

7-2024

## Balancing life after spousal loss: A cross-sectional study investigating the mental well-being and life satisfaction of martyrs' wives

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### Recommended Citation

Aslam, M, Tharani, A, Parpio, Y, & Jan, R. Balancing life after spousal loss: A cross-sectional study investigating the mental well-being and life satisfaction of martyrs' wives. *Journal of Asian Midwives*. 2024;11(1):73–85.

## Balancing life after Spousal loss: A Cross-Sectional Study Investigating the Mental Well-being and Life Satisfaction of Martyrs' wives

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### Abstract

**Background:** The wives who have lost their spouses in conflict zones are known as martyrs' wives. After sacrificing the martyrs' lives, their wives not only face the traumatic experience of losing their loved ones, but this loss may substantially affect their physical, socioeconomic, and emotional health. It may serve as a "vulnerability factor," raising the risk of depression.

**Objective:** To assess the levels of life satisfaction and mental well-being within the wives of martyrs residing in Karachi, Pakistan.

**Methodology.** A descriptive cross-sectional study was conducted to assess the mental well-being and life satisfaction of martyrs' wives living in Karachi Pakistan. Descriptive statistics were used in SPSS version 24 to analyze the score and Pearson correlation to find an association between the mental wellbeing and life satisfaction.

**Results** The findings revealed that 29% (n=18) had scores below 42, showing poor mental health on Warwick Edinburg mental wellbeing scale, while 55% of participants have scored below the cut-off line of life satisfaction score measured on satisfaction with life scale indicating their risks towards mental health illness. The study also found a mild positive association between participants' involvement in exercise and community activities and their mental well-being scores; however, the results were not statistically significant.

**Conclusion:** A large number of wives were dissatisfied with their lives and had mental health issues. The study also found that physically active and socially active wives had better mental health. These people need urgent help and well-being prioritization to improve their quality of life.

**Keywords:** Martyrs' Family; Spousal Loss, Trauma, Mental Health

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## **Background**

The martyrs are military personnel who sacrifice their lives in the line of duty for the benefit of their nation and leave a legacy for future generations. Families who have lost their loved ones (spouses) in conflict zones are known as martyrs' families (1). After sacrificing the martyrs' lives, their wives not only face the traumatic experience of losing their loved ones, but this loss may substantially affect their physical, socioeconomic, and emotional health. It may serve as a "vulnerability factor," raising the risk of depression (2).

This unexpected loss of a young military soldier can affect young family members during their developmental life phases and they feel entirely alone, disengaged, confused, and disenfranchised (3). In addition, the higher the level of prior association with martyr, the more the loss would be felt, and the repercussions would be greater (4). Although martyrs' wives receive financial support, in terms of monthly salary for healthcare, education, and housing, they need sustenance in terms of social, psychological, and emotional care (5). Concerning this, Yasir, Qassim (6) specified that in Iraq, 20% of martyrs' wives reported stress, while 22% reported that stress harmed their life quality and affected their involvement in daily activities. Hence, the death of a soldier in a deployment zone has a

deep psychological impact, which has a grieving process that is distinct from natural death. The mind and body's reaction to any pressure, demand, or threat triggers stress (7).

Empirical evidence suggests that the majority of martyrs' wives experience ongoing psychological isolation and, if not dealt with in time, may lead to serious mental illness (6, 8). This increases the danger of mental illnesses and the likelihood of experiencing protracted grieving reactions (7). Considering their need, the purpose of this study is to examine the martyrs' wives' well-being and their capacities to perform daily living activities efficiently, while taking care of their children and other responsibilities. Since most army personnel are young soldiers who are the sole breadwinners, they leave behind their families, including pregnant widows, breastfeeding wives, or very young fatherless children, to maintain peace, protect the nation's integrity, and eradicate terrorism (6, 7). Even though military martyrs are revered as heroes, their families lose a significant figure at home (8). Likewise, the literature revealed that wives mostly perceived the loss of a loved one as "extremely unnatural" while struggling with child rearing, and this was linked to significant distress (9).

