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The New Working Alliance Inventory-Short Form for Multicultural Counselor's Candidates in Indonesian Culture

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Abstract. The 36-item of Working Alliance Inventory-Therapist (WAI-T) is useful assessment tool, given its rigorous development and good psychometric properties. However, the measures length can prohibit use. This study aim is to adapt, develop, and exam psychometric properties of the New WAI-T-Short Form (New WAI-T-SF) for multicultural counselor's candidates in Indonesian culture. This study used instrument adaptation procedures. In this study, we used a sample of 517 sixth semester of counselor's candidates from 11 Department of Guidance and Counseling in Indonesia. Operationally, data analysis was performed by using Rasch Model version 3.75. The results showed that the New WAI-T-SF had satisfying psychometric properties, i.e. *item measure, item fit order, DIF, person measure, person fit order, item-person maps, rating scale, test reliability, person reliability, and item reliability.* Results suggest that the New WAI-T-SF can provide efficient and valid assessments of working alliance in Indonesian culture

Keywords: Counseling alliance, helping relationship, working alliance, multicultural counseling, Working Alliance Inventory-Therapist

INTRODUCTION ~ Working alliances are essential general factors and key variables of each counseling approach (Nelson-Jones, 2013; Moss & Glowiak, 2013) as well as important and fundamental determinants (Norcross J. C., 2010; Norcross & Lambert, 2011a; Norcross & Lambert, 2011b; Norcross & Wampold, 2011) that direct and influence the success of counseling (Lambert, 2017). Bordin (Bordin, 1979; Bachelor & Horvath, 1999; Dryden, 2008; Fluckiger, DelRe, Wampold, Symonds, & Horvath, 2012; Fluckiger, Del Re, Wampold, & Horvath, 2018) defines working alliance (counseling alliance, therapeutic alliance, helping relationship) as "a collaborative relationship between counselors and counselees that is characterized by emotional attachment, and agreement on the purpose and task of counseling." Counseling alliance is a conscious and purpose aspect that involves a partnership of counselors and counselees based on an active commitment to specific responsibilities and mutual trust in active involvement enthusiastically in the process.

Two decades of research have consistently shown that working alliances are important components and robust key predictors of counseling outcomes (Duff & Bedi, 2010; Horvath, 2001). The ability of counselors in establishing, developing, and maintaining workingalliances in a strong and positive way with the counselee becomes a significant factor that influences positive counselee change (Crits-Christoph P. , Gibbons, Hamilton, Ring-Kurtz, & Gallop, 2011; Norcross J. C., 2010). A meta-analysis of 295 studies involving 30, 000 counselees show a significant positive relationship in the

moderate category with *r* = .27 or *d* = .57 (Fluckiger, Del Re, Wampold, & Horvath, 2018) and the size of the impact ranged from .21 to .29 (Hardy, Cahill, & Barkham, 2007; Horvath & Bedi, 2002) between alliances and counseling outcomes that are higher than counseling techniques (Hardy, Cahill, & Barkham, 2007).

Working alliances in the first few sessions constitute a "window of opportunity" from counseling processes and outcomes (Bachelor & Horvath, 1999). If the counselee judges that the working alliance is well established during the beginning of the sessions (usually the third session), it tends to give a positive impact on counseling outcomes (Fluckiger, DelRe, Wampold, Symonds, & Horvath, 2012; Fluckiger, Del Re, Wampold, & Horvath, 2018; Crits-Christoph P. , Gibbons, Hamilton, Ring-Kurtz, & Gallop, 2011; Crits-Christoph, Gibbons, & Mukherjee, 2013; Wampold, 2010). Research shows that positive working alliances formed in the third session can increase 67% of counseling outcomes (Stargell, 2017). Conversely, the counseling process will be disconnected and end prematurely if the counselee judges the alliance badly from the beginning of the counseling session (Castonguay, Constantino, & Holtforth, 2006; Safran, Muran, & Eubanks-Carter, 2011). Consequently, counselors must be able to develop, to establish, and to maintain positive alliances from the beginning of the counseling session. In addition, counselors must also be able to explore, to manage, and to improve the interruption of the alliance because it has a positive impact (*ES* = .24) on counseling outcomes (Safran, Muran, & Eubanks-Carter, 2011).

Based on the above, the existence of a standardized measuring instrument to measure the working alliance of a multicultural counselor is necessary. The instrument can be a valuable tool in the operationalizing meaning, mapping profiles, and designing programs to develop, to identify, and to test the constructs of ontogenesis and the consequences of working alliance of multicultural counselor's candidates in Indonesian culture. The 36-item of Working Alliance Inventory-Therapist (WAI-T; Horvath & Greenberg, 1986; 1989)) is useful assessment tool, given its rigorous development and good psychometric properties. However, the measures length can prohibit use. The aim of this study was to adapt and validate a brief version of the WAI-T to easily integrate it into large surveys in combination with a battery of others tests or in applied organizational contexts, and consequently to facilitate the implementation of the WAI-T in more studies with different population and professional contexts and for working alliance designing practitioners to reduce administration time, and facilitate aspects of their practical work. The reduction in the number of items is hoped to preserve the excellent psychometric properties of the instrument.

