



## The Relative Contribution of Alexithymia to Psychosomatic Symptoms among Abused Women in Jordan

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### Abstract

**Objectives:** The current study aimed to reveal the level of both alexithymia and psychosomatic disorders in abused women, and it also aims to reveal the predictive ability of alexithymia and psychosomatic disorders in abused women.

**Methodology:** The descriptive predictive approach was used to detect the level of alexithymia and psychosomatic disorders among abused women, and to reveal the predictive ability of alexithymia for their psychosomatic disorders. This is due to its suitability to the nature and objectives of this study. The alexithymia scale and the psychosomatic disorders scale were used. The study sample consisted of (267) abused women who visited the Family Reconciliation House and the Jordanian Women's Union in the city of Irbid, during the time period from 12/2/2024 to 2/5/2025. They were selected using the available method, including (113) women who visited the Family Reconciliation House, and (154) women who visited the Jordanian Women's Union.

**Results:** The results of the study indicated that the level of alexithymia among the sample of abused women was high. The results also indicated that the level of psychosomatic disorders among the sample of abused women was moderate. The results also indicated that the level of psychosomatic disorders increases by (0.420) of a standard unit whenever the level of alexithymia increases by one standard unit (standard deviation), and increases by (0.431) of a standard unit when moving from the age group (25 years and under) to the age group (41 years and above), and decreases by (0.123) of a standard unit when moving from the academic qualification category (high school and below) to the academic qualification category (studies Alia).

**Conclusion:** Alexithymia is closely linked to psychosomatic disorders in abused women, as this condition increases the chances of developing health problems such as chronic headaches,



digestive disorders, and fibromyalgia, as a result of the inability to deal with emotional stress. Continuing violence also exacerbates these problems, making psychological and therapeutic interventions necessary to help them develop emotional awareness and improve their quality of life.

**Keyword:** Alexithymia, psychosomatic disorders, violence, abused women

## Introduction

Violence against women is one of the main factors that negatively affect the psychological and physical health as it could lead to deep disorders, such as Alexithymia, which refers to the difficulty to identify and express emotions. Abused women are often find it difficult to express their emotions due to their harsh psychological experiences, which increases the possibility of revealing psychosomatic disorders symptoms, including physical symptoms such as the chronic headache, digestive system pain, and heart disorders, which cannot be medically interpreted.

Violence against women is a social and humanitarian serious issue that include physical, sexual, and emotional abuse, in addition to the control and dominant of the husband or one of the family members. This type of violence is among the most common abuses worldwide and it has long term psychological and physical effects, as various women suffer from different types of this violence, which leads to psychological disorders such as depression, anxiety, and “Post Traumatic Stress Disorder” (PTSD), in addition to physical damages that might be sever (Daneshvare et al., 2022).

Violence, as a concept, encompasses several harmful behavioral patterns that are practiced against women in Eastern and Western societies, while married women are the most vulnerable to violence (Radzilani-Makatu & Chauke, 2019). Women who experience violence suffer from negative emotional and behavioral effects, including neglect, helplessness, anxiety, anger, and aggression, in addition to sleep disorders, eating problems, alcohol use, and suicidal tendencies. Violence is one of the essential factors that lead to psychological disorders among women (Avdibegovic *et al.*, 2015).

Losing the ability to understand, process, or describe the emotions might play as critical driver in the domestic violence context (Bressi *et al.*, 1996). Physical and psychosomatic disorders symptoms show strong correlation with losing ability to express emotions (alexithymia), which is a trait that is believed to erupt the risk factor of mental illness and physical health problems.

The difficulty that resulted from losing ability to express emotions (such as difficulty to define and describe the emotions) might explain that individuals with who suffer from these symptoms categories appear to misinterpret the physiological arousal that is correlated to emotion, as they describe it as a sign of illness related symptoms. Losing ability to express emotions appears with an inability to process and regulate emotional situations, which is characterized primarily



by low physiological activity, an avoidant pattern of emotion regulation, and difficulty to cope with the dynamic environment demands (Panayiotou, 2018). Losing ability to express emotions was first described among patients who were seeking treatment for psychosomatic symptoms. Large proportion of patients who have physical symptoms, such as pain or fatigue, were described as having a state of personal distress, but also have an obvious inability to express their emotions to the doctors (Sifneos, 1973).

### Psychosomatic Disorders

Psychosomatics, as a term, is derived from the Greek words *psyche* (i.e. Soul) and *Soma* (i.e. Body). Also, *Soma* refers to the physical body organism. Thus, psychosomatics disorders is a disease that affect the soul and body. Since ancient times, psychological and emotional factors have been considered as correlated to various physical illnesses (Owaid, 2022).

Psychosomatics, as a concept, was introduced to medicine science in earl 1818 by the German physician **Johann Christian August Heinroth** (1773–1843), who was the first person used the term "Psychosomatics". Hippocrates also confirmed that individuals' health depends on their personality, as depressed individuals are not only suffering from a depressed mood, but also experience abdominal pain (Grzwa *et al.*, 2011).

Psychosomatic medicine was emerged in the early 20<sup>th</sup> century, and it was appeared only in the past few decades. Psychoanalysts were the first to identify causal and theoretical correlations between mental conflicts or situational stressors with the physical symptoms. **Sigmund Freud** clearly described the basic concept of psychosomatic medicine and used the term "Hysterical conversion", which is a change in the expressive behavior, (i.e., from unresolved emotions to physical symptoms) (Kumar *et al.*, 2006). First attempts to define psychosomatic disorders were variant concepts stemmed from the Neurotic theory; thus, physical symptoms were a special case of neurotic transference and were attributed to the psyche (Brautigam & Von Rad, 1977).

Psychosomatic disorders are defined as the physical disorders that are familiar to physicians. The Diagnostic and Statistical Manual of Mental Disorders (DSM) describes the disorders arising from psychological factors as being correlated to environmental stimuli with psychological significance, including a significant organic disease (such as Rheumatoid arthritis) or a physiological disease process (such as Headaches) (APA, 2013).

Psychosomatic disorders are also defined as disorders that are characterized by physiological changes that partially arise from emotional factors (Shamim, 2014). Psychosomatic disorders are also defined as mental disorders that are characterized by a physical manifestation of symptoms in the individual, however, they are difficult to be medically diagnosed (Pylypenko *et al.*, 2022).