Sustainable Development Goal 3 (2015) also emphasized explicitly addressing mental health and wellness for a better and more sustainable future for all by 2030 (10, 11). Moreover, mental illnesses like anxiety,

depression, and prolonged grieving, are much more common in women who have lost their loved ones.

### ***Research Objectives***

- To assess the levels of life satisfaction and mental well-being among the wives of martyrs residing in Karachi, Pakistan.
- To investigate the factors influencing the life satisfaction and mental well-being of wives within the martyr community in Karachi, Pakistan.

### **Methodology**

#### **Study Design**

This was a descriptive cross-sectional study conducted between March 2023 to August 2023.

#### **Study Population and Study Setting**

The study subjects were martyrs' wives (18 years and above females, ) living within the premises of Malir, Karachi (Sindh), Pakistan. The study was conducted in the counseling center of a tertiary care hospital, in Karachi.

#### **Participant Eligibility Criteria**

The study comprised only women who met the eligibility standards.

### ***Inclusion Criteria***

All martyrs' wives (only females,) living in Karachi, Pakistan, who satisfied the following criteria were enrolled in the study.

- Adult women, 18 years and above.
- Females who are the surviving wives of the martyrs as young soldiers frequently leave behind surviving spouses who are mostly women and highly dependent. One to ten years of holding martyrs' wives status; with time, the families become more resilient.

### ***Exclusion criteria***

The following were not included in the study

- Women with a self-reported history of any chronic illness diagnosed during the last 6 months were not included because treatment of these disorders could have impacted the results.
- Martyrs' wives who had remarried.

### ***Study duration***

The study was conducted from March 21, 2023, to August 21, 2023, after receiving consent from designated study sites and the Aga Khan University (AKU) Ethical Review Committee (ERC).

### **Sample Size Determination**

The sample size was determined by estimating power (80%), level of significance alpha (5%), and effect size (0.59) based on a previous study (12), anticipating a 20% attrition rate using Open-epi Software and using the Taro Yamane formula,  $n = N / (1 + Ne^2)$  (13). The calculated sample size was 110. A total of 62 participants willingly participated in the study, demonstrating their willingness despite economic instability within the country, security concerns, and the sensitivity of the population involved.

**Warwick-Edinburgh Mental Wellbeing Scale.** Those participants who were recruited were assessed twice through the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) before and after the study. The tool had been tested in the Pakistani population using its Urdu version. It had 14 components that were rated on a Likert scale from 1 to 5 (Waqas et al., 2015). Hence, it proved to be appropriate for use in the Pakistani context and its internal consistency was satisfactory (Cronbach's  $\alpha = .87$ ) (Waqas et al., 2015).

**Satisfaction with life Scale.** The life satisfaction questionnaire had already been validated by Barki, Choudhry (14) in Lahore, Pakistan (Cronbach's  $\alpha = 0.90$ ). This scale has good psychometric qualities, such as an internal consistency of 0.82 (15). The permission of the copyright holder had already

been taken. The test-retest reliability and construct validity of the tool was assessed.

### **Self-Structured Socio-demographic Tool.**

The socio-demographic tool was divided into three subcategories: socio-demographic variables, family-associated variables, and academic variables. The demographics and socioeconomic portion of the questionnaire was developed with the consensus of the research team. These included gender, age, marital status, mother language, history of mental illness, sleeping hours per day, and family history, including earning members, financial support system in the family, and recreational activities

### **Statistical Analysis**

Descriptive statistics were used in SPSS version 24 to analyze the score and Pearson correlation to find an association between the variables.

