation of the Moral Identity Questionnaire in Phase I.
2. To establish the psychometric properties of the scale by Exploratory Factor Analysis and to evaluate the internal consistency of Urdu version of MIQ in terms of Cronbach's alpha coefficients in Phase II.
3. To investigate the Confirmatory Factor Analysis in Phase III.

Method

The English version Moral Identity Questionnaire was developed to study the "moral development/moral Identity" that would embrace both integrity and the prominence of morality to self-identity (Black & Reynold , 2016). The aim of the study was to translate the "Moral Identity Questionnaire" in Urdu language for the members of police force.

Instrument

Moral identity Questionnaire. Black and Reynold (2016) developed Moral Identity Questionnaire that contained 20 items. The MIQ has two subscales; namely, Moral self and Moral Integrity. The scoring options for items ranged from 1 (definitely disagree) to 5 (definitely agree).

Sample

Participants in this study were 550 Police men (n = 283) and women (n = 267) with the age ranges from 22 to 47 years (M = 34.5; SD = 15.97). To collect data from participants' purposive sampling technique was used. The demographic variables of sample include gender and age.

Procedure

For using the research instruments proper official permission was taken from the respective authors through official e-mail. In the present study survey method was used by using scale Moral Identity Questionnaire Urdu version (MIQ). The researcher took written consent from the participants and explained the objectives and nature of the research. Instructions were written on the consent form but brief verbal explanation was also given to participants. After taking consent and permission, demographic information was filled from participants on questionnaire.

Phase I: Translation and Cross Language Validation of MIQ

Translation and cross language validation of MIQ has been accomplished by forward and back translation procedure. For the translation and adaptation of MIQ, the original scale was given to five bilingual experts. Translators were asked to adapt each item according to the Pakistani culture, without eliminating the items. Most appropriate translations were selected in the committee approach.

Each translated item was analyzed and best translated items were selected by the mutual consensus of committee members. At the end of this process, the translated version of MIQ was ready for back translation.

Using the same approach that outlined in the forward translation, the instrument was translated back to English by the independent bilingual experts. The back translations of the Urdu version and original MIQ were scrutinized by the same bilingual experts. The final back translation was sent to the original author (Black, 2019). Based on author's suggestion, translated version undergone some necessary changes with respect to grammar and translated version was again sent back to author for review and approval.

The aim of the study was to attain Urdu version of SCS and MIQ. The major intention of the process was to enable the instrument practically perform equally in both languages, source language English and target language Urdu. A well-established method to achieve the goal was used to forward translation and backward translation (Brislin, 2016 & Hambleton, 2019).

The following steps are involved in in translation and cross language validation of SCS and MIQ.

Step I: Forward translation of SCS and MIQ into Urdu.

Step II: Committee approach with subject matter expert to select the appropriate translation.

Step III: Back-translation of SCS and MIQ Urdu version into English.

Step IV: Committee approach with subject matter expert to select the best translation.

Step V: Cross language validation of SCS Urdu version and MIQ Urdu version**.**

Sample

For the cross-language validation, the sample of 60 police members including men (*n*=30) and women (*n*=30). Sample was selected from, Rawalpindi *(n* =40) and Islamabad (*n*=20), have the proper comprehension of both languages that is, Urdu and English.

Procedure

The whole sample was divided into four groups. In the first trial two groups comprising of 30 police members, 15 in each group were given the original inventory of MIQ and their responses were taken. Similarly, the other two groups of 30 police members were given the translated version of MIQ and their responses were taken. In the second trial after the fifteen

days the same sixty police members were contacted to make their responses again, but in the second trial the first group of 15 police members were given Urdu version of MIQ with the same instructions and the second group of 15 police members were given again the original MIQ. Regarding the last two groups, they were given original inventory of MIQ and second group was given translated version of MIQ. This exercise was geared to identify the point of equivalence or discrepancy between Urdu and English version of the scale. Participants were randomly assigned to the four groups: Urdu-Urdu retest, Urdu-English retest, English-Urdu retest, and English-English retest. They were all requested to give their responses with the same instructions. These groups were made to control the experiences of learning effect that may took place due to administration of Urdu and English tests on two weeks apart retesting.

Results

In order to determine cross-language validity and test-retest reliability of the inventory, correlation coefficients of four groups between the scores of two administrations has been carried out. Moreover, the following results also represent the comparisons of retest reliability with original MIQ retest scores with one-month interval.

