An-Najah National University

Faculty of Graduate Studies

PSYCHOMETRIC PROPERTIES AND FACTORIAL STRUCTURE OF CROSS-CUTTING SYMPTOM MEASURE IN THE ARABIC LANGUAGE WITHIN THE PALESTINIAN CONTEXT

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Dedication

I dedicate this thesis to my parents, whose unwavering support and encouragement have been the foundation of my academic journey. To my betrothed, who has been my rock and a constant source of love and inspiration. To my friend, who has been a true companion on this journey and provided invaluable support and guidance. To my late grandpa, who may not be physically present, but his guidance and wisdom have always been a guiding light in my life. Moreover, I dedicate it to my siblings, who have been my constant support and inspiration throughout my life. Your love and encouragement have been invaluable in helping me reach this accomplishment. This thesis would not have been possible without every one of you. Thank you for believing in me and for being a part of my life.

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I wish to thank my committee members, who were generous with their expertise and precious time.

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Declaration

I, the undersigned, declare that I submitted the thesis entitled:

PSYCHOMETRIC PROPERTIES AND FACTORIAL STRUCTURE OF CROSS-CUTTING SYMPTOM MEASURE IN THE ARABIC LANGUAGE WITHIN THE PALESTINIAN CONTEXT

I declare that the work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name Khalil Ameen Isawi

Signature 

Date 19/07/2023

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PSYCHOMETRIC PROPERTIES AND FACTORIAL STRUCTURE OF CROSS-CUTTING SYMPTOM MEASURE IN THE ARABIC LANGUAGE WITHIN THE PALESTINIAN CONTEXT

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Abstract

This study investigates the psychometric characteristics and factorial structure of the Cross-Cutting Symptom Measure in the Palestinian context. A number of symptoms, including depression, mania, anger, anxiety, somatic symptoms, suicidal thoughts, psychosis, memory problems, repetitive behaviors and thoughts dissociations, personality functioning, and drug use, are all measured by the Cross-Cutting Symptom Measure, which is an international Measure. This measure has been translated into Arabic in order to fit and be used in the Palestinian context. The research sample comprised of 2,000 Palestinian individuals residing in the occupied Palestinian territories and the West Bank. Participants varied in age from 11 to 17 y.o. Research data was collected via Internet, ads, e-mail campaigns, blogs, social media and SMS marketing. It is worth mentioning that this Measure has proved to be applicable to and successful in such a Palestinian context. The research findings suggested that the Cross-Cutting Symptom Measure consists of six components, with exploratory factor analysis settling the scale on (25) items and confirmatory factor analysis yielding six factors. In the Palestinian setting, the Cross-Cutting Symptom Scale revealed excellent levels of validity and reliability. Consequently, it might be regarded as the Cross-Cutting Symptom Measure for future research. Future research using the Arabic Language of Cross-Cutting Symptom Measure may have far-reaching effects for assessing and battling disorders on a personal and societal level for groups particularly at risk, such as those in the occupied Palestinian territories.

Keywords: Cross-Cutting Symptom Measure; Palestine; Test validation.

Chapter One

Theoretical framework and previous studies

1.1 Introduction

The American Psychiatric Association (APA) created the DSM-5 Level 1 Cross-Cutting Symptom Measures (commonly known as DSM-XC) as a transdiagnostic mental health symptom measure (adult, child, and parent versions). It was designed in response to suggestions that the DSM-5 should contain dimensional assessments instead of the tight category diagnoses that were previously applied (Jones, 2013). The adult assessment consists of 23 self-report items that span 12 cross-diagnostic psychopathology categories, such as depression, mania, anxiety, somatic symptoms, suicidal ideation, psychosis, memory loss, repetitive thoughts and behaviors, dissociations, personality functioning, and drug use. These categories include depression, mania, anxiety, somatic symptoms, and suicidal ideation. The following conditions fall under these categories: melancholy, mania, anxiety, somatic symptoms, thoughts of suicide, and psychosis (Narrow, Clarke, Kuramoto, Kraemer, Kupfer & Greiner, 2013). The scale was designed to be used in combination with clinical diagnostic examinations and to provide practitioners of medicine with a way to keep track of the frequency, recurrence, and severity of common mental symptoms (Clarke & Kuhl, 2014). (Clarke & Kuhl, 2014). Earlier in the research process, the measure was investigated while routinely used in clinical practice. According to (Mościcki, Clarke, Kuramoto, Kraemer, Narrow & Kupfer, 2013), it was discovered to be therapeutically effective and well-liked by both patients and medical professionals. In addition to this, it has been recommended for use in clinical studies (NOT-MH, 2021).

The DSM-5 scale is utilized by psychologists in Palestine, which may not be compatible with many situations in society owing to the cultural, ideological, and religious variances across cultures. The adult measure covers 12 cross-diagnostic psychopathologies, including depression, anger, mania, anxiety, somatic symptoms, suicidal ideation, psychosis, sleep disorders, memory, repetitive behaviors and thoughts, dissociations, personality functioning, and substance use. This scale was created to assist physicians and psychologists in monitoring the existence, frequency,

and severity of cross-cutting mental symptoms and to guide clinical diagnostic assessments (Clarke & Kuhl, 2014) .

During its field testing in the DSM-5 trials, the scale showed good to excellent test-retest reliabilities (Narrow et al., 2013) and strong clinical utility from both the patient and clinician perspectives (Clarke & Kuhl, 2014). In the past two centuries, the scientific revolution provided a stable scientific basis for psychometrics that play a crucial role in modern society; thus, psychological scales became essential tools that help psychologists in diagnosis and various research (Galton, 1879).

In the late nineteenth and early twentieth centuries, the scientific revolution provided a stable basis for psychometrics. Psychometrics play a crucial role in modern society, and psychological scales are important tools that help psychologists in the diagnosis process and various research.

As a result of the importance of psychological measures, it is necessary to provide appropriate psychological measures for different societies. Each community has its own culture, customs, and traditions. Because of the differences between societies, the psychological measurement for one community is not necessarily valid in another (Christopher, Mushquash, & Dana, 2007).

It is crucial to verify the psychometric properties of psychological scales in the society in which they are applied. Several studies have been conducted worldwide to validate the Cross-Cutting Symptom scale in different contexts. The Indian version of the DSM-5's cross-cutting symptom measure was recently validated (Goel & Kataria, 2018). This research assesses the psychometric features of an Indian translation of the DSM-5 Level 1 Cross-Cutting Symptom Scale, originally developed in English. The research found that the measure's Indian translation had high levels of reliability across a variety of measures of validity and reliability, including cross-language concordance, internal consistency, split-half reliability, and test-retest. Thus, the translated DSM-5 Level 1 Cross-Cutting Symptom Measure used in this research in India is a reliable and relevant assessment tool.

The validity and reliability of the Turkish translation of the DSM-5 Level 1 Cross-cutting Symptom Scale were confirmed in a separate research (Sapmaz et al., 2016). Findings from this study corroborated the reliability and validity of the Turkish translation of the DSM-5 Level 1 Cross-Cutting Symptom Scale, suggesting its use in clinical practice and further investigation.

The psychometric properties of the cross-cutting symptom measure in Palestinian Arab society have not been validated. Thus this thesis is designed to examine the psychometric properties of the Cross-Cutting Symptom Measures in DSM-5 in the Palestinian context. It also explores the factorial structure of the instrument."

To achieve the study's goal, the scale was translated into Arabic and distributed to a sample of 1,000 Palestinian. The different psychometric properties of the scale and suitability for the Palestinian community were examined.

1.2 Theoretical Framework

For scientific investigation, there is a rising selection of questionnaires and other measuring instruments available, each of which may evaluate a different set of psychosocial characteristics in addition to a number of other health outcomes, clinical practice, and population health assessments now available. (Terwee, Bot, Boer, Windt, Knol & Dekker, 2007) Even though many tools have been developed, most of them have not been tested extensively. (Kosowski, McCarthy, Reavey, Scott, Wilkins & Cano, 2009).

The researcher should select an accurate instrument to ensure the quality of research results. Before utilizing the instruments, it is significant to understand them well – items, domains, assessment forms, and measurement features. The psychometric qualities of the instruments influence the quality of the information they offer, at least in part. (Roach, 2006).

Early studies show how addressing the criteria of validity and reliability. They help researchers decide whether to use the findings in their study field or a clinical setting. It is critical to note that reliability, as well as validity, are not constant characteristics.

They change based on the situation, demographic, research type, and aim (Petty, Briñol, Loersch, & McCaslin, 2009).

The DSM-5 Level 1 Cross-Cutting Symptom Measure is a self-report instrument of mental health dimensions relevant to psychiatric disorders. Its goal is to assist physicians in identifying new areas of investigation that might substantially influence a patient's treatment and prognosis. The measure can also track changes in a person's symptom presentation over time. (American Psychiatric Association, DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult, 2013).

The adult version of the questionnaire has 23 questions that evaluate 12 psychiatric categories, such as mood (depression, anger, mania, anxiety), body (somatic) symptoms, thoughts (suicidal ideation), psychosis (mental illness), sleep (insomnia), memory (repetitive thoughts and behaviors), dissociation (personality functioning), and substance use. The questions evaluate how severely (or often) a certain symptom has affected the respondent during the last two weeks. If the participant lacks the mental ability to fill out the form (for example, a person with dementia), a trusted adult or family member may take their place. During the DSM-5 Field Trials, conducted on adult clinical samples from the United States and Canada, it was determined that the measure was clinically relevant and had high test-retest reliability. (American Psychiatric Association, DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult, 2013).

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Several studies have been undertaken on the psychometric features of DSM-5, with Gibbons' (2021) study being one among them. This study aimed to investigate the psychometric features of the DSM-5 Level 1 Cross-Cutting Symptom Measure (DSM-

XC). The participants (n = 3,533) were enrolled in a National Institute of Mental Health procedure. They first conducted an exploratory factor analysis (EFA) to determine the optimal data solution. Next, they carried out a confirmatory factor analysis (CFAs). The suggested approach accommodates the measurement independence of age, gender, and calendar time. They discovered a six-factor solution derived from the EFAs that best fitted the data. Each element represents symptoms associated with a distinct psychopathology construct: mood, anxiety, activation, somatic, confusion, and substance use.

Gibbons aimed to analyze the factor structure of the DSM-XC in a sample of approximately 3,500 people involved in a National Institute of Mental Health Intramural Research Program protocol on the mental health effects of COVID-19. They identified a six-factor solution from our EFAs that best matched our data. Each element represents symptoms associated with a distinct psychopathology construct: mood, anxiety, activation, somatic, confusion, and drug use.

In addition, Shao-Jun (2021) studied the reliability and validity of the Chinese version of the Self-Rated Level 1 Cross-Cutting Symptom Measure (CCSM) from the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition in a group of patients on maintenance hemodialysis (MHD). The purpose of this study was to ascertain whether or not the CCSM is suitable for those who are experiencing psychological challenges. To test the reliability and validity of the CCSM-Chinese version's internal structure, a measurement model was constructed using structural equation modeling. This model was used to create the model. It was also meant to be compared to the Symptom Checklist-90 for Chinese translation (SCL-90). Throughout the first screening for psychological symptoms, eight of the thirteen categories that make up the CCSM were shown to be stable and valid.

Hardinge and College (2018) planned to assess the psychometric features of a Hindi translation of the DSM-5 Level 1 Cross-Cutting Symptom Scale, originally developed in English. The research demonstrates that the measure's Hindi translation has high dependability levels across many validity measures. As translated in this research, the Hindi version of the DSM-5 Level 1 Cross-Cutting Symptom Measure is valid.

In addition, Sapmaz (2016) validated the DSM-5 Level 1 Cross-cutting Symptom Scale (Child Form for 11–17 years and Parent Form for 6–17 years) in the Turkish version, and the research findings corroborated the validity of the scale. Two hundred forty-four parents and 320 teenagers comprising clinical and community samples were administered the scale. The DSM-5 Level 1 Cross-Cutting Symptom Scale in its Turkish translation was shown to be a viable and useful instrument for clinical treatment and research.

William (2013) aimed to record the creation, descriptive statistics, and test-retest reliability of symptom measures that cut across diagnostic categories and were recommended for inclusion in DSM-5, using patient populations ranging in age from adults to children. The test-retest reliability of cross-cutting symptom items was typically good to outstanding in adults. Seldom were parents unreliable in reporting their children's symptoms at the child and teen sites.

1.3 Psychiatric properties

Reliability

It incorporates coherence, stability, equivalence, and homogeneity within its overall framework. The capability to recreate the same result over time and place or from various witnesses is what we mean when discussing reliability. It is one of the most crucial aspects of instrument quality. (Terwee, et al., 2007).

Reliability and internal consistency are concepts used to define a measure's stability, internal consistency, and equivalence. (Martins, Sobre confiabilidade e validade, 2006) It is essential to remember that the reliability of a questionnaire is not a permanent attribute. On the other hand, reliability relies on the instrument's purpose. The reliability of an instrument depends on the population, context, and circumstances. (Keszei, Novak, & Streiner, 2010).