Abdul Al-Salam *et al.* (2024) defined the psychosomatic disorders as organic disorders in which emotional factors operate as crucial, strong, and fundamental role, and occur through the autonomic nervous system. These disorders differ from hysterical conversion symptoms, as the latter represent the transformation of anxiety into symptoms that affect the motor, sensory, and somatic systems.

### **Symptoms of psychosomatic disorders**

Psychosomatics explains the illnesses as psychological conditions, even the most serious ones, and offers treatment by addressing psychological problems. Initially, psychosomatics concept began by combining diseases, such as cardiovascular disease, arterial hypertension, gastric and duodenal ulcers, bronchial asthma, psoriasis, and others, in which negative mental influences play a significant role (Ulyukun *et al.*, 2021). Psychosomatic symptoms are clinical symptoms that do not involve underlying organic diseases including the common symptoms, such as abdominal pain, headache, chest pain, fatigue, limb pain, back pain, health anxiety, and breathing difficulty (Rickert, 1994). The classic list of psychosomatic diseases included hypertension, thyrotoxicosis, bronchial asthma, rheumatoid arthritis, peptic ulcer disease, ulcerative colitis, and neurodermatitis (Kimball, 1979).

Currently, two groups of psychosomatic disorders are referred: functional and organic disorders. In the functional disorders, psychological factors are often the only diagnosable cause of symptoms, such as psychogenic nausea and vomiting, psychogenic syncope, psychogenic cough, psychogenic constipation, psychogenic headache, psychogenic paralysis. In the organic psychosomatic disorders, stress and the personal factors are among the factors that cause the disease, such as peptic ulcer disease, ulcerative colitis, and migraine, psoriasis, diabetes, glaucoma, hyperthyroidism, alopecia Areata, and rheumatoid arthritis (Placzkiewicz, 2024).

### **Causes of Psychosomatic Disorders:**

Psychosomatic disorders are a group of states characterized by distinct etiologies and causes the interaction and overlap between the physical and psychological fields. Psychosomatic disorders include dysfunctions in various body organs and systems, while important role is attributed to the emotional and psychosocial variables. Long-term experience of certain emotional states can lead to normal body functions disorder and the formation of diseases. Psychosomatic diseases are align with the physical symptoms (with the existence or absence of objective organic diseases), while psychological factors such as stress and personality traits might have a potential impact on their manifestation, development, or exacerbation. Psychosomatic diseases are difficult to diagnose, as the final diagnosis is often concluded after the consultations of various specialties and after operating multiple medical examinations (Efremov, 2020).



Psychosomatic disorders occur when psychological factors affect physical health and symptoms, and they might develop when there is a biological predisposition, psychological vulnerability, and significant psychosocial stress.

Common psychosomatic disorders include asthma, gastrointestinal disorders, and cardiovascular system problems. Psychological stress can exacerbate existing medical conditions, such as diabetes and cancer, by altering behaviors or physiological responses. Treatments include medication, psychotherapy, relaxation techniques, and lifestyle modifications (Torrubia-Pérez *et al.*, 2022).

## **Alexithymia**

Alexithymia, as a concept, arose from noting that individuals with certain physical illnesses were unable to recognize their emotions as personal emotions, as they lacked illusions about instinctual emotions and motivations. These observations were the foundations of psychosomatic medicine. The 1940s recorded a starting increase in emotional and systematic cognitive observations of these individuals, with a focus on physical illnesses associated with unconscious and psychological conflicts (Alexander, 1950). Maclean (1949) suggested that psychosomatic diseases are caused by physiological stress resulting from an inability to express emotions verbally. Alexithymia was initially conceived as a psychosomatic disorder, but it is now widely recognized as a personality trait that makes affected individuals at risk for other medical and mental disorders, in addition to reducing the likelihood of these individuals to respond to the traditional treatments for these disorders. The DSM-5 classifies losing ability to express emotions as neither a symptom nor a mental disorder, but rather a multidimensional personality trait, and its severity varies from one individual to another.

The shift point arose when Sifneos (1973) coined the term “Alexithymia” and began testing its validity and using assessment methods. Sifneos (1973) noticed that patients with psychosomatic disorders had inability to define their emotions. More than five decades later, alexithymia is now existed and consistently associated with a range of psychological diseases, such mood disorder, anxiety, substance abuse, eating disorders, and personality disorders.

Diagnosing individuals as affected by alexithymia represents a risk factor because it weakens emotions regulation. The literal definition of alexithymia is “having no words for emotions”, and it is characterized by (a) difficulty to identify and describe emotions, (b) difficulty to distinguish between emotional states and physiological sensations, and (c) a tangible, outward-oriented cognitive style. Alexithymia difficulty peaks in distinguishing between emotional and physical states, and in the frequent use of physical sensations to describe emotions (Taylor & Bagby, 2012).

Losing ability to express emotions (alexithymia) as the trait correlated to inability to define and describe the emotions, in addition impairment in imagination and visualization, while this



inability is correlated to psychological disorders in general as it correlated to the increased reporting of medically unexplained symptoms, particularly depression (Panayiotou *et al.*, 2015). Alexithymia concept also refers to the individual's difficulty to identify and describing his /her emotions (Dizret *et al.*, 2020).

Alexithymia is defined as the individual's inability to identify and express his/her emotions, which is a subclinical condition that is responsible for some social and emotional symptoms that are appear in a range of psychological conditions (Lee *et al.*, 2022).

