Adaptation of Five Factor Wellness Inventory Adult Version into Urdu

Annina M. Mirza, Ph.D.
Human Development
Marywood University
2300 Adams Ave, Scranton, PA 18509, USA

Shamshad Ahmed, Ph.D.
Associate Professor
Department of Counseling/Psychology
Marywood University
2300 Adams Ave, Scranton, PA 18509, USA

Alan M. Levine, Ph.D.
Professor
Department of Nutrition and Dietetics
Marywood University
2300 Adams Ave, Scranton, PA 18509, USA

Lois K. Draina
Associate Professor (retired)
Marywood University
2300 Adams Ave, Scranton, PA 18509, USA

Abstract

The ninth grade adult version of the Five Factor Wellness Inventory was adapted into Urdu by four translators who used the forward and back translation method. The instrument was then administered to a group of bilingual Pakistani immigrants to determine if the English and Urdu items were equivalent and to provide statistical evidence for face and content validity. Paired t-test revealed that there were no significant differences on 28 of 29 means compared. There was significant difference between the English and Urdu score of the sample on only one mean, global context, ($t(18) = -2.699$, $p<.05$). The Cohen's d (-0.68) for global context was medium to large. Minimal discrepancy between the items of the two instruments indicates that the 5F-Wel-A Urdu version could be used to assess the wellness of Urdu speaking immigrants and Asian Americans of Pakistani origin with limited English proficiency. The procedure employed to adapt this test could also be used to adapt other instruments, used by counselors, for ethnic minorities with limited English proficiency.

Keywords: Five Factor Wellness Inventory, adaptation, Urdu, ethnic minority, wellness

It is estimated that minorities - everyone except for non-Hispanic, single-race whites - will constitute 57 percent of the United States population by the year 2060. According to U. S. Census Bureau's Newsroom Archive (A More Diverse Nation, 2012, para. 7) minorities constituted thirty seven percent of the population back then. By 2060, the minority population is projected to be 241.3 million out of a total United States population of 420.3 million. Non –Hispanic single race whites will still be the largest single group (A More Diverse Nation, 2012, para. 9)

Asian Americans are the second fastest growing ethnic minority groups in the US (following the Hispanic population), growing at a rate of 2.6 percent between 2008 and 2009, according to Office of Minority Health (OMH, 2012). This racial group includes people having origins in the Far East, Southeast Asia, and the Indian subcontinent (OMH, 2012). According to the 2010 U.S. Census Bureau population estimate, California, New York, Hawaii, Texas, New Jersey and Illinois had the largest Asian-American populations. There are 17.3 million Asian Americans living in the United States and these make up 5.6 percent of the nation's population (OMH, 2012; U.S. Census Bureau, 2011).

Asian Americans of Pakistani origin who moved to the United States after 1965 were highly skilled workers. They came to the US for a variety of reasons. They were in the United States largely because of better job opportunities and educational advancement, or they may have immigrated to escape a hostile environment in their native country (Taus-Bolstad, 2006). Pakistani immigrants may be experiencing acculturative stress which is the stress that develops from the pressure of adapting to a new culture (Berry, 1997). Acculturative stress is induced by change in lifestyle, values and customs of immigrants because of adjustment to a new environment and way of life.

Urdu is spoken and understood by the majority of Pakistanis in their country and abroad as it is one of the two official languages of Pakistan, the other being English. It is also one of the principal languages of India along with Hindi and many other languages. Although the script for the two languages, Urdu and Hindi, set them apart, most people can comprehend the native speaker of the other. The large populations of these countries make Urdu and Hindi combined the fourth most spoken language in the world (Weber, 2008).

There are an estimated 344,942 people over five years old residing in the US who speak both Urdu and English at home, according to U.S. Census Bureau report on language use in the United States. Most of these, 70%, are bilingual and speak English very well, another 19% speak English well. The remaining 10% either do not speak English at all or do not speak it well (U.S. Census Bureau, 2007, p.7).

World Health Organization's interest in health promotion and prevention of diseases has led to the development of wellness models (Dunn, 1977; Travis & Ryan, 2001) and measures of wellness like Testwell developed by Hettler at the National Institute of Wellness (1993) and Well Evaluation of Lifestyle (Myers & Sweeney, 2005a). Consequently, medical practitioners are now expected to promote preventive health measures and lifestyle choices that could enhance well-being. In this regard the United States Preventive Services Task Force (USPSTF, 2010) issues recommendations that assist physicians in the delivery of preventive services.