The reliability calculations are affected by raters, sampling methods, instrument type, administration technique, and statistical approach. (Roach, 2006) Consequently, The outcomes of a measurement-instrument-based study may only be evaluated if the

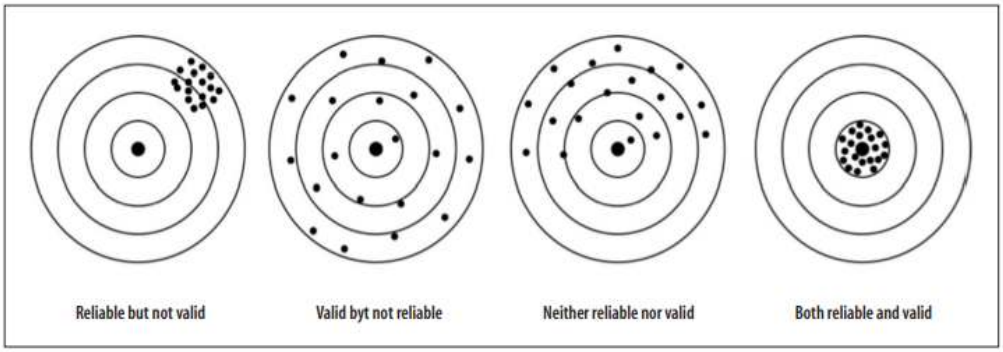
assessment circumstances and statistical technique are given explicitly. (Kottner, et al., 2011).

The term "reliability" relates to an instrument's capacity to be steady, consistent, and accurate. (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Artmed Editora.) The statistical methods used to determine dependability may differ depending on the goal of the measurement. (Keszei, Novak, & Streiner, 2010).

Figure 1 illustrates the possible connections that exist between validity and reliability. The shots on the first target were consistent, striking the same spot; nevertheless, none touched the target's center, rendering them invalid. The second objective may be considered genuine but not dependable because the points struck were not concentrated in one spot but dispersed throughout the whole target. The third target was inaccurate and unreliable since they only made spread spots on the target's upper portion. The fourth target is a fantastic illustration of consistency and reliability.

Figure 1

Possible combinations of validity and reliability of measurement instruments



Source: adapted from Babbie. (Babbie, 1986)

The following are three major dependability criteria of considerable importance to researchers: a. stability, b—internal consistency, and c. equivalence.

Stability

When comparing results from two distinct measurements, stability is used to determine how reliable the results are. Referencing: (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Artmed Editora.

To ascertain stability, you might utilize the test-retest method. Using this technique, identical measurements are taken at regular intervals. (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Artmed Editora.) For this method to function, the element being assessed must be consistent between both tests; otherwise, any discrepancies in results must be attributed to chance. In a study (Keszei, Novak, & Streiner, 2010), If someone conducts a study and then repeats it a few days later, the results should be consistent both times.

One of the most common methods for evaluating the consistency of a continuous variable is the intraclass correlation coefficient (ICC), which corrects for any biases in the measurements. (Vet, Terwee, Knol, & Bouter,2006), As Pearson and Spearman correlation coefficients do not account for such imperfections, they cannot be used in this dependability test. (Terwee, Schellingerhout, Verhagen, Koes, & Vet, 2011).

When the test reapplication is extended, the test-retest reliability tends to decrease. (Keszei, Novak, & Streiner, 2010) Because the time interval between measurements affects the interpretation of reliability in a test-retest, a period of 10 to 14 days is recommended for the test and retest. (Keszei, Novak, & Streiner, 2010).

A sample of at least 50 participants is deemed sufficient in size. 1 Minimum values of 0.70 are regarded adequate for results interpretation."(Terwee, et al., 2007).

Internal consistency

Internal consistency, also known as homogeneity, reveals whether or not all of an instrument's components measure the same thing. (Streiner, Introducing Coefficient Alpha and Internal Consistency, 2003) For instance, if a nine-domain instrument measures an individual's job satisfaction, all elements in the domain salary must measure the same construct, rather than something else like 'benefits,' so that the tool is internally consistent. This is a crucial property for instruments that use many measures to assess the same construct. (Terwee et al., 2007) Low internal consistency estimates may imply that the items are not measuring relatively similar things or that respondents cannot be trusted". (Keszei, Novak, & Streiner, 2010).

Most studies rely on Cronbach's alpha to measure the internal consistency of a given instrument. (Keszei, Novak, & Streiner, 2010) This has been the most widely used metric of dependability since the 1950s (23). (Bonett & Wright, 2015) Cronbach's alpha coefficient reflects the correlation between scale items. As a result, the instrument will be more consistent if the total of components variation is minimal."(Pasquali, 2013).

even though Cronbach's alpha is the coefficient most frequently employed in internal consistency testing, there is no agreement regarding how to interpret it. Even though some research indicates that values greater than 0.7 are optimal (Terwee, et al., 2007). several studies regard values less than 0.70 – but close to 0.60 – to be acceptable." (Streiner, 2003).

It is critical to recognize that the number of items in the measuring instrument significantly impacts the results of Cronbach's alpha coefficient. (Cortina, 1993) Lesser alpha values may be present in an instrument with fewer pieces per domain, affecting internal consistency."(Sijtsma, 2009).

In addition to Cronbach's alpha coefficient, statistical software includes a range of reliability models, and researchers often report their results using alpha if an item is deleted and the average correlation of items. (Streiner, 2003) The researcher can decide whether removing one item from a tool's domain using the values of the alpha if the removed item increases or decreases the total Cronbach's alpha of the domain. (Cortina,

1993) Hence, the researcher may determine in advance whether anything in the tool influences Cronbach's alpha value. 2008." (Allen, Reed-Rhoads, Terry, Murphy, & Stone, 2008).

Cronbach's alpha coefficient is low if the items' average correlation is low. The average correlation rises in lockstep with the alpha coefficient. As a result, if the correlations are strong, there is a good chance the items are measuring the same thing, which meets the reliability criteria. (Streiner, 2003) Researchers believe that average correlation values between items over 0.30 are sufficient for measuring the same construct and, hence, measuring the same construct." (Streiner & Norman, 2008).

Finally, Kuder-Richardson, not Cronbach's alpha, is the most appropriate test for instruments with dichotomous variables. (Aaronson, et al., Assessing health status and quality-of-life instruments: attributes and review criteria, 2002) Values near 1.00 are regarded ideal, just as they are in the interpretation of the coefficient's findings.

Equivalence

The degree of concordance between two or more observers regarding instrument scores is equivalence. (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Artmed Editora) Inter-observer dependability, which incorporates the independent participation of two or more raters, is the most prevalent method of determining equivalency. (Heale & Twycross, 2015) In this situation, the raters fill in the instrument. (Keszei, Novak, & Streiner, 2010) When two certified raters fill out the identical instrument, for example, the resultant score is the same, there is equivalence.

Rater training and test application consistency largely determine inter-observer reliability. (Rousson, Gasser, & Seifert, 2002) We can infer that measurement mistakes were avoided when there is good concordance between the raters". (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Artmed Editora).

The Kappa coefficient is a measure of inter-observer reliability applied to categorical data. It measures rater agreement up to 1.00. Rater agreement increases with Kappa. Values below 0.00 imply concordance." (Salmond, 2008).

It is critical to emphasize that the dependability of a single instrument must always be considered in the context of the study's population and goal. A trustworthy instrument in certain contexts may not be as reliable in other situations, so it is important to regularly check the validity and reliability of data". (Keszei, Novak, & Streiner, 2010).

Table *1*

Instrumental reliability analysis and measurement

Types of reliability	Definition	Example	Statistical tests
Stability	Repetition consistency, or how steady the measurement is over time (Polit & Beck, 2011)	Similar outcomes are anticipated if a research study is completed and repeated in a short period.	Test-retest (Intraclass correlation coefficient [ICC])
Internal consistency	It determines if an instrument's domains measure the same attribute: the average correlation between all construct items. (Streiner, 2003)	All the items in a given domain must measure that construct, not another, in an instrument that measures work satisfaction.	Kuder-Richardson (dichotomous variables)
Equivalence	It is the degree of agreement among two or even more raters on the results of a tool.	The identical instrument should yield the same result when two certified raters fill it out.	Inter-observer reliability (Kappa)

Validity

Validity is the capacity of an instrument to measure precisely what it promises to measure. (Roberts & Priest, 2006) Validity is not a characteristic of an instrument; it must be examined in connection to a particular subject and population. (Roach, 2006).

Measurement characteristics such as validity and reliability are not entirely independent. (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem:

avaliação de evidências para a prática da enfermagem. Artmed Editora.) Researchers agree that a non-reliable instrument cannot be legitimate; nevertheless, a trustworthy instrument can be invalid at times. (Kimberlin & Winterstein, 2008) As a result, instrument validity is not guaranteed by high dependability. (Polit, D. F., & Beck, C. T. (2011). Fundamentos de pesquisa em enfermagem: avaliação de evidências para a prática da enfermagem. Artmed Editora.

In terms of validity types, we provide the three most common ones in this study: a. content validity, b. criterion validity and c. construct validity.

Content validity

The degree to which the instrument content correctly reflects the concept being evaluated is called content validity (Polit, 2015), which examines how much a sample of an item corresponds to a certain universe or content area. (Polit & Beck, 2011) For example, an instrument that measures job happiness must include job satisfaction and other factors such as compensation, promotions, and coworker relationships.

Due to the lack of statistics methodology to measure content validity explicitly, most investigators employ a qualitative approach, such as an expert committee's assessment (Kimberlin & Winterstein, 2008), followed by a quantitative method based on the content validity index (CVI) (Coluci, Alexandre, & Milani, 2015).

The CVI is a metric that shows how many judges agree on specific elements of a tool and its components. (Alexandre & Coluci, 2011) This approach uses a Likert scale with four points. A non-equivalent item is indicated by 1, 2, indicating that the item has to be significantly updated before equivalence can be established. Three indicate that the item is equal but only needs minor alterations, and four indicate that the item is completely equivalent. 40 Items that earn one or two points must be updated or eliminated. To compute the CVI for each instrument item, add up all of the expert committee's responses, three and four, then divide the total by the number of responses using the formula below. (Alexandre & Coluci, 2011).

IVC = Number of 3 or 4 responses/Total number of replies the expert's committee's concordance index must be at least 0.80 and ideally greater than 0.90.41.

Criterion validity

Criterion validity links a certain instrument's score and external criteria. (Kimberlin & Winterstein, 2008) A "gold standard" instrument or criterion, meaning a commonly acceptable measure having the same properties as the assessment tool, must be used as this criterion. (Keszei, Novak, & Streiner, 2010).

Researchers examine the validity of a measure by comparing the measurement findings to a 'gold standard' or predefined criterion in criterion validity tests. (Roach, 2006) The goal test findings must agree with the 'gold standard' results or criteria if it measures what is meant to be tested. (Roach, 2006) When the results of the examined construct match the scores of the specified criterion, it is considered legitimate. (Polit & Beck, 2011).

It is argued that a criterion has predictive validity when used in the present, and when applied to the future, it is said to have contemporaneous validity. Based on research (Kimberlin & Winterstein, 2008), When one test is administered, and the results are compared to another criterion later, this is called predictive validity, whereas concurrent validity describes when two tests are administered simultaneously. (Polit & Beck, 2011).

Predictive validity research includes studies on the predictive validity of cholesterol and blood pressure as indications of the risk of developing cardiovascular disease. (Kimberlin & Winterstein, 2008) Consider research where the investigators were looking for a different approach to utilizing a lengthy instrument to assess sadness and instead looked at a question directly - Do you feel sad or depressed frequently? - to investigate criterion validity. This study serves as an example of concurrent validity. (Watkins, Daniels, Jack, Dickinson, & van Den Broek, 2001).

As a result, it is feasible to determine whether the reviewed measure is linked to external standards that have been validated and evaluated with the same notion. (Fayers

& Machin, 2007) The greater the association between them, the greater the validity of the criterion. (Roach, 2006).

The coefficient is examined when the results from the measurement device and the external criteria are compared. (Keszei, Novak, & Streiner, 2010) While numbers near 0.00 signal no correlation, those close to 1.00 imply a connection. Correlation coefficients of 0.70 or higher are preferred. (Polit & Beck, 2011).

Criterion validity is usually an issue for researchers since it involves using a "gold standard" measure to evaluate the chosen instrument, which is not always easy to come across in all fields of knowledge. It is also difficult to overcome the assumption of a 'gold standard' instrument. The researcher anticipates at least one instrument to outperform the selected criterion, take less time to administer or be less expensive. (Kimberlin & Winterstein, 2008).

Construct validity

The degree to which a set of variables accurately represents the construct to be measured is known as construct validity. (Martins, 2006) Hypothesis-based predictions are examined to establish instrument validity and construct validity. (Hair Junior, Black, Babin, Anderson, & Tathan, Análise multivariada de dados, 2009) The more abstract the concept, the more difficult it is to determine to construct validity. (Polit & Beck, 2011).

