1,2 Faculty of Social and Political Sciences, Mulawarman University.
3 Faculty of Psychology, Airlangga University.
4,5 Psychology Study Program, Faculty of Social and Cultural Sciences, Trunojoyo University.

Corresponding author email address: hardiansyah@unmul.ac.id

Adaptation of the Brief Cope Scale for Indonesian Female Domestic Violence Survivors: A Culturally-Informed Process Using ITC Guidelines

Diah. Rahayu[1], Hardiansyah[2] , Primatia. Yogi Wulandari[3] , Hera. Wahyuni[4] , Zainal. Abidin[5]

ABSTRACT

Objective: One measuring tool to find out how victims of violence cope is the brief cope scale. The brief cope scale is more straightforward than other scales that measure coping strategies. This measuring instrument is widely used and adopted, but in Indonesia, no one has described how to adopt this measuring instrument in detail. This research explains the steps for adapting the brief cope measuring instrument.

Methods and Materials: This study followed the eight-step adaptation process based on the International Test Commission (ITC) Guidelines for Test Adaptation. The process began with the forward translation of the Brief Cope Scale into Indonesian, followed by the synthesis of the translations. Back translation was then conducted to ensure equivalence in meaning between the original and translated versions. An expert review assessed the cultural and linguistic appropriateness of the items. After making revisions based on expert feedback, a pilot test was conducted to identify potential issues with the adapted instrument. Data were collected from 200 domestic violence survivors using purposive sampling, and the final analysis involved confirmatory factor analysis (CFA) to evaluate the construct validity of the adapted scale and determine if the original coping dimensions were retained after the adaptation process.

Findings: The results of the adaptation process found that the three dimensions of brief coping, namely problem-focused coping, emotional-focused coping, and avoidance, were all fulfilled. These three dimensions consist of 14 indicators, but in the adaptation process, two indicators were removed because they did not meet the requirements for construct validity. The initial number of items was 28, but after analysis, 10 items were dropped, so the items deemed suitable for use became 18 items.

Conclusion: Adapting the measuring instrument to Indonesian culture and language showed that all dimensions of brief cope can be used. However, two indicators in the avoidance dimension with four items were removed and considered unsuitable. This was indicated by the content or construct validity conducted by the expert review in the measuring instrument development process, which showed a good I-CVI, even though some improvements were required on the items using the FT and BT synthesis process.

Keywords: Brief Cope, Confirmatory Factor Analysis, Domestic Violence.

Introduction

Statistical data showed that violence against women and children in East Kalimantan was high. This was confirmed by the data collected through the application of the Information System for Recording and Reporting Violence Cases (Symphony), which showed that 262 cases were recorded in East Kalimantan within eight months of 2020 and were observed to rank first. Personal violence cases, such as domestic violence, are more difficult to recover than community violence cases, such as war. This is mainly because the perpetrators of domestic violence are generally people who are known and have good relations with the victim.

Domestic violence survivors with good coping strategies can recover both physically and mentally. Pantea (2013) also stated that individuals usually try to analyze possible solutions and regulate emotional conditions caused by distress in difficult conditions (Pantea, 2013). According to Lazarus and Folkman, stress and coping conditions are the basis for individuals to find ways to get through these events (Frydenberg, 2018). This can be achieved through thoughts and behaviors to manage the internal and external demands of a stressful situation, known as coping (Folkman, 2022).

This coping strategy usually provides a new means of solving or improving the situations caused by trauma. Pantea (2013) showed that coping strategies have two roles: the problem-focused and emotion-focused aspects of the individual (Pantea, 2013). Folkman (2022) further explained that problem-focused coping involves dealing with problems at the source, such as making a plan of action and concentrating on the next step, while emotion-focused coping emphasizes the emotional aspect and corrects negative emotions associated with the problems being faced, such as the implementation of disruptive activities, use of alcohol or drugs, and seeking emotional support (Folkman, 2022).

Problem-focused coping is usually considered maladaptive when there is no personal control (Algorani & Gupta, 2022; Folkman, 2022), but this general form may be oversimplified because uncontrollable situations sometimes have controllable aspects. Meanwhile, emotion-focused coping is an effort made by individuals to reduce the pressure felt by not facing the problem directly but rather dealing with emotional stress and maintaining a balance of affection (Folkman, 2022).

Coping strategies play a crucial role in shaping psychological resilience and recovery among individuals facing traumatic experiences, such as domestic violence. The Brief Cope Scale, originally developed by Carver (1997), has been widely used to assess how individuals manage stress and adversity, offering a simplified yet comprehensive approach compared to other coping scales (Carver, 1997). Previous research has demonstrated the effectiveness of the Brief Cope Scale in diverse populations, such as cancer patients, disaster survivors, and refugees. However, there is a significant gap in research when it comes to adapting this scale for survivors of domestic violence in Indonesia, a country with distinct cultural, social, and linguistic nuances that may influence coping behaviors.