This shift in focus from treatment to prevention has led to a number of initiatives. The Center for Disease Control and Health Promotion (CDC, 2015) has made enhancing the quality of life a central objective of its goals for Healthy People 2010 and Healthy People 2020 subsequently. Colleges and universities have incorporated enhanced well-being of the students and employees in their objectives for Healthy Campus 2020, an initiative of American College Health Association (2016). However, the growing number of immigrants may not be benefiting from these initiatives due to barriers such as lack of language proficiency, attitude, beliefs and practices.

Stress experienced by immigrants could be reduced by assessing wellness and devising individual action plans to improve and uplift one's sense of well-being and contribute to a better quality of life. Myers, Sweeney, and Witmer (2000) define wellness "as a way of life oriented toward optimal health and well-being, in which mind, body and spirit are integrated by the individual to live life more fully within the human and natural community"(p. 252). An assumption underlying the indivisible self, wellness model, is that any improvement in one area would lead to improvement in overall well-being.

The Witmer, Myers and Sweeney's wheel of wellness developed after years of studying the characteristics of people who had lived long and well. The Well Evaluation of Lifestyle (WEL) developed from the wheel of wellness model (Myers & Sweeney, 2005a). After years of research with the WEL, another model was generated from the analysis of data collected. This model is called the indivisible self model of wellness which also led to the development of an instrument to assess wellness, the Five Factor Wellness Inventory, or 5F-Wel for short (Myers & Sweeney, 2005b). It is an empirical model as its factor structure was generated from years of research and data gathered with the original WEL.

The Five Factor Wellness Inventory has been translated into multiple languages. Completed versions include Turkish, Chinese, Spanish, Lithuanian and German (Five Factor Wellness Inventory, n.d.). An Urdu adaptation of the 5F-Wel would extend the applicability of this instrument to another understudied ethnic group: immigrants and Asian Americans of Pakistani origin.

What makes 5F-Wel a suitable choice for test adaptation? One reason is that the items do not appear to be culturally loaded. It would be a useful instrument to assess wellness in Pakistan, for instance, as it has few items that would need to be replaced for use with the people in Pakistan. An Urdu version of the 5F-Wel would be useful in evaluating immigrants from Pakistan and Asian Americans of Pakistani origin, whose native language is Urdu and who display limited English proficiency, making testing in English next to impossible.

Method

The purpose of this study was to adapt the ninth grade adult version of the Five Factor Wellness Inventory into Urdu using forward- translation which involves finding words in the target language (Urdu in the case of this study) that adequately conveys the meaning of the original and back translation which involves translating from the target language back into the source language (English in this study). At times instead of opting for literal translation, items from the English version were adapted into Urdu to avoid awkward sentence construction. Adaptation was also necessary to capture the essence of the original in Urdu when no suitable literal translation seemed possible. Cultural consideration also required finding alternate ways of assessing wellness. The adapted 5F-Wel Adult Urdu version was then administered to a group of bilingual Pakistani immigrants to determine if the English and Urdu items were equivalent that is to determine if the items in the target language (Urdu) convey the same meaning as the items in the source language (English). The participants selected were proficient in both English and Urdu. Proficiency was operationally defined for this study as the ability to understand and respond to instructions on both English and Urdu version of the 5F-Wel-A. Equivalence of the two scales was assessed both non-statistically and statistically. Non-statistically, it was assessed by establishing the face and content validity of the adapted Urdu version of the 5F-Wel-A. Face validity indicates the degree to which a test looks like it is measuring what it intends to measure. In this study it was assessed primarily qualitatively through the approval of an expert in the area of wellness, who is also the co-developer of 5F-Wel. Content validity is an assessment of how accurately the construct's domain has been represented in the test (Patten, 2004). In this study it is assessed qualitatively by gaining the approval of a content expert, Jane Myers (co-developer of 5F-Wel). Statistically equivalence was assessed by paired t-test and then computing effect sizes. Measures used to adapt this instrument were consistent with the guidelines developed by International Testing Commission (ITC, 2010). The ITC in 1992 initiated the development of guidelines for adapting and translating psychological tests which were presented in their final form at the 1999 ITC international conference on translating and adapting educational and psychological tests held at Georgetown University in Washington D.C. (Hambleton, 2001). This test adaptation has met many of the commission's recommendations.