This level of validity is seldom achieved in a single study; instead, numerous studies on the theory of the construct to be assessed are generally conducted. (Polit & Beck, 2011) A theory must accompany the construct validity procedure. (Martins, 2006) In this approach, the more evidence there is, the more reliable the interpretation of the data will be. (Kimberlin & Winterstein, 2008).

The three forms of construct validity identified by investigators include hypotheses, Cross-cultural validity, and structural or factorial validity. (Polit, 2015).

Hypothesis testing may verify construct validity in several ways. One technique is known as groups. (Roach, 2006) Different groups complete the study instrument in this

method, then the findings are compared. (Polit & Beck, 2011) For example, the tool that measures quality of life can be used to compare a group of chronic illness patients to a group of healthy children. The equipment is meant to identify such variances since the findings are anticipated to differ. (Kimberlin & Winterstein, 2008) In addition to the known-groups method, convergent and discriminant validities can be used to test construct validity. (Polit, 2015).

In the absence of a 'gold standard' instrument, convergent validity can be determined by comparing the instrument's results to those of another instrument that examined a similar concept. (Polit, 2015) As a result, it is feasible to see if the evaluated instrument is substantially associated with other existing and legitimate measurements. When researchers administer two questionnaires to gauge job satisfaction, they predict a solid match. A new test correlates well with a comparison test that measures the same concept. (Kimberlin & Winterstein, 2008).

On the other hand, Discriminant validity evaluates the notion that the measurement under consideration is not incorrectly associated to various conceptions or elements that should influence it. (Polit, 2015) For example, the tool that analyzes motivation to work should have a poor correlation with one that assesses self-efficiency at work. (Aaronson, Alonso, Burnam, Lohr, Patrick & Perrin, 2002).

The factorial analysis is another extensively used approach by academics to test structural construct validity. The factorial analysis gives techniques for evaluating the connection between many variables and determining the factors or variables that are closely connected. (Polit & Beck, 2011).

Instead of exploratory factor analysis, researchers advocate using confirmatory factor analysis (CFA) to verify factorial validity (EFA). (Mokkink, et al., The COSMIN study reached international consensus on taxonomy, terminology, and definitions of measurement properties for health-related patient-reported outcomes, 2010).

The researcher is given by the EFA the necessary amount of variables to explain the data. Hence it is a method for looking at the dimensions of a collection of objects. Contrarily, The CFA may check how well the studied variables represent a confined set

of constructs and may also be employed to confirm a tool's structural model. (Hair Junior, Black, Babin, Anderson, & Tathan, 2009).

Variables in EFA provide loads for all factors, whereas variables in CFA only produce loads for the factors specified in the model. As a result, the confirmatory model is more rigid and restricted, which is why it is highly recommended to validate questionnaires. (Polit, 2015) For example, researchers want to see if work environment qualities like autonomy and feedback are predictors of professional happiness. A confirmatory factor analysis is used to examine this hypothesis.

Academics employ SEM, a mix of CFA and route analysis, to assess concept validity. This technique describes the connections between variables. There are two main components to a standard SEM model: the structural model, which illustrates how the ideas are connected, and the measuring model, which demonstrates how the variables under investigation are tallied to reflect the concept.

Evaluation of a measurement model involves checking its convergent and discriminant validity. To be convergently valid, elements indicating a concept must share much variance. Discriminant validity is a construct's difference from others. (Hair Junior, Black, Babin, Anderson, & Tathan, 2009).

One approach for evaluating convergent validity is factorial load analysis. High factorial loads suggest convergent validity. According to research, factory loads should be at least 0.5 and preferably greater. If an item's current value is less than 0.5, it should be taken out from the factorial model. (Hair Junior, Black, Babin, Anderson, & Tathan, 2009).

An additional statistic that confirms the proportion of variation that may be explained by the concept to which the items belong is the assessment of (AVE). Like assessing factorial loads, the model converges to a positive result when the AVE values are equal to or higher than 0.5. (Hair Junior, Hult, Ringle, & Sarstedt, 2014).

Lastly, Evaluating convergent validity by analyzing constructed reliability is common practice, which is similar to internal consistency. Nonetheless, it is more suited to the

SEM model than Cronbach's alpha, which is heavily influenced by the number of construct variables. (Ringle, Silva, & Bido, 2014).

In order to determine whether discriminant validity exists, the researcher might do a cross-load study. To demonstrate this form of validity, the examined tool's items must have larger factorial loads in the previously specified constructs than in the rest. (Ringle, Silva, & Bido, 2014).

Comparing AVE's square roots with the constructs' correlation values is another way to establish discriminant validity. The AVE's square root must be greater than the correlation between constructs to be discriminant. (Hair Junior, Hult, Ringle, & Sarstedt, 2014).

The structural or theoretical model is next examined once the convergent and discriminant validities have been determined. They are the mental representations of the constructions' relationships. The researcher must concentrate on the model's overall adjustment and the interactions between the components to assess the structural model. (Ringle, Silva, & Bido, 2014).

You may check to see if the parameters are substantially different from zero by starting with the Student's t-test and the chi-squared test, which will allow you to confirm the relationships between the constructs and model elements. The quality of the model's adjustment may be quantified using the Pearson coefficient of determination (R2), where R2 values between 2% and 13% have a moderate influence, and R2 values over 26% have a substantial effect. The root means the square error of approximations (RMSEA 0.08), the goodness-of-fit (GFI > 0,9), the Tucker-Lewis index (TLI > 0,9), the comparative fit index (CFI > 0,95), and the normed fit index (NFI > 0,95) are among the metrics that computed. (Hair Junior, Black, Babin, & Anderson, 2009).

The applicability, forecast, predictive validity (Q2), and impact size are additional adjustment quality criteria that may be assessed (f2). The Q2 measures how well the model matches the desired behavior, with values larger than 0 being considered acceptable. (Hair Junior, Hult, Ringle, & Sarstedt, 2014) The f2 determines the importance of each construct for model modification and is calculated by including and

excluding constructions from the model. In the model adjustment, values of 2% are considered small impact constructions, 15% are medium effect constructs, and 35% are large effect constructs. (Hair Junior, Hult, Ringle, & Sarstedt, 2014).

The third way to measure construct validity, cross-cultural validity, concerns measurements that support the conclusion that the original instrument and a culturally adapted version are equal. (Polit, 2015) For example, an instrument that measures job satisfaction translated and modified into a different cultural setting must behave similarly to the original version. (Ringle, Silva, & Bido, 2014).

The Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN) include several elements to consider when evaluating cross-cultural validity, developed by an international multidisciplinary team to enhance the selection of measurement instruments used in research and clinical practice through the use of more appropriate tools. Things as whether or not a pre-test was conducted, whether or not an expert committee reviewed the translation, and whether or not the items were translated and back-translated by separate translators. (Mokkink, et al., 2012).

There are several lists containing standards for assessing the merits of tool measurements in addition to this one. The methodological quality of measuring property research may be assessed using these lists. (Mokkink, et al., 2012). (show Appendix c).

1.4 DSM-5 Level 1 Cross-Cutting Symptom Measure

Introduction

The 2019 National Survey on Substance Abuse and Health (NSDUH) was conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA), and it found that 20.6% of U.S. adults aged 18 had been diagnosed with any mental illness (AMI), which is a disorder of the mind, behavior, or emotions that can cause varying degrees of functional impairment (SAMHSA, 2020). The percentage of persons with AMI who received mental health treatment in the prior year is much lower, at 44.8%. With the enormous prevalence of mental illness in the world today and the

correspondingly low rate of treatment, there is a pressing need to detect these issues in the general population better.

The Patient Health Questionnaire 9 (PHQ-9) focuses on depression, although many existing mental health assessments are limited to symptoms within a particular diagnostic category (samhsa, 2020). On the other hand, due to the frequent co-occurrence of symptoms linked with many mental health illnesses, a more comprehensive and transdiagnostic tool would be valuable in clinical settings and research investigations.

The American Psychiatric Association (APA) is responsible for the development of the DSM-5 Cross-Cutting Symptom Measures (DSM-XC), which are intended to serve as a transdiagnostic instrument for the evaluation of mental health symptoms (adult, child, and parent versions). These were created because some people thought the DSM-5 should include dimensional assessments in addition to the rigid category diagnoses previously used. This led to the development of these tools (Jones, 2012). Adult psychopathology's cross-diagnostic areas of depression, anger, mania, anxiety, somatic symptoms, suicidal thoughts, psychosis, sleep issues, memory, repetitive behaviors and thoughts, personality functioning, and drug use are all assessed. (Mościcki, et al., 2013). The purpose of the survey was to assist medical professionals in keeping track of the presence, occurrence, and severity of generalized mental symptoms and to provide information for clinical diagnostic examinations (Clarke & Kuhl, 2014). In an early study, Mocicki et al. (2018) assessed the measure in routine clinical settings and discovered that physicians and patients appreciated it and that it was clinically effective. Moreover, it has been recommended for clinical studies (NOT-MH-15-009, 2015).

Level 1 of the DSM-5 Cross-Cutting Symptom Measure is a self- or informant-rated assessment of relevant mental health dimensions across psychiatric disorders. The purpose of this study is to aid doctors in recognizing novel research directions that have the potential to impact patient care significantly. This scale can also be used to monitor the development of symptoms over time. According to a recent survey (American Psychiatric Association, 2013).

The adult version of the questionnaire has 23 items that evaluate 13 psychiatric categories, such as mood (depression, rage, mania, anxiety), body (somatic) symptoms, thoughts (suicidal ideation), psychosis (mental illness), sleep (insomnia), memory (repetitive thoughts and behaviors), dissociation (personality functioning), and substance use. Each item requests an estimate of how frequently (or how severely) the symptom in question has affected the respondent over the preceding two weeks. If a participant lacks the mental capacity to complete the form (for example, a person with dementia), a trusted adult caregiver or family member can take their place. Clinical relevance and high test-retest reliability were demonstrated in adult clinical samples across the United States and Canada during the DSM-5 Field Trials."(American Psychiatric Association, 2013).

Scoring and Interpretation

Each item on the scale is graded on a 5-point scale (0=none or seldom; 1=slight or uncommon, lasting less than a day or two; 2=mild or many days; 3=moderate or more than half the days; and 4=severe or nearly every day). Each item's score inside a domain should be examined. The clinician is prompted to give the highest score on any item inside a domain in the "Highest Domain Score" box since subsequent inquiry is based on that score. A modest (i.e., 2) rating on any item within a domain (except for drug use, suicidal thoughts, and psychosis) may guide further inquiry and follow-up to decide if a more extensive assessment for that domain is required. A mild (i.e., 1) or more on any item within the domain of drug use, suicidal thoughts, or psychosis may provide a signpost for further inquiry and follow-up to decide if a more extensive examination is required. The DSM-5 Level 2 Cross-Cutting Symptom Measures can be used to offer more specific information on some of the Level 1 domains' symptoms. (American Psychiatric Association, DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult, 2013).

1.5 Psychiatric domains of the scale

One of the most common and well-known disorders in this group is depression. Episodes of at least two weeks in duration (though most continue far longer) and substantial changes in effect, cognition, neuro vegetative functioning, and remissions between episodes are diagnostic. While this ailment often comes back, a single episode might be used to make a diagnosis. Distinguishing between normal feelings of grief, such as those brought on by loss, and clinical depression is seriously thought. Even though grief may cause immense suffering, it seldom results in a serious depressive episode. The prognosis is worse when both are present simultaneously, as the depressive symptoms and functional impairment are worse than in grieving without a serious depressive illness. Antidepressant medication may aid those who suffer from bereavement-related sadness and are more prone to having preexisting depressive disorders. (American Psychiatric Association, 2013).

In older and younger individuals, depression can manifest itself in various ways, with the emotional and cognitive characteristics mostly linked with depression, such as sorrow and poor self-esteem, being more prevalent in youth and middle age (Powers, Thompson, Futterman, & Gallagher-Thompson, 2002). Older adults are more likely to have somatic symptoms such as weariness, sleeplessness, appetite disruption, sentiments of apathy and hopelessness, and thoughts about death.

Although the depressive disorder is less common in the elderly than in any other group of adults, symptoms that do not meet diagnostic criteria (also known as subsyndromal depression) are more common (Lavretsky & Kumar, 2002), implying that older adults' experiences of depression do not fit well into existing diagnostic rubrics.

Following depression, anger is also viewed as an unsettling feeling and inclination destructive to destroy oneself and others in Western (and Eastern) philosophical systems. This might be partly due to its link with irrationality (and destruction). When one is furious, one reacts irrationally to these situations. As it relates to one's feeling of vanity, he finds that rage is typically juvenile, petty, unpleasant, and useless. As a result, self-evaluation merits careful examination rather than tolerance (Nussbaum, 2016).

According to Plato, anger is also linked to intoxication and a lack of self-control (Hughes, Paul M., & Warmke, 2017). It has been seen as a moral sin in many cultures.