Culture plays a critical role in shaping how individuals perceive stress and choose coping strategies (Yuan et al., 2017). Studies have shown that coping mechanisms vary significantly across cultures due to differences in values, social expectations, and language. In Indonesia, where patriarchal norms and societal stigma around domestic violence can inhibit open discussion and influence responses to trauma, there is a need for tools that are culturally relevant and sensitive to these factors. Moreover, previous adaptations of the Brief Cope Scale in other non-Western settings have illustrated the importance of revising or eliminating certain items that may not align with the cultural context (Mohanraj et al., 2015).

While past research has successfully adapted coping scales for various global contexts, there is limited focus on domestic violence survivors, especially in regions like Indonesia where coping strategies are deeply influenced by communal and religious frameworks. Existing studies often lack attention to how cultural values in non-Western societies might impact the interpretation of coping constructs, such as avoidance or emotion-focused coping, which may be perceived differently across cultures (Folkman, 2022). The absence of a validated, culturally-sensitive Brief Cope Scale for Indonesian domestic violence survivors represents a significant gap in the literature and impedes the development of effective, targeted interventions.

This research builds on prior efforts to adapt psychological instruments cross-culturally by addressing the specific needs of Indonesian women who have survived domestic violence. It diverges from

previous studies by focusing on the nuanced social, cultural, and linguistic factors relevant to Indonesia, utilizing the comprehensive International Test Commission (ITC) Guidelines for Test Adaptation to ensure both construct validity and cultural relevance. By filling this gap, the study not only contributes to the body of research on coping but also provides practitioners with a reliable tool to better understand and support domestic violence survivors in Indonesia (ITC, 2017).

It is important to note that there are infinite coping actions, including thoughts and feelings, that individuals can theoretically use to manage stress, including obtaining information, training individuals on appropriate actions, and the willingness to take risks. Several coping actions have been grouped according to the similarity of ideas or actions through different empirical procedures such as factor analysis or considerations based on different strategies. This means it is possible to conceptualize coping in several domains or strategies with specific actions.

The dimensions of the coping strategies used in this study were developed by modifying those applied by Lazarus and Folkman (Wahyuni et al., 2022). Several research studies classified Skinner et al. (2003) based on different measuring instruments (Skinner et al., 2003), such as Carver's Brief Cope (Pavlova et al., 2022). This brief scale was preferred because it is a shortened version of the instrument developed by Lazarus (1993), which consists of 60 items with 16 indicators (Lazarus, 1993), leading to complaints from respondents. Meanwhile, the Carver short version, known as a brief cope, has only 14 dimensions, with 28 items (Carver, 1997; Carver et al., 1989).

Brief coping is mostly applied in Western rather than Asian cultural settings, but it has been adapted by some Asian countries, such as India, to respondents who have HIV (Mohanraj et al., 2015) and China for visually impaired subjects (Yuan et al., 2017). Meanwhile, a brief cope that follows international adaptation standards about language and culture is rare in Indonesia. For this reason, this research is interested in adapting the culture and language of the brief cope measuring scale for female survivors of domestic violence.

Coping strategies are critical for individuals dealing with traumatic experiences, such as domestic violence, as they influence psychological recovery and well-being. The Brief Cope Scale is a widely used instrument to measure how individuals respond to stress, offering a concise yet comprehensive tool for assessing coping mechanisms. While this scale has been successfully adapted and applied in various contexts and cultures, there remains a significant gap in research concerning its adaptation for survivors of domestic violence in Indonesia.

This gap is particularly important due to the unique cultural and social factors that shape how Indonesian women experience and cope with domestic violence. Cultural norms, values, and language can affect how individuals perceive stressors and their coping responses, which means that direct use of a foreign-developed scale may not fully capture the nuances of their coping strategies. Additionally, without a culturally adapted instrument, the accuracy and relevance of research findings on coping mechanisms among Indonesian survivors may be compromised, limiting the effectiveness of interventions.

Adapting a measuring instrument is an important methodological process in research because the problems of different cultures and languages sometimes affect these processes. Moreover, the maintenance of the meaning and intent of the original instrument takes precedence and is more important than grammar (Thomas et al., 2022). Therefore, a series of instrument adaptation processes were conducted to determine

1) The ability to adapt Indonesian culture and language in the brief cope scale to fulfill the appropriate dimensions, and 2) the ability of the brief cope scale in Indonesian culture and language to fulfill validity and reliability standards based on the CFA, AVE, and CR analyses.

