

# Validation and Psychometric Properties of the Arabic Psychological Well-Being Post-Traumatic Changes Questionnaire

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## ABSTRACT

Psychological Well-Being Post-Traumatic Changes Questionnaire (PWB-PTCQ) is an instrument for measuring positive changes after trauma that has shown reasonable psychometric properties in its original version in English. The aim of this study was to translate and validate the psychometric properties of an Arabic Psychological Well-Being Post-Traumatic Changes Questionnaire (A-PWB-PTCQ). A descriptive correlational design was used to conduct the study among 357 participants sampled from the Saudi population. Participants reported different traumatic events ranged between 59.5 % for sudden death of close person to 23.3% assault or attempted sexual assault incidents. The A-PWB-PTCQ demonstrated excellent internal consistency at 0.93 and test-retest reliability at 0.92. All inter-item and item-to-total correlations for the PWB-PTCQ scale were above the recommended criteria of 0.30. The A-PWB-PTCQ also showed a significant negative correlation with the Posttraumatic Diagnostic Scale for DSM-5 (PDS-5) (-0.46,  $p < .001$ ), and those with clinical levels of PTSD had significantly lower scores on the A-PWB-PTCQ ( $t = 7.62$ ,  $p < .001$ ) than individuals with subclinical levels of PTSD. The A-PWB-PTCQ was found to be a valid and reliable instrument for measuring the Psychological Well-Being Post-Traumatic Changes among the Arabic population.

**Keywords:** psychological well-being, posttraumatic growth, PWB-PTCQ, arabic validation.

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### Novelty and Significance

*What is already known about the topic?*

- Posttraumatic growth is a commonly used concept to evaluate positive changes after trauma.
- There is no previous study examining the validity of the psychometric properties of positive change and PWB-PTCQ in an Arabic setting.

*What this paper adds?*

- The psychometric properties of the Arabic version of the PWB-PTCQ scale were assessed with clear and understandable items for an Arabic-speaking.
- The A-PWB-PTCQ scale has the potential to be a useful tool for clinicians, in both their research and practice, for measuring positive well-being.

According to the American Psychological Association (APA, 1994), exposure to actual or threatened death, as well as serious injury, can be defined as a traumatic event. Moreover, the psychological outcome of this exposure may increase the risk of long-term problems such as posttraumatic stress disorder (PTSD). Some studies have reported different prevalence rates of PTSD for different types of traumatic events: almost 55% after rape; about 35% after childhood sexual or physical abuse; 17% after physical

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assault; and about 7% after severe accidents (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Andreas Maercker, Michael, Fehm, Becker, & Margraf, 2004) However, the concept of positive psychological change for the trauma survivors has been highlighted through several studies in the last few decades. ‘Shattered Assumptions Theory’ was developed by Janoff-Bulman (1992) as a theory of positive psychological change. This theory holds that traumatic events yield changes in the traumatised individual’s thoughts and beliefs. In addition, the transformational model of Tedeschi and Calhoun (2004) highlights that posttraumatic growth (PTG) occurs as a consequence of the psychological struggle following extremely challenging life crises. PTG is thought to be manifested in a variety of ways such as a sense of personal strength; an appreciation of life; identification of new potentials; increased closeness in intimate relationships; and positive spiritual change (Tedeschi & Calhoun, 2004). Similarly, Joseph and Linley (2005) organismic valuing theory of growth attempts to provide an explanation of positive psychological changes wherein posttraumatic stress is observed as indicative of normal and natural cognitive processes that potentially generate positive change.

Posttraumatic growth is a commonly used concept to evaluate positive changes after trauma. Since the 1990s, there has been an increase of research on positive change following trauma, using several self-report psychometric tools, including the Changes in Outlook Questionnaire (CiOQ; Joseph, Williams, & Yule, 1993), the Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), the Stress Related Growth Scale (SRGS; Park, Cohen, & Murch, 1996), the Perceived Benefit Scales (PBS; McMillen & Fisher, 1998), the Thriving Scale (TS; Abraído Lanza, Guier, & Colón, 1998), and the Well-Being Post-Traumatic Changes Questionnaire (PWB-PTCQ; Joseph et alia, 2012). However, new research demonstrates increasing concerns about these measures (Cassidy, McLaughlin, & Giles, 2014; Joseph *et alia*, 2012; Moore, Varra, Michael, & Simpson, 2010; Wortman, 2004) in terms of validity of the measures and problems with the definitions of growth and trauma. There are doubts about whether the measures are assessing growth rather than coping, denial or illusions of growth.