METHOD

Research Design

This study uses the procedure of adaptation and standardization of instruments (Brislin, 1986; International Test Commision, 2016). This method was chosen because it was intended to adapt and to test the psychometric properties of the New Working Alliance Inventory-Therapist-Short Form (New WAI-T-SF) for Multicultural Counselor's Candidates in Indonesian culture.

Research Participants

The research participants consisted of 517 counselor's candidates who enter the sixth semester from eleven higher institutions in Indonesia. The research participants were selected by using the two stage random sampling technique. Distribution of participants included 135 (26.1%) men and 382 (73.9%) women, 159 (30.8) late adolescents and 358 (69.2) young adults, and 427 (82.6%) Muslims, 34 (6.6%) Catholics, 33 (6.4%) Christians, and 23 (4.4%) Hinduism.

Measures

Working Alliance-Inventory-Therapist (WAI-T) (Horvath & Greenberg, 1986; Horvath & Greenberg, 1989) was used to collect data on the working alliance of multicultural counselor's candidates. WAI-T consists of 36 items that are used to measure three dimensions of working alliances, namely bonds, tasks, and goals. Each dimension consists of 12 items. WAI-T is a 7-level Likert scale, ranging from 1 = never up to 7 = always. WAI-T's internal consistency is reported at .87. This study uses an adaptation of New 12 items WAI-T Short Form (WAI-T-SF). The adaptation of WAI-T-SF follows two translation procedures from native languages to Indonesian, and vice versa by two different English and Linguistic experts. The test results using Rasch Model v. 3.73 shows that all items are fit because they meet the criteria for Infit Mnsq, Outfit Mnsq, and Pt-M Corr, the universality with the Principle Component Analysis (PCA) is 30.8%, and the Cronbach's Alpha coefficient for test reliability is excellent (.88), participant reliability and items are considered good (.85 and .87) (Linacre, 2019).

Research Procedures

The New WAI-T-SF for multicultural counselor's in Indonesian culture contains 12 items that combine to form a total score which indicates working alliance and subtotal score for bond, tasks, and goals dimension of working alliance. The adaptation of WAI-T-SF follows two translation procedures from native languages to Indonesian, and vice versa by two different English and Linguistic experts. Participants responded to each item employing a scale from 1 (never) to 5 (always). The 12 items are divided equally into three subscales that measure the bond, tasks, and goals dimensions of working alliance.

Data Analysis Technique

The data analysis techniques included various tests of item accuracy (item measure, item fit order, and differential

item functioning [DIF]), person's ability (person measure, person fit order, person maps), analysis of instrument quality (unidimensionality and rating scale), and reliability (test reliability, person reliability, item reliability). The test used the Item Response Theory (IRT) approach, namely the Rasch Model with Winsteps 3.73.

RESULTS AND DISCUSSION

The Item Fit

The first question about the description of the item fit of the New WAI-T-SF item was analyzed from the criteria of item measure, item fit order, and DIF by using the Rasch Model. The Item Measure is used to measure the difficulty level of items. The test results show the G_4 item with +.45 logit shows the item that is most difficult to be approved by the participant, while the item B_3 with the value -.48 logit is the easiest item to approve.

Item fit order is used to test item whether it is fit or misfit. The results of the study found all (12) items that are fit. This decision is based on the criterion that item is said to be fit if the Infit and Outfit values of Mnsq are in the range of acceptable values (.5 MNSQ <1.5), Outfit Zstd (-2 <Zstd> +2), Pt-MCorr (.4 < pt-MCorr .85) (Bond & Fox, 2015; Dimitrov, 2012; Linacre, 2019; Sumintono & Widhiarso, 2014; 2015; Boone, Staver, & Yale, 2014). In this study, the Zstd Outfit criteria were not used because of the large sample size (> 500 people) (Sumintono & Widhiarso, 2014; Sumintono & Widhiarso, 2015).

DIF is used to detect item bias in certain participant categories. The detected items are known to be based on a probability value of less than 5% (.05) (Bond & Fox, 2015; Dimitrov, 2012; Linacre, 2019; Sumintono & Widhiarso, 2014; 2015). The test results show 2 items that are biased towards particular sex, namely B_1 (.0002) and T_1 (.0027). One item is biased towards particular religious affiliation, namely B_4 (.0316). But, no items are biased towards a certain age. Based on the three criteria, all (12) items are fit. This is consistent with the opinion (Sumintono & Widhiarso, 2014; 2015) that items that only meet one fit criterion can still be used if it is needed. Other considerations are based on the results of testing the item-total correlation from the Classical Test Theory (CTT) approach by using IBM SPSS 25.0 for Windows that the items have a coefficient index $r_{it} \geq .300$. Psychometric experts say that the rhythm coefficient index is acceptable (Azwar, 2011; Drummond & Jones, 2010).