Methods and Materials

Study Design and Participants

This study employed a purposive sampling technique to select 200 female students from universities in East Kalimantan, aged 18-26 years, who were survivors of domestic violence. Participants were included if they had experienced domestic violence, as identified through a screening questionnaire. The inclusion criteria also required participants to be literate in Indonesian, willing to participate voluntarily, and provide informed consent. Individuals with severe psychological disorders, based on self-reports or clinical diagnosis, were excluded from

the study to ensure that the sample reflected typical coping behavior rather than extreme psychological conditions. The decision to use a sample of 200 participants was guided by recommendations for Confirmatory Factor Analysis (CFA). According to Hair et al. (2017), a sample size of at least 5 to 10 participants per item is recommended for reliable factor analysis, with a minimum of 150-200 participants being necessary for models containing a moderate number of variables (up to 30 items) (Hair et al., 2017). Given that the adapted version of the Brief Cope Scale contains 28 items, the sample size of 200 participants was deemed adequate for CFA to ensure stable and reliable estimates of the factor structure.

Data Collection Tools and Procedure

The adaptation process followed the International Test Commission (ITC) Guidelines for Test Adaptation (2017). Two bilingual experts, fluent in both English and Indonesian and familiar with local cultural nuances, conducted the forward translation (FT) of the Brief Cope Scale. This was followed by a back-translation (BT) by two certified English translators to ensure equivalence of meaning. The translations were synthesized and

reviewed by three clinical psychology experts, who evaluated the cultural appropriateness and relevance of the items through expert judgment. Cognitive debriefing was then conducted with five female students to assess their understanding and ensure the clarity of the adapted items.

The Brief Cope Scale originally developed by Carver was used, consisting of three dimensions:

a) Problem-focused coping: planning, active coping, instrumental support,

b) Emotion-focused coping: acceptance, positive reframing, emotional support, self-distraction, humor, and religion,

c) Avoidance coping: behavioral disengagement, self-blame, denial, venting, and substance use.

Each indicator was measured using two items, resulting in a total of 28 items. Responses were structured using a four-point Likert scale, ranging from "I have never done this" (1) to "I always do this" (4).

The brief cope adaptation process (Carver, 1997) applied to measure the coping strategies for female domestic violence survivors was based on the stages in the International Test Commission (ITC) Guidelines for Test Adaptation (2017) and (Ramdhani, 2012), as presented below.

Figure 1

Adaptation process based on International Test Commission (ITC) Guidelines for Test Adaptation (2017)
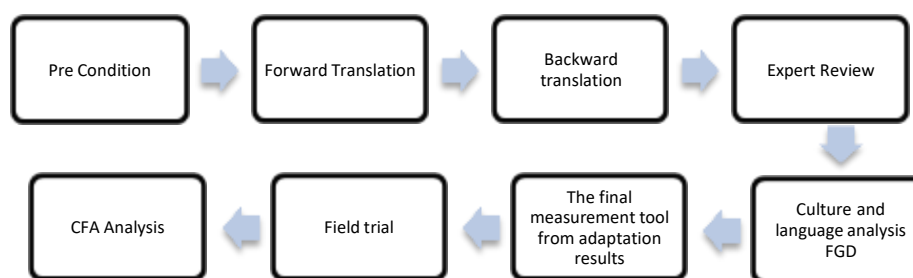
Stage 1 (Pre-condition): This stage requires three processes: 1) permission to use the brief copper-measuring instrument from the original owner through email, but Carver (1997) stated that it could be adapted freely; 2) two experts in the field of psychology were asked to discuss the measuring instrument construct to avoid bias; and 3) group discussions were conducted between five female domestic violence survivors and

three lecturers to minimize the influence of culture and language (Carver, 1997).

Stages 2, 3, and 4 (Development Test): This stage requires five processes, which include 1) **Forward Translation (FT)** from the original English to Indonesian by two translators with English qualifications and cultural understanding of the measuring instrument; 2) **Backward Translation (BT)** which involves retranslating the Indonesian version of

the instrument draft into English separately by two professional translators with educational backgrounds in English language and English literature; 3) **Expert Review** or **Expert Judgment** by three experts in the field of Positive, Clinical Psychology to provide evidence that the instrument is suitable for use on female domestic violence survivors; 4) **Expert Review** to provide evidence and recommendations that the item format is appropriate and usable; and 5) **Data collection** on the psychometrics of the instrument by others, specifically concerning validity and reliability.

The expert judgment was in two parts, and the first was the comparison of the original scale with the back-translation results using the rating scales from 1-7. The focus was on two aspects: the first was the comparability of language, which assessed the similarity level of

language, including the words, phrases, terms, and sentences. Those observed to be identical without any difference in language scored 1, while those completely different were scored 7. The second is the similarity of meaning, which assesses the similarity level of meaning in the original and back-translated versions, even though different terms were used. Items with identical and very different meanings were scored 1 and 7, respectively.

The assessment was conducted based on the judgment of each expert in line with the instructions provided. Moreover, the mean score of each item was determined based on the assessment of three experts and was expected to be < 4 (Thomas et al., 2022). For example, the mean scores for comparability and similarity are listed in Table 1.