The new measure, the Psychological Well-Being-Post-Traumatic Changes Questionnaire (PWBPTCQ) was developed by Joseph *et alia* (2012), to address these points. First, a coherent theoretical framework for growth following adversity was developed to take into consideration the philosophical perspectives that describe a good life. Second, PWBPTCQ allows researchers and clinicians to measure both posttraumatic growth and extensive literature well-being together. Third, validity was tested with several scales with satisfactory results. This included incremental, convergent, concurrent, predictive, and discriminant validity. Finally, it makes it possible for respondents to rate how they have changed in positive and/ or negative ways.

A systematic review of 39 studies by Linley and Joseph (2004) found that positive change is commonly reported in about 30-70% of survivors of traumatic events, for example, transportation accidents, inter-personal experiences, and medical problems. In addition, they found that posttraumatic growth (PTG) is positively correlated with higher education; younger ages; personality traits such positive emotions; social support; social acceptance; and positive coping. In terms of the relationship between PTSD symptoms and PTG, some studies have reported negative correlations. For example, in a study of former East-German political prisoners, Maercker (1997) found the negative correlation between PTSD and PTG to be  $r = -0.23$ . A study by Maercker, Herrle, and Grimm (1999) of former victims of the Dresden bombing found the correlation also negative between PTSD and PTG to be  $r = -0.06$ . A study of former refugees and displaced people from

Sarajevo and Bosnia found the relationship between PTSD and PTG was negatively significant (Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003) Finally, a study of patients with spinal cord injury found the correlation PTSD and PTG to be  $r = -0.11$  (Znoj, 1999). On the other hand, PTSD were positively associated with stress-related growth in some studies. For example, study conducted by Koenig, Pargament, and Nielsen (1998) for residents of Oklahoma City after the bombing, the result reported positive correlation with PTSD. Another study for 435 participants who experienced a major life incident were less likely to report posttraumatic growth (Milam, Ritt-Olson, & Unger, 2004). One key point regarding the relation between growth and PTSD is that greater growth appears to be related to reduction in PTSD symptoms. Therefore, a negative correlation between posttraumatic growth and PTSD symptoms supported the definition of growth reported by Joseph *et alia* (2012).

Regarding sex, several studies of posttraumatic growth reported significant sex differences. For example, in a study of posttraumatic growth in college students by Tedeschi and Calhoun (1996) a significant sex difference was found in the Posttraumatic Growth Inventory, with women reporting higher levels of posttraumatic growth than men. Also studying college students, Park *et alia* (1996) reported sex differences using the Stress-Related Growth Scale (SRGS). Other studies found sex differences across multiple types of trauma, including natural disasters, cancer, and terrorism (Bellizzi, 2004; Jang, 2005; Milam, Ritt-Olson, Tan, Unger, & Nezami, 2005; Milam, 2004) However, some studies found no sex differences or inverse relationships (Polatinsky & Esprey, 2000; Powell *et alia*, 2003). A meta-analysis based on 70 studies was conducted by Vishnevsky, Cann, Calhoun, Tedeschi, and Demakis (2010) to examine the direction and magnitude of sex differences in self-reported posttraumatic growth. The results indicated that small to moderate sex differences in posttraumatic growth exist. However, as with most psychological research on gender differences, the effect sizes in this analysis were relatively small. In this point, Tedeschi and Calhoun (1996), reported that women tend to report more benefits and growth than men. Therefore, comparing the scores for men and women in the current study would help increase reliability and validity.

The PWB-PTCQ appears to be a valuable new measurement that may be helpful to use in other languages. To the best of our knowledge, there is no previous study examining the validity of the psychometric properties of positive change and PWB-PTCQ in an Arabic setting. Therefore, the aim of this study was to validate an Arabic version of the PWB-PTCQ scale.

## METHOD

### *Participants*

Participants in this study totalled 378 Saudi adults. Participants who had experienced a traumatic event, as per DSM-5 Criterion A, at some point in their lives were included in this study; participants who did not fit the DSM-5 Criterion A were excluded, so the data for 357 participants were included, while 21 were excluded. The age range was 18 to 60 years ( $M = 31.42$ ,  $SD = 9.90$ ). To represent the Saudi population, participants were recruited using snowball sampling from the five highest population regions in Saudi Arabia: the West ( $n = 159$ ); the East ( $n = 15$ ); the North ( $n = 30$ ); the South ( $n = 33$ ), and the Middle region ( $n = 119$ ). They consisted of women and men with different levels of education, with some employed and some unemployed. The aim of the study

was explained to the participants, and the procedure for collecting data was described. The Research Ethics Committee at Taif University in Saudi Arabia approved the study.