Table 1

Test-retest reliabilities of Urdu and English version of MIQ (*N* = 60)

	N	r^2
MIQ		
MIQ (U-U)	15	.83**
MIQ (U-E)	15	.79**
MIQ (E-E)	15	.81**
MIQ (E-E)	15	.76**

Note. MIQ = moral identity questionnaire. **P<.05, **P<.01, ***P<.001.*

Table 1 shows test-retest of the four groups (Urdu-Urdu, Urdu English, English-Urdu, and English-English) correlations of MIQ are positive and significant. The correlation coefficients for four groups ranged from .76 to .83 which indicates high stability of all subscales over time, as well as cross language validity of the Urdu and English versions. Among the all four groups' correlation value of Urdu-Urdu retest group is

higher as compared to other three groups. The reason for this higher correlation value may because of the practice effect in the twice administration of same language inventory. Overall, these results indicate the strong evidence of cross language validity or empirical equivalence of the original and translated versions of MIQ. Moreover, the results also provide the evidence that both tests are hypothetically similar. Comparison of original English and Urdu versions of MIQ. Moreover, the test-retest reliability and the cross-language validity of the two sub-scales is also determined by calculating correlations between two administrations.

Table 2

Retest Reliabilities of Urdu and English Version of Two Subscales of MIQ (*N* = 60)

Scales	*UU*	*UE*	*EE*	*EU*
MIQ	.83**	.79**	.81**	.76**
MS	.81**	.84**	.82**	.81**
MI	.82**	.88**	.82**	.81**

Note, MIQ = moral identity questionnaire, MS = Moral self, MI = Moral integrity subscale, UU = Urdu-Urdu, UE = Urdu-English, EE = English-English, English-Urdu. *p<.05, **p<.01.

Table 2 shows that four groups (Urdu-Urdu retest, Urdu-English retest, English-Urdu retest and English-English retest) correlations for the four subscales of MIQ are positive and significant. The correlation coefficient of Moral self for four groups ranged from .81 to .84, for moral integrity correlation coefficient for four groups ranged from .81 to .88, which indicates high stability of responses over the time, as well as cross language validity of the Urdu and English versions. Among the all the four groups' correlation value of each sub scale and total of Urdu-Urdu retest is higher as compared to other three groups. The reason for the higher correlation value may be the practice effect of the same language inventory administration.

Phase II: Exploratory Factor Analysis of Urdu Version MIQ Scale

Sample

In order to determine the further psychometric properties of the scale, MIQ Urdu version was administered on the sample of (*N*=200) police members including men (*n* = 104) and women (*n* = 96). All the

police force members were of age range 25 to 42 years (*M* = 33.5; *SD* = 12.02).

Procedure

The scale was administered individually. The participants were approached at their work places. Permission was sought from the different professionals; they were instructed to read each statement carefully and respond honestly. In case of any difficulty, they were assisted by the researcher to answer on scale. Few subjects have problems in understanding of statements so they were explained by the researcher till a real answer was obtained.

Results

This scale is translated for the very first time in Urdu language. EFA was applied to investigate its factorial structure to verify the existence of construct is same for Pakistani population as it exists for western society. At the first step the correlation matrix for all 20 items was generated and it was found all the items showed item total correlation at least .17 and above and is provide the justification for sensible factorability (Field, 2009). Secondly, Bartlett's test of sphericity was significant ($\chi 2$ = 1912 p =.01) indicating sample from population has equal variance and items has enough common variance suitable for factor analysis. Thirdly, the Kaiser-Meyer-Olkin Measure of sampling adequacy was .81 which is sufficiently high as value ranges from 0 to 1. The value of .81suggests that data is good for factor analysis. Fourthly, the communalities for all 20 items were found to be above .3 supported this idea that each item shares some common variance with each other. Communalities represent the proportion of common variance in a variable. These all findings justified the decision of factor analyses for MIQ. On the basis of all the above considerate facts the factor analysis was applied on all 20 items of MIQ for factor analysis. Principal axis factoring was used as an extraction method as it helps to identify the factorial structure by using maximum likelihood method.

The results of Principal Axis Factoring by using Maximum Likelihood Method to determine the factor structure and construct validity of MIQ. It is clear from the results, that most of the items fall on two factors by using Varimax Rotation Method. The main criterion of selection of final

items was factor loading of .40 and above as followed by Black and Reynold (2016). Two factor solutions were considered best as this solution was found closer to factor solution of original one. Moreover, result indicated that the factor 1 has an Eigen value of 5.77 and explain 19.12% of the total variance; Factor 2 has an Eigen value of 4.67 and explains 10.79% variance. The results show that total variance explained by two factors is 29.91. Finally, 20 items were retained in two factors. So, EFA results show the two factors present indigenously for the construct of MIQ (2016) also confirm these two factors of MIQ.