Chang and Myers (2003) adaptation of WEL into Korean served as a model for this study. The 5F-Wel-A was adapted into Urdu using the forward and backward translation method. Four bilingual immigrants from Pakistan collaborated in the process of adapting the 5F-Wel-A into Urdu. Each of these four adaptors/translators brought unique skills to the process. The adaptors/translators were told that they could use resources around them to help them with the translation and adaptation of the instrument. A physician from Pakistan (adaptor/translator 1) made the initial translation. She is fluent in Urdu and is familiar with the culture. The first adaptor/translator has been a resident of the United States for more than a decade. The researcher (adaptor/translator 2) assisted the process of translation because of her familiarity with the subject matter and knowledge of psychometrics. The researcher attempted the translation of the items before reviewing the work of the first translator. The researcher's knowledge of the subject matter and her own effort at translation helped her in pinpointing discrepancies and nuances that indicated deviation from the original English version of the 5F-Wel-A by the first translator. The adapted items were revised until the researcher was satisfied that items that were the most similar in meaning to the original items from the English version were retained in the new Urdu version of the 5F-Wel-A. The adapted instrument was then reviewed by a 3rd individual (adaptor/translator 3), an expert in Urdu Literature, for grammatical errors. Apart from the items that were retained for the Urdu 5F-Wel-A, an item pool was generated that would be useful for revising items at a later stage. Finally, the Urdu version of the 5F-Wel-A was translated back into the English language by the 4th bilingual immigrant (adaptor/translator 4), another resident of the United States, unfamiliar with the original English version of the 5F-Wel.

She is bilingual and well versed in target language, Urdu, and the source language, English as well as being well acquainted with the American and Pakistani cultures. The back translated items, the typed Urdu items and the original items were then reviewed by the co-developer of the original 5F-Wel, for face and content validity. These items were typed in three columns on a page so that they could be reviewed together. All items approved for the final Urdu version of the scale were retained and the remaining items were revised until these also were approved by the co-developer of the original 5F-Wel and the Urdu version was complete and ready for pilot study and statistical analysis to determine equivalence of the English and Urdu version.

Many English items included words that the adaptors/translators found difficult to translate or find suitable alternatives for in the Urdu language, for e.g. activity, stress, appropriately, background, stimulate, look forward to, active, accept, jump to conclusions, make it a point, growth, well-being, imagination, insights, worthwhile, stretching, physically fit, hurt, normal. The adaptation process involved providing suitable alternative words and phrases that adequately conveyed the meaning of the original English items and changing the sentence structure to avoid the cumbersome process of providing two alternative endings (male/female).

Once the test was adapted into Urdu, both the original 5F-Wel-A and the adapted version were then mailed or handed to every Pakistani immigrant on the list of residents in the area who met the selection criteria and the voluntary nature of participation was explained to them. The bilingual Pakistani immigrants from two small neighboring cities completed both the English and Urdu version of the 5F-Wel-A and a short form requiring some demographic data. The participants were given the questionnaires in alternated order (English/Urdu, Urdu/English) to control for ordering effects. They were required to complete the questionnaires at least a week apart. They mailed the inventories upon completion in a self-addressed stamped envelope or handed them back to the researcher.

Recruitment of Participants

The Imams from the Islamic Centers of two neighboring cities were contacted to obtain mailing lists of all the Pakistani immigrants who are part of the community in these two cities. The sample was restricted to participants who were bilingual (spoke both Urdu and English) and residents of Pakistani origin from the those two small cities. Since the Pakistani immigrant population in this area is small, the researcher tried to recruit all those whose contact information was up to date. The participants of this study comprised of individuals from the researcher's immediate circle of friends and acquaintances and from the mailing lists of the Islamic centers. The researcher contacted the participants through email, face book inbox messages or phone calls. This was done to ensure that the packages were received by all of the immigrants included and answer any questions about the study.

Response Rate and Demographics.

The tests were mailed or handed to 59 bilingual Pakistani immigrants. The criteria for inclusion in the study was that the participants had attended high school in Pakistan and could read and write in Urdu. The participants attended the local mosque and were recruited through mailing lists and personal contact. They were contacted by phone, internet or mail. Twenty completed packages were returned to the researcher; two others were partially completed. Out of the 20, two participants were excluded because one had indicated that she had not attended high school in Pakistan and another because he indicated that he was not comfortable completing the questionnaires in both languages. Eighteen complete packages were included in the primary data analysis conducted to provide statistical evidence of equivalence. Two participants did not fill the demographic data form but they were retained for analysis because all participants had been prescreened using the selection criteria. Two participants did not report their age. The mean age of participants who reported their age was 42 years (SD=11.551), while the median age was 40 years (range=26-74). Demographic information for participants n=16 is provided in Table 1.