### *Instruments*

*Psychological Well-Being Post-Traumatic Changes Questionnaire* (PWB-PTCQ; Joseph *et alia*, 2012). The validity of the PWB-PTCQ items was evaluated by Joseph *et alia* (2012) across three samples (one trauma sample and two general population samples). Evidence was provided for a single-factor structure invariant across clinical and general populations with high Cronbach alpha internal consistency (0.87) and six months of stability. The results of the factor analysis of the PWB-PTCQ scale assume that all the items exist under a single latent factor. Joseph *et alia* (2012) reported that this model was reliable with the theoretical expectation that, although the items assess six aspects of PWB-related growth, PWB growth itself as a unitary appraisal with the six forms of PWB-related growth changing to a largely equal degree post trauma. Regarding reliability, the internal consistency reliability was acceptable across the three samples and at four data collection points. Association with posttraumatic stress was assessed for the clinical sample, with the result that higher scores on the PWB-PTCQ were associated with lower scores on the Impact of Event Scale-Revised Total (IES-R, Marmar, Weiss, & Metzler, 1997) ( $r = .44, p < .001$ ). The PWB-PTCQ, which consists of 18 items, with three items developed to reflect each of the following six domains: self-acceptance (1, 7, 13), autonomy (2, 8, 14), purpose in life (3, 9, 15), relationships (4, 10, 16), sense of mastery (5, 11, 17), and personal growth (6, 12, 18). Respondents were asked to rate how much they perceived themselves to have changed because of the trauma, on each item, on the following five-point scale: 5= Much more so now; 4= A bit more so now; 3= I feel the same about this as before; 2= A bit less so now; 1= Much less so now. Thus, scores have a possible range of 18 to 90, with higher scores indicating greater positive change.

*Posttraumatic Diagnostic Scale for DSM5-* (PDS-5, Foa *et alia*, 2016). The PDS-5 has a 24-item self-report measure that assesses PTSD-symptom severity in the past month according to DSM-5 criteria. The PDS-5 begins with trauma history screen questions to assess the respondent's trauma history. Twenty questions assess the presence and severity of the PTSD symptoms in relation to the index trauma. Symptom questions are based on the DSM-5 symptom clusters of criterion B *intrusion* (items 1-5); criterion C *avoidance* (Items 6-7); criterion D *changes in mood and cognition* (items 8-14); and Criterion E *alterations in arousal and reactivity* (items 15-20). The symptom items are rated on a 5-point scale of frequency and severity, ranging from 0 (not at all) to 4 (6 or more times a week/severe). An additional four items ask about Criterion F *duration*; Criterion G *functional significance* and Criterion H *attribution*. Alghamdi and Hunt (2019) evaluated the reliability of the Arabic version of the PDS-5 and found Cronbach's reliability coefficients *Intrusion*: 0.85, *Avoidance*: 0.71, *Changes in cognition and mood*: 0.80, *Arousal/Reactivity*: 0.87, and overall: 0.78. For the current study sample, Cronbach's alpha scores indicated acceptable internal consistency with 0.93, 0.86, 0.76, 0.90 and 0.78 for the full scale, intrusion subscale, avoidance subscale, negative alterations in cognitions and mood subscale, and the alterations in arousal and reactivity subscale, respectively.

### *Translation*

The PWB-PTCQ scale was translated from English to Arabic, then back-translated to English by a different translator. A Brislin's back-translation model was used in the current study (Brislin, 1970). Then, the scale was administered to a small group to ensure that all items were clear and understandable. In this study, four Saudi psychologists who are fluent in both English and Arabic languages were involved in the translation process. The experts were then asked to examine whether there were any inconsistencies, and the necessary changes were made to the original item. They were then asked to evaluate

whether the items were suitable to measure PWB-PTCQ among the Saudi people. No modifications were made to fit the items of the scale with the concept of Saudi culture. The final scale was administered to 20 participants (10 males, 10 females) to evaluate to what extent the scale was clear and understandable. The participants were asked to state whether the items were readable and understandable. The final version of the Arabic PWB-PTCQ was used in the current study.