### Alexithymia Symptoms

Hiirola *et al.* (2017) indicated that alexithymia has four symptoms, as follows: **(1) Impaired imagination:** Individuals with alexithymia lack the ability to dream and imagine. They have a weak ability to visualize sensations associated with memories and images, while they have no problem in imagining material things. **(2) Thinking style bound to the external world:** The thinking style bound to the external world is represented by the ability of individual with alexithymia to adapt with the material environment, including empirical facts and material objects. These individuals are usually direct their mental capabilities towards material aspect; thus, they are sometimes described as robotic, and they prefer to be guided by social norms and the strict rules. Also, these individuals are described as they are governed by routine and captivated to the social norms; thus, they are limited and rigid in their thinking. **(3) Difficulty identifying emotions:** Difficulty to identify and distinguish the emotions is among the common symptoms of alexithymia. Individuals with alexithymia have difficulty in identifying, distinguishing, and expressing their emotions verbally due to having no clear image for their emotions. This difficulty manifests by having some symptoms, such as anxiety, depression, and tension, without being aware of these symptoms until someone else inform them about them, including "You seem anxious or tense". At that time, the affected individual realizes that he/she is having abnormal mood, but unable to recognize the reason of having this feeling. This recognition is accompanied by ability to feel the physical changes that accompany the emotional states they are going through, such as stomach adductions, increased heartbeat, and cheeks redness. **(5) Difficulty describing emotions:** Individuals with alexithymia face difficulty in expressing their emotions verbally. Asking them about their emotions, they avoid answering, give misleading answers, or try to change the subject. These individuals try to hide their problem using common phrases that express understanding their emotions, and they have learned these phrases from people around them. Asking the individual with alexithymia about his/her emotions, they find it difficult to answer except from a logical perspective; thus, they give a random answer because they neither feel nor imagine specific emotions.



## Characteristics of Individuals with Alexithymia

Individuals with alexithymia are characterized by a set of traits, including the inability to identify their emotions and distinguish between happiness, sadness, among other emotions. These individuals also find it difficult to describe their emotions verbally, lack the ability to imagine, suffer from a disturbance in conceptual processes, lack of emotional imagination related to images and memories, while their thinking is traditional and related to the external material world (Joergen *et al.*, 2010). Furthermore, individuals with alexithymia are also characterized by an inability to self-regulate, a lack of vocabulary, and difficulty to use words for expressing their emotions toward others (Mattilla *et al.*, 2009). Besides, these individuals have numerous social problems, including difficulty to communicate with others and a weak ability to develop social relationships. Reasonably, inability to express emotions interferes with the individuals' personal relationships; thus, these individuals develop deficiencies in understanding and communicating their own emotions and others emotions. Having limited social and emotional skills lead to develop difficulties in interacting with their social environments. Furthermore, individuals who suffer from inability to express emotions tend to avoid close social relationships, and if they do interact with others, the relationship tends to remain superficial (Nicolo *et al.*, 2011).

Above that, these individuals also have difficulty to distinguish their emotions and the physical sensations associated with reactions. They suffer from a lack of imagination, daydreaming, difficulty in awareness and perception, external mental orientation, and mood problems such as depression (Lumley, 2004).

## Statement of the Problem

Violence against women is a serious social phenomenon that affects all societies, whether Eastern or Western. Violence is defined as harmful behavior used by an individual to attach physical, psychological, or social harm on others. Violence is often directed against women for reasons related to dominance and control in both Eastern and Western societies, as married women are the most vulnerable groups to violence, whether physical, psychological, economic, or sexual violence. Scholars indicate that these type of violence might be rooted from cultural and social constructs that reinforce traditional gender roles, and might sometimes be due to male dominance (Alkan *et al.*, 2021).

The violence effects might devastate the woman's mental health and other physical health aspects. In addition to causing injury, violence increases the woman's long-term risk of developing various other health problems, including chronic pain, physical disability, drug and alcohol addiction, and depression. Clinics in Jordan found that nearly one in three women experience sexual violence during their marital life, but to a lesser extent (for example 15.4% of women experience physical abuse during pregnancy) (Clark *et al.*, 2009). In this vein, Al-



Nsour *et al.* (2009) showed that 87% of women experienced various types of partner violence in the past 12 months. The most common type of violence reported was emotional abuse (47.5%) followed by wife beating. (19.6%).

Alejandro *et al.* (2023) indicated that women who have experienced violence are more likely to experience psychosomatic disorders. The study of Alghamdi (2020) reported a high level of psychosomatic symptoms among abused women. Also, inability to understand, process, or describe emotions (alexithymia) plays a crucial role in the domestic violence, and alexithymia was a significant mediator in the violence between the partners (Dube *et al.*, 2024).

**Specifically**, this study seeks to answer the following questions:

**Question 1:** What is the level of alexithymia disorders symptoms among abused women?

**Question 2:** What is the level of psychosomatic among abused women?

**Question 3:** What is the relative contribution of alexithymia and the variables (age group, marital status, educational level, and source of violence) to the symptoms of psychosomatic disorders among abused women?

### **Significance of the Study:**

This study has theoretical and practical importance as follows:

**Theoretical importance** is highlighted in researching the abused women as a primary sample, which requires the relevant authorities' attention due to the women's significant role and profound influence in the society. This study provides critical information to the specialists on the psychosomatic symptoms and alexithymia levels among abused women, concentrates on abused women in Jordan reality, and reveals the most prevalent violence forms and their negative impacts on women. Furthermore, this study contributes to foster the scientific knowledge through analyzing the current knowledge gaps, which assist the scholars and academics in various fields to promote their studies on abused women by incorporating new variables.

**Practical and applied importance** is represented in raising awareness among abused women on psychosomatic disorders and their symptoms, as well as alexithymia.

Psychological education is crucial in treatment, holding preventive programs to help women in coping with the trauma of violence and avoid its negative effects, directing the specialists to design therapeutic programs that help abused women to express their emotions, helping social institutions to provide solutions for helping women and households exposed to violence, designing programs to alleviate psychological pressure on abused women, and reducing the symptoms of psychosomatic disorders.



The results of this study recommend to encourage the scholars and specialists to conduct additional studies on these variables, along with other variables that of importance to abused women category. Also, the results provide the scholars with measurement tools that have psychometric properties: symptoms of psychosomatic disorders and alexithymia tools.

### **Study objectives:**

This study seeks to reveal alexithymia and symptoms of psychosomatic disorders levels among abused women. Also, it aims to reveal the relative contribution of alexithymia to the symptoms of psychosomatic disorders among abused women.

### **Conceptual and Operational Definitions:**

**Psychosomatic disorders:** The physical disorders that are familiar to the physicians. The Diagnostic and Statistical Manual of Mental Disorders (DSM) describes the disorders arising from psychological factors as being correlated to environmental stimuli with psychological significance, including a significant organic disease (such as Rheumatoid arthritis) or a physiological disease process (such as Headaches) (APA, 2013).

