Construction and Evaluation of the Malay Version Post-Traumatic Stress Disorder Questionnaire (PTSD-Q) among Malaysian Adults

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Abstract
This study aimed to construct and evaluate the Malay version Post-Traumatic Stress Disorder Questionnaire (PTSD-Q) among Malaysian adults. The PTSD-Q is designed to identify early symptoms of PTSD in individuals. Its construction is based on the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV). The questionnaire consists of 16 negative items divided into 8 subscales, with each subscale containing 2 negative items; Subscale 1: Involvement in traumatic events, Subscale 2: Avoidance, Subscale 3: Negative changes, Subscale 4: Negative Changes, Subscale 5: Psychological disturbances, Subscale 6: Duration of disturbance, Subscale 7: Social impairment, and Subscale 8: Physical fatigue. The content validity of the PTSD-Q was evaluated by 11 experts, including 2 medical specialists, 5 psychology officers, and 4 academic lecturers. Reliability testing involved 58 respondents aged 18 and above. The overall validity index of the PTSD-Q was .894 (89.4%), while its reliability score was high at .921. These findings demonstrated that the PTSD-Q is a valid and reliable assessment tool for use in the fields of counseling and guidance in Malaysia.
Keywords: Post-Traumatic Stress Disorder Questionnaire (PTSD-Q), validity, reliability, development, assessment tool

Introduction
Post-traumatic stress disorder (PTSD) is a mental health condition that can develop after experiencing or witnessing a traumatic event, such as a natural disaster, a serious accident, a terrorist act, war/combat, or sexual assault (Turton et al., 2001; Koven, 2021). These experiences may harm an individual's emotional, physical, or mental health, threaten their life, and potentially affect their mental, physical, social, or spiritual well-being. The core symptoms of PTSD include; a) intrusive thoughts or flashbacks related to the traumatic event,

b) avoidance of stimuli associated with the trauma. c) negative changes in cognition and mood, and d) hyper-arousal and increased physiological reactivity. PTSD is distinguished from other anxiety disorders by the direct link between the symptoms and a specific traumatic experience (Turton et al., 2001; Koven, 2021). The disorder can significantly impair an individual's daily functioning and quality of life (Turton et al., 2001; Koven, 2021).

Trauma can affect anyone, regardless of background or age (Barbieri et al., 2019). This includes combat veterans, individuals who have experienced or witnessed physical or sexual assault, abuse, accidents, disasters, terrorist attacks, or other serious incidents. It also encompasses trauma affecting people close to them, such as family members or close friends (Post-Traumatic Stress Disorder, n.d.). Trauma survivors often struggle with adapting to and overcoming the memory of the traumatic event (Geshina & Nadiah, 2015). However, PTSD symptoms vary among individual; for some, symptoms manifest immediately after the traumatic event, while for others, it may take days, months, or even years (Mu et al., 2020).

According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), published in 2013, there are eight primary criteria for diagnosing PTSD, each accompanied by sub-criteria. These criteria assist psychiatrists in diagnosing and providing appropriate treatment to individuals suffering from PTSD. Accurate assessment and measurement of PTSD symptoms is crucial for diagnosis, treatment planning, and monitoring of progress (Thabet et al., 2013; Lauvrud et al., 2009; Solmi et al., 2014). Several validated assessment tools have been developed, such as the PTSD Checklist (PCL) (Lauvrud et al., 2009), the Primary Care PTSD (PC-PTSD) scale (Solmi et al., 2014), and the PTSD Symptom Scale-Self Report (Hien et al., 2010). These tools have demonstrated strong psychometric properties and can help clinicians distinguish PTSD from other mental health conditions (Thabet er al., 2013; Lauvrud et al., 2009; Solmi et al., 2014).

Although traumatic experiences can result in various mental health issues, post-traumatic stress disorder (PTSD) remains the most widely recognized condition associated with trauma. Despite its prevalence, PTSD is often under diagnosed and untreated, making it one of the most overlooked anxiety disorders. Enhancing the identification of individuals experiencing PTSD is essential in mitigating the psychological and health-related challenges they face. The development of a concise and comprehensible screening instrument is critical in facilitating the early detection of PTSD symptoms (Syed Jaapar et al., 2014). Hence, this study aims to develop and to contribute to the existing PTSD screening tools that is psychometrically valid and reliable tailored for the local adult population to assess the likelihood of PTSD symptoms among individuals who have experienced traumatic events in their lives.