On the other hand, anger can have important adaptive purposes from a psychological standpoint. Anger is linked to assessments of others' blameworthiness in the face of psychological problems. For Lazarus, anger (and other tough emotions like grief and fear) entails a determination that a situation harms one's well-being and is incompatible with one's aims (1991). Anger is a judgment that someone or their companions have been insulted or hurt unnecessarily or unjustly. As a result, a significant appraisal in angry episodes is 'other-blame (Smith & Lazarus, 1993).

Anger can encourage damaging, destructive behavior against others or oneself. Such responses might result in negative repercussions for the angry person, such as direct revenge, losing supporting relationships, or societal criticism (Robins & Novaco, 2000). At the same time, because anger is linked to a lack of attention and thoughtlessness, it is thought to limit or inhibit feelings of empathy, compassion, enjoyment, and other "good" emotions. Furthermore, anger may be physiologically harmful, especially when it is experienced frequently or excessively, and it has been linked to heart disease, stroke, and depression (Averill, 2012).

Anger is a key criterion in five diagnoses within DSM-5: Intermittent Explosive Disorder, Oppositional Defiant Disorder, Disruptive Mood Dysregulation Disorder, Borderline Personality Disorder, and bipolar disorder all have anger as a significant characteristic. Anger is a core clinical trait that is very frequent and predictive of significant outcomes in each of these illnesses, according to this evaluation of scientific evidence. It is possible to go into the phenomenology and causation of rage for each illness. Even though the models of anger used in these diseases were relatively varied, few empirical investigations have adequately explored whether anger comes from various etiological variables in these situations. The researcher discusses transdiagnostic research incorporating cognitive psychology, affective science, anger neuroscience, and integrative therapy techniques (Scherer, 2013).

Although numerous shades of meaning and emphasis have been used to characterize anger, there is no doubt that it falls in the category of negative emotion. Anger is linked to an evaluation of wrongdoing and an action inclination to counter/undo that wrongdoing in ways that vary from resistance to retribution, according to the cognitive-motivational perspective of emotions (Lazarus, 2000). Implicit lay perceptions of rage have been found to contain similar cognitive-motivational components (Scherer, 2013).

Anger, like fear and sorrow, may be classified according to intensity and appearance. Intensity can vary from "irritation or annoyance to wrath or rage" (Smith, 1994, p. 25). Anger can also take the shape of emotion, mood, or temperament: the first is a one-time occurrence, the second is modest but long-lasting, and the third indicates a proclivity for frequent outbursts of rage (Fernandez & Kerns, Anxiety, depression, and anger: The core of negative affect in medical populations., 2008).

Thus, words like rage and fury reflect phasic bursts of anger, whereas irritability and irascibility imply continuous or tonic anger; hostility, on the other hand, is reserved for a pattern of frequent occurrence that suggests dispositional rather than situational anger (Ramírez & Andreu, 2006). As may be deduced, these many manifestations of rage can be represented as distinct configurations on fundamental dimensions like frequency, duration, and intensity. Individuals' usual rage responses have different thresholds and delays (Fernandez, Arevalo, Torralba, & Vargas, 2014).

Anger is described as an approach to emotion in motivational theories (Carver & Harmon-Jones, 2009). Attempts to achieve goals are frequently thwarted, resulting in resentment. On the other hand, fear and anxiety are often triggered by frightening stimuli, resulting in avoidance. Anger fuels efforts to overcome obstacles to goal achievement, consistent with these motivational underpinnings. Anger may, therefore, have functional advantages in reducing impediments to goal achievement when expressed appropriately. Nonetheless, some people have trouble expressing their anger healthily and cannot overcome these obstacles. Those with passive-aggressive tendencies may be particularly concerned about this (Morey, Hopwood, & Klein, 2007).

Mania, also known as manic syndrome, is a mental and behavioral disorder defined as "a state of heightened overall activation with enhanced affective expression combined with lability of effect" or "a state of heightened overall activation with enhanced affective expression together with lability of effect." (Berrios, 2004). During a manic episode, an individual's emotions and moods change swiftly and are heavily impacted by external events. The heightened mood can be either euphoric or dysphoric, even though mania is generally considered a "mirror image" of sadness (Timothy, 2018). Irritability might become more prominent as the mania progresses, resulting in worry or hostility.

A heightened mood (either euphoric or irritated), flight of thoughts and pressure in speaking, increased energy, decreased need and desire for sleep, and hyperactivity is all indicators of mania. In fully developed hypomanic episodes, they are most obvious. In full-blown mania, however, they experience increasingly severe exacerbations and become increasingly disguised by other signs and symptoms, such as delusions and behavior fragmentation. (ICD-10, 2010).

Anxiety is the most prevalent or often occurring psychological illness (Munir, Gondal, & Takov, Generalized anxiety disorder, 2019). They refer to conditions whose primary mood or emotional tone disturbance is excessive or pathological anxiety. Seen as the pathological counterpart of natural fear, anxiety manifests as mood, cognitive, behavior, and physiological activity changes. Panic disorder (with or without agoraphobia), agoraphobia (with or without the panic disorder), generalized anxiety disorder, specific phobia, social phobia, obsessive-compulsive disorder, acute stress disorder, and posttraumatic stress disorder are among the anxiety disorders. Other anxiety-related adjustment disorders are caused by general medical illnesses and substance-induced anxiety disorders (Greenberg, Sisitsky, Kessler, Finkelstein, Berndt, Davidson & Fyer, 1999).

Anxiety can develop when an individual feels concerned, apprehensive, or afraid about events that will occur or may occur in the future (Mind, 2017). Although worry over perceived dangers is a common human reaction that most individuals have, it can indicate an anxiety disorder if such thoughts impair an individual's everyday life

negatively. Anxiety disorders can substantially impact a person's quality of life. (Hoge & et al, 2012).

Diagnostic criteria include excessive anxiety, concern for at least six months, and trouble regulating worrying. Restlessness, feeling tense or on edge, being quickly exhausted, problems concentrating or going blank, impatience, muscular tension, sleep disruption, and irritability are all signs of anxiety that have been present for at least six months (Munir, Gondal, & Takov, Generalized anxiety disorder, 2019).

Stress, physical diseases like diabetes or co-morbidities like depression, genetics, such as having first-degree relatives who have a generalized anxiety disorder (25 percent), environmental factors including child maltreatment, and drug abuse are only a few of the causes of anxiety (Munir, Gondal, & Takov, Generalized anxiety disorder, 2019). Given the wide variety of anxiety disorders, the proportional weight given to these factors is likely to change. Certain anxiety disorders, such as panic disorders, seem to have a more significant genetic background than others, despite the lack of identifiable genes (National Institute of Mental Health, 1998). Traumatic events in daily life are connected to other anxiety disorders.

There are many distinct types of anxiety disorders, but they can be challenging to identify and separate from other mental health diseases, such as depression (Baxter & et al., 2010).

Furthermore, in the general population, somatic complaints such as gastrointestinal discomfort, headache, back pain, and exhaustion are frequent (Poulsen, et al., 2013). Somatic symptoms are costly not only in terms of direct healthcare expenses but also societal costs owing to lost productivity (Creed, Barsky, & Leiknes, 2011).

According to research conducted over the last two decades, somatic symptoms are common in community-based samples of children and adolescents, particularly among females (Swain, et al., 2014). Somatically ill children and adolescents perform worse in school (Modin, Karvonen, Rahkonen, & Östberg, 2015), are more likely to be absent from school, and have more dysfunctional social relationships (Låftman & Östberg, 2006). In children and adolescents, somatic symptoms are linked to mental illnesses

such as anxiety and depression (Santalahti, Aromaa, Sourander, Helenius, & Piha, 2005) as well as other severe concurrent psychiatric issues in a dose-response relationship, such as conduct disorder, suicidal behavior, and many interpersonal conflicts (Larsson & Sund, 2007).

However, little is known about the long-term consequences of somatic complaints in childhood and adolescence, and follow-up durations seldom exceed early adulthood. There is a dearth of knowledge on the long-term effects of somatic symptoms when mental diseases and other factors are considered (Campo, 2012). Only a few research (Shanahan, Zucker, Copeland, Bondy, Egger & Costello, 2015) have looked at the long-term interaction between somatic symptoms, depression, and anxiety at baseline and follow-up. Furthermore, most prior long-term follow-up investigations of somatic symptoms and subsequent mental health outcomes relied on self-reported mental illness measures at follow-up (Campo, 2012). As a result, little is known about the severe consequences of somatic symptoms, such as the usage of hospital-based mental health treatment.

Somatic Symptom Disorder (SSD) is defined as "a preoccupation with one or more bothersome somatic symptoms that cause daily life disturbance" (Rosic, Kalra, & Samaan, 2006).

When somatic symptoms are accompanied by excessive thoughts, feelings, and behaviors, they are given disease status value" (Toussanit & et al., 2020). According to these scientists, some SSD patients spend 4 hours daily "dealing with physical symptoms.

SSD can occur in a recognized medical condition with more anguish and dysfunction than expected.

Some disorders and symptoms fulfill the diagnosis of SSD in general practice, such as cardiac problems, lack of energy, fibromyalgia, chronic tiredness, chronic pain, numbness and tingling, headache, insomnia, and some gastrointestinal and respiratory troubles all (American Psychiatric Association, 2013).

Somatic symptom disorder is one of the most prevalent disorders encountered in general practice, and it is documented in 5-15 percent of cosmetic surgery clinic patients (DSM-5) (Wang & Wang, 2020). In addition, there is a 10:1 female to male"(Yates & Dunayevich, 2017).

Suicide is a horrible and heartbreaking occurrence. The negative consequences of suicide on families, friends, and communities emphasize the need for a better understanding and prevention of suicide. In 2006, Statistics Canada reported that 3,500 persons in Canada committed suicide. Suicide rates have increased by 268 percent among men aged 15 to 24 years old since 1950, according to the World Health Organization (WHO) (World Health Organization [WHO], 2003). In addition to an increase in the number of people who have died by suicide, there has been an increase in the number of people hospitalized because of attempted suicide, with up to 23,000 hospitalizations in Canada in 2001. (Canadian Institute for Health Information (CIHI), 2004).

Suicidal ideation sometimes referred to as suicidal thoughts, is the act of having suicidal thoughts. Thoughts may vary from a fleeting idea to a well-considered plan. Some individuals have suicidal ideation just once in their lifetime, while others experience it often, even daily, for a short or long period. Suicidal ideas are common, and many individuals have them when stressed or have had a terrible incident. Many individuals with suicidal ideation may not attempt suicide, but others may. Every community must have access to the most advanced medical care in the least restricted setting feasible. In addition to reducing the immediate risk of suicide, therapy should also address underlying mental health and substance abuse concerns.

Psychosis is a mental disorder in which it is difficult to distinguish between what is real and what is not. Delusions and hallucinations, among other things, are possible symptoms. (Arciniegas & David, 2015) Other signs include incoherent speech and improper conduct in a particular context. Sleep issues, social disengagement, a lack of enthusiasm, and difficulties carrying out everyday chores are all possibilities. (Arciniegas & David, 2015). Psychosis can lead to significant consequences (Arciniegas & David, 2015).

Psychosis, like many other mental disorders, has a variety of origins. Mental illnesses such as schizophrenia or schizoaffective disease, bipolar disorder, and, in rare situations, significant depression are among them. Trauma, sleep deprivation, various medical problems, some medicines, and narcotics, including cannabis, hallucinogens, and stimulants, are other causes. (Kim, Griswold, Paula, Del, Rengo, Roseanne & Berger, 2015) Postpartum psychosis is one form that can arise after giving delivery (William, 2017). Dopamine, a neurotransmitter, is thought to have a key function. (Stephen & Stahl, 2018) If a mental disease causes acute psychosis, it is classified as primary, and if a medical condition or medicines cause it is classified as secondary (Griswold, Del Regno, & Berger, 2015). Other possible reasons must be ruled out before a mental health disorder may be diagnosed. (Cardinal & Bullmore, 2020) Testing may be performed to rule out the possibility of central nervous system illnesses, poisons, or other health issues as contributing factors (Foster, 2020).

Antipsychotic medication, psychotherapy, and social support are all options for treatment. It appears that early therapy improves results. (NIMH, 2019). It appears that medications have a mild impact. (Haddad & Correll, 2018). The root cause determines the outcome (NHS, 2016). About 3% of persons in the United States experience psychosis at some point (NIMH, 2019). Hippocrates documented the disease as early as the 4th century BCE and probably as early as 1500 BCE in the Egyptian Ebers Papyrus. (Giddens, 2015).

Sleep disorders (sleep-wake disorders) are defined by concerns with sleep quality, timing, and the amount that results in daily discomfort and impairment of function. Sleep-wake disorders are usually related to medical or mental health conditions such as depression, anxiety, or cognitive impairments. The most frequent sleep-wake disorder is insomnia. Other forms of sleep-wake disorders include obstructive sleep apnea, parasomnias, narcolepsy, and restless leg syndrome (National Sleep Foundation, 2014).

Sleep difficulties have been linked to both physical and psychological problems. Sleep disturbances may cause or exacerbate mental disease and serve as an indicator of other mental disorders.