Likewise, the results of the analyses carried out in relation to gender, which revealed a two-factorial structure for the scale. This information is displayed in Table 3.

Table 3

Exploratory factor analysis by gender

Group	KMO	Bartlett's test of Sphericity	Eigen values	%of Variance
Gender				
Men	.78	994.37*	3.04	17.34
Women	.73	919.76*	2.54	14.36

*Note: * (p < .01)*

Psychometric properties of MIQ Urdu version

In order to establish the psychometric properties of MIQ Urdu version, alpha reliability coefficients were calculated for each subscale.

Table 4

Means, Standard Deviations, Alpha Reliability Coefficients, and Correlation between subscales of MIQ Urdu Version (N = 200)

Variables	*K*	*α*	*M*	*SD*	MS	MI
MS	8	.88	59.01	11.31	-	.78**
MI	12	.82	67.67	5.92		-

Note., MS = moral self, MI = moral integrity, * *p*< .05, ***p*< .01.

Table 4 indicates the alpha coefficient for the 20 items of MIQ subscales. Alpha reliability coefficients also measure the underlying factor

or construct of the scale. The alpha reliability of its subscale was .88 (Moral self) and .82 (Moral integrity). These high alpha coefficient values connote both the scales are internally consistent and reliable measures to assess the underlying constructs. Results in Table 4 show the inter scale correlation of MIQ. As results, indicated that moral self is positively related with moral integrity

Phase III: Confirmatory Factor Analysis of Urdu Version MIQ Scale

For establishing factorial validity of Moral Identity Questionnaire confirmatory factor analysis technique was applied. All the model path diagrams were established using AMOS graphics and analyses were computed to estimate the chi-square value and fit indices.

Sample

A sample of 350 members of police force including men (n = 179) and women (n = 171). The data was collected from different police stations of Islamabad, Rawalpindi, Lahore and Faisalabad. The age ranges from 22 to 47 years (M = 34.5; SD = 17.67). A purposive sampling technique was used to collect the data from the sample. Results. The factorial structure of MIQ Urdu version was assessed with the help of Confirmatory Factor Analysis (CFA).

Results

The factorial structure of MIQ Urdu version was assessed with the help of Confirmatory Factor Analysis (CFA).

Table 5

Factor Loadings (Standardized Solutions for Confirmatory Factor Analysis of Moral Identity questionnaire) for Two Factors of MIQ Urdu Version (N = 350)

Items	MS	Items	MI	Sub-S	MIQ
1	.70	9	.71	MS	.59
2	.72	10	.76	MI	.64
3	.67	11	.81		
4	.61	12	.72		
5	.58	13	.67		
6	.59	14	.67		
7	.54	15	.73		
8	.61	16	.64		

17	.58
18	.51
19	.51
20	.63

Note. Sub-S = sub-scales, MIQ = moral identity questionnaire, MS = moral self, MI = moral integrity

Table 5 showed the Standardized Solutions for Confirmatory Factor Analysis of Moral identity questionnaire and factor loadings for all 20 items of MIQ Urdu version. As the result indicated most of the items showed factor loading > .50 in each factor which was the selection criteria of items in the development of scale. Furthermore, model yielded acceptable fit indices, that is, value of Comparative Fit Index = .92, Non-Normed Fit Index = .91, Root Mean Square Error of Approximation = .04, Standardized Root Mean Square Residual = .02 with non-significant p value. The chi-square to *df* ratio was 1.47. Results are consistent with findings present in the literature (Black & Reynold, 2016).

Discussion

The current study aimed to translate the Moral Identity Questionnaire (MIQ) into Urdu Language. In phase I, translation and cross language validation was established. To see the empirical equivalence of the both (original and translated) versions of the instrument, they were administered to different groups of subjects. The administration of MIQ on bilinguals was with different sequence. However, it was found that the correlation of Urdu-Urdu retest is higher as compared to Urdu-English retest, English-Urdu retest and English-English retest. There can be many reasons for this result but the important one is language barrier. Cross language validation was done with sample of police force members who were bilinguals. Results of cross language validation confirm the assumption that Urdu translated version has more consistent results as compared to English version. Stability of reliabilities on all subscales of MIQ Urdu version is the sign of better language comprehension among Pakistani population.