Table 1

Calculation Results for Mean Score of Comparability and Similarity

Scale	Comparability Mean Score		Similarity Mean Score	
	Total	Range	Total	Range
Brief cope	1,46	1,00-2,66	1,43	1,00-3,00

The second aspect is the judgment of the experts concerning the level of relevance, importance, and clarity based on a score range of 1–4, such that a score of 1 indicates that the items are not very relevant, not important, and unclear, while 4 indicates that they are very relevant, very important, and very clear. It is important to note that relevance is the extent to which an item. is relevant to the construct being measured; importance is how important the item is when associated with the construct and research context; and clarity is whether the item is clear enough and can be

understood. According to Polit (2007), the rating usually ranges between 1 and 4, where 3 and 4 indicate good and 1 and 2 indicate bad. The procedure further indicated the dichotomous score on the measuring instrument such that a score of 1 represented 3 and 4, while 0 represented 1 and 2. The proportion of assessments was calculated using the Content Validity Index (CVI), which is empirical evidence showing the extent to which the construct is represented by existing items (Polit et al., 2007). Table 2 presents the CVI results.

Table 2

Relevance, Importance, and Clarity Assessment Form

Item asli	Item BT	Item FT	relevance				importancy				clarity				catatan
			1	2	3	4	1		2	3	4	1	2	3	4	
I've been saying to myself "this isn't real.".	I have been wondering to myself that "this is not real".	Saya bertanya-tanya pada diri sendiri "ini tidaklah nyata"														

The values recorded in the table were used to determine the CVI or I-CVI of the items, and this is expected to provide the information needed to classify such items as good or bad, which should be deleted based

on content validity. According to Polit et al. (2007), an item can be declared good when the I-CVI calculated by a minimum of three experts is at least 0.78, whereas those with lower values need to be deleted and recommended

not to be used. Meanwhile, Zamanzadeh et al. (2015) suggested that items with I-CVI below 0.70 should be removed, while those ranging from 0.70 – 0.78 should be used with some revisions or modifications (Zamanzadeh et al., 2015). **Stage 5:** The Indonesian version of the measurement instrument was presented to five item readers, female domestic violence survivors. This step determines the layman's understanding of each item's statement or cognitive debriefing (Ramdhani, 2012). This is in line with Thomas's (2022) recommendation that the translated instrument can be applied to monolingual subjects (Thomas et al., 2022). This process is necessary because translators generally have attitudes, values, and cultural beliefs, making it impossible to automatically generalize their responses to the instrument's users. Therefore, there are several words and terms. difficult to understand were changed to words with closer meaning or not far from the intended goal. **Stages 6, 7, and 8:** The improvements to the items and arrangement of the appropriate systematics showed that the measuring instrument was ready to be tested on a larger sample. It is important to note that the trial results were obtained from data analyzed using Confirmatory Factor Analysis (CFA).

Data analysis

The CFA was conducted using AMOS to test the validity and fit of the adapted factor structure. The following model fit indices were used to evaluate the adequacy of the model:

- Chi-square (χ^2): A p-value greater than 0.05 indicates a good fit, though chi-square is sensitive to sample size.
- Root Mean Square Error of Approximation (RMSEA): A value less than 0.08 was considered acceptable.
- Goodness of Fit Index (GFI), Comparative Fit Index (CFI), and Adjusted Goodness of Fit Index (AGFI): Values greater than 0.90 indicated a good fit.
- Factor loadings: The minimum acceptable loading for each item was 0.50, with an ideal value of 0.70 or higher.
- Construct Reliability (CR): CR values between 0.60-0.70 were considered acceptable, and greater than 0.70 was ideal.

- Average Variance Extracted (AVE): An AVE score of at least 0.50 was targeted, with a Cronbach's alpha coefficient above 0.60 considered acceptable for internal consistency.

These criteria were employed to ensure that the adapted instrument maintained strong construct validity and reliability within the Indonesian cultural context, allowing for the accurate measurement of coping strategies among domestic violence survivors.

Findings and Results

The I-CVI calculation during the development process indicated that all items on the Brief Cope Scale were usable, though some revisions were necessary based on expert judgment to ensure cultural and linguistic appropriateness. Following these revisions, a validity test using Confirmatory Factor Analysis (CFA) was conducted to evaluate whether the observed variables (items) adequately represented the underlying latent variables (coping dimensions). Initially, the CFA results indicated that the model was not a good fit, prompting the use of modification indices suggested by AMOS to improve model fit. This involved removing items and indicators that had low factor loadings or contributed minimally to their respective dimensions. Specifically, items with factor loadings below the acceptable threshold (0.50) were removed to improve the model's overall fit and reliability.

The revised CFA model yielded a chi-square (χ^2) value of 308.630 with a degree of freedom (df) of 178 and a p-value of 0.000. While a lower chi-square and higher p-value would indicate a better fit, it is important to note that chi-square is highly sensitive to sample size, especially with larger samples like ours. As a result, other fit indices were considered more reliable for assessing model adequacy.