Around one-third of people exhibit insomnia symptoms, and 6-10% have insomnia difficulties (American Psychiatric Association, 2013).

Memory is the capacity of the brain to encode, store, and retrieve facts or knowledge as necessary. It is the process of retaining information through time to shape future behavior. (Sherwood, 2015) Acquiring language, relationships, and a sense of self would be impossible if one could not recollect earlier events. (Eysenck, 2012) Memory loss often manifests as forgetfulness or amnesia. (Smith C., 2014).

Memory consists of a sensory processor, short-term (or working) memory, and long-term memory and is often seen as a system for processing information having explicit and implicit functions. (Baddeley, 2007) This may have some relation to the neuron. The sensory processor detects information from the outside environment through chemical and physical impulses and responds with varying degrees of attention and purpose. Both encoding and retrieval use working memory. According to explicit or implicit functions, the working memory processor encodes information in stimuli. Moreover, the working memory retrieves information from previously saved data. Lastly, the long-term memory retains information utilizing diverse category models or systems (Baddeley, 2007).

Declarative memory, also known as explicit memory, is the conscious storing and recalling of information. Semantic and episodic memory exist beneath declarative memory. Semantic memory refers to information encoded in a spatial and temporal plane, whereas episodic memory refers to information encoded in a spatial and temporal plane (Schacter & Addis, 2007). When it comes to memory, declarative memory is generally the first thing that comes to mind (Eysenck, 2012). The unconscious storing and recalling of knowledge are known as non-declarative or implicit memory. (Foerde, Knowlton, & Poldrack, 2006) The unconscious learning or retrieval of the information by procedural memory, or the priming phenomenon, is an example of a non-declarative process. (Eysenck, 2012).

Priming inadvertently elicits specific responses from memory, demonstrating that not all memory is consciously activated, whereas procedural memory is the slow and

incremental acquisition of abilities that frequently occurs without conscious attention to learning (Eysenck, 2012).

Memory is not a perfect processor, and various variables influence it. The methods for encoding, storing, and retrieving data can all be tampered with. Pain, for example, has been discovered to be a physical condition that degrades memory in both animal models and chronic pain sufferers (Moriarty, McGuire, & Finn, 2011). Attention to new stimuli can reduce the amount of information encoded for storage (Eysenck, 2012). Physical injury to brain parts related to memory storage, such as the hippocampus, can also distort the storing process (Squire & Wixted, 2011).

Finally, information retrieval from long-term memory can be hampered by decay inside the memory (Eysenck, 2012). Normal functioning, decay over time, and brain disease all impact memory accuracy and capacity.

Dissociation is the absence of normal integration of ideas, emotions, and experiences into consciousness and memory (Schore, Attachment and the regulation of the right brain Attachment Hum Devel,, 2000). It is a common symptom of various severe psychopathologies, ranging from infantile reactive attachment disorder through dissociative identity disorders, psychotic episodes, borderline personality disorders, and adult posttraumatic stress disorder. The continuity between early traumatic attachment and later severe personality disorders is a core component of a developmental psych neurobiological approach (Schore, Attachment and the regulation of the right brain Attachment Hum Devel,, 2000). The prevalence of childhood maltreatment in individuals with dissociative disorders is extraordinarily high, approaching 100%".

Dissociation is the inability to integrate experience with the adaptive function that allows a person to cope with trauma without becoming overwhelmed (Fonagy & Target, 2002). When confronted with a threat, their first reaction is an alarm, followed by sympathetic nervous system hyperarousal (Fonagy & Target, 2002). Continued high arousal cannot be sustained if the threat persists for a long time or if the individual feels powerless mainly, and the person may enter a dissociative state characterized by freezing and a trance-like condition (Fonagy & Target, 2002). Following the subjective

appraisal (perception) of the immediate danger as one that cannot be avoided or controlled, the flip in the state from sympathetic hyper-aroused terror to increased activation of parasympathetic hypo-aroused conservation-withdrawal despondency and helplessness occurs (Schore, Attachment and the regulation of the right brain Attachment Hum Devel,, 2000).

Dissociation begins as a protective strategy to retain self-integrity in the face of catastrophic trauma, but it can become a hazard to optimal functioning if it becomes a normal response to less-than-catastrophic stress (Schore, 2002). The price of recurrent dissociative experiences as a youngster is a sensitized brain network that requires less and less effort to elicit later dissociative episodes (Fonagy & Target, 2002). Individuals who often disassociate also have difficulty exiting the conservation-withdrawal condition (Schore, Attachment and the regulation of the right brain Attachment Hum Devel,, 2000). They persist in this huge autoregulatory phase for lengthy periods after being disconnected. They are unreachable to the outside world during these moments and resistant to attachment messages and interactive management (Schore, Attachment and the regulation of the right brain Attachment Hum Devel, 2000). The avoidance of emotional settings limits emotional learning if this occurs regularly. The pathological walling off or dissociation from stress and pain has devastating effects on self and psychobiological functions (Schore, Attachment and the regulation of the right brain Attachment Hum Devel, 2000).

The continuous use of substances (including alcohol) despite significant damage and negative effects is known as substance use disorder (SUD) (American Psychiatric Association, 2013). Chronic guilt; an inability to lessen or quit using the substance(s) despite repeated attempts; driving while drunk; and physiological withdrawal symptoms are a few of the mental, emotional, physical, and behavioral difficulties associated with substance use disorders. (American Psychiatric Association, 2013) Alcohol, cannabis, phencyclidine, and other hallucinogens, such as arylcyclohexylamines; inhalants; opioids; sedatives, hypnotics, or anxiolytics; stimulants; cigarettes; and additional or undiscovered compounds are among the drug classes linked in SUD"(American Psychiatric Association, 2013).

The DSM-IV diagnoses of drug abuse and substance dependence were consolidated into the category of substance use disorders in the Diagnostic and Statistical Manual of Mental Disorders 5th edition (2013), generally known as DSM-5 (American Psychiatric Association, 2013). Substance use disorders can range in intensity; the severity of an individual's SUD is classified as mild, moderate, or severe in the DSM-5 based on how many of the 11 criteria are satisfied. Drug use disorders are divided into two categories by the International Classification of Diseases 11th revision (ICD-11): (1) hazardous pattern of substance use; and (2) substance dependence. (World Health Organization, 2018).

In 2017, it was projected that 271 million individuals (5.5 percent of adults) in the world had taken one or more illegal substances. In 2019, United Nations research showed that a drug use issue affected 35 million. In 2016, 237 million men and 46 million women were diagnosed with alcohol consumption disorder. Statistical data from WHO (2018) showed that 585,000 people died directly from drug use disorders caused by illegal substances.

1.6 Statement of the problem

Through the practical experience of the researcher who works as a psychologist in several psychological treatment centers with children and adults, he also works as a director of a Youth Center, the researcher noticed that Cross-Cutting Symptom Measures in the DSM-5 have not been validated in the Arabic language in the Palestinian context. The current thesis was designed to examine the psychometric properties of Cross-Cutting Symptom Measures in the DSM-5 in the Palestinian context. Specifically, the current thesis developed to answer the following question:

What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context?

1.7 Sub-questions of the thesis

The first question: Are there any statistically significant differences in the diagnosis of the scale between undiagnosed and diagnosed people?

The second question: Are there statistically significant differences in cross-cutting symptoms due to demographic variables (gender, age, Place of residence, Parents' educational level, Parents' social status)?

1.8 Significant of the thesis

This thesis derives its importance from the following key points

1. Providing a local Arabic version of the Cross-Cutting Symptom Measures scale commensurate with the Palestinian's specificity, culture, and environment.
2. Providing a Cross-Cutting Symptom Measures scale that fits with the Palestinian environment to use it and benefit from its results in the various fields of psychology, such as diagnosis.

Chapter Two

Methodology

2.1 Introduction

This chapter deals with a comprehensive description of the most important measures taken by the researcher to accomplish the objectives of the study. These procedures determined the method used in the thesis, population, sample, instruments, validity, and reliability of the tools. Additionally, the researcher presents the most critical steps to achieve its objectives and the statistical methods.

2.2 Participants

Participants were recruited from online advertisements, e-mails, blogs, social media, and SMS campaigns in an accessible manner. The aims and procedures of the thesis were thoroughly explained online through the campaigns. Participants who are going to participate in the study will have to sign an online consent. The participants were 2000 Palestinians from across Palestine. In addition, 25 individuals diagnosed with mental disorders were selected in order to compare them with 25 individuals without a diagnosis of mental disorders. The thesis is limited to Palestinians and native Arabic speakers. Table (2) presents the demographic distribution.

Table 2

Description of demographic variables

Variable		Frequency	Percent
Gender	Male	903	45.2
	Female	1097	54.9
Age	11	671	33.6
	12	168	8.4
	13	221	11.1
	14	184	9.2
	15	153	7.7
	16	323	16.2
	17	280	14
Place of residence	City	1357	67.9
	Village	556	27.8
	Camp	87	4.4
diagnosed and undiagnosed people	undiagnosed people	25	50
	diagnosed people	25	50
Parents' educational level	They do not have any certificate	514	25.7
	Secondary	781	39.1
	BA	275	13.8
	MA	322	16.1
	PhD	108	5.4
Parents' social status	Married	1755	87.8
	Divorced	177	8.9
	A parent is dead	68	3.4

Note: N=2000

2.3 Thesis instruments

Cross-Cutting Symptom Measurements within the DSM-5 A transdiagnostic tool for assessing mental health symptoms, the DSM-5 Level 1 Cross-Cutting Symptom Measurements (DSM-XC) were created by the American Psychiatric Association (APA) (adult, child, and parent versions).

Self- or informant-rated assessments of mental health characteristics important in psychiatric illnesses are the basis for the DSM-5 Level 1 Cross-Cutting Symptom Measure. It aims to help doctors in on unexplored areas that might have a major impact on their patients' care and outcomes. The measure may also be used to monitor the development of symptoms over time. (American Psychiatric Association, 2013).

There are a total of 23 items on the adult version of the questionnaire, and together they cover 12 different psychiatric areas: depression, anger, mania, anxiety, somatic symptoms, suicidal ideation, psychosis, sleep disturbances, memory issues, repetitive thoughts and behaviors, dissociation, personality functioning, and substance abuse. The severity (or frequency) with which a certain symptom has affected the respondent over the last two weeks is probed with each question. A certified adult informant may complete the measure on behalf of a participant who lacks the mental competence to do so (for example, a person with dementia). The test's clinical relevance and high test-retest reliability were shown in adult clinical samples spanning the United States and Canada as part of the DSM-5 Field Trials. (American Psychiatric Association, 2013).

2.3.1 Scoring and Interpretation

Each item on the scale is rated on a 5-point scale (0 = none or seldom; 1 = slight or unusual, lasting fewer than two days; 2 = mild or many days; 3 = moderate or more than half the days; and 4 = severe or almost every day). Examining the score of each item inside a domain. The clinician is instructed to provide the highest score for any item inside a domain in the "Highest Domain Score" field, since following inquiry is dependent on this score. A moderate rating (i.e., 2) on any item within a domain (other than drug use, suicidal ideation, and psychosis) may serve as a lead for additional inquiry and follow-up to determine whether a more complete examination is necessary for that domain. A modest (i.e., 1) or more score on any item within the domains of substance abuse, suicidal ideation, or psychosis may serve as a signpost for additional investigation and follow-up to determine whether a more complete assessment is necessary. The DSM-5 Level 2 Cross-Cutting Symptom Measurements may be used to provide more precise information on some of the symptoms in the Level 1 categories".

(American Psychiatric Association, DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult, 2013).

2.4 Data Analysis

A six-factor model was evaluated using AMOS 25 and confirmatory factor analysis. Using descriptive statistics, the properties of the cross-cutting symptom measure in Arabic for the Palestine setting were evaluated. Analyses of demographic characteristics such as gender, age, place of residence, parents' pension, parents' educational level, and parents' socioeconomic standing, all relevant as risk factors to cross-cutting symptom measure, were conducted using means, standard deviations, independent-sample t-test, and One Way ANOVA to compare the cross-cutting symptom scale scores of our participants. The evaluation of the link between the scores and the scale's total scores also looked at concurrent validity. Cronbach's Alpha and Guttmann Split-Half were used to examine the internal consistency of the scale. The sample was divided into two parts in the statistical analysis, where one thousand responses out of 2000 were randomly selected by SPSS to do the exploratory analysis and the other thousand were entered into the AMOS program to do the confirmatory analysis.

2.5 Research Procedures

The research for this thesis was done on Palestinian adults in October 2021. The sample was acquired online using methods for sampling by convenience. All participants were given information that allowed them to choose whether or not to participate in the study. Participants were presented with scale and research objective descriptions.

The study was carried out in accordance with the ethical criteria of the American Psychological Association (APA, 2010) and the Declaration of Helsinki (2013). Before participants' data were taken, their informed permission was recorded electronically.