### *Procedure*

Using an online survey 350 questionnaires were administered through the internet shared via the social media, and 28 questionnaires were distributed at *Taif University* with the university students. From the total sample of 378 questionnaires, the data for 357 participants were included in the study, while 21 were excluded as a result of fitting the DSM-5 Criterion A. Participants who had experienced a traumatic event at some point in their lives were included in this study whereas participants who did not fit the DSM-5 Criterion A were excluded. After 15 days, the test-retest reliability of the A-PWB-PTCQ scale and subscales was measured between the first and second test in a subsample of 22 participants from the mean sample.

### *Data Analysis*

Data analysis carried out for 357 participants with complete data using SPSS.22 software. Only very few values missing in the study data. However, before the data were analysed, SPSS was used to deal with the missing value which sorted by replacement with imputed values based on use of the median strategy of missing value patterns option. Confirmatory factor analysis (CFA) was used to demonstrate the fit of the PWB-PTCQ model. Cronbach's alpha was calculated to assess the internal consistency of the A-PWB-PTCQ. Pearson's correlation coefficient was computed to examine test-retest reliability as well as the correlations between the subscales themselves and the total score of the A-PWB-PTCQ scale.

## **RESULTS**

The Table 1 describes the participants' demographics.

In terms of Criterion A of DSM-5, Traumatic incidents were assessed using trauma history screening (see Table 2). The traumatic events reportedly experienced by the participants are presented with percentages. The result shows that most participants experienced events such as sudden death of close family or friend (59.5%), suddenly abandoned by a dear friend or a family member or spouse (45.5%), hit or kicked hard enough to injure as a child or an adult, (36.5%), seeing someone die suddenly or get badly hurt or killed (29.5%), a transportation accident (27.2%), serious accident at work, home, or during recreational activity (24.2%), and assault or attempted sexual assault (23.3%).

Cronbach's alpha was conducted to examine the internal consistency of the A-PWB-PTCQ scale, which was an excellent 0.93 for the total scale. To measure the inter item-total correlations between the items and total of the PWB-PTCQ scale, the Pearson correlation was used (see Table 3). The result shows that all items are significantly correlated ( $p < .01$ ), with correlations ranging between 0.32 and 0.80.

Table 1. Demographic Characteristics of Participants (N= 357).

Characteristics		n (%)	M (SD)
Age			31.42 (9.90)
Sex	Male	152 (40.2)	
	Female	226 (59.8)	
Marital status	Single	159 (42.1)	
	Married	189 (50.5)	
	Divorced	28 (7.4)	
	Widow	2 (0.5)	
Education levels	High school	88 (20.7)	
	Undergraduate	218 (57.7)	
	Postgraduate	82 (21.7)	
Occupation	Lecturer	29 (8.1)	
	Teacher	67 (18.8)	
	Soldier	5 (1.4)	
	General job	85 (23.8)	
	Student	86 (24.8)	
	Housekeeper	26 (7.3)	
	Unemployed	55 (15.4)	
	Retired	4 (1.1)	

Table 2 Traumatic Events.

Traumatic events	Trauma exposure n (%)
Sudden death of close family or friend.	225 (59.5)
Suddenly abandoned by a dear friend or a family member or spouse	172 (45.5)
Hit or kicked hard enough to injure as a child.	138 (36.5)
Seeing someone die suddenly or get badly hurt or killed.	110 (29.5)
Transportation accident (e.g., car, boat, train, bicycle, motorbike).	103 (27.2)
Serious accident at work, home, or during recreational activity.	93 (24.2)
Assault or attempted sexual assault.	88 (23.3)

Table 3. Item-total correlations between items and total of A-PWB-PTCQ Scale.