After the modifications, the model met most of the acceptable fit criteria. The Root Mean Square Error of Approximation (RMSEA) was 0.061, which is below the threshold of 0.08, indicating a reasonably good fit. Although some of the other indices, such as GFI and CFI, were close to the cutoff values (0.90), the RMSEA score confirmed that the model was sufficiently robust. The specific factor loadings and goodness-of-fit indices after these modifications are summarized in Table 3, which shows the adjustments made to achieve an improved and

culturally adapted version of the Brief Cope Scale for Indonesian domestic violence survivors.

Table 3

The Goodness of Fit Results for Brief Cope

Goodness of Fit Criteria	Acceptable Fit Level	Estimated Results	Description
p-value	> 0.05	0.000	marginal fit
RMSEA	$\leq$ 0.08	0.061	good fit
GFI	$\geq$ 0.90	0.874	marginal fit
CFI	$\geq$ 0.90	0.824	marginal fit
IFI	$\geq$ 0.90	0.831	marginal fit
AGFI	> 0.90		marginal fit

1. Explanation of Results:
   1. p-value: The p-value for the chi-square test is reported as 0.000, which indicates that the model does not fit perfectly with the data, as it is significantly lower than the acceptable threshold of 0.05. This suggests that there may be some discrepancies between the model and the observed data; however, due to the sensitivity of the chi-square statistic to sample size, further indices provide a more reliable assessment of model fit.
   2. RMSEA (Root Mean Square Error of Approximation): The RMSEA value of 0.061 is below the threshold of 0.08, indicating a good fit. This suggests that the model adequately represents the data with minimal error, supporting the conclusion that the Brief Cope Scale is appropriate for the sample population.
   3. GFI (Goodness of Fit Index): The GFI is reported at 0.874, which is below the acceptable level of 0.90. This indicates a marginal fit, suggesting that while the model accounts for a significant portion of the variance in the data, there may be room for improvement.
   4. CFI (Comparative Fit Index): The CFI value of 0.824 also falls short of the acceptable level of 0.90, categorizing it as a marginal fit. This suggests that the model could be improved, potentially by reconsidering the items included or the structure of the model.
   5. IFI (Incremental Fit Index): The IFI value of 0.831 is similarly classified as a marginal fit, reflecting that while the model demonstrates some good aspects of fit compared to a baseline model, it does not fully meet the ideal standards.
   6. AGFI (Adjusted Goodness of Fit Index): The AGFI is noted as missing a value but is expected to fall below the acceptable threshold of 0.90 based on the model's performance. Like the other indices, this suggests that the model may not capture the complexity of the data as effectively as desired.

Overall, the results from Table 3 suggest that while the adapted Brief Cope Scale demonstrates some strengths, particularly indicated by the RMSEA, there are several areas, as evidenced by the marginal fit indices (GFI, CFI, IFI, and AGFI), where further refinements could enhance the model. Continued evaluation and modification of the scale may be necessary to achieve a more robust fit that better represents the coping strategies of domestic violence survivors in the Indonesian context.

The next step focused on determining the factor loading for each construct. The results presented in Table 4 show that the values vary with the SLF recorded to be 0.50, which is a good convergent validity value, whereas some are suggested to have 0.70.

Table 4

Loading Factor of Brief Cope Items

Dimensions	Indicator	Loading factor	Number of good items	Description
Problem-focused Coping	Planning		1	
	Item 14	0.624		Good
	Item 25	0.418		Bad
	Active coping		1	
	Item 2	0.256		Bad
	Item 7	0.988		Good
	Using instrument support		2	
Emotion-Focused Coping	Item 10	0.717		Good
	Item 23	0.852		Good
	Acceptance		2	
	Item 20	0.456		Good
	Item 24	0.810		Good
	Positive reframing		2	
	Item 12	0.544		Good
	Item 17	0.575		Good
	Using emotional support		2	
	Item 5	0.590		Good
	Item 15	0.608		Good
	Self-distraction		1	
	Item 1	0.085		Bad
	Item 19	0.988		Good
	Humor		1	
	Item 18	0.276		Bad
	Item 28	0.992		Good
	Religion		2	
	Item 22	0.830		Good
	Item 27	0.761		Good
Avoidance Coping	Behavior disengagement		0	
	Item 6	0.481		Bad
	Item 16	0.434		Bad
	Self-Blame		1	
	Item13	0.786		Good
	Item 26	0.474		Bad
	Denial		2	
	Item 3	0.669		Good
	Item 8	0.557		Good
	Venting		1	
	Item 9	0.994		Good
	Item 21	0.391		Bad
	Total Item		18 Good Items	

2. Explanation:
   - Dimensions: The primary categories of coping strategies assessed by the Brief Cope Scale.
   - Indicator: Subcategories or strategies within each dimension.
   - Loading Factor: Numerical representation of how well each item correlates with its respective dimension.
   - Quality: Classification of items as either "Good" or "Bad" based on their loading factors,

indicating their effectiveness in measuring the respective coping strategy.