**Operationally**, it is defined as the score obtained by the sample members on the Psychosomatic Symptoms Scale used in this study.

**Alexithymia:** The inability to express emotions and the individuals' difficulty in identifying and describing their emotions (Dizret *et al.*, 2020).

**Operationally**, it is defined as the score obtained by the sample members on the Alexithymia Scale used in this study.

### **Previous Studies:**

Alejandro *et al.* (2023) aimed to identify psychosomatic disorders among abused women in the United States. The study sample consisted of (137) abused women. The study adopted the Psychosomatic Disorders Scale. The results revealed that abused women reported a high level of psychosomatic symptoms with no statistically significant differences attributable to the age. Meanwhile, the study of Ali (2023) sought to reveal the relationship between psychological defeat and psychosomatic disorders among (55) divorced women in Algeria. The study adopted the Psychosomatic Disorders Scale and the Psychological Defeat Scale. The results revealed a moderate level of psychosomatic disorders and psychological defeat among divorced women, a positive correlation between psychological defeat and psychosomatic disorders, and no statistically significant differences were found between divorced women in psychological defeat attributed to the number of children and the duration of marriage.

Kakour (2021) sought to define the level of violence against wife and its relationship to symptoms of psychosomatic disorders among 300 married women in the Hebron Governorate.



The researcher administrated two scales: psychosomatic disorders scale and violence scale. The results revealed low level of violence against wife, as the psychological violence ranked first at moderate level, while Physical violence ranked last. The results shows low psychosomatic disorder symptoms level. In addition, there are statistically significant differences in the mean psychosomatic disorder symptoms in favor of the higher and lower economic level compared to the moderate level, while there were no differences attributable to the variables (age gap between spouses, number of children, and nature of work). Al-Askar and Ali (2020) sought to define the psychological security and its relationship to the psychosomatic disorders among (114) abused women who attend the social protection administration in Saudi Arabia. Two scales were administrated: Psychosomatic Disorders Scale and Psychological Security Scale. The results revealed low level of psychological security and psychosomatic disorders, while no statistically significant differences in the psychosomatic disorders among the sample attributable to the following variables (age group, educational level, economic level, marital status, and profession).

In the same page, Dube *et al.* (2024) explored alexithymia as a mediator between partners' violence and PTSD symptoms among (158) abused mothers in Canada who were exposed to partners' violence. Two scales were administrated: Alexithymia scale and PTSD scale. The results revealed moderate level of alexithymia, while alexithymia was a significant mediator in the relationship between study variables, and sexual abuse the mothers was directly associated with higher PTSD levels. Veggi *et al.* (2024) determined the alexithymia levels among victims and perpetrators of partner violence. The study relied on 17 previous studies that address partners' violence, partner abuse, and alexithymia. The researchers adopted the alexithymia scale. The results revealed that both perpetrators (who commit violence) and victims showed high levels of alexithymia, while there were no differences in the alexithymia levels attributable to the age or number of children. Radwan and Al-Ziadat (2023) sought to identify the alexithymia and its relationship to the perceived self-efficacy among (300) abused women in Jordan. Two scales were administrated: Alexithymia scale and the perceived self-efficacy scale. The study results revealed high level of alexithymia among the sample, with a negative correlation between alexithymia and the perceived self-efficacy.

Al-Shahrani and Hammad (2023) studied the relationship between emotional divorce and alexithymia among (305) married women in Saudi Arabia. Alexithymia scale was utilized. The results revealed a high level of alexithymia and a moderate level of emotional divorce among the sample. Employed women, who are married for >10 years, and have  $\geq 5$  children, showed a higher cases of emotional divorce compared to their counterparts, while alexithymia was significantly associated with emotional divorce among the sample. Mannarini *et al.* (2021) sought to reveal the alexithymia level, self-efficacy, relational styles, and life satisfaction among (131) abused women in Italy. Three scales were adopted: Alexithymia scale, Self-



efficacy scale, Life satisfaction scale. The results revealed high level of alexithymia among the sample, while and life satisfaction level was low.

Myles and Merlo's (2021) examined the current relationships, differences, and trends of factors of lacking ability to express emotions (alexithymia) and health status among (150) patients (age group from 26 to 78 years) with psychosomatic conditions in Italy. The results revealed that there is a correlation between alexithymia and the psychosomatic disorders. Two scales were adopted: Alexithymia Scale and the Psychosomatic Disorders Scale. The results revealed statistical significant differences attributable to the gender variable in the results related to the digestive system and the results related to energy/fatigue and physical performance. Anuk and Bahadır (2018) sought to the investigate the relationship between the levels of somatic disorder caused by psychological conditions such as depression, alexithymia, and the unexplained medical symptoms among (180) in women who experienced violence in three life stages (childhood, adulthood, and both) in Turkey. Two scales were adopted: Alexithymia scale and Psychosomatic disorders scale. The results revealed that symptoms of frustration, alexithymia, and illnesses were more prevalent among women who suffer from unexplained illnesses and who experienced emotional and physical violence compared to the others in three life stages: adolescence, childhood, and both.

### **Comment on Previous Studies:**

Reviewing the studies that addressed this study variables, it is noted that they are varied in objectives and results. These studies constituted an important starting point for the current study, as they contribute in guiding hypotheses and developing appropriate research methodologies. Reviewing these studies allows the researchers to identify key trends and gaps in the current knowledge, which enhances the chances of achieving research results that have scientific and practical values. This study provides a valuable addition to the scientific knowledge by exploring the predictors of psychosomatic disorders, highlighting the contextual differences, and providing practical recommendations. These additions contribute to foster the comprehensive understanding of the topic and enhance the applicability of the results in practical and professional contexts.

### **Study Procedures and Methodology:**

#### **Methodology:**

This study utilized the descriptive correlational approach because it is appropriate for the nature and objectives of this study.

#### **Sample:**

The study sample was (267) abused women who attend *Dar Alwefaq* "Family Reconciliation House" and the Jordanian Women's Union in Irbid city, during the time period from December



02, 2024 to May 02, 2025. Sample selection was through convenient method, including (113) women who attend *Dar Alwafaq* and (154) women who attend the Jordanian Women's Union. Table (1) illustrates the sample distribution according to the variables (age group, marital status, educational level, and source of violence).