### **Ethical consideration**

The ethical approval was obtained from Aga Khan University Hospital's Ethical Review Committee (refer to Appendix). The researcher emphasized to the participants that involvement was optional and that their confidentiality, objectivity, secrecy, protection, and security would be guaranteed throughout the entire study, before getting their informed consent. Those willing to participate were requested to come to the community center and get assessed as per the eligibility criteria. Before the data collection process, the

informed consent form was given to the study participants in Urdu or English, as per their preference. Written informed consent was obtained from those meeting the inclusion criteria. The participants had the option to leave the study whenever they chose to do so. Moreover, ethical approval from the specified hospital had been obtained. To preserve information confidentiality, codes were used for each participant. Moreover, data access was limited to the primary researcher and the Thesis Committee members.

## Results

Out of the 110 participants invited to join the study, 62 chose to participate. The decision to decline participation varied, with 20 individuals citing the ongoing country crisis and economic instability, 10 having prior commitments and domestic responsibilities, 8 declining due to employment-related factors, and 20 others expressing concerns about the stigma associated with discussing mental health.

### *Participants Demographics*

Table 1 illustrates the demographic characteristics of the participants and shows that pre-intervention there were no statistically significant differences between the two groups ( $p > 0.05$ ). The participants were living in Karachi Malir and were from various ethnic groups, due to the army's prevalent culture. All the participants were Muslims, 100 % (n=62).

The age of the women in the study ranged from 18 to 61 years, with a mean age of 41 years. The third characteristic was women's educational status; about half of the participants, (n=26) 42%, were unschooled, (n=16) 26% had completed primary school, (n=10) 16% were intermediate, and there were also graduates, (n=10) 16%. In all, (n=16) 25.8% of the participants were employed. The nature of jobs was stitching, receptionist, librarian, shopkeeper, and school teacher. The study included a total of 47 participants, with 48% (n=15) having experienced their loved one's martyrdom 3-5 years prior, another 48% (n=30) between 6-10 years ago, and a smaller proportion of 3% (n=2) more than 10 years ago. Investigating the socioeconomic status of female participants proved challenging due to the sensitivity of the topic. Additionally, out of the 50 respondents, 85% (n=42) reported living in government accommodation. All of them reported that after the martyrs passed away, the federal government provided some financial assistance and a monthly pension. Only 19% (n=12) of participants indicated they were living in a nuclear family arrangement with their children, while the remainder lived with other family members. Approximately 32% (n=20) of participants were involved in social activities with family and friends. Additionally, it was noted that only 29.4% (n=18) were engaging in daily physical activity. The ethnic backgrounds of these households were diverse. The majority of the mothers were Punjabis

accounting for (n=41)68%. The remaining (n=20) 32% were Sindhi, Muhajir, Chitralis, Pashtuns, Balochs, and Gilgiti (Shina and Baltis).

Furthermore, the use of the Fisher exact test facilitated an assessment of demographic differences among the study participants.