The Total Good Items indicates that there are 18 good items across all dimensions, highlighting the effectiveness of these indicators in measuring coping strategies among the target population.

Table 4 shows that only 18 of the 28 items could be retained, meaning 10 items were not included in other analyses. Construct Reliability (CR) calculation followed the content validity process, which was directed toward measuring the internal consistency of the items in the

measuring instrument. A CR value of 0.60 to 0.70 is acceptable because the validity value of the indicators in the model is in a good category (Ghozali, 2017). Hair et al., (2017) also stated that the recommended reliability threshold is 0.70, whereas Bagozzi and Ying (Netemeyer et al., 2003) used 0.60. Moreover, internal consistency can also be measured using the Average Variance Extracted (AVE) estimate, which assesses the number of variances captured by a series of items on the scale against measurement error.

Table 5

Construct Reliability (CR) and Average Variance Extracted (AVE) Test Results

Brief Cope	CR	AVE
Planning	0.389	0.389
Active coping	0.976	0.976
Using instrument support	0.765	0.622
Total Problem-Focused Coping dimension	0.879	0.652
Acceptance	0.656	0.656
Positive reframing	0.477	0.313
Using emotional support	0.528	0.359
Self-distraction	0.976	0.976
Humor	0.984	0.984
Religion	0.776	0.634
Total Emotion-Focused Coping dimension	0.935	0.577
Self-Blame	0.618	0.618
Denial	0.731	0.578
Venting	0.988	0.988
Total Avoidance Coping Dimension	0.847	0.591

Table 5 presents the Composite Reliability (CR) and Average Variance Extracted (AVE) values for the Brief Cope scale, which assesses various coping strategies. Composite Reliability measures the internal consistency of the indicators within each coping dimension. Values above 0.7 are generally acceptable. In the Problem-Focused Coping dimension, indicators like Active Coping (0.976) show high reliability, while Planning (0.389) has low reliability. The Emotion-Focused Coping dimension exhibits strong reliability overall (0.935), particularly with indicators such as Humor (0.984) and Self-Distraction (0.976), although Positive Reframing (0.477) shows lower reliability.

Average Variance Extracted (AVE) assesses the proportion of variance captured by each construct relative to measurement error, with values above 0.5 considered good. For Problem-Focused Coping, the overall AVE is 0.652, indicating good explanatory power. However, Planning (0.389) falls short, suggesting it does not adequately represent the underlying construct. The Emotion-Focused Coping dimension has an acceptable AVE of 0.577, but indicators like Positive Reframing (0.313) and Using Emotional Support (0.359) need improvement. The Avoidance Coping dimension has a total AVE of 0.591, indicating an acceptable level of explanatory power.

These findings highlight strengths and weaknesses within the Brief Cope scale for the target population. High reliability for certain indicators suggests they are effective for measuring coping strategies among female survivors of domestic violence. However, items with lower reliability and explanatory power require further examination and potential revision. The results are crucial for clinical practitioners, emphasizing the need for selecting appropriate indicators in treatment settings. Future research should focus on refining these items and exploring the scale's applicability across different cultural contexts to enhance its generalizability.

Discussion and Conclusion

The assessment conducted through expert judgment in the development test process confirmed that female survivors of domestic violence can effectively utilize the items in the Brief Cope Scale. However, several important modifications emerged from the synthesis of the forward translation (FT) and backward translation (BT) processes. For instance, the original item "I've been saying to myself, 'this isn't real'" was translated to "saya bertanya-tanya pada diri sendiri, 'ini tidaklah nyata'" in the Indonesian version after FT, and later refined to "saya mengatakan pada diri saya sendiri bahwa kondisi ini tidak nyata" following BT. The expert review highlighted a critical distinction between the terms "saying" and "wondering," where the former conveys a stronger sense of denial while the latter suggests a more tentative rejection of reality. This nuance emphasizes the cultural context and linguistic subtleties that influence the effectiveness of the adaptation process.

The relevance of FT and BT to content validity is crucial, as they aim to create items that not only mirror the original language but also maintain the same meaning (Sperber, 2004). Achieving semantic similarity is often straightforward; however, it is vital to ensure that the meaning of the original items is preserved in the FT. Sperber (2004) underscores the importance of meaning over form (Sperber, 2004), aligning with the adaptation process that involved expert judgment to achieve both linguistic and conceptual equivalence (Thomas et al., 2022). The results indicated that the items in the FT and BT maintained good linguistic correspondence and similar meanings, affirming that the adapted measuring instrument is suitable for the Indonesian context. Nonetheless, the Content Validity Index (I-CVI) revealed that some items scored between 0.7 and 0.78, indicating a need for modifications to ensure clarity and relevance. Polit et al. (2007) emphasize that the CVI reflects the level of agreement among experts regarding the reliability and relevance of items (Polit et al., 2007), highlighting the necessity for careful synthesis of FT and BT results to ensure consistency with the original meaning.