Items	Correlation with total
1. I like myself.	.59
2. I have confidence in my opinions.	.64
3. I have a sense of purpose in life.	.67
4. I have strong and close relationships in my life.	.64
5. I feel I am in control of my life.	.73
6. I am open to new experiences that challenge me.	.65
7. I accept who I am, with both my strengths and limitations.	.71
8. I don't worry what other people think of me.	.39
9. My life has meaning.	.76
10. I am a compassionate and giving person.	.32
11. I handle my responsibilities in life well.	.70
12. I am always seeking to learn about myself.	.63
13. I respect myself.	.74
14. I know what is important to me and will stand my ground, even if others disagree.	.67
15. I feel that my life is worthwhile and that I play a valuable role in things.	.80
16. I am grateful to have people in my life who care for me.	.52
17. I am able to cope with what life throws at me.	.73
18. I am hopeful about my future and look forward to new possibilities.	.73

Confirmatory factor analysis (CFA) was conducted to demonstrate the fit of the PWB-PTCQ model. The fit of the model was significant in that all possible factors were nested within it (Ho, 2000). Anderson and Gerbing (1988) reported that if a poor fit is obtained at this stage it would require a further refinement of the model. To assess

the PWB-PTCQ model it was essential to use a variety of “goodness of fit” indices (Byrne, 2005). Table 4 presents the acceptable fit criteria and the automated service quality fit indices values. the statistical values of the final PWB-PTCQ model showed that the model fitted the data well.

A Pearson correlation coefficient was computed to assess the relationship between PTSD and Post-Traumatic Changes (PTC), as measured on the A-PDS-5 and A-PWB-PTCQ scales. The A-PWB-PTCQ total score was significantly negative and correlated with PDS-5 total and its subscales presented in Table 5. In addition, using the clinical cut-off of 28 for the total score as recommended by Foa *et alia* (2016), 110 participants (30.81%) scored above the clinical cut-off level. An independent samples *t*-test was then conducted. This demonstrated that participants reporting clinical levels of posttraumatic distress on the A-PDS-5 scored significantly lower ( $n= 110$ ,  $M= 52.87$ ,  $SD= 16.29$ ) on the A-PWB-PTCQ, ( $t= 7.62$ ,  $p <.001$ ) than individuals with subclinical levels of distress ( $n= 247$ ,  $M= 64.76$ ,  $SD= 13.69$ ). This is a large enough difference to be described as readily noticeable to the naked eye (Cohen’s  $d= 0.84$ ).

Table 4. Goodness of Fit Indices for the PWB-PTCQ model.

Goodness of Fit Indices	E-Service Quality Model
$\chi^2$	167.464
<i>df</i>	109
X2ldf	1.536
RMSEA	0.03
CFI	0.95
TLI	0.81
NFI	0.71
IFI	0.9
RFI	0.6

Notes: CFI= Comparative Fit Index; *df*= degrees of freedom; IFI= Incremental Fit Index; NFI= Normed Fit Index; RFI= Relative Fit Index; RMSEA= Root Mean Square Error of Approximation; TLI= Tucker-Lewis Index.

Table 5. Correlations between A-PWB-PTCQ and PSD-5 Total and subscales

	A-PWB-PTCQ
A-PDS-5 Total	-.46**
Intrusion	-.33**
Avoidance	-.20**
Changes	-.50**
Arousal	-.41**

Note: \*\*=  $p <.001$ .

In terms of sex, an independent-samples *t*-test was conducted to compare the A-PWB-PTCQ scores for males and females. There was a significant difference in scores for men ( $M= 63.63$ ,  $SD= 13.51$ ) and women ( $M= 58.53$ ,  $SD= 16.54$ ), ( $t_{(355)}= 3.28$ ,  $p= .001$ ). The men in the sample scored higher than the women in the A-PWB-PTCQ. The magnitude of the sex differences was small ( $\eta^2= 0.027$ ).

The test-retest reliability between the first and second test of the total score of the A-PWB-PTCQ scale and its subscales was conducted on 22 participants and re-conducted using the same scale after 15 days. The results showed that the correlations between the test and the retest were excellent (0.93,  $p <.01$ ) for the total score. The test-retest reliability of the six subscales ranged from adequate to excellent; the SA subscale was adequate (0.75,  $p <.01$ ); the AUT subscale was good (0.85,  $p <.01$ ); the PiL subscale was good (0.87,  $p <.01$ ); the REL and SoM were excellent (0.92 and 0.93 respectively, both  $p <.01$ ); and the PG was good (0.85,  $p <.01$ ).



## DISCUSSION

In this study, the psychometric properties of the Arabic version of the PWB-PTCQ scale were assessed. The A-PWB-PTCQ scale is a self-report instrument that can be used to assess positive change following trauma. In addition, the items of the Arabic version of the A-PWB-PTCQ scale were clear and understandable for an Arabic-speaking sample. Participants who were involved in this study did not report any difficulty in reading and understanding the items of the A-PWB-PTCQ scale.