The cross-symptom measure was translated into Arabic from English. Five Arab professionals in Psychology, counseling, Arabic Language, and education assessed the translated version. The team of experts examined the translation and questions for clarity and relevancy. Following completion, an independent professional translator returned the English draft of the questionnaire's translation. The translated version was

subsequently pilot-tested with seventy participants and improved based on their feedback. Following that, an exploratory factor analysis model was constructed, the validity and reliability of the scale was assessed, and the AMOS software was used to create a confirmatory factor analysis model. In the appendix, you can find the final form of the cross-cutting symptom measure for Palestinians.

Chapter Three

Results

3.1 Introduction

This chapter aims to indicate the study's results using the statistical program SPSS and Amos that examined the Psychometric Properties and Factorial Structure of Cross-Cutting Symptom Measure in Arabic within the Palestinian context. The researcher answers the questions of the study, which are as follows:

- What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context?
- Are there any statistically significant differences in the scale diagnosis between undiagnosed and diagnosed people?
- Are there statistically significant differences in cross-cutting symptoms due to demographic variables (gender, age, place of residence, parents' educational level, parents' social status)?

Results related to the research question: What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context? Table (3).

Table 3

Rotated Component Matrix

	1	2	3	4	5	6
Q.1			.647			
Q.2			.667			
Q.3	.525					
Q.4	.612					
Q.5	.593					
Q.6	.688					
Q.7	.722					
Q.8	.650					
Q.9	.559					
Q.10	.580					
Q.11		.499				
Q.12		.594				
Q.13		.749				
Q.14		.762				
Q.15		.607				
Q.16			.392			
Q.17						.373
Q.18						.488
Q.19						.792
Q.20					.669	
Q.21					.550	
Q.22					.713	
Q.23				.398		
Q.24				.814		
Q.25				.844		

It is evident from the table that six factors emerged from the factor analysis. The first factor includes eight items from the third to the tenth item, the second factor contains five items from 11 to 15, and the first, second, and sixteenth items belong to the third factor. It contains the fourth factor from item 23 to item 25, the fifth factor includes items 20 to 22, and items 17 to 19 belong to the sixth factor.

Results related to the research question: What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context? Table (4).

Table 4

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	7.283	29.133	29.133	7.283	29.133	29.133	4.077	16.309	16.309
2	1.894	7.578	36.711	1.894	7.578	36.711	3.051	12.204	28.513
3	1.365	5.461	42.172	1.365	5.461	42.172	1.946	7.784	36.297
4	1.233	4.932	47.104	1.233	4.932	47.104	1.770	7.078	43.376
5	1.060	4.238	51.343	1.060	4.238	51.343	1.690	6.761	50.137
6	1.023	4.092	55.435	1.023	4.092	55.435	1.324	5.298	55.435

The table indicates that the six factors explain (55.43%) of the variance ratio. All of these factors had more than one true latent root. The table shows the first factor (16.3%) of the variance ratio and is saturated with (8) items. The table shows the second factor (28.51%) of the percentage of variance and saturation on it (5) items. The table shows the third factor (36.29%) of the percentage of clarity and saturates it with (3) items. The table shows the fourth factor (43.37%) of the percentage of variance and saturates it with (3) items. The fifth factor explains (50.13%) of the percentage of variance and saturation with (3) items, while the sixth factor was explained (55.43%) of the percentage of variance and saturated with (3) items.

Results related to the research question: What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context? Table (5).

Table 5

Component Transformation Matrix

	1	2	3	4	5	6
1	.687	.540	.368	.202	.139	.201
2	-.134	-.261	.007	.636	.714	.015
3	-.438	.587	-.356	.420	-.245	.316
4	-.170	.318	-.192	-.612	.627	.256
5	-.534	.129	.834	-.053	-.014	.016
6	.061	-.420	.083	-.028	-.136	.891

Results related to the research question: What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context? Table (6).

Table 6

Correlation between the mean of six components and the mean of the scale

		1	2	3	4	5	6	7
Mean	r	1	.921**	.846**	.763**	.381**	.199**	.693**
	p		0.000	0.000	0.000	0.000	0.000	0.000
Comp_1	r		1	.656**	.621**	.309**	.165**	.512**
	p			0.000	0.000	0.000	0.000	0.000
Comp_2	r			1	.547**	.288**	.100**	.545**
	p				0.000	0.000	0.001	0.000
Comp_3	r				1	.303**	.153**	.484**
	p					0.000	0.000	0.000
Comp_4	r					1	.314**	.222**
	p						0.000	0.000
Comp_5	r						1	.094**
	p							0.003
Comp_6	r							1
	p							

Figure 2

Standard Theoretical Model of a Scale cross-cutting symptom measure

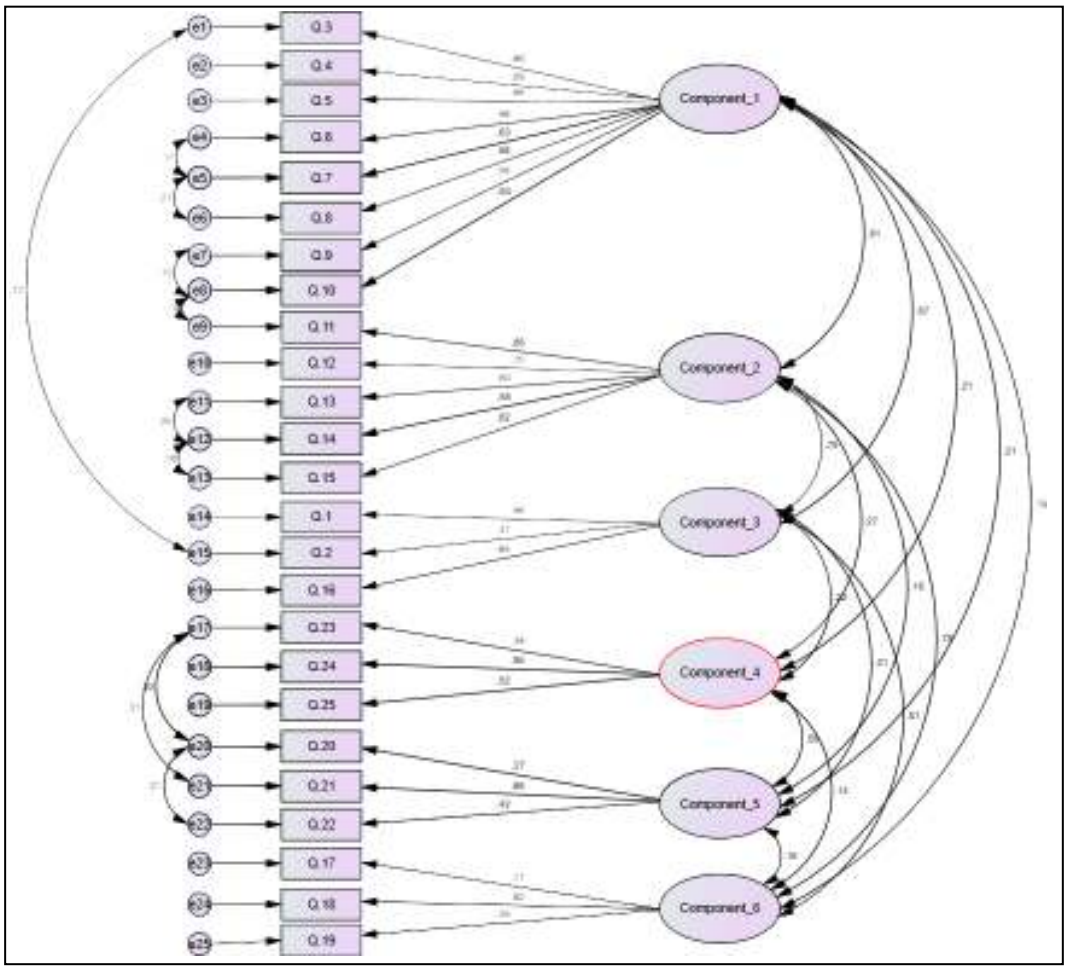


Table 7

Conformance indicators and recommended values for theoretical model acceptance

Parameters	Score
CMIN\df (Chi square (X^2)	≤ 3
CFI (comparative of fit index)	$\geq .90$
GFI (goodness of fit index)	$\geq .90$
NFI (Normed Fit Index)	$\geq .90$
IFI (incremental fit index)	$\geq .90$
TLI (Tucker-Lewis index)	$\geq .90$
RMSEA (Root mean square error of approximation)	$\leq .07$

(Kline, 2005)

Results related to the research question: What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context? Table (8).

Table 8

Verified conformity indicators for the validity and authenticity of the model

Parameters	Score
CMIN\df (Chi square (X^2)	2.723
CFI (comparative of fit index)	.941
GFI (goodness of fit index)	.949
NFI (Normed Fit Index)	.911
IFI (incremental fit index)	.942
TLI (Tucker-Lewis index)	.93
RMSEA (Root mean square error of approximation)	.041

The table shows the matching indicators used in the current study, and it is clear from the above table that the model is identified based on the recommended values.

Results related to the research question: What are the psychometric properties and factorial structure of cross-cutting symptom measures in the Arabic language within the Palestinian context? Table (9).

Table 9

Reliability and validity indicators of Cross-Cutting Symptom Measure in the Arabic language within the Palestinian context

Item construct	SRW	CR	AVE	Cronbach's Alpha if Item Deleted	Corrected Item-Total Correlation	Cronbach α	Guttman Split-Half Coefficient
Q.3	0.525			.884	.538		
Q.4	0.612			.881	.618		
Q.5	0.593			.883	.564		
Q.6	0.688			.882	.605		
Q.7	0.722			.882	.590		
Q.8	0.65			.884	.523		
Q.9	0.559			.884	.542		
Q.10	0.58			.882	.589		
Comp_1		0.831	.593			.84	
Q.11	0.499			.882	.583		
Q.12	0.594			.882	.585		
Q.13	0.749			.884	.516		
Q.14	0.762			.885	.484		
Q.15	0.607			.883	.545		
Comp_2		0.781	0.892			.772	
Q.1	0.647			.885	.481		
Q.2	0.667			.886	.433		
Q.16	0.392			.883	.566		
Comp_3		0.713	0.544			.595	
Q.23	0.398			.890	.249		
Q.24	0.814			.890	.251		
Q.25	0.844			.891	.192		
Comp_4		0.742	0.783			.615	
Q.20	0.669			.891	.081		
Q.21	0.55			.891	.165		
Q.22	0.713			.891	.113		
Comp_5		0.721	0.527			.51	
Q.17	0.373			.883	.377		
Q.18	0.488			.885	.313		
Q.19	0.792			.890	.087		
Comp_6		0.717	0.556			.52	
Total						.89	.704

The table shows that the scale has valid reliability and validity, as Cronbach's alpha coefficient (.89) was calculated, which is considered high, and according to the Guttman Split-Half Coefficient, the ratio was (.704). Also, it is clear from the table that the CR & AVE ratios are good. Everything mentioned above indicates that the indicators are very suitable for the scale.

Results related to the research question: Are there any statistically significant differences in the scale diagnosis between undiagnosed and diagnosed people? Table (10).

Table 10

The difference between undiagnosed and diagnosed people on the total scale score

	N	Mean	SD	T	Df	Sig.
undiagnosed	25	1.153	.592	-3.781	48	.000
diagnosed	25	1.718	.454			

The 25 diagnosed (M = 1.718, SD =.454) compared to the 25 undiagnosed (M = 1.153, SD =.592) demonstrated significantly better peak flow scores, t (48) = -3.781, p =.000.

Results related to the research question: Are there statistically significant differences in cross-cutting symptoms due to demographic variables (gender, age, place of residence, parents' educational level, parents' social status)? (as shown the result in Table (D-1) in Appendix D).

The simple main effects analysis showed that the demographic variables did have a statistically significant effect on the total score (p <.005). According to the results below, it is clear that the differences are due to the female (M=.943, SD=.55) in the gender variable. It is also evident through the LSD test that the differences are due to age (12), and in the variable of the place of residence, the differences are attributed in favor of camp. In contrast, in terms of the parent's educational level, the differences are attributed in favor of BA. Lastly, the parents' social status variable differences are due to divorce.

Results related to the research question: Are there statistically significant differences in cross-cutting symptoms due to demographic variables (gender, age, place of residence, parents' educational level, parents' social status)? (as shown Tables of the results in Appendix D from D2-D7).

The simple main effects analysis showed that the demographic variables statistically affected the mean Depression & Anger & Mania score ($p < .005$). According to the results below, it is clear that the differences are due to the female ($M = 98$, $SD = .865$) in the gender variable. It is also apparent through the LSD test that the differences are due to age (12), and in the variable of the place of residence, the differences are attributed in favor of the village. In contrast, in terms of the parent's educational level, the differences are attributed in favor of the Ph.D., and in the parents' social status variable, the differences are due to divorce.

The simple main effects analysis showed that the demographic variables had a statistically significant effect on the mean Anxiety score ($p < .005$). According to the results below, it is clear that the differences are due to the female ($M = 819$, $SD = .852$) in the gender variable. It is also clear through the LSD test that the differences are due to age (12), and in the variable of the place of residence, the differences are attributed in favor of camp. In contrast, in terms of the parent's educational level, the differences are attributed in favor of the Ph.D., and the variable of parents' social status is due to one of the parents being deceased.