Following this, the validity of the instrument was evaluated using Confirmatory Factor Analysis (CFA), which led to the exclusion of an entire indicator within the "avoidance" coping dimension. The items related to

substance use—specifically, "I use alcohol or illegal drugs to make myself feel better" and "I use alcohol and drugs to help me deal with the situation"—were removed due to their low loading factors. This decision aligns with Folkman's (2022) assertion that substance use is an uncommon coping strategy among Indonesian women, particularly those who are domestic violence survivors (Folkman, 2022). The findings from the trial suggest that these individuals tend to adopt healthier coping strategies that do not involve substance use.

In total, ten items were removed based on their loading factor values, ultimately resulting in 18 items deemed to have adequate validity for this research. The avoidance coping dimension specifically saw the removal of items associated with behavioral disengagement, such as "I give up on making peace with this situation" and "I give up trying all efforts to overcome it," which did not meet construct validity criteria. This aligns with Lazarus's (1993) definition of behavioral disengagement as an ineffective coping mechanism often linked to feelings of helplessness (Lazarus, 1993). The participants demonstrated resilience, indicating a refusal to succumb to their circumstances, suggesting that such items were inappropriate for their coping experiences.

Conversely, certain indicators persisted due to their relevance to the participants' experiences. For instance, self-blame ("I keep criticizing myself") and denial ("I wonder to myself this is not real") were retained, reflecting the internal struggles of survivors who grapple with disbelief in their circumstances, particularly in cases of parental domestic violence, which can lead to profound psychological trauma (Moroz, 2005).

Moreover, the adaptation process also resulted in the removal of items from the emotion-focused and problem-focused dimensions. In emotion-focused coping, the self-distraction item ("I go back to work and perform other activities to distract myself from various things") and the humor item ("I think this situation is just a joke") were assessed for their construct validity. Self-distraction refers to engaging in alternative activities to alleviate stress (Carver, 1997; Carver et al., 1989), while humor relates to perceiving problems in a light-hearted manner. Ultimately, one item from each of these indicators was removed due to insufficient validity.

The problem-focused coping dimension similarly faced scrutiny, with planning ("I think hard about the

steps I take") and active coping ("I focus on the effort I carry out when working on something in the situation I face") being excluded for their lack of construct validity. This indicates a need for clearer items that accurately reflect participants' coping strategies. For instance, item 14 ("I try to make a strategy to perform something about this situation") more effectively captures planning behavior than the original phrasing, while item 7 ("I perform an action to make the situation better") better represents active coping than item 2.

While these adaptations enhance the Brief Cope Scale's relevance in the Indonesian context, limitations remain. Cultural factors, such as the stigma surrounding mental health and coping strategies among women, may influence how participants interpret and respond to certain items. Additionally, the findings may not be fully generalizable to all demographic groups within Indonesia, as the study primarily focused on female university students. Future research should address these limitations by exploring the scale's applicability across diverse cultural contexts and populations, thereby enhancing its validity and reliability in assessing coping strategies among survivors of domestic violence.

The adaptation of the Brief Cope Scale to the Indonesian cultural and linguistic context has demonstrated its applicability for assessing coping strategies among female survivors of domestic violence. While the adaptation process confirmed that all dimensions of the scale were usable, two indicators within the avoidance dimension, consisting of four items, were identified as unsuitable for this population. This conclusion was drawn from rigorous content and construct validity assessments conducted by expert reviewers, yielding a strong Content Validity Index (I-CVI). Further refinement was achieved through synthesizing forward and backward translations (FT and BT). The results of the Confirmatory Factor Analysis (CFA) indicated successful modifications to meet the criteria for Average Variance Extracted (AVE) and Composite Reliability (CR), ultimately streamlining the original scale from three dimensions, 14 indicators, and 28 items to three dimensions, 12 indicators, and 18 items.

The practical implications of this research are significant for clinicians and researchers working with female survivors of domestic violence. The adapted Brief Cope Scale can serve as a valuable tool for assessing coping strategies, enabling healthcare providers to better understand the psychological mechanisms at play and tailor interventions accordingly. Future research should focus on further validating the adapted scale across diverse populations, including various age groups and cultural backgrounds within Indonesia and beyond. Investigating the scale's applicability in different settings, such as rehabilitation centers or shelters, would provide insights into its generalizability and utility. Additionally, longitudinal studies could explore how coping strategies evolve over time in response to interventions, enriching our understanding of resilience and recovery in survivors of domestic violence.

Acknowledgments

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. All participants were informed about the purpose of the study, that participation was voluntary, and that personal data would be kept confidential. It was also explained to them that these tests do not contain identity information.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

Funding

Authors' Contributions

All authors equally contributed to this study.