**Table (1): Sample distribution according to the study variables**

Variable	Category	N	Percentage
Age group	≤25 years	88	33.20
	26-40 years	134	50.60
	≥ 41	43	16.20
Marital Status	Married	147	55.50
	Single	64	24.20
	Widow or divorced	54	20.40
Qualification	Less than secondary	130	49.10
	Bachelors	101	38.10
	Higher education	34	12.80
Source of violence	Husband	145	54.70
	Father	65	24.50
	Brother	44	16.60
	Others	11	4.20
Total		<b>813</b>	<b>%100</b>

## Study Tools

### 1. Alexithymia Scale

This study utilized the translated version of Alexithymia Toronto Scale developed by Parker, Taylor, and Bagby (1994). This scale was utilized in Al-Samouhi (2018). The initial form of this scale was presented to a jury of specialized arbitrators, and it was consisted of (24) items distributed on four dimensions: difficulty identifying emotions, difficulty describing emotions, externally-oriented thinking, and daydreaming difficulty.



### **Scale validity and reliability indicators:**

Al-Samouhi (2018) verified the scale validity by computing the correlation coefficients of the scale items with their subordinate dimensions and the values ranged between (0.36) and (0.72), calculating the correlation coefficients of items - total scale score and the values ranged between (0.31) and (0.65), and computing the correlation coefficients of the scale dimensions - total scale score and the values ranged between (0.93) and (0.76). The values of inter-correlation coefficients for the scale dimensions was (0.36-0.73).

In this study, the scale face validity was verified by presenting the initial form of the scale to a panel of 10 faculty members specialized in psychological counseling and educational psychology at the Jordanian universities. In light of the arbitrators' observations, (3) paragraphs were deleted from the scale's initial form. Thus, the scale after arbitration consisted of (21) items distributed over four dimensions. The construct validity was verified by administering the scale to a pilot sample of (n=30) abused women from outside the study sample, then computing the corrected item-total correlation coefficients between the score on the item and the score on its related dimension, and the values ranged between (0.42) and (0.80), while the values between the item score and the scale total score ranged between (0.38) and (0.71), and they were all higher than (0.20) and statistically significant at ( $\alpha=0.05$ ).

### **Scale Reliability Indicators:**

Al-Samouhi (2018) verified the scale's reliability indicators by computing the internal consistency reliability coefficient using Cronbach's alpha method, which reached 0.82 for the scale as a whole, while the scale dimensions values ranged between (0.71) and (0.75). Also, Al-Samouhi (2018) computed the re-test reliability coefficient after 2 weeks from the first application, and the scale as a whole value reached 0.86, while for the scale dimensions the values ranged between (0.74) and (0.79). In this study, internal consistency reliability was computed for the scale and its dimensions by using Cronbach's alpha equation on the pilot sample (n=30) abused women from outside the study sample, and the scale value as a whole reached (0.81), and the dimensions values ranged between (0.72) and (0.79). The scale re-test coefficient was verified by re-applying the scale to the pilot sample two weeks after the first application, and the scale as a whole value reached (0.85), and scale dimensions values ranged between (0.76) and (0.83).

## **2. Psychosomatic Disorders Scale:**

The Psychosomatic Disorders Scale developed by Heidari *et al.* (2021) was utilized after translating it into Arabic. The initial version of the scale consisted of (39) items, and it was presented to a panel of arbitrators.



### **Scale validity indicators:**

Heidari *et al.* (2021) verified the scale validity indicators by conducting exploratory (EFA) and confirmatory (CFA) factor analysis for the scale items, which revealed that the scale consists of (7) factors (dimensions).

In this study, the scale's face validity indicators were verified by translating it from English into Arabic. The initial Arabic version was presented to a panel of (10) faculty members at the Jordanian universities specialized in Psychological counseling and Educational Psychology. In light of the arbitrators' observations, the linguistic formulation of all items was modified, (5) paragraphs were deleted from the scale's initial form, and various items were merged. After arbitration, the scale consisted of (22) items. The construct validity was also verified by applying the scale to a pilot sample of (n=30) abused women apart from the study sample, then computing the corrected item-total correlation coefficients between the items score and the scale total score, and the values ranged were (0.41-0.79), and all values were higher than (0.20) and statistically significant at ( $\alpha=0.05$ ).

### **Scale Reliability Indicators:**

Heidari *et al.* (2021) verified the scale's reliability indicators by computing the internal consistency reliability coefficient using Cronbach's Alpha, and the values ranged between (0.72) and (0.78) for the scale dimensions and (0.95) for the scale as a whole. In this study, internal consistency reliability was computed using Cronbach's Alpha on the pilot sample data (n=30) abused women apart from the study sample, and the value reached (0.82). The scale test-retest reliability was also verified by re-applying the scale on the pilot sample two weeks after the first application, then Pearson correlation coefficient was computed between the two applications, and the value reached (0.85).

### **Study Tools Correction:**

A five-point scale was used to record the responses, as follows: (very high (5), high (4), moderate (3), low (2), and very low (1)) for positive items, and the scale was reversed for negatively items. To achieve an objective judgment on the responses mean, the range was computed by subtracting the lower limit from the upper limit of the grading categories ( $5-1=4$ ). Then, dividing the output by (5) ( $4 \div 5 = 0.80$ ). Then, the reached value was added to the scale lowest limit (1) to determine the upper limit of this category. Thus, the categories length became as follows: very high (4.21 - 5.00), high (3.41- 4.20), moderate (2.61- 3.40), low (1.81 - 2.60), very low (1.00-1.80).



## Study Variables:

### 1- Independent Variables (Predicators):

- **Age group**, has three categories:  $\leq 25$  years, 26-40 years, and  $\geq 41$  years.
- **Marital Status**, has three categories: Married, single, and widow or divorced.
- **Qualification**, has three categories: less than secondary, Bachelor's, and Higher education.
- **Source of violence**, has four categories: Husband, father, brother, and others.
- **Alexithymia among abused women.**

2- **Dependent Variable (Predicted):** Psychosomatic disorder symptoms among abused women.