In the next step, Phase II, construct validation of Urdu version was done through exploratory factor analysis. The data of 200 police members

were collected on Urdu translated version and EFA with the help of Principal Axis Factoring by using Maximum Likelihood Method was applied to determine the factor structure and construct validity of MIQ. Items were retained based on factor loading of .40 and above as followed by Black (2019) in the development scale. Finally, 20 items were retained in two factors explaining 29.91 of total variance. First factor was Moral Self (8 items), factor 2 was moral integrity (12 items). So, EFA results showed the two factors present indigenously for the construct of Moral Identity Questionnaire. Black and Reynold (2016) also confirmed two factors of MIQ. Results of present study showed the same two factors present indigenously for the construct of Moral Identity Questionnaire. In the present study, psychometric properties of MIQ were established by computing alpha reliabilities. Reliability coefficients for subscales for Moral Integrity and Moral Self were adequate and satisfactory representing these subscales as dependable measure of the constructs. The reliabilities were good and confirmed the idea that MIQ Urdu Version is a reliable measure and results were found consistent with existing literature (Black & Reynold, 2016).

The inter scale correlation was determined to check the relationship between different subscales of MIQ Urdu version. The inter scale correlation between moral self and moral integrity is positive. Results were found same as in the existing literature Black & Reynold (2016). In reference to model fit, researchers (DiStefano et al., 2019; Hu & Bentler, 2019; Westen & Rosenthal, 2013) use numerous goodness-of fit indicators to assess a model. The popularity of fit-index research can be seen by the number of indexes that exist. In general, the authors prefer the Tucker Lewis Index, Comparative Fit Index, and Root Mean Square Error Approximation for one-time analyses (Harrington, 2019). The results in the present research are well supported by the above-mentioned facts about fit indices so the measurement models provide the accuracy of confirmatory factor analyses for MIQ Urdu version. Meade (2018) discussed the excessive sensitivity of the chi-square statistic with large samples has been known for some time, which rapidly gave rise to the development of several approximate fit indices (AFIs) in order to better index the extent to which models approximately fit the data (Steiger,

2017). Many of these AFIs are derived from the same fit function used to calculate the chi-square statistic (e.g., Comparative Fit Index, Incremental Fit Index, non-normed Fit Index, Tucker Lewis Index), while other index average discrepancy between reproduced and observed correlations (e.g., Root Mean Square Residual). Excellent overviews of the AFIs are available in the existent literature (e.g., Barrett, 2017; Hu & Bentler, 2019; Meade, 2018). Root Mean Square Error of Approximation (RMSEA) tests the extent to which the model fits reasonably well in tin the population. It is sensitive to model complexity, but unlike the model chi-square, it is relatively insensitive to sample size. Close fit indicates the probability that RMSEA is less than or equal to .04 (Harrington, 2019). The Comparative Fit Index (CFI) is equal to the discrepancy function adjusted for sample size. CFI ranges from 0 to 1 with a larger value indicating better model fit. Acceptable model fit is indicated by a CFI value of .90 or greater (Hu & Bentler, 2019). Root Mean Square Error of Approximation (RMSEA) is related to residual in the model. RMSEA values range from 0 to 1 with a smaller RMSEA value indicating better model fit. Acceptable model fit is indicated by an RMSEA value of .04 or less (Hu & Bentler, 2019).

Conclusion

On the basis of overall results, it could be held that MIQ has been translated and the cross-language validity of the inventory has been established which is satisfactory. Moreover, the factor structure was explored with the help of EFA, two factors were retained in EFA for indigenous population and later on they are confirmed in phase III (confirmatory factor analysis). As the results indicated the scale is providing sufficient evidence of validities so it can be concluded that scale have been assessed with respect to their psychometric properties for revised Urdu version were found satisfactory.

Limitation and Suggestions

There are few limitations of the present study. Translation, adaptation, and validation of questionnaires or scales for practice and research are very time-consuming. The structural and functional equivalence of few items in translation may get affected so that they may have not retained in EFA. Moreover, gender is important contributing factor in concept of moral identity so while exploring the indigenous factor

structure EFA can be separately applied for men and women sample to recognize the potential gender differences in moral identity. In addition, sample has been collected from the limited cities Islamabad/ Rawalpindi and Faisalabad so the generalizability of findings is limited with reference to EFA. In addition, the adapted version can only be used with police personals.

Implications

The present research has the contribution in the field of social and educational psychology. Present research also provides us the factors define moral identity. Psychometric strength of the scale has been developed by using exploratory and confirmatory factor analysis techniques. The current study has practical implications for educational purpose, the MIQ can be used in the evaluation of the impact of instructional activities about socio-emotional aspects of learning. The MIQ can also be employed to determine the impact of individual factors and contextual factors on moral identity development among any other working or job holding individuals.

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