The simple main effects analysis showed that the demographic variables had a statistically significant effect on the mean Somatic Symptoms score ($p < .005$). According to the results below, it is clear that the differences are due to the female ($M = 2.574$, $SD = 2.597$) in the gender variable. It is also evident through the LSD test that the differences are due to age (15), and in the variable of the place of residence, the differences are attributed in favor of the village. In contrast, in terms of the parent's educational level, the differences are attributed in favor of BA, and in the variable of parents' social status, the differences are due to divorce.

The simple main effects analysis showed that the demographic variables did have a statistically significant effect on the mean of the Suicidal Ideation\Suicide Attempts score ($p < .005$). According to the results below, it is clear that the differences are due to the female ($M = 1.046$, $SD = .163$) in the gender variable. It is also clear through the LSD test that the differences are due to age (12), and in the variable of the place of residence, the differences are attributed in favor of camp. In contrast, in terms of the parent's educational level, the differences are attributed in favor of BA, and in the variable of parents' social status, the differences are due to divorce.

The simple main effects analysis showed that the demographic variables did have a statistically significant effect on the mean of the Substance Use score ($p < .005$). According to the results below, it is clear that the differences are due to the male ($M = 1.057$, $SD = .171$) in the gender variable. It is also apparent through the LSD test that the differences are due to age (17), and in the variable of the place of residence, the differences are attributed in favor of camp. However, in terms of the parents' educational level, the differences are attributed in favor of secondary, and in the variable of parents' social status, the differences are due to one of the parents being deceased.

The simple main effects analysis showed that the demographic variables did have a statistically significant effect on the mean of the Repetitive Thoughts & Behaviors score ($p < .005$). According to the results below, it is clear that the differences are due to the female ($M = .947$, $SD = .801$) in the gender variable. It is also clear through the LSD test that the differences are due to age (12), and in the variable of the place of residence, the differences are attributed in favor of camp. In contrast, in terms of the parents' educational level, the differences are attributed in favor of MA, and lastly, in the variable of parents' social status, the differences are due to one of the parents being deceased.

Chapter Four

Discussion and recommendations

4.1 Introduction

This chapter aims to discuss the results of the study that examined Psychometric Properties and Factorial Structure of Cross-Cutting Symptom Measure in the Arabic Language within the Palestinian Context as well as identify some of the variables (demographics) in the subject of the study.

The study included a set of questions. The researcher will try to discuss these results to highlight the most critical results on which the various recommendations will be based.

The current research aims to examine the psychometric properties and factorial structure of cross-cutting symptom measures in Arabic within the Palestinian context alike, as this scale was built and codified by the American Psychological Association (APA) and is used as it is in the Palestinian society, and this matter may reduce the validity Diagnosis and psychotherapy.

In order to achieve the goal of the research, the researcher translated the scale from English into Arabic by a translation specialist and examined it by psychologists in Arabic to ensure the validity of the translation. The translated scale was presented to 15 people in order to check the validity of the content and to ensure that the scale items are understood in Arabic. Where it turned out to be understandable and then it was re-translated into English to make sure of the correctness of the translation.

The sample of the current research consisted of 2000 Palestinian individuals from the age of 11 to the age of 17, who were chosen in an available way. The researcher tried to cover the entire regions of Palestine. The sample was accessed through the Internet, social media, and messages in a face-to-face manner as well.

After explaining the objectives of the research to the participants and obtaining their responses, 1000 participants were randomly selected through the SPSS program in order

to carry out the exploratory analysis, which indicated that the scale contains six factors and 25 items, which contradicts the original scale that contains 12 factors.

To confirm the results obtained by the exploratory analysis, the other 1,000 participants were entered into the AMOS program in order to carry out the confirmatory analysis, which confirmed that the scale is valid for measurement in the Arabic language in the Palestinian society.

The results indicated that the cross-cutting symptom measures contain six components, and the scale settled through exploratory factor analysis on (25) items. Confirmatory factor analysis (CFA) results confirmed the findings of the exploratory factor analysis. so, the scale ended up in its final form on (25) items distributed as follows: (8) items for the first component, (5) items for the second component, and (3) items for each of the third, fourth, fifth and sixth components.

The researcher renamed the six factors according to the theoretical literature and previous studies as follows: the first factor - Depression & Anger & Mania, the second factor - Anxiety, the third factor - Somatic Symptoms, the fourth factor - Suicidal Ideation\Suicide Attempts, the fifth factor - Substance Use, the sixth factor - Repetitive Thoughts & Behaviors.

The research results were consistent with those of previous studies that discovered six criteria, such as Gibbons et al (2021).'s of the DSM-5 Level 1 Cross-Cutting Symptom Measure (DSM-XC), a transdiagnostic mental health symptom measure that has showed potential in guiding clinical diagnostic evaluations. Both the six-factor model (which includes mood, concern, activation, somatic, thoughts, and substance use) and the bifactor model (which includes a general factor of non-specific psychopathology and residual variables that include internalizing and thinking disorder) demonstrated a valid fit and perfect measurement invariance across age, sex, and enrollment date, indicating they might be helpful as research screening tools.

In addition, Gibbons et al. (2021) discovered that a six-factor solution derived from our EFAs provided the greatest match for our data. Mood, anxiety, activation, physical,

cognitive, and behavioral symptoms, as well as substance use, are all captured by their respective factors.

In addition, the researcher examined the reliability and validity through Cronbach's Alpha and Split - Half coefficients, and through the AVE & CR and correlation coefficients, all of which resulted in a very good level of validity and reliability, which confirms the validity of the scale for measurement in the Palestinian society.

Many studies have shown that the translated scale version is excellent and trustworthy. The goal of the research conducted by Hardinge and College (2018) was to assess the psychometric features of a Hindi translation of the DSM-5 Level 1 Cross-Cutting Symptom Measure, originally developed in English. The research demonstrates that the measure's Hindi translation has high levels of trustworthiness across a variety of measures of dependability. Thus, the DSM-5 Level 1 Cross-Cutting Symptom Measure presented in this thesis's translation into Hindi is a reliable and relevant assessment tool.

A study by Sapmaz et al. (2016) also verified the validity and reliability of the DSM-5 Level 1 Cross-Cutting Symptom Scale Turkish version (Child Form for 11−17 years and Parent Form for 6−17 years). The results of the study confirmed the credibility of the scale. It was seen that the Turkish version of the DSM-5 Level 1 Cross-Cutting Symptom Scale could be used as a valid and reliable tool for both clinical practice and research purposes.

The researcher also examined the statistical differences between people diagnosed with mental disorders and those not diagnosed with mental disorders. If the results show statistically significant differences, this indicates that the scale measures the goal for which it was set. Therefore, the researcher selected 25 undiagnosed individuals with mental disorders and compared them with 25 individuals diagnosed with mental disorders, who were selected in an available way. The results showed that there were statistically significant differences at the significance level ($\alpha = 0.05$) between diagnosed and non-diagnosed mental disorders. This confirms that the scale is valid for measurement in the Arabic language in the Palestinian society.

The results indicated that there are statistically significant differences due to demographic variables such as gender, age, place of residence, parents' educational level, and parents' social status. This indicates the existence of differences between individuals. Thus, the validity of the scale for measurement. The existence of such statistical differences between individuals with different demographic variables means the scale has high validity and good stability. It can be concluded that scale can be used in its current form for clinical and scientific purposes.

The results of the current thesis supported the research hypotheses; therefore, the scale is valid for use in Arabic in the Palestinian context for clinical and scientific research purposes.

In line with international scientific research conducted in different contexts, the current study provides strong evidence that the scale can be a practical tool for diagnosing mental disorders in the Arabic-speaking Palestinian population.

4.2 Recommendations

In light of the researcher's results, he suggests the following:

1. The researcher recommends re-applying this type of research to different groups and comparing the educational and health levels.
2. The researcher recommends that this scale be applied to a larger segment in terms of location to cover Palestine completely.
3. The researcher recommends comparing the tool used in the research with similar tools on samples in the Arab community.

4.3 Limitations of the study

The primary limitations of this research will be:

1. Since the recruitment took place online, the sample was heavily weighted toward a population with a high level of education. This may have resulted in the exclusion of those with a lower socioeconomic situation and a lower level of education."

2. Because the thesis was based on self-referral, it is possible that the research attracted people thinking about and concerned about the issue; nevertheless, these people may not have represented the overall community.
3. The quantitative information used in the research came from the self-report questionnaires and surveys the participants filled out. Consequently, despite the data being personal and confidential, it is possible that participants did not offer sufficient information or thoroughly apply the ideas that the researcher was interested in investigating.

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Appendices

Appendix A

Cross-Cutting Symptom Measures

DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Child Age 11–17

Name: _____ **Age:** ____ **Sex:** ❑ Male ❑ Female **Date:**_____

Instructions: The questions below ask about things that might have bothered you. For each question, circle the number that best describes how much (or how often) you have been bothered by each problem during the **past TWO (2) WEEKS.**

		During the past **TWO (2) WEEKS,** how much (or how often) have you...	**None** Not at all	**Slight** Rare, less than a day or two	**Mild** Several days	**Moderate** More than half the days	**Severe** Nearly every day	**Highest Domain Score** (clinician)
I.	1.	Been bothered by stomachaches, headaches, or other aches and pains?	0	1	2	3	4	
	2.	Worried about your health or about getting sick?	0	1	2	3	4	
II.	3.	Been bothered by not being able to fall asleep or stay asleep, or by waking up too early?	0	1	2	3	4	
III.	4.	Been bothered by not being able to pay attention when you were in class or doing homework or reading a book or playing a game?	0	1	2	3	4	
IV.	5.	Had less fun doing things than you used to?	0	1	2	3	4	
	6.	Felt sad or depressed for several hours?	0	1	2	3	4	
V. & VI.	7.	Felt more irritated or easily annoyed than usual?	0	1	2	3	4	
	8.	Felt angry or lost your temper?	0	1	2	3	4	
VII.	9.	Started lots more projects than usual or done more risky things than usual?	0	1	2	3	4	
	10.	Slept less than usual but still had a lot of energy?	0	1	2	3	4	
VIII.	11.	Felt nervous, anxious, or scared?	0	1	2	3	4	
	12.	Not been able to stop worrying?	0	1	2	3	4	
	13.	Not been able to do things you wanted to or should have done, because they made you feel nervous?	0	1	2	3	4	
IX.	14.	Heard voices—when there was no one there—speaking about you or telling you what to do or saying bad things to you?	0	1	2	3	4	
	15.	Had visions when you were completely awake—that is, seen something or someone that no one else could see?	0	1	2	3	4	
X.	16.	Had thoughts that kept coming into your mind that you would do something bad or that something bad would happen to you or to someone else?	0	1	2	3	4	
	17.	Felt the need to check on certain things over and over again, like whether a door was locked or whether the stove was turned off?	0	1	2	3	4	
	18.	Worried a lot about things you touched being dirty or having germs or being poisoned?	0	1	2	3	4	
	19.	Felt you had to do things in a certain way, like counting or saying special things, to keep something bad from happening?	0	1	2	3	4	
		In the past **TWO (2) WEEKS,** have you...						
XI.	20.	Had an alcoholic beverage (beer, wine, liquor, etc.)?		☐ Yes		☐ No		
	21.	Smoked a cigarette, a cigar, or pipe, or used snuff or chewing tobacco?		☐ Yes		☐ No		
	22.	Used drugs like marijuana, cocaine or crack, club drugs (like Ecstasy), hallucinogens (like LSD), heroin, inhalants or solvents (like glue), or methamphetamine (like speed)?		☐ Yes		☐ No		
	23.	Used any medicine without a doctor's prescription to get high or change the way you feel (e.g., painkillers [like Vicodin], stimulants [like Ritalin or Adderall], sedatives or tranquilizers [like sleeping pills or Valium], or steroids)?		☐ Yes		☐ No		
XII.	24.	In the last 2 weeks, have you thought about killing yourself or committing suicide?		☐ Yes		☐ No		
	25.	Have you EVER tried to kill yourself?		☐ Yes		☐ No		

Appendix B

Assessment tool

جامعة النجاح الوطنية

كلية الدراسات العليا

برنامج ماجستير علم النفس السريري

الطالب/ة المحترم/ة،

لديك فيما يلي مقياسًا يتضمن مجموعة من الفقرات التي تقيس الاضطرابات النفسية، وهي جزء من دراسة علمية بعنوان "الخصائص السيكومترية والتركيب العاملي لقياس الأعراض الشاملة في اللغة العربية ضمن السياق الفلسطيني" يقوم بها الباحث للحصول على درجة الماجستير في علم النفس العياديّ، لذا أطلب منك قراءة فقرات المقياس بتأن وتركيز والإجابة على جميع فقراتها بوضع علامة (X) في خانة الإجابة التي تختارها مع مراعاة ما يلي:

- مراعاة المصداقية أثناء الإجابة.
- للتنويه: كافة البيانات سرية ولا تستخدم إلا لأغراض البحث العلمي.