## Study Results:

### Results related to the study's Question 1: "What is the level of Alexithymia among abused women?"

To answer this question, means and standard deviations for alexithymia scale and its dimensions were computed in the study sample, taking into consideration arranging alexithymia descending by means, as illustrated in Table (2).

**Table (2): Means and S.D. for Alexithymia and its dimensions for the abused women arranged descending by means.**

Rank	Alexithymia and its dimensions	Mean	S.D.	Level
1.	Difficulty in identifying emotions	3.83	0.81	High
2.	Difficulty in expressing emotions	3.76	0.75	High
3.	External-oriented thinking	3.30	0.44	Moderate
4.	Daydreaming difficulty	3.04	0.69	Moderate
	Alexithymia as a whole	<b>3.48</b>	<b>0.39</b>	High

Table (2) illustrates that Alexithymia (as a whole) level among abused women was high with a mean (3.48) and S.D. (0.39). The level of the two dimensions: (difficulty in identifying emotions and difficulty in expressing emotions) was high, while the level of the two dimensions (external-oriented thinking and daydreaming difficulty) was moderate. The dimensions arrangement was as follows: The (difficulty in identifying emotions) ranked 1<sup>st</sup> with a mean (3.83) and S.D. (0.81), then (difficulty in expressing emotions) in the second rank with a mean (3.76) and S.D. (0.75), followed by (external-oriented thinking) in the 3<sup>rd</sup> rank with mean (3.30)



and S.D. (0.44), and in the 4<sup>th</sup> and final rank (daydreaming difficulty) with a mean (3.04) and S.D. (0.69).

**Results related to Question 2: “What is the level of psychosomatic disorders symptoms among abused women?”** To answer this question, means and standard deviations for psychosomatic disorders were computed in the study sample, taking into consideration arranging psychosomatic disorders descending by means, as illustrated in Table (3).

**Table (3): Means and S.D. for psychosomatic disorders symptoms among abused women arranged descending by means.**

Rank	Psychosomatic disorders symptoms	Mean	S.D.	Level
1.	Over the past six months, I've experienced forgetfulness and difficulty concentrating.	3.56	1.12	High
2.	Over the past six months, I've experienced headaches.	3.55	1.17	High
3.	Over the past six months, I've experienced fatigue and exhaustion.	3.54	1.15	High
4.	Over the past six months, I've felt physically unfit.	3.53	1.19	High
5.	Over the past six months, I've experienced bone pain (back, neck, etc.).	3.49	1.13	High
6.	Over the past six months, I've experienced chest pain and tightness.	3.40	1.22	High
7.	Over the past six months, I've experienced muscle pain and weakness.	3.39	1.20	High
8.	Over the past six months, I've experienced low energy.	3.38	1.19	High
9.	Over the past six months, I have experienced hard breath and an inability to take a deep breath.	3.36	1.21	High
10.	Over the past six months, I have felt confused or disconnected from reality.	3.35	1.14	High
11.	Over the past six months, I have experienced emotions of having a fast-beating (palpitations) or an irregular heartbeat.	3.31	1.15	High
12.	Over the past six months, I have experienced abdominal pain and intestinal cramps.	3.32	1.18	High



13.	Over the past six months, I have felt dizzy.	3.30	1.22	High
14.	Over the past six months, I have experienced excessive sweating.	3.28	1.29	High
15.	For the past six months, I have experienced several hot or cold body temperatures.	3.26	1.19	High
16.	Over the past six months, I have had a sore throat.	3.24	1.26	High
17.	Over the past six months, I have felt nauseous and had stomach pain.	3.23	1.23	High
18.	Over the past six months, I have had a soft ache in my ears.	3.22	1.30	High
19.	Over the past six months, I've experienced tingling in my fingers, arms, or legs.	3.18	1.21	High
20.	Over the past six months, I've experienced stiff fingers and trembling hands.	3.15	1.18	High
21.	Over the past six months, I've experienced dry throat and difficulty in swallowing.	3.13	1.32	High
22.	Over the past six months, I've experienced fainting.	2.97	1.36	High
Psychosomatic Disorders (as a whole)		<b>3.32</b>	<b>0.58</b>	High

Table (3) shows that psychosomatic disorders symptoms level (as a whole) among the sample moderate with a mean of (3.32) and S.D of (0.58), and mean scores values for the symptoms of psychosomatic disorders ranged between (2.97) for (Over the past six months, I've experienced fainting) and (3.56) for (Over the past six months, I've experienced forgetfulness and difficulty in concentration). Also, five items were at the high level, and (17) paragraphs were at moderate level.

**Results Related to Q. 3: "What is the relative contribution of alexithymia and the variables (age group, marital status, educational level, and source of violence) to the symptoms of psychosomatic disorders among abused women?"** To answer this question, means, the linear inter-correlation coefficients values were computed for the independent predictor variables: (age group, marital status, educational level variable, and source of violence after converting these variables into dummy variables, and alexithymia) and the dependent predicted variable (psychosomatic disorders among abused women), as shown in Table (4).



**Table (4): Inter-correlation coefficients matrix between the predictors and between the predictors and the criterion**

	26-40 years against $\geq 25$ years	$\leq 41$ against $\geq 25$ years	Single against married	Widow or divorced against married	Bachelor's degree against less than secondary	Postgraduate against less than secondary	Father against husband	Brother against husband	Others against husband	Alexithymia
$\leq 41$ against $\geq 25$ years	-0.036									
Single against married	-0.112	0.039								
Widow or divorced against married	0.069	0.031	*-0.285							
Bachelor's degree against less than secondary	-0.017	0.139	-0.043	0.047						
Postgraduate against less than secondary	-0.027	0.137	-0.032	-0.054	0.117					
Father against husband	-0.033	0.035	*0.478	*0.234	-0.032	-0.061				
Brother against husband	-0.025	0.024	0.317	*0.278	0.005	-0.020	*-0.254			
Others against husband	0.054	0.114	-0.073	*0.364	0.070	-0.023	-0.119	-0.093		



Alexithymia	*0.26 3	0.027	- 0.105	0.055	- 0.09 5	*- 0.28 8	- 0.05 2	- 0.05 9	0.091	
Psychosomatic Disorders	0.163	0.459 *	- 0.040	0.019	- 0.16 9	- 0.07 6	0.02 1	0.10 3	0.467 *	

Statistically significant at ( $\alpha=0.05$ )

Table (4) demonstrates that the values of the correlation coefficients between the predictors ranged between (-0.288) and (0.478), of which (8) relationships were statistically significant at the significance level ( $\alpha=0.05$ ). The correlation coefficients values between the predictors and the criterion ranged between (-0.303) and (0.467), of which (3) relationships were statistically significant at the significance level ( $\alpha=0.05$ ).