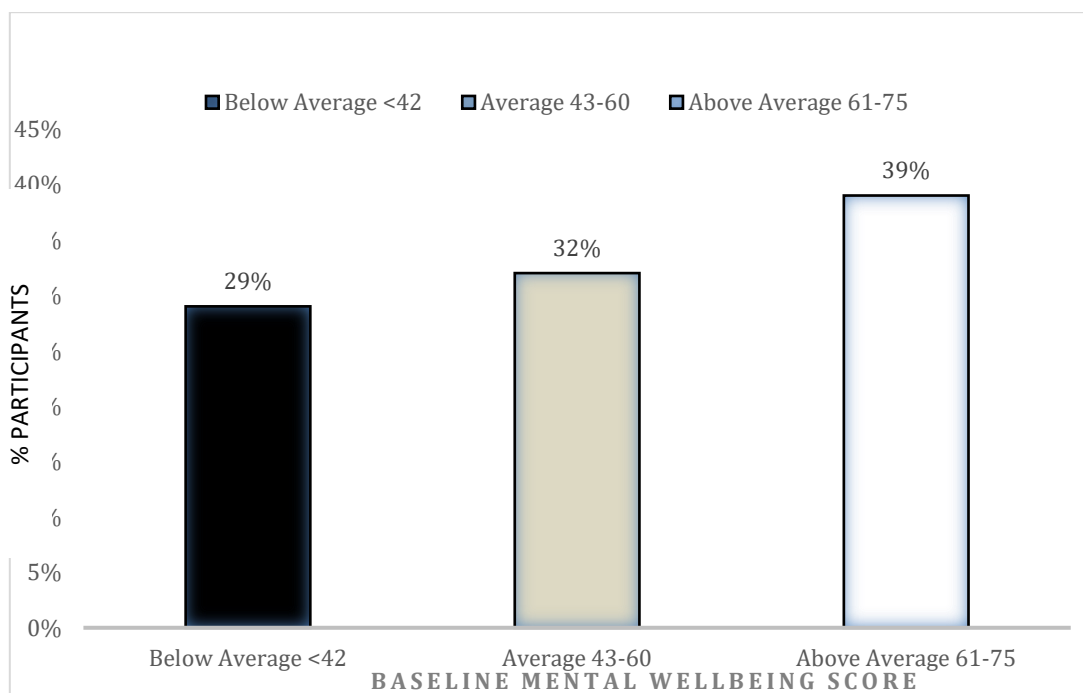
**TABLE 1 : PARTICIPANT'S SOCIO-DEMOGRAPHIC CHARACTERISTICS**

Variables with Categories		Participants response	
		N	%
Age in years	18-30	24	39%
	31-40	12	19%
	41-50	10	16%
	51-60	16	26%
	Mean Age	39.1(SD=4.2)	
Relationship with Martyred	Mother	20	32%
	Sister	14	23%
	Wife	22	36%
	Daughter	6	10%
Qualification of Participants	Illiterate	26	42%
	Matric	16	26%
	Intermediate	10	16%
	Bachelors	10	16%
Years Spent with Martyred	<10years	4	6.5%
	11-20years	16	26%
	21-30 years	40	64%
	>30years	2	3.2%
Years spent since Martyred Passed away	3-5 years	36	58.1%
	6-10 years	22	35.3%
	>10 years	4	6.5%
Number of Children	None	18	29%
	1	12	19.4%
	2-3	14	22.6%
	4-5	12	19.4%
	>5	6	9.7%
Family Status	Nuclear	44	68.8%
	Extended	18	28%
Employment Status	Employed	16	25.8%
	Not Employed	46	74.2%
Religion	Islam	62	100%
Ethnicity of participants	Punjabi	28	45.2%
	Sindhi	4	6.5%
	Balochi	4	6.5%
	Pakhtun	6	9.7%
	Chitrali	6	9.7%
	Gilgiti	4	6.5%
	Muhajir	10	16.1%
Performed Daily Exercise	Yes	12	19.4%

	No	50	80.6%
Engaged in Social/ Community Activities	Yes	20	32.3%
	No	42	67.7%

**Mental Well-being.** The individuals' mental well-being was assessed using a 14 positive phrase Warwick-Edinburgh Mental Well-being Scale (WEMWBS), which comprised 14 positively phrased questions about a person's competence, satisfaction, interpersonal relationships, affect, and autonomy. The study participants were asked to rate their experiences using a 5-point Likert scale over the past two weeks, ranging from 'none of the time' to 'all of the time' to assess the participants on optimism, relaxation, usefulness, interest in others, energy levels, problem-solving, clarity of thinking, self-

esteem, social connectedness, confidence, independence, feeling loved, interest in new things, and cheerfulness. The WEMWBS scale ranges from 14 to 70. The WEMWBS was calculated by summing the scores for each item, with equal weights assigned to all items. A cutoff of 42 was used to identify participants at high risk for depression, and approximately 29% (n=18) had scores below 42, showing poor mental health. The average score was 43-60 for 32% (n=20) of the population, while the average score was 61-75 for 39% (n=24) (Figure 1).