Person's Ability

The second question about the description of respondents' ability level evidence was analyzed by the criteria of person measure, person fit order, and item person maps by using the Rasch Model. The Person Measure test results show the respondent number 130 (0LDIG) with + 6.16 logit tend to have high working alliance because the answers mostly very often and always, while respondents number 514 (4LDPJ) with a value of -1.66 logit tend to have low working alliance since the

answers rarely and never. The Person Fit Order is used to test respondents who are fit and misfit. The criteria used are the same as analysis of order fit items. Based on these criteria, 87 of 517 respondents were misfit.

Instrument Quality

Unidimensionality. This aspect was measured by the Rasch Model with residual principle component analysis (PCA) of measuring the uniformity of the instrument to determine the measurement (Linacre, 2019; Sumintono & Widhiarso, 2014; 2015). The measurement results display a raw variance of 55.4% and 6.12% variances that cannot be explained by the instrument. This means that the minimum unidimensionality requirements of 20% and variance that cannot be explained by the instrument ≥15% are fulfilled (Bond & Fox, 2015; Dimitrov, 2012; Linacre, 2019; Sumintono & Widhiarso, 2014; 2015).

Rating Scale. This is a test to verify the ranking options used in the WAI-T-SF instrument that may confuse participants (Bond & Fox, 2015; Dimitrov, 2012; Linacre, 2019; Sumintono & Widhiarso, 2014; 2015). The results of the Rasch Model analysis reveal that the average observation value starts from logit -3.02 for the choice of score 1 (never), logit -1.85 for the choice of score 2 (rarely), logit -1.11 for the choice of score 3 (occasionally) , logit -.35 for choice of score 4 (sometimes), logit +.78 for choice of score 5 (often), logit +2.13 for choice of score 6 (very often), and logit +3.78 for choice of score 7 (always). Similar results are also displayed by Andrich Threshold, which tested the accuracy of the politomical value. This value shows the movement from NONE to negative (-1.45, -1.45, -1.11, -.02) and continues to lead to positive (1.58, 2.45) in sequence. To be exact, the choice of ranking scale used is valid and appropriate for participants.

Reliability. Table 2 Summary of Statistics shows person measure = +1.56 logit. A higher average value of logit .0 indicates the tendency of participants to answer more important in each item. Cronbach's Alpha value for measuring test reliability is the interaction between person and item as a whole shows .93, which is excellent. Meanwhile, the value of person reliability is .88 and item reliability .96. Therefore, it can be concluded that the consistency of participant answers is quite good and a set of tests including excellent (Sumintono & Widhiarso, 2014; 2015). Infit and Outfit Mnsqs display similar results for person and item. The average values are sequentially 1.07 and 1.04 and 1.00 and 1.04, which are close to the ideal value of 1.00. Likewise, Infit and Zstd Outfit shows the average value of the person and items of -.3 and -.3 and -.1 and .5, which means good because it is close to .0.

The separation value is used to group people and items. The greater the separation value indicates the better the quality of the instrument because it can identify groups of respondents and item groups. The equation is H = $\frac{[(4\ x\ 2.67)+1]}{3}$ =

3.89. The result is rounded up to 4. This result means that there are four groups of respondents.

Table 1. Summary Statistics

	Output	Result
Item	Item reliability	.96
	Separation index	4.80
	Separation strata (H)	3.15
	Higher logit value	+.45 logit (G_4)
	Lower logit value	-.48 logit (B_3)
Person	Person reliability	.88
	Separation index	2.67
	Separation strata (H)	3.89
	Higher logit value	+6.16 (130; 0LDIG)
	Lower logit value	-1.66 (514; 4LDPJ)
Instrument	Cronbach's alpha	.93
	Raw variance explained by measures	55.4
	Unexplained variance in 1st contrast	6.2
	Unexecpected variance in 2nd contrast	6.1
	Unexecpected variance in 3rd contrast	5.5
	Unexecpected variance in 4th contrast	4.2
	Unexecpected variance in 5th contrast	4.0

The results of this study are relevant with previous findings that WAI-T-SF can provide efficient, valid, and reliable assessments of working alliance within the context of epidemiological surveys. The WAI-T-SF could be administered quickly, minimized administration burden, and focused on the higher order construct of working alliance (Falkenstrom, Hatcher, Skjulsvik, Larsson, and Holmqvist, 2015; Hatcher & Gillaspy, 2006; Kokotovic & Tracey, 1989; Murder, Wilmers, Leonhart, Linster, & Barth, 2010; Paap & Djikstra, 2017).

CONCLUSION

This research has produced a measure of the working alliance of multicultural counselor's candidates with satisfying psychometric properties. The New WAI-T-SF is proven to reveal one dimension of the working alliance of multicultural counselor's candidates. It instrument has satisfied psychometric properties based on the criteria of item measure, order fit items, DIF, unidimensionality, person measure, order person fit, item-person maps, rating scale, test reliability, person reliability, and item reliability. The brief version of the New WAI-T-SF numbered 12 items, to measure total score, and/or bond, tasks, and goals dimensions of working alliance. Four items represent each dimension. The study also expose that the structure of the factors are still needed to be improved. Further studies are needed to adapt and to test instruments with confirmatory factor analysis in broader participants, both counselor's candidates, counselors, counselees, and observers with regard to their socio-demographic proportions.

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