To determine the variance explained by the predictors, multiple linear regression analysis was utilized using the stepwise method to insert the predictor variables into the predictive model regression equation, as shown in Table (5).

**Table (5): Multiple linear regression for the impact of predictors on Psychosomatic Disorder.**

Sub-model	R	R <sup>2</sup>	Amended R <sup>2</sup>	Standard error	Change statistics				
					R <sup>2</sup> change	Change F	Numerator degree of freedom	Denominator degree of freedom	Statistical significance of F
<b>1</b>	0.467	0.218	0.216	0.517	0.218	73.531	1	263	<b>*0.000</b>
<b>2</b>	0.647	0.418	0.414	0.447	0.200	89.853	1	262	<b>*0.000</b>
<b>3</b>	0.657	0.432	0.425	0.442	0.014	6.221	1	261	<b>*0.013</b>

1: Predictors: (constant regression), Alexithymia  
 2: Predictors: (constant regression), Alexithymia,  $\geq 41$  years against  $\leq 25$  years  
 3: Predictors: (constant regression), Alexithymia,  $\geq 41$  years against  $\leq 25$  years, Postgraduate against less than secondary.



**\*Statistically Significant at ( $\alpha=0.05$ )**

Table (5) shows that the predictive model for the predictors of the predicted variable (symptoms of psychosomatic disorders) was statistically significant at the significance level ( $\alpha=0.05$ ) with a compound impact of the independent variables to explain an amount of (43.20%). The independent variable (alexithymia) contributed in first place with a relative effect explaining 21.80% of the total explained variance of the predictive model. In the second rank, the independent variable ( $\leq 41$  years against  $\geq 25$  years) contributed with a relative effect explaining 20.00% of the total explained variance of the predictive model. In the third rank, the independent variable (postgraduate studies against versus secondary school or below) contributed with a relative effect, explaining 1.40% of the total explained variance of the predictive model.

The standard and non-standard regression weights and t-test values were also computed for the independent variables (predictors) for the predicted variables (dependent) among the abused women in the predictive model, as shown in Table (6).

**Table (6): standard and Non-standard weights for the variables predicting symptoms of psychosomatic disorders among the sample of abused women.**

Predictors	Non-standard weights		standard weights	t	Sig.
	B	Standard error	B		
Constant	1.266	0.222		5.711	*0.000
Alexithymia	0.628	0.073	0.420	8.628	*0.000
$\geq 41$ years against $\leq 25$ years	0.681	0.074	0.431	9.148	*0.000
Postgraduate against secondary or less	-0.214	0.086	-0.123	-2.494	*0.013

**\*Statistically Significant at ( $\alpha=0.05$ )**

Table (6) illustrates that psychosomatic disorders symptoms level increases by (0.420) of the standard unit whenever the level of alexithymia increases by one standard unit (standard deviation). Also, the level increases by (0.431) of the standard unit when moving from the age group ( $\geq 25$  years) to ( $\leq 41$  years). Moreover, the level decreases by (0.123) of the standard unit when moving from the educational qualification category (secondary school and less) to the



educational qualification (postgraduate studies); thus, the regression equation for predicting psychosomatic disorder symptoms is as follows:

$$\hat{y} = 1.266 + 0.628x_1 + 0.681x_2 - 0.214x_3$$

### Whereby:

$\hat{y}$ : Symptoms of psychosomatic disorders,  $x_1$ : Alexithymia,  $x_2$ :  $\leq 41$  years against  $\geq 25$  years,  $x_3$ : Postgraduate studies against secondary education or less.

### Results Discussion

**Question 1: The results of q1 indicated that the overall level of alexithymia among the abused women was high (mean = 3.48 and a S.D. = 0.39).**

This result could be explained by the fact that inability to express or identify emotions might be a method for protecting the soul from severe emotional pain resulting from violence. Violence, in particular if it is repeated, leads to PTSD (which is associated with difficulty in recognizing and regulating emotions). Also, abused women might live in environments that hinder their ability to express their emotions, preventing them from developing skills to understand themselves and their emotions. Moreover, chronic stress caused by violence affects the brain, particularly the amygdala and prefrontal cortex, which are responsible for processing and expressing the emotions. Also, women who experience violence might lack support networks that help them to express and interpret their emotions, which increases the risk of alexithymia. Some societies promote emotional suppression in women, especially in contexts of violence, making alexithymia more prevalent.

The researchers explain that in various environments and settings, abused women are silenced or their emotions less estimated, which increases the difficulty for them to express their emotions. Abused women are often suffering from high levels of stress, anxiety, and depression, which are typically associated with the increased alexithymia, making it less likely to have low levels of alexithymia, as violence leaves profound psychological and neurological impacts. Alexithymia is high among most abused women, which is an adaptive response or a direct result of psychological and neurological damage; thus, Alexithymia level is rarely low among this group.

This result also can be explained by the fact that inability to express or identify emotions might be a method of protecting oneself from the intense emotional pain resulting from violence. This explanation was confirmed by Hirola *et al.* (2017) who stated that alexithymia is a disorder characterized by difficulty in identifying and expressing emotions. This state is more common among abused women, as continuous exposure to psychological and physical violence can significantly impact the ability to identify and express emotions in a healthy manner. Moreover, abused women often experience continuous stress and anxiety, leading to a lack of self-



awareness and difficulty in expressing emotions; thus, isolation and social pressures increase the level of alexithymia among these women.

This result is consistent with Veggi *et al.* (2024) Radwan and Al-Ziadat (2023); Al-Shahrani and Hammad (2023), Mannarini *et al.* (2021), Signorelli *et al.* (2020), and Al-Samouhi (2018), which indicated that the level of alexithymia among abused women was high. In contrast, this result differs from Dube *et al.* (2024) and Craparo *et al.* (2014), who reported moderate level of alexithymia among abused women.