In terms of the number of events experienced, participants reported that they had experienced, at least, one traumatic incident. Most participants met criterion A for PTSD in DSM-5, which means that they espoused at list one traumatic event. This finding consistent with the previous study reported PTSD after different kinds of traumatic incidents (Kessler *et alia*, 1995; Maercker *et alia*, 2004).

In terms of internal consistency, the A-PWB-PTCQ full scale was excellent (0.93), with significant inter-correlations between the items of A-PWB-PTCQ and the total A-PWB-PTCQ score. This result is compatible with Joseph *et alia* (2012) for the English version of PWB-PTCQ scale, which reported 0.95 for the trauma sample and 0.87 for the general population sample.

The confirmatory factor analysis results presented the expected factor structure. The fit of the structure has fit as indicated by the RMSEA, CFI, and standardized RMR, as reported by Hu and Bentler (1998). In addition, the sample size in the current study was 357, and having a sample size of  $N \geq 300$  for the population model is adequate in a confirmatory factor analysis (Myers, Ahn, & Jin, 2011). These results conform with the theoretical expectation that even though the items evaluate six factors of PWB-PTCQ associated with growth, PWB-PTCQ growth itself is a unitary appraisal, with the six factors of PWB growth changing to a largely equal degree posttrauma (Myers *et alia*, 2011). In addition, this finding is also consistent with the EFA results which suggested a clear single-factor structure.

Regarding the association with posttraumatic stress, the A-PWB-PTCQ was compared with the PDS-5 self-report scale. The A-PWB-PTCQ was significantly negative when correlated with the PDS-5. This result is consistent with the results of Joseph *et alia* (2012), who analysed the correlation between PWB-PTCQ and the IES-R, a self-report scale for PTSD symptoms, which found the PWB-PTCQ to be significantly negatively correlated with the IES-R, at -0.44. In addition, other studies reported a negative correlation with different samples such as Maercker *et alia* (1999) study of former East-German political prisoners, which found the correlation between PTG and PTSD to be  $r = -0.23$ , and Znoj (1999) who reported a correlation of  $r = -0.11$  between PTG and PTSD in spinal cord injury individuals. These findings support the possibility of using the A-PWB-PTCQ scale in Arab regions because of the negative correlation with the PTSD scales.

In terms of sex, the current study found significant differences between men and women. Men presented higher scores than women in the A-PWB-PTCQ scale, with a small effect size. This result contradicted the findings of some previous studies, which found that women showed higher scores than men (Bellizzi, 2004; Jang, 2005; Milam *et alia*, 2005; Milam, 2004). In addition, Vishnevsky *et alia* (2010) reported that men may be able to recover from trauma more quickly than women and, hence, report greater posttraumatic growth after a traumatic event. Therefore, comparing the scores for men and women would be a valuable way to increase the validity and reliability.



In terms of test–retest reliability, for the A-PWB-PTCQ over a 15-day period this was excellent for the total score, and it ranged from adequate to excellent for the symptom clusters. This finding increases the reliability of the A-PWB-PTCQ scale with the Arabic population.

Regarding the data collection, in the beginning, the researcher started with the normal way of data collecting. Then, they moved to an online method which can be helpful to gather a lot of responses from different cities in a short time. In addition, these scales are standardised in terms of the psychometric properties and contain fixed-response options, which are easy to enter into a database and subject to statistical analysis. Therefore, data collection method will not affect the data value.

One limitation of the study is that discriminant validity was evaluated using only PTSD measures. Future research should evaluate the discriminant validity of the PWB-PTCQ using measures of psychological wellbeing and positive change following trauma. However, there is a lack of existing Arabic measures, with established psychometric properties, of psychological wellbeing and positive change following trauma.

Another limitation is that the good stability of the original study of the English version was illustrated over a 6-month period. However, it was unlikely to perform the stability of the answers over time for the Arabic version. Compared sample size of the Arabic sample size to the original study ( $N= 553$ ) might be considered slightly small. Nevertheless, validation studies regularly use smaller sample sizes as the basic psychometric properties of the questionnaire are accepted and published.

In conclusion, the A-PWB-PTCQ scale has the potential to be a useful tool for clinicians, in both their research and practice, for measuring positive well-being. In addition, the Arabic version of the PWB-PTCQ can be a traditional measure in clinical settings and is recommended for monitoring how clients perceive themselves to have changed.

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