References

Algorani, E. B., & Gupta, V. (2022). Coping Mechanisms. In. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK559031/

Carver, C. S. (1997). You want to measure coping but your protocol' too long: Consider the brief cope. *International Journal of Behavioral Medicine*, *4*(1), 92-100. https://doi.org/10.1207/s15327558ijbm0401_6

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of personality and social psychology*, *56*(2), 267-283. https://doi.org/10.1037/0022-3514.56.2.267

Folkman, S. (2022). Stress, Coping, and Hope. In *Psychological Aspects of Cancer*. https://doi.org/10.1007/978-3-030-85702-8_7

Frydenberg, E. (2018). *Adolescent coping: Promoting resilience and well-being*. Routledge. https://www.routledge.com/Adolescent-Coping-Promoting-Resilience-and-Well-Being/Frydenberg/p/book/9781138055711?srsltid=AfmBOoq8CY7qplfBMuy9gFHjuS_APklDDR232Xc3EwN-fU2jDVbE5qRl

Ghozali, I. (2017). *Model Persamaan Structural Konsep Dan Aplikasi Dengan AMOS24 : Update Bayesian SEM*. Badan penerbit Universitas Diponegoro. https://onesearch.id/Record/IOS12573.slims-8847

Hair, J. F., Hult, G. T. M., & Ringle, C. M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. SAGE Publication Inc. https://eli.johogo.com/Class/CCU/SEM/_A%20Primer%20on%20Partial%20Least%20Squares%20Structural%20Equation%20Modeling_Hair.pdf

ITC. (2017). *International Test Commission (ITC) Guidelines for Translating and Adapting Tests (Second Edition)*.

Lazarus, R. S. (1993). Coping Theory and Research : Past , Present , and Future. *247*, 234-247. https://doi.org/10.1097/00006842-199305000-00002

Mohanraj, R., Jeyaseelan, V., Murray, K. R., & Manhart, L. E. (2015). Cultural Adaptation of the Brief COPE for Persons Living with HIV / AIDS in Southern India. 341-351. https://doi.org/10.1007/s10461-014-0872-2

Moroz, K. J. (2005). *The Effects of Psychological Trauma on Children and Adolescents*. https://kuswoyoaji.files.wordpress.com/2014/01/dmh-cafu_psychological_trauma_moroz.pdf

Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling Procedures: Issues and Aplication*. Sage Publication Inc. https://doi.org/10.4135/9781412985772

Pantea, M. C. (2013). Book Review: Primer on Posttraumatic Growth. An Introduction and Guide. *Research on Social Work Practice*, *23*(3). https://doi.org/10.1177/1049731512471733

Pavlova, A., Marakshina, J., Vasin, G., Ismatullina, V., Kolyasnikov, P., Adamovich, T., Malykh, A., Tabueva, A., Zakhariv, I., Lobaskova, M., & Malykh, S. (2022). Factor Structure and Psychometric Properties of Brief COPE in Russian Schoolteachers. *Journal Educational Sciences*, *12*, 1-14. https://doi.org/10.3390/educsci12080539

Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Focus of Research Methodes, Is The CVI an Acceptable Indicator of Content Validity? Appraisal and Recomendations. *Research in Nursing & Health*, *30*, 459-467. https://doi.org/10.1002/nur

Ramdhani, N. (2012). Adaptasi Bahasa dan Budaya Inventori Big Five. *Jurnal Psikologi*, *39*(2), 189-207. https://jurnal.ugm.ac.id/jpsi/article/download/6986/pdf_13

Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the Structure of Coping: A Review and Critique of Category Systems for Classifying Ways of Coping. *Psychological bulletin*, *129*(2), 216-269. https://doi.org/10.1037/0033-2909.129.2.216

Sperber, A. D. (2004). Translation and Validation of Study Instruments for Cross-Cultural Research. *Gastroenterology*, *126*(1), 124-128. https://doi.org/10.1053/j.gastro.2003.10.016

Thomas, D. C., Chui, P. L., Yahya, A., & Yap, J. W. (2022). Translation, cross-cultural adaptation and validation of the revised-Skin Management Needs Assessment Checklist questionnaire in Malay language. *Journal Of Tissue Viability*, *31*(3), 465-473. https://doi.org/10.1016/j.jtv.2022.05.003

Wahyuni, R., Krisnatuti, D., & Musthofa. (2022). The Effect of Stressors and Coping Strategies on Elderly Quality of Life during the Covid-19 Pandemic. *Journal of Family Sciences*, *7*(1), 14-28. https://doi.org/10.29244/jfs.v7i1.39108

Yuan, W., Zhang, L., & Li, B. (2017). Adapting the Brief COPE for Chinese Adolescents with Visual Impairments. *February*, 20-32. https://doi.org/10.1177/0145482X1711100103

Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Alavi-Majd, H., & Nikanfar, A. R. (2015). Design and Implementation Content Validity Study: Development of an instrument for measuring Patient-Centered Communication. *Journal of caring sciences*, *4*(2), 165-178. https://doi.org/10.15171/jcs.2015.017