**Question 2: The results of the 2<sup>nd</sup> question indicated that the total level of psychosomatic symptoms among abused women was moderate (mean= 3.32 and S.D. 0.58).**

The researchers explain this result as exposure to violence causes chronic stress on the nervous system, which lead to physical disorders such as headaches, stomach aches, and sleep problems. However, not all abused women suffer from severe levels of these disorders, as some women have psychological and physical coping mechanisms such as avoidance, denial, or cognitive evaluation, which help them in dealing with stress in a way that reduces the severity of psychosomatic symptoms, but not completely eliminate them, leading to moderate disorders level. Social support for abused women, whether from friends, family, or psychotherapy, even this support was simple, would help in reducing the negative effects of violence, making psychosomatic symptoms not low completely but not severe because violence severity and duration of exposure affect the emergence of psychosomatic symptoms. Some women might be exposed to intermittent violence, which leads to the emergence of psychosomatic disorders at moderate degree. Women who suffer from a high level of alexithymia (difficulty in expressing emotions) might show greater psychosomatic symptoms. However, not all abused women have the same level of alexithymia, which leads to variations in the severity of physical symptoms. Psychosomatic disorders level among abused women is moderate, as a result of the balance between negative psychological effects and the adaptation ability or the receiving the available support. This balance leads to preventing the symptoms to be wore to sever levels, but they remain significantly evident. Although violence causes chronic stress, the body has the adaptation ability to certain levels of stress, which prevents the escalation of physical symptoms to a very high level. Alejandro *et al.* (2023) confirmed this explanation, and stated that psychosomatic disorders are psychological illnesses that cause physical symptoms, which is common among abused women. Psychological and physical violence can lead to increase women's suffering from diseases, such as migraines, muscle pain, and heart disease. Also, there is a clear correlation between exposure to violence and increasing the levels of psychosomatic disorders among abused women.

The results of this study are consistent with Ali (2023); Kkatatbeh and Al Otaibi (2018); and Rihani (2010), who reported moderate level of psychosomatic disorders among abused women.



In contrast these result differed from Alejandro *et al.* (2023); Alghamdi (2020); and Bez *et al.* (2018), who reported high level of psychosomatic disorders among abused women.

**Question 3: The level of psychosomatic symptoms level increases by (0.420) of a standard unit for every standard unit (standard deviation) increase in alexithymia. Also, the level increases by (0.431) of a standard unit when moving from the age group ( $\leq 25$  years) to ( $\geq 41$  years), and decreases by (0.123) of a standard unit when moving from the educational qualification category (secondary school or less) to (postgraduate studies).**

The researchers explain this result as abused women who suffer from alexithymia encounter difficulty in identifying and expressing their emotions, which leads to an accumulation of untreated stress and emotional outbursts, which transform into physical symptoms such as headaches, stomachache, and hard breath. Inability to understand the emotions, abused woman becomes unable to regulate or deal with these emotions in a healthy manner, which increases the psychological stress and develop physical disorders. In addition, alexithymia is correlated to hyperactivity of the sympathetic nervous system, leading to an increase in the heartbeats, muscle tension, and digestive disorders, which exacerbates developing psychosomatic symptoms. Abused women with alexithymia tend to suppress their emotions rather than express these emotions, leading to an accumulation of internal tension that manifests as continuous physical symptoms. Alexithymia is also often correlated to anxiety disorders and depression, which are closely linked to psychosomatic disorders. This explains the strong relationship between them, as alexithymia increases the risk of psychosomatic disorders because it prevents abused women from expressing their emotions in a healthy manner; consequently, leads to emotional stress being transformed into chronic physical symptoms (Leweke *et al.*, 2011). Exposure to violence for long periods also leads to chronic psychological stress, which negatively affects the functions of nervous and hormonal systems and contributes in developing physical symptoms such as chronic headaches, joint pain, and digestive disorders. Over the age, hormonal changes, such as declining estrogen levels after age 40, increase the body sensitivity to pain and affect mood, making women more vulnerable to psychosomatic symptoms. Moreover, abused women over the age of 40 might encounter social and economic challenges, such as isolation or financial pressures, which increase psychological stress and contribute in worsening the physical symptoms. Prolonged exposure to violence might also lead to developing alexithymia (difficulty in expressing emotions) and experiential avoidance, which increases the likelihood of transforming the repressed emotions into physical symptoms.

The study results differ from Alejandro *et al.* (2023); Al-Askar and Ali (2020); and Rihani (2010), which reported no statistically significant differences in the level of psychological disorders attributable to the age variable.

Women with postgraduate degrees have greater awareness of the relationship between mental and physical health, which assist them in coping with stress in healthy manners, such as



exercising, seeking psychological support, or using positive coping strategies. These women also often have a better ability to express and regulate their emotions, which reduces the likelihood of psychological stress transformation into physical symptoms, such as headaches or stomachaches. Postgraduate education contributes in fostering problem-solving and decision-making skills, which helps the women to find effective methods in dealing with violence or leaving the abusive relationships, leading to reduce the chronic stress. Moreover, postgraduate education provides better job opportunities and financial independence, which leads to reduce women's dependence on the individual who abuse them, and allow them to seek solutions or psychological and social support; consequently, mitigates the psychosomatic effects. Postgraduate also fosters psychological resilience (i.e. ability to adapt with stress in healthy ways), making women more capable to confront violence without being reflected sharply on their physical health. Furthermore, postgraduate education provides cognitive, social, and psychological tools that assist the women in coping with violence in a method that reduces the violence impact on their physical health, which leads into reaching lower levels of psychosomatic disorders compared to other abused women. These results differs from Alghamdi (2020) and Rayhani (2010), which reported no statistically significant differences in the level of psychosomatic symptoms attributed to the educational level of the abused women.

## Recommendations

- Designing therapeutic programs that aims at protecting abused women from the violence negative effects.
- Designing therapeutic programs to reduce alexithymia and psychosomatic disorders among abused women.
- Conducting studies to identify the factors that influence the prevalence of violence.
- Providing psychological education for the abused women, allowing them to protect themselves from violence.

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