Table 1: Descriptive Statistics and Demographics for Participants

Variables	n	%
Gender		
Male	8	50
Female	8	50
Agreement with Comfort in completing pre and post Questionnaires		
Yes	16	100
No	0	0
Education		
Bachelor's degree	8	50
Advanced degree	7	44
Missing	1	6
Employment		
Full-time	9	56
Not working	5	31
Self-employed	1	6
Missing	1	6

Results

The first research question was: Is the adapted Urdu version of Five Factor Wellness Inventory equivalent to the original English adult version of the Five Factor Wellness Inventory in terms of face and content validity? The researcher worked in close collaboration with Jane Myers to ensure that the Urdu version was as close in meaning to the original as possible. All the approved Urdu items were compiled in the questionnaire.

Next the data was analyzed to answer the second research question: Is the adapted Urdu version of Five Factor Wellness Inventory statistically equivalent to the original English Adult version of the Five Factor Wellness Inventory after both were offered to a group of bilingual Pakistani immigrants?

Eight participants filled out the English questionnaire first and the Urdu questionnaire at least a week later and ten others filled out the Urdu questionnaire first and the English questionnaire at least a week later. A paired t-test was utilized to test the null hypothesis that there was no statistical difference between total scale scores included in the Urdu version of the 5F-Wel-A and the English version of 5F-Wel-A.

A significant difference in means was found only on one variable/scale- *global context* -influence of factors such as politics, culture, global events, and the environment on our well-being. There were no significant differences between the means on the other 28 variables/scales. The mean for global context on the English questionnaire was 75.92 (SD=13.97) and the mean on the Urdu questionnaire was 84.26 (SD= 10.65). A significant increase from the English questionnaire to the Urdu questionnaire was found ($t(18) = -2.699$, $p<.05$). The Cohen's d (-0.68) indicated that this difference was medium to large (Table 2, pg.20). Taking Cohen's d values of 0.20, 0.50, and 0.80 as small, medium and large there were no large, effect sizes reported for any of the 29 pairs of means. Therefore it was safe to conclude that the null hypothesis that there was no statistical difference between total scale scores was supported for 28 of the 29 means that were compared as shown in Table 2.

Table 2: Means, Pooled Standard Deviation, and Effect Size for Five Factor Wellness Inventory

Variable/Scale	English Mean	Urdu, Mean	Pooled SD	Cohen's d	t-value	df	P-value
1 Creative Self	79.17	78.13	8.22	0.13	.41	17	.689
2 Thinking	81.94	82.64	10.18	-0.07	-.21	17	.838
3 Emotion	75.00	74.65	11.79	0.03	.16	17	.875
4 Control	85.07	82.64	12.07	0.20	.66	17	.518
5 Work	73.61	77.08	10.36	-0.34	-1.13	17	.276
6 Humor	80.21	73.61	12.57	0.53	1.72	17	.103
7 Coping Self	69.44	68.42	6.50	0.16	.63	17	.540
8 Leisure	73.15	74.54	11.26	-0.12	-.51	17	.618
9 Stress mgt.	82.99	79.17	12.20	0.31	1.54	17	.142
10 Self Worth	78.13	78.13	11.74	0.00	.00	17	1.000
11Realistic	47.22	44.72	9.38	0.26	1.37	17	.187
12 Social Self	81.77	81.77	9.94	0.00	.00	17	1.000
13 Friendship	84.03	82.99	13.39	0.08	.25	17	.803
14 Love	79.51	80.56	9.39	-0.11	-.68	17	.507
15 Essential Self	80.15	79.34	9.04	0.09	.25	17	.804
16 Spirituality	85.76	81.39	10.33	0.42	1.29	17	.214
17 Gender	78.82	80.90	11.60	-0.18	-.50	17	.621
18 Cultural	81.94	82.41	9.92	-0.05	-.25	17	.805
19 Self-care1	73.26	72.92	14.36	0.02	.07	17	.945
20 Self-care2	77.08	74.65	13.76	0.18	.59	17	.565
21 Physical Self	81.48	80.40	9.89	0.11	.42	17	.679
22 Exercise	87.15	86.46	8.53	0.08	.27	17	.794
23 Nutrition	76.94	75.56	13.22	0.10	.43	17	.670
24 Local[a]	72.22	75.00	9.44	-0.29	-1.06	17	.305
25 Institutional[a]	79.86	83.68	10.99	-0.35	-1.24	17	.232
26 Global[a]	75.93	84.26	12.31	-0.68	-2.70	17	.015*
27 Chronometrical[a]	68.40	63.89	11.31	0.40	2.01	17	.061
28 Life Satisfaction[b]	88.89	90.28	12.66	-0.11	-.57	17	.579
29 Total Wellness	77.39	76.52	7.46	0.12	.38	17	.708