Background of PTSD-Q

The Post-Traumatic Stress Disorder Questionnaire (PTSD-Q) is developed as a preliminary screening tool to identify individuals who may have been exposed to traumatic events and are experiencing related disturbances. This instrument is suitable for individuals aged 18 to 50 years. Content validation of the PTSD-Q involved the Content Validation Index (CVI) and consultation with field experts, including psychology officers and lecturers specializing in psychology and counseling.

Individuals with post-traumatic stress disorder (PTSD) may exhibit symptoms such as distressing nightmares, flashbacks, and strong emotional reactions when reminded of the event. If untreated, PTSD can significantly impair an individual's functioning. According to the Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-V), the diagnostic criteria for PTSD are:

a) Involvement in traumatic events: Directly experiencing or witnessing a traumatic event or situation.
b) Intrusive thoughts: Disturbing thoughts or images, including flashbacks and nightmares related to the traumatic event.
c) Avoidance: Efforts to avoid situations, emotions, or thoughts associated with the trauma.
d) Negative changes: Significant alterations such as low mood or negative self-perceptions.
e) Psychological disturbance: Marked changes in reactions and responses to trauma-related triggers.
f) Duration of disturbance: Symptoms persisting for more than one month, involving criteria b, c, d, and e.
g) Social impairment: Clinically significant disruptions or deterioration in social, occupational, or other vital life functions.
h) Physical fatigue: Persistent physical exhaustion not attributable to substances (e.g., medication, alcohol) or medical conditions.

The PTSD-Q serves as an essential screening tool for identifying individuals at risk of PTSD. It functions as an early diagnostic aid, systematically detecting PTSD symptoms, particularly among populations exposed to traumatic events, such as disaster victims, survivors of violence, or accident casualties.

Literature Review

Researchers worldwide have extensively studied post-traumatic stress disorder (PTSD) since the American Psychiatric Association (APA) first introduced the concept in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-III)* in 1980 (Yang, Wang, & Lou, 2015). Over time, the understanding of PTSD, including its structure, causes, and effects, has advanced significantly. PTSD is widely recognized as a mental disorder that develops after experiencing or witnessing a major catastrophic event (Tian, Wu, Chen, & Wang, 2019). However, PTSD is not limited to natural disasters or armed conflicts; various traumatic events encountered in daily life can also lead to stress disorders of varying severity. Identifying individuals who have undergone traumatic experiences and are likely to develop PTSD efficiently remains a critical concern.

PTSD is a common and debilitating mental health condition globally. Systematic reviews have found that the age-standardized global prevalence of PTSD ranges from 3.9% to 4.4% (Haagen et al., 2016). PTSD is particularly prevalent among high-risk populations, such as military veterans, refugees, and survivors of natural disasters or violent crimes (Haagen et al., 2016; Blanco et al., 2013; Hebenstreit et al., 2015). Research has also examined the impact of the COVID-19 pandemic on PTSD, with studies reporting elevated levels of PTSD symptoms among various populations, including healthcare workers and the general public (Johns et al., 2022; Saeed et al., 2022; Lee & Crunck, 2020). Factors such as job related stress, lack of resources, and fear of infecting family members have been associated with increased PTSD

risk during the pandemic (Saeed et al., 2022). There is limited research on PTSD specifically conducted in Malaysia. However, studies on the broader topic of mental health in Malaysia have found significant burden of anxiety disorders, including PTSD, in the population (Maideen et al., 2015; Quek et al., 2019).

Recent studies, such as those by Fullerton et al. (2000), examined the performance of PTSD screening instruments with 4, 6, and 12 items. These instruments required respondents to rate the frequency or severity of several core symptoms outlined in DSM-III-R (APA, 1987) and DSM-IV (APA, 1994). These shorter instruments demonstrated promising results comparable to the 17-item measure by Meltzer-Brody et al. (1999), although none have been validated in independent samples. The study highlighted the need for efficient and reliable tools for early PTSD identification. The most commonly used tools to measure PTSD include the *Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)* and the *PTSD Checklist for DSM-5 (PCL-5)*. CAPS-5 is regarded as the gold standard for PTSD assessment by psychiatrists, but it is resource-intensive and requires rigorous training for assessors. In contrast, PCL-5 is a self-report tool introduced by the APA in 2013 as an update to earlier versions (PCL-C and PCL-M for DSM-IV). PCL-5 has been extensively validated across diverse populations for its reliability and effectiveness.