مع تحيات الباحث

أولاً: المعلومات الشخصية

1. الجنس:

( ) ذكر ( ) أنثى

2. العمر:

_____

3. مكان السكن:

( ) مدينة ( ) قرية ( ) مخيم

4. المستوى التعليمي للأهل:

( ) غير حاصلين على أي شهادة ( ) ثانوي

( ) لقب أول جامعي ( ) لقب ثاني جامعي

( ) لقب ثالث جامعي

5. الحالة الاجتماعية للأهل:

( ) متزوجين ( ) مطلقين

( ) أحد الوالدين متوفي

ضع علامة (X) في خانة الإجابة التي تنطبق عليك.

ذاتي التصنيف من المستوى الأول لقياس الأعراض الشاملة DSM-5– الأطفال من سن 11 إلى 17 عامًا

التعليمات: الأسئلة الواردة أدناه تسأل عن الأشياء التي قد تزعجك. لكل سؤال، ضع دائرة حول الرقم الذي يصف بشكل أفضل مدى (أو عدد المرات) التي أزعجتك بها كل مشكلة خلال الأسبوعين الماضيين.

		خلال الأسبوعين الماضيين، كم مرة...	لا شيء لا على الاطلاق	طفيف نادر، أقل من يوم أو يومين	خفيف عدة أيام	معتدل أكثر من نصف الأيام	شديد تقريبا كل يوم	أعلى درجة للنطاق
I	.1	كنت تتضايق من ألم في المعدة، أو صداع، أو غيرها من الآلام؟	0	1	2	3	4	
	.2	قلقت على صحتك أو من الإصابة بمرض؟	0	1	2	3	4	
II	.3	أزعجك عدم القدرة على النوم أو الاستمرار في النوم، أو الاستيقاظ مبكرًا؟	0	1	2	3	4	
III	.4	إنزعجت من عدم القدرة على الانتباه عندما كنت في الفصل أو تقوم بواجب منزلي أو تقرأ كتابًا أو تلعب لعبة؟	0	1	2	3	4	
IV	.5	قلّت المتعة في الأشياء التي إعتدْت القيام بها؟	0	1	2	3	4	
	.6	شعرت بالحزن أو الاكتئاب لعدة ساعات؟	0	1	2	3	4	
V & VI	.7	شعرت بالغضب أو الانزعاج بسهولة أكثر من المعتاد؟	0	1	2	3	4	
	.8	شعرت بالغضب أو فقدت أعصابك؟	0	1	2	3	4	
VII	.9	بدأت مشروع أكثر بكثير من المعتاد أو أنجزت أشياء أكثر خطورة من المعتاد؟	0	1	2	3	4	
	.10	نمت أقل من المعتاد ولكن ما زال لديك الكثير من الطاقة	0	1	2	3	4	

VIII	.11	شعرت بالتوتر أو القلق أو الخوف؟	0	1	2	3	4
	.12	لم تكن قادر على التوقف عن القلق؟	0	1	2	3	4
	.13	لم تكن قادرًا على فعل الأشياء التي تريدها أو كان ينبغي عليك فعلها، لأنها جعلتك تشعر بالتوتر؟	0	1	2	3	4
IX	.14	سمعت صوتًا – عندما لم يكن هناك أحد – تتحدث عنك أو تخبرك بما يجب أن تفعله أو تقول لك أشياء سيئة؟	0	1	2	3	4
	.15	كانت لديك رؤى عندما كنت مستيقظًا تمامًا – أي رأيت شيئًا أو شخصًا لا يمكن لأي شخص آخر رؤيته؟	0	1	2	3	4
X	.16	كانت لديك أفكار ظلت تخطر على بالك أنك ستفعل شيئًا سيئًا أو أن شيئًا سيئًا سيحدث لك أو لشخص آخر؟	0	1	2	3	4
	.17	شعرت بالحاجة إلى التحقق من بعض الأشياء مرارًا وتكرارًا، مثل ما إذا كان الباب مغلقًا أو ما إذا كان الموقد مغلقًا؟	0	1	2	3	4
	.18	تقلق كثيرا من الأشياء التي لمستك سواء كانت قذرة أو بها جراثيم أو تسمم؟	0	1	2	3	4
	.19	شعرت أنه يتعين عليك القيام بالأشياء بطريقة معينة، مثل العد أو قول أشياء خاصة لمنع حدوث شيء سيء؟	0	1	2	3	4
		في الأسبوعين الماضيين، هل...					
XI	.20	تناولت مشروب كحولي (بيرة، نبيذ، إلخ)؟	لا □		نعم □		
	.21	دخنت السجائر أو السيجار أو الارجيلة أو مضغ التبغ؟	لا □		نعم □		

	.22	تعاطيت المخدرات مثل الماريجوانا أو الكوكايين أو الكراك؟	لا □	نعم □	
	.23	إستخدمت أي دواء دون وصفة من الطبيب للحصول علـــى ارتفـــاع أو تغيير الطريقة التي تشعر بها؟	لا □	نعم □	
XII	.24	فكرت في قتل نفسك أو الانتحار؟	لا □	نعم □	
	.25	حاولت من قبل ان تقتل نفسك؟	لا □	نعم □	

Appendix C

Validity measurement of instruments

Types of validity	Definition	Example	Statistical tests
Content validity	It is the extent to which a test has every element required to reflect the concept being assessed accurately. (Polit & Beck, 2011)	Work satisfaction and other associated factors, such as compensation, promotions, and relationships with coworkers, must be included in a tool that measures work satisfaction.	Qualitative approach (experts committee) Quantitative approach (content validity index [IVC])
Criterion validity	A result is considered when it can be compared to a "gold standard."		
Concurrent validity	It may be assessed simultaneously through both the target test and the "gold standard,"	A new instrument and a purported "gold standard" are employed to investigate the depression. Do you often feel down or sad? (Kimberlin & Winterstein, 2008)	Correlation tests
Predictive validity	The "gold standard" is applied after the target test. (Kimberlin & Winterstein, 2008)	Cholesterol and blood pressure results are based on their predictive value for estimating the risk of cardiovascular illnesses. (Kimberlin & Winterstein, 2008)	Correlation tests
Construct validity	it measures how closely a group of variables resembles the concept intended to be tested. (Martins, 2006)		
Known-groups technique	It is obtained by comparing the instrument's results with those of the other instrument that assesses a similar concept, with	Several groups of people complete the research instrument, and the groups' findings are then contrasted. (Kimberlin &	Hypothesis testing

Types of validity	Definition	Example	Statistical tests
	results showing a strong correlation between the two predicted. (Polit, 2015)	Winterstein, 2008)	
Convergent validity	It is achieved by comparing the instrument to another that evaluates a related concept, expecting a high degree of correlation between the two. (Polit, 2015)	Researchers anticipate finding a significant link between the two measures of job satisfaction after administering the instruments.	Correlation tests
Discriminant validity	It investigates if the goal measurement is not misaligned with other constructs or variables from which it should deviate. (Polit, 2015)	Little correlation should be shown between a tool that measures self-efficiency and one that evaluates work motivation. (Aaronson, et al., 2002)	Correlation tests
Structural or factorial validity	It evaluates if a given measure adequately represents a hypothetical construct dimension. (Polit, 2015)	Researchers want to know whether certain aspects of the workplace, such as autonomy and feedback, are indicators of work satisfaction.	Modeling structural equations and Factorial analysis
Cross-cultural validity	Measurements where the data suggests that the original tool and another culturally modified instrument are equal. (Polit, 2015)	A tool that measures work satisfaction that has been translated into another cultural setting and modified must behave similarly to the original version.	· Back-translators Experts committee Pre-test and Independent translators

Appendix D

Results

Table D-1

The difference between the demographic variables on the mean of scale score

Source	SS	Df	MS	F	P
Gender	9.262	1	9.262	39.003	.000
Age	29.069	6	4.845	20.402	.000
Place of residence	3.505	2	1.753	7.38	.001
Parents' educational level	8.903	4	2.226	9.373	.000
Parents' social status	9.38	2	4.69	19.751	.000
Total	2070.501	2000			

Table D-2

The difference between the demographic variables on the mean of Depression & Anger & Mania score

Source	SS	df	MS	F	P
Gender	61.737	6	10.289	16.796	.000
Age	8.018	2	4.009	6.544	.001
Place of residence	.958	3	.319	.521	.003
Parents' educational level	21.045	4	5.261	8.588	.000
Parents' social status	14.619	2	7.310	11.932	.000
Total	2956.547	2000			

Table D-3

The difference between the demographic variables on the mean of Anxiety score

Source	SS	df	MS	F	P
Gender	15.898	1	15.898	26.151	.000
Age	56.526	6	9.421	15.497	.000
Place of residence	5.668	2	2.834	4.662	.001
Parents' educational level	7.915	3	2.638	4.340	.004
Parents' social status	18.833	4	4.708	7.745	.000
Total	2400.680	2000			

Table D-4

The difference between the demographic variables on the mean of Somatic Symptoms score

Source	SS	df	MS	F	P
Gender	266.323	1	266.323	50.190	.000
Age	394.709	6	65.785	12.397	.000
Place of residence	141.902	2	70.951	13.371	.000
Parents' educational level	9.004	3	3.001	.566	.003
Parents' social status	24.116	4	6.029	1.136	.001
Total	21831.000	2000			

Table D-5

The difference between the demographic variables on the mean of Suicidal Ideation\Suicide Attempts score

Source	SS	df	MS	F	P
Gender	.198	1	.198	10.341	.001
Age	1.409	6	.235	12.291	.000
Place of residence	.086	2	.043	2.246	.001
Parents' educational level	.154	3	.051	2.684	.004
Parents' social status	.092	4	.023	1.202	.005
Total	2191.667	2000			

Table D-6

The difference between the demographic variables on the mean of Substance Use score

Source	SS	df	MS	F	P
Gender	.310	1	.310	16.817	.000
Age	2.154	6	.359	19.506	.000
Place of residence	.257	2	.128	6.968	.001
Parents' educational level	.158	3	.053	2.861	.003
Parents' social status	.187	4	.047	2.535	.001
Total	2216.111	2000			

Table D-7

The difference between the demographic variables on the mean of Repetitive Thoughts & Behaviors score

Source	SS	df	MS	F	P
Gender	7.496	1	7.496	14.511	.000
Age	41.907	6	6.985	13.521	.000
Place of residence	6.844	2	3.422	6.625	.001
Parents' educational level	4.448	3	1.483	2.870	.035
Parents' social status	21.533	4	5.383	10.422	.000
Total	2685.333	2000			

جامعة النَّجاح الوطنيَّة

كليَّة الدّراسات العليا

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من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس – فلسطين.

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الملخص

يهدف البحث الحالي الى التحقق من الخصائص السيكومترية والتركيب العاملي لمقياس الأعراض الشاملة في البيئة الفلسطينية. حيث يتم فيه قياس عدد من الأعراض، بما في ذلك الاكتئاب، والهوس، والغضب، والقلق، والأعراض الجسدية، والأفكار الانتحارية، والذهان، ومشاكل الذاكرة، والسلوكيات المتكررة وانفصال الأفكار، ووظائف الشخصية، وتعاطي المخدرات، من خلال مقياس الأعراض الشاملة، وهو المعيار الدولي. تم ترجمة المقياس وتدقيقه من أجل التحقق من إمكانية استخدامه لتقييم الاضطرابات المذكورة في السياق الفلسطيني. وتكونت عينة البحث من 2000 فرد فلسطيني مقيم في الأراضي الفلسطينية المحتلة والضفة الغربية. اختلف المشاركون في الأعمار من 11 إلى 17 عامًا. تم الوصول الى المشتركين من خلال الانترنت، والبريد الإلكتروني، والمدونات، ووسائل التواصل الاجتماعي، والتسويق عبر الرسائل النصية القصيرة. نتج عن البحث أن مقياس الأعراض الشاملة كان قابلاً للتطبيق باللغة العربية في فلسطين. حيث أشارت النتائج إلى أن مقياس الأعراض الشاملة يتكون من ست مكونات، مع تحليل العوامل الاستكشافية الذي أظهر أن المقياس يحتوي على (25) عنصرًا، وأظهر تحليل عامل التأكيد إلى أن المقياس يحتوي على ستة عوامل. في الصيغة الفلسطينية، أظهر مقياس الأعراض الشاملة مستويات ممتازة من الصدق والثبات. وبالتالي، يمكن اعتبار مقياس الأعراض الشاملة صالحاً للبحث في المستقبل. قد يكون لمقياس الأعراض الشاملة باللغة العربية آثار بعيدة المدى لتقييم

الاضطرابات ومكافحتها على المستوى الشخصي والمجتمعي للمجموعات المعرضة بشكل خاص للخطر، مثــل تلك الموجودة في الأراضي الفلسطينية المحتلة ".

الكلمات المفتاحية: قياس الأعراض الشاملة. فلسطين؛ التحقق من صدق الاختبار.