Abbreviations: SD= standard deviation; df=degrees of freedom; mgt.=management

[a] = Context Scale

[b] = Validity index

* = significant difference at the p=.05 level

Discussion

In the data analysis the mean scores on the Urdu questionnaire were significantly higher than on the English questionnaire on only one variable/scale global context indicating that the participants responded more positively to items on this scale in Urdu than in English. The items in Urdu relating to the impact of the environment, culture, global events and politics on a person's well-being may be phrased differently from the original English version indicating that these items on the Urdu questionnaire may not be measuring the same concept and could benefit from revision. However, this is a context scale and it is possible to use the Urdu version to assess wellness without the context scales.

The Korean adaptation of the Five Factor Wellness Inventory was the collaborative effort of two translators. Chang and Myers (2003) had suggested the use of multiple translators in the test adaptation process. Consistent with this suggestion for the adaptation of 5F-Wel-A into Urdu, four translators were involved. Since the main objective of this study was to establish equivalence of the Urdu questionnaire with the English version, a larger sample was used. Chang and Myers field tested the Korean version by administering it to six bilingual Koreans; only three returned the questionnaires to the researchers. A strength of this study is the larger number of participants. Eighteen bilingual Pakistanis participated in this study.

Another strength of this study is that multiple translators were involved and Jane Myers' (co-developer of 5F-Wel-A) help was solicited in the comparison of the back translated items with the original items to ensure that conceptual equivalence of items was maintained in the final adapted Urdu version of the 5F-Wel-A. Another difference in research design between Chang and Myers and this current study was that the participants were instructed to take the questionnaires a week apart. This was to counteract the effects of familiarity of items. In Chang and Myers' Korean version, there was support for equivalence of 15 scales. Large effect sizes were reported for only four scales (sense of worth, emotional awareness and coping, self-care and perceived wellness). In this study despite the time interval there were no significant differences between the means for 28 of 29 means compared and this advanced support for equivalence of 28 scales/variables. There was medium effect size reported for two subscale/variables (global context and positive humor). Paired t-test did not reveal significant differences between the means of the scales, positive humor. However, there were significant differences between means on the scale/variable, global context.

Implications, Challenges and Recommendations

All the participants filled out the questionnaires from their own homes and placed the questionnaires in an envelope provided by the researcher and either mailed them back or personally handed them to the researcher. Consistency in instructions and material provided to participants was maintained. To ensure that the participants understood and participated voluntarily they were required to indicate if they were comfortable filling out the questionnaire and to indicate their familiarity with the procedure and willingness to participate. The order of administration for the questionnaires was reversed for half of the participants to control the impact of order of administration. To control for familiarity of content the participants were instructed to take the questionnaires at least a week apart. The material for testing was distributed or mailed to participants. Detailed instructions were provided on what the study was about, how to complete the questionnaires and in what order. In future studies to control the influence of the environment, the participants could be administered the questionnaires at the same time and the same place. Since the questionnaires were intended for a small sample of bilingual Pakistani immigrants, no prior field testing with a smaller sample was deemed necessary. If a larger sample is used it would be prudent to field test with a smaller sample before proceeding with mailing or handing out the remaining questionnaires.

A participant needed to have a minimum of a high school education to participate in this study. The original English adult version has the readability for directions, rubric and items at the 5th grade reading level to accommodate the needs of adults of varying educational backgrounds. An attempt was made to translate the directions, rubrics and items of Urdu 5F-Wel-A literally. However, on occasion literal translation was abandoned in favor of conveying the meaning intended by the original item or instruction. The original 5F-Wel-A has items developed at the 9th grade reading level and an attempt was made to maintain the same level of readability. The items in the Urdu version were translated to capture the meaning of the original 5F-Wel-A but the readability of the items need to be field tested to see if they need further adaptation to meet the readability requirements of individuals at the ninth grade reading level.