Globally, studies have validated the use of PTSD instruments in various settings. For instance, Orovou et al. (2021) translated the PCL-5 into Greek to diagnose PTSD among postpartum women undergoing Caesarean sections, reporting excellent internal consistency with a Cronbach's alpha of .97. Similarly, Jiménez-Fernández et al. (2024) validated the Spanish-translated PCL-5 among nurses in Spain, achieving high internal consistency scores of 0.929 and 0.935 across test and retest phases. Another study by Aydin Avci et al. (2024) developed a 36-item instrument to measure trauma exposure among immigrants post-migration. This tool assessed psychological effects, somatization, anxiety, and social adjustment, with Cronbach's alpha for sub-dimensions ranging from 0.586 to 0.943.

In Malaysia, efforts to validate PTSD instruments have also been documented. Salleh et al. (2020) validated the Malay-translated PCL among firefighters, reporting an overall internal consistency reliability of 0.960, with individual constructs ranging from 0.827 to 0.926. Another study by Tan et al. (2023) translated the LEC-5 (*Life Events Checklist for DSM-5*) into Malay and confirmed its validity and reliability in screening traumatic events among undergraduate students. These studies demonstrate the applicability of global PTSD instruments within the Malaysian context. Despite advancements in validation studies, research on reliability and validity across diverse populations remains limited (Salleh et al., 2020). In Malaysia, the development, validation, and reliability testing of instruments specifically designed to screen for early PTSD symptoms remain sparse, particularly among larger populations such as the general adult demographic. This gap highlights the need for further research to create culturally relevant and psychometrically robust tools for broader application.

Significance of PTSD-Q
A further study on PTSD among adults in Malaysia is crucial in enhancing the understanding of this disorder. This research will not only provide deeper insights into PTSD but also assist mental health practitioners in Malaysia in improving treatment methods and interventions

that are appropriate within the local context. Thus, this study is essential as it provides knowledge on how PTSD symptoms may vary among individuals, allowing treatments to be tailored according to their specific needs. Furthermore, this study is expected to be widely utilized in supporting individuals who may be experiencing early symptoms of PTSD by facilitating early treatment and social support. Therefore, the development of Post-Traumatic Stress Disorder Questionnaire (PTSD-Q) is significant in order to provide early assessment of PTSD among Malaysian adults.

1. Early detection and intervention
   Early screening allows for the identification of individuals experiencing PTSD in its initial stages. This provides an opportunity for immediate intervention, such as counseling or therapy, which can help reduce symptom severity. Early treatment not only increases the effectiveness of interventions but also enables individuals to recover more quickly, improving their long-term prognosis.

2. Prevention of complications
   Without proper treatment, PTSD can lead to serious complications, including depression, other anxiety disorders, or substance abuse. Additionally, individuals with undiagnosed PTSD may face an increased risk of physical health issues due to chronic stress, such as cardiovascular problems. Early detection through screening helps prevent the development of these complications and promotes better overall well-being.

3. Allocation of mental health resources
   By identifying individuals in need of assistance, mental health resources can be distributed more effectively, ensuring that those who require support receive it promptly. This strategic allocation is essential for maximizing the impact of available healthcare services.

4. Improvement in quality of life
   Early treatment can help individuals manage PTSD symptoms, enabling them to lead more productive and fulfilling lives. Addressing PTSD in its early stages provides individuals with the tools they need to overcome challenges associated with the condition, fostering resilience and promoting personal growth.

Theoretical framework of PTSD-Q
The PTSD-Q was developed based on the fundamental principles outlined by the American Psychiatric Association (APA) in the fourth edition of Diagnostic and Statistical Manual of Mental Disorder (DSM-IV). Post-traumatic stress disorder (PTSD) is a mental health condition that can affect individuals who have experienced or witnessed traumatic events such as natural disasters, accidents, war, sexual assault, or other tragic incidents. PTSD can impact anyone, regardless of age. Chronic PTSD often co-occurs with mood disorders, anxiety, and substance abuse. It is highly sensitive to environmental factors, particularly new traumatic events and life stressors. Early screening for PTSD is crucial to identifying the condition, enabling timely and appropriate interventions to help individuals function effectively and reduce the long-term impact of the trauma experienced. The PTSD-Q screening tool provides a systematic and objective approach to identifying PTSD symptoms. According to the DSM-V, PTSD diagnostic criteria include:

a) Involvement in traumatic events: Directly experiencing or witnessing a traumatic event or situation.
b) Intrusive thoughts: Disturbing thoughts or images, including flashbacks and nightmares related to the traumatic event.
c) Avoidance: Efforts to avoid situations, emotions, or thoughts associated with the trauma.
d) Negative changes: Significant alterations such as low mood or negative self-perceptions.
e) Psychological disturbance: Marked changes in reactions and responses to trauma-related triggers.
f) Duration of disturbance: Symptoms persisting for more than one month, involving criteria b, c, d, and e.
g) Social impairment: Clinically significant disruptions or deterioration in social, occupational, or other vital life functions.
h) Physical fatigue: Persistent physical exhaustion not attributable to substances (e.g., medication, alcohol) or medical conditions.

These instruments include questionnaires that allow individuals to self-report symptoms related to past traumatic events. In this context, the instrument functions as a tool to organize and evaluate symptoms in standardized manner, adhering to the criteria outlined in the DSM-V. this minimized the likelihood of subjective and potentially inaccurate evaluations. Furthermore, PTSD-Q serves as an initial screening tool that distinguishes between PTSD symptoms and other mental health conditions with overlapping symptoms. In many cases, individuals who have experienced trauma may also display symptoms of generalized anxiety disorder, depression, or adjustment disorders. Therefore, this instrument helps provide preliminary information essential for accurate diagnosis, distinguishing PTSD from other disorders that require direct treatment approaches.

Objectives of Study
The primary objective of this study is to assess the prevalence and severity of post-traumatic stress disorder (PTSD) among Malaysian adults. Research on PTSD inventories is increasingly critical, given the rising number of Malaysians experiencing mental health challenges. This study also aims to evaluate the reliability and validity of the PTSD-Q tool within the Malaysian cultural context to ensure its suitability. The specific objectives include:

i. To construct the PTSD-Q items based on literature reviews.
ii. To establish the overall content validity of the PTSD-Q through panel experts evaluations.
iii. To determine the subscales content validity of the PTSD-Q through panel experts evaluations.
iv. To assess the overall reliability of the PTSD-Q using Cronbach's Alpha analysis.
v. To evaluate the reliability of the PTSD-Q subscales using Cronbach's Alpha analysis.

Administration, Scoring and Interpretation of the PTSD-Q
The Post-Traumatic Stress Disorder Questionnaire (PTSD-Q) is constructed as a screening tool to identify early symptoms of PTSD among Malaysian adults. Comprising 16 items divided into eight subscales (two items per subscale), the PTSD-Q facilitates systematic identification of PTSD symptoms. Proper administration, scoring, and interpretation of the PTSD-Q are essential to ensure accurate results.

1. Administration

The PTSD-Q should be administered by qualified professionals, such as counselors or psychologists. Clear instructions must be provided to respondents on how to answer each item. The questionnaire can be presented in paper-based or digital formats, depending on available resources and the respondent's preference. Completing the PTSD-Q typically requires 10 to 12 minutes. The environment for completing the questionnaire should be comfortable and conducive to thoughtful responses. Before beginning, detailed instructions are read aloud to ensure respondents understand the process. They are encouraged to respond honestly, marking the option that best reflects their experiences. Answers are recorded using a 3-point Likert scale, where respondents choose 'Never', 'Rarely', or 'Often'. Responses can be marked on a provided sheet for paper-based versions or selected digitally, for example, using a Google Form.

2. Scoring

Each items is rated on a 3-point Likert scale where; 0 = Never, 1 = Rarely, and 2 = Often. The scores for each subscale – Trauma involvement, Intrusive thoughts, Avoidance, Negative changes, Psychological disturbances, Duration of disturbances, Social impairment, and Physical fatigue – are calculated individually. These subscales are then summed to yield a total score.

3. Interpretation

Interpreting PTSD-Q scores involves analyzing subscale and total scores to determine symptom of severity. High subscale scores indicate significant early symptoms of specific PTSD dimensions, such as severe intrusive thoughts or negative cognitive changes. The PTSD-Q categorized total scores into three levels:

- Low: Scores between 0 and 10
- Moderate: Scores between 11 and 21
- High: Scores between 22 and 32

These cut-off points indicate whether early PTSD symptoms are mild, moderate, or severe. This allows professionals to recommend appropriate interventions or treatment plans. Accurate interpretation of PTSD-Q scores is crucial in identifying individuals who may require further psychological assessment or intervention. It raises awareness about the presence and impact of early PTSD symptoms, helping individuals address them promptly and effectively.

Methodology

This study adopts a descriptive research design, aimed at assessing the content validity and reliability of the PTSD-Q, which was developed based on past literatures. The research is divided into three phases:

Phase 1: Construction of the PTSD-Q

The construction of the PTSD-Q was guided by an extensive literature review and theoretical principles derived from previous research. The instrument design is informed by the guidelines outlined in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), published by the American Psychiatric Association (APA). According to Noah (2005), any measurement tool must have clear and specific objectives. The constructs measured by

the instrument provide a clear direction for its development and ensure a comprehensive framework.

Phase 2: Content Validation

After the PTSD-Q items were developed, the inventory was distributed to 11 selected panel experts for review and evaluation of its content accuracy. The panel consisted of 11 experts; 2 specialist doctors, 5 psychology officers, and 4 academic lecturers. These experts assessed the PTSD-Q to ensure content validity. The researcher provided the complete PTSD-Q instrument, including an introduction to the study and a manual, to collect feedback and suggestions for improvement. A 5-point Likert scale was employed for evaluation, ranging from 1 (highly inappropriate) to 5 (highly appropriate).

Phase 3: Reliability Analysis

The third phase aimed to evaluate the reliability of the PTSD-Q. Once content validity was established, the PTSD-Q was administered to 58 respondents selected through simple random sampling. The data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 23 to calculate Cronbach's Alpha, which assesses the reliability of the instrument.

Sample and Sampling

Respondents were involved in Phase 2 and Phase 3 of the study:

- Phase 2: Content validation involved 11 panel experts who evaluated the PTSD-Q for content validity.
- Phase 3: Reliability testing included 58 respondents aged between 18 and 50, selected to provide data on the PTSD-Q's reliability.

This phased approach ensures a systematic evaluation of both the validity and reliability of the PTSD-Q, allowing it to serve as an effective tool for early screening of PTSD symptoms.

Findings

Phase 1: Construction of the PTSD-Q

The construction of the PTSD-Q was grounded in a thorough literature review on the definition, factors, and symptoms of post-traumatic stress disorder (PTSD). Reference materials included a range of articles and journals, both local and international. Consequently, the PTSD-Q was designed with 16 items distributed across eight subscales, aligning with the criteria outlined in the DSM-V.

Phase 2: Content validation

The content validity of the PTSD-Q was assessed by a panel of eleven experts, consistent with the recommendations of Darusalam and Hussin (2018), who suggest involving at least four or five experts to provide feedback on the constructs and item indicators in a given instrument. Eleven expert reviewers were identified to evaluate and validate the items in the PTSD-Q. All comments and suggestions from the experts were documented and reviewed by the researcher to improve the assessment tool, ensuring that the items were both appropriate and accurately measured the intended constructs. The details of the experts' feedback and proposed improvements are summarized in Table 1.

Table 1
Feedback and Suggestions for Improvements to PTSD-Q items (n = 11)

Panel expert	Feedback/suggestions for improvement	Justification
Expert 1	The use of language style in English that is more easily understood.	The use of bilanguage is applied
Expert 2	No comment	
Expert 3	No comment	
Expert 4	No comment	
Expert 5	Overall the questionnaire is appropriate.	
Expert 6	No comment	
Expert 7	The phrasing and word choice in the instrument are overall very good and easy to understand. However, some items could be improved by using terms that are more appropriate and convey the intended meaning.	To review and improve the wording of certain items to ensure clarity and ease of understanding.
Expert 8	Overall, the content of the questionnaire is very good. However, certain items could be revised to make their intended meaning clearer.	To refine sentence structure for items identified as needing improvement.
Expert 9	No comment	
Expert 10	No comment	
Expert 11	Retained the original questions as the inventory aims to assess early PTSD symptoms in adults more generally. However, revisions to the wording of specific items were made.	To maintain the purpose of the assessment tool while improving item clarity for better comprehension.

The table above summarizes the feedback and suggestions for improvements to the overall items of the PTSD-Q provided by 11 experts. Based on Table 1, experts emphasized the importance of clarity and appropriateness in phrasing. The suggested improvements focused on refining the wording and structure of certain items to enhance their accuracy and comprehensibility. Following this feedback, revisions were made to ensure that the PTSD-Q effectively captures early PTSD symptoms while remaining user-friendly and relevant. Overall, the panel of experts agreed that the content of this inventory aligns well with the intended concept of measuring early symptoms of PTSD among individuals.

Table 2
Content Validity Assessment

Panel expert	Content Validity value (%)	Expert remarks
Expert 1	85.00	Accepted
Expert 2	93.75	Accepted
Expert 3	95.00	Accepted
Expert 4	92.50	Accepted
Expert 5	95.00	Accepted
Expert 6	95.00	Accepted
Expert 7	82.50	Accepted
Expert 8	97.50	Accepted
Expert 9	96.25	Accepted
Expert 10	80.00	Accepted
Expert 11	71.25	Accepted

Based on Table 2, the content validity of the PTSD-Q was assessed using the formula proposed by Jamaludin Ahmad (2008). The calculation method for content validity is as follows:

$$\text{Content validity value (\%)} = \frac{\text{Total score by expert}}{\text{Maximum possible score}} \times 100$$

The results in Table 2 indicated that, overall, the content validity scores for the 11 experts involved were high. Only one expert had a content validity value of 71.25%. However, according to Tuckman and Waheed (1981) and Abu Bakar Nordin (1995), a good level of content validity is achieved with a minimum score of 70.00%, which is considered high. Therefore, the overall expert opinion on the PTSD-Q is that it is valid and accepted. The researcher evaluated the item-level content validity index (I-CVI) for each item in the PTSD-Q to determine the level of face and content validity value among the experts. Table 3 presents the results of the I-CVI analysis:

Table 3
Content Validity Index

Subscale	Item	Number of agreement	I-CVI
Involvement in traumatic event	*Saya terlibat secara langsung dengan perkara yang menyebabkan trauma.* (I was directly involved in the traumatic event.)	10	.90
	Saya menyaksikan peristiwa traumatik yang berlaku kepada orang terdekat menyebabkan trauma pada diri sendiri. (I witnessed a traumatic event involving someone close to me, causing personal trauma.)	9	.81
Intrusive thoughts	*Saya sering bermimpi buruk tentang pengalaman pahit yang berlaku.* (I frequently have nightmares about the painful experiences.)	10	.90
	Saya sering merasakan seolah-olah pengalaman pahit yang berlaku berulang kembali. (I often feel the painful experience is happening again.)	11	1.00
Avoidance	*Saya mengelak daripada emosi yang mengingatkan kepada pengalaman pahit.*	10	.90

	(I avoid emotion that reminds me the painful experience.)		
	Saya mengelak daripada apa-apa situasi yang mengingatkan kepada pengalaman pahit. (I avoid situations that reminds me the painful experience.)	11	1.00
Negative changes	*Saya hilang minat terhadap perkara yang saya suka lakukan sebelum ini.* (I lost interest in activities I used to enjoy.)	10	.90
	Saya merasakan semua perkara buruk yang telah berlaku adalah berpunca daripada diri saya. (I feel all the bad events that occurred are my fault.)	10	.90
Psychological disturbance	*Saya sukar tidur selepas peristiwa trauma itu.* (I find it hard to sleep after the traumatic event.)	11	1.00
	Saya sering merasa marah terhadap semua yang berlaku di sekeliling saya. (I often feel angry about everything happening around me.)	11	1.00
Duration of disturbance	*Saya sering terganggu dengan situasi buruk yang berlaku sejak satu bulan lepas.* (I have been disturbed by the painful experience for the past month.)	11	1.00
	Saya mengelak daripada aktiviti sosial sejak satu bulan lepas. (I have avoided social activities for the past month.)	11	1.00
Social impairment	*Saya takut datang ke tempat kerja/tempat pengajian.* (I am afraid to go to work or school.)	9	.81
	Saya takut berjumpa dengan orang di tempat kerja/tempat pengajian. (I am afraid to meet people at work or school.)	9	.81
Physical fatigue	*Saya sering berasa letih walaupun tidak melakukan aktiviti fizikal.* (I often feel tired even without engaging in physical activities.)	11	1.00
	Saya tidak bermaya untuk dating ke tempat kerja/tempat pengajian. (I lack the energy to go to work or school.)	10	.90

Based on Table 3, the average Content Validation Index (I-CVI) for each item in the PTSD-Q ranges from .81 to 1.00, indicating a high level of content validity across all items. According to Lynn (1986), the minimum acceptable CVI value for instruments reviewed by 11 experts is ≥ .78. Additionally, the overall S-CVI for the PTSD-Q inventory is .81, meeting the validity standards outlined by Lynn (1988) for instruments deemed suitable for research purposes. The content validity of the PTSD-Q meets the established criteria, demonstrating its suitability for distribution to adult respondents. This assessment tool is capable of identifying early PTSD symptoms resulting from traumatic events that individuals may have experienced. These findings confirmed the instrument's accuracy in measuring the intended construct.

Phase 3: Reliability Analysis

Reliability analysis was conducted by the researcher to ensure that the PTSD-Q demonstrates good internal consistency and reliably measures the intended constructs. According to

Kerlinger (1979), a questionnaire is considered to have good reliability if the Cronbach's Alpha (α) value exceeds .60 at a .05 significance level, thus making it a reliable assessment. For this study, the **Statistical Package for the Social Sciences (SPSS)** was utilized to analyze the reliability of all eight subscales and the overall inventory for the PTSD-Q items.

Table 4
Reliability of overall scale and subscales

Scale/Subscale	No. of items	Cronbach's Alpha (α)
Subscale 1: Involvement in traumatic events	2	.716
Subscale 2: Intrusive thoughts	2	.830
Subscale 3: Avoidance	2	.900
Subscale 4: Negative changes	2	.585
Subscale 5: Psychological disturbance	2	.578
Subscale 6: Duration of disturbance	2	.573
Subscale 7: Social impairment	2	..874
Subscale 8: Physical fatigue	2	.854
Overall PTSD-Q	16	.930

Significance level: .50

Based on Table 4, the analysis conducted using SPSS revealed that the **Cronbach's Alpha (α)** value for the overall scale was **.921**, indicating a very high level of internal consistency across all measurements. For individual dimensions, the **Cronbach's Alpha (α)** coefficients ranged from **.573 to .900**. This suggests that while the overall inventory demonstrates excellent reliability, some dimensions show varying levels of internal consistency.

Table 5
Reliability of PTSD-Q items

No.	Item	Cronbach's Alpha	Interpretation
1.	*Saya terlibat secara langsung dengan perkara yang menyebabkan trauma.* (I was directly involved in the traumatic event.)	.915	High
2.	*Saya menyaksikan peristiwa traumatik yang berlaku kepada orang terdekat menyebabkan trauma pada diri sendiri.* (I witnessed a traumatic event involving someone close to me, causing personal trauma.)	.916	High
3.	*Saya sering bermimpi buruk tentang pengalaman pahit yang berlaku.* (I frequently have nightmares about the painful experiences.)	.916	High
4.	*Saya sering merasakan seolah-olah pengalaman pahit yang berlaku berulang kembali.* (I often feel the painful experience is happening again.)	.913	High
5.	*Saya mengelak daripada emosi yang mengingatkan kepada pengalaman pahit.* (I avoid emotion that reminds me the painful experience.)	.916	High

6.	*Saya mengelak daripada apa-apa situasi yang mengingatkan kepada pengalaman pahit.* (I avoid situations that reminds me the painful experience.)	.916	High
7.	*Saya hilang minat terhadap perkara yang saya suka lakukan sebelum ini.* (I lost interest in activities I used to enjoy.)	.920	High
8.	*Saya merasakan semua perkara buruk yang telah berlaku adalah berpunca daripada diri saya.* (I feel all the bad events that occurred are my fault.)	.918	High
9.	*Saya sukar tidur selepas peristiwa trauma itu.* (I find it hard to sleep after the traumatic event.)	.914	High
10.	*Saya sering merasa marah terhadap semua yang berlaku di sekeliling saya.* (I often feel angry about everything happening around me.)	.918	High
11.	*Saya sering terganggu dengan situasi buruk yang berlaku sejak satu bulan lepas.* (I have been disturbed by the painful experience for the past month.)	.913	High
12.	*Saya mengelak daripada aktiviti sosial sejak satu bulan lepas.* (I have avoided social activities for the past month.)	.917	High
13.	*Saya takut datang ke tempat kerja/tempat pengajian.* (I am afraid to go to work or school.)	.918	High
14.	*Saya takut berjumpa dengan orang di tempat kerja/tempat pengajian.* (I am afraid to meet people at work or school.)	.917	High
15.	*Saya sering berasa letih walaupun tidak melakukan aktiviti fizikal.* (I often feel tired even without engaging in physical activities.)	.915	High
16.	*Saya tidak bermaya untuk dating ke tempat kerja/tempat pengajian.* (I lack the energy to go to work or school.)	.915	High

*significance level: .50

The study found that the **PTSD-Q** is valid and reliable for assessing the early symptoms of PTSD among adults. Overall, the results demonstrate high levels of validity and reliability, with **Cronbach's alpha values** for each item ranging from **.913 to .920**, confirming that this inventory is suitable for use in Malaysia. It holds potential to be used as a reference or research tool for more in-depth and extensive studies in the future.

Discussion and Recommendation

This study was conducted to construct an assessment tool to detect early presence of PTSD symptoms among Malaysian adults. The analysis results from this study also showed high content validity,. as assessed by 11 selected experts, with percentages ranging from 71.25% to 97.50%, and a high Content Validity Index (CVI) of ≥ .78. this aligns with suggestions from previous researchers such as Sidek (2005) and Majid (1998), who stated that instruments with high validity are suitable for use and implementation. The content validity of an instrument

depends on the scope and objectives of the study being conducted. The findings also indicated that the PTSD-Q possesses high reliability, with a Cronbach's Alpha value of .93, reflecting very high internal consistency (Nunnaly & Bernstein, 1994). Based on this reliability coefficient, the questionnaire is consistent and suitable for use.

Additionally, the results of this study are expected to contribute to stakeholders, particularly in the field of psychology and counseling in Malaysia, in identifying adults who show early signs of post-traumatic stress disorder. Without early screening, individuals may not recognize the presence of PTSD in themselves, which could lead to other mental health issues such as depression, anxiety, and extreme stress (Abdul Azis et al., 2024). The findings demonstrating the high validity and reliability of PTSD-Q strengthen its suitability for use by counselors and counseling practitioners in various counseling situations. This confirms the effectiveness of the PTSD-Q in assessing the early stages of PTSD in individuals.

The COVID-19 pandemic is a traumatic event with the potential to trigger mental health conditions, including post-traumatic stress disorder. In the latest Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V), the definition of trauma has been updated to include experiences involving actual or threatened death, severe injury, or sexual violence (Tamizi et al., 2024). Post-COVID-19, PTSD has garnered attention from researchers in the mental health field. The pandemic, which created uncertainty, fear, and threats to life, has had profound effects on individuals involved, either directly or indirectly, with long-term psychological impacts that may result from such experience (Mohd Noor et al., 2023). Therefore, further research should be conducted by future researchers to perform more detailed statistical analyses of the items in the PTSD-Q. This aims to produce a more efficient and stable version of the assessment tool. Given the high reliability of the PTSD-Q, it is recommended that future studies include a broader spectrum of the population, rather than limiting the study to specific groups.

Conclusion
Overall, this study successfully developed the PTSD-Q inventory for post-traumatic stress disorder (PTSD), grounded in the principles outlined by the American Psychiatric Association (APA) in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Each item within the PTSD-Q demonstrated high validity and reliability scores, confirming its effectiveness in assessing PTSD levels based on the symptoms experienced by individuals. This highlights the PTSD-Q's potential as a robust tool for early detection and evaluation of PTSD symptoms, making it valuable for research, clinical assessments, and interventions.

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