In Urdu language, verbs take on a masculine and feminine form for sentences beginning with the word "I". Since participants included both males and females, the researcher could either attempt a literal translation of all such items and provide both verb endings to maintain neutrality, or change the word "I" to "me", "my" or "mine", as required to overcome this and provide a gender neutral statement. The researcher opted for the second alternative as frequently as possible to avoid the cumbersome process of providing two alternative endings one for male and another for a female in each statement.

One problematic item in the questionnaire was identified and an alternative was generated that was considered more relevant to assess self-care in Asian Americans of Pakistani origin. The original instrument has an item that inquiries about how many drinks (implying alcoholic drinks) are consumed by the test taker. Since most Urdu speaking Pakistanis are Muslims and do not drink alcohol or may not acknowledge doing so, this item is problematic in deriving a common scale for comparing different ethnic groups. This issue was dealt with by retaining the original in the scale self-care1, but also providing an alternative about how much sleep they were getting in the scale self-care2. This was done to maintain equivalence in terms of minimum number of items required to measure a domain for scoring purposes. In the 5F-Wel-E and T versions for children and adolescents, this construct is assessed similarly.

If items like these are identified and alternatives provided as in the case of this study (an item with sleep provided as an alternative to the one with alcohol), the resulting instrument would be more useful in measuring that specific domain. Once items that are biased towards any specific ethnic group are identified and an alternative provided, one could proceed with comparing the two ethnic groups. In this way a more valid and reliable measure was developed to assess the subscale self-care for Pakistani immigrants and Asian Americans of Pakistani origin.

Urdu language is not evolving fast enough to keep pace with the rapid changes in daily life because of technological and scientific advances. Educated people are familiar with concepts like vitamins, minerals and fiber and though their Urdu equivalents are available, most would opt to communicate these concepts in English. In one statement the participants were required to indicate if they got enough vitamins, minerals or fiber in their diet. Though the alternatives were available in the Urdu language and these were provided in the Urdu version but since the English words are equally or more familiar, these were inserted in parenthesis.

One item was difficult to translate into Urdu and may need further revision. The item from the English Five Factor Wellness Inventory, I look forward to growing older, was back translated from its Urdu version as, I look forward to growing old, which seemed as close in meaning to the original, as possible at the time. However, older and old have different connotations. This particular item may benefit from further adaptation if the literal translation has not been able to do justice to the distinction between the two concepts.

The test adaptation process so far has incorporated a sample that was mostly highly educated, middle aged and fully employed. A larger, more diverse and random sample in future studies would extend the findings of this study and indicate areas of improvement or change.

The manual provides the norms derived from data collected from 3,343 persons living in the United States to assess the performance of an individual in comparison to these norms. This study will contribute its findings to the databank and increase the representation of Asian Americans particularly Asian Americans of Pakistani origin in the normative sample.

This questionnaire could be useful with other Urdu speaking groups in the United States who still do not articulate in oral and written English. There are 34,494 individuals in the United States who only speak Urdu at home and are unable to communicate in English (U.S. Census Bureau, 2007). An instrument that has been adapted for use with bilingual Pakistani immigrants residing in the United States could also be used with the adult, Urdu speaking monolingual population residing in the United States. These individuals may be experiencing acculturation stress and may not have the ability to communicate their distress effectively to the health care and counseling professionals they come in contact with. The Urdu 5F-Wel-A would be a valuable aid in assessing and devising a plan of action to combat stress and enhance well-being of Urdu speaking individuals with limited English proficiency.

This pilot study with the adapted Urdu adult version of the Five Factor Wellness Inventory has demonstrated face and content validity and statistical equivalence and could be useful in assessing wellness of a growing population of Asian Americans of Pakistani origin and other Urdu speaking minorities residing in the United States. The effectiveness of the procedure used to develop the adapted version and the simplicity of the statistical analysis involved to establish equivalence is another notable contribution of this study and could help other adaptors/translators who are embarking on a similar undertaking. Test adaptation is cost effective and less time consuming than constructing an instrument from scratch. Adaptations of instruments like the 5F-Wel will benefit individuals from ethnic groups that are overlooked and least likely to receive the benefit of counseling services because of limited English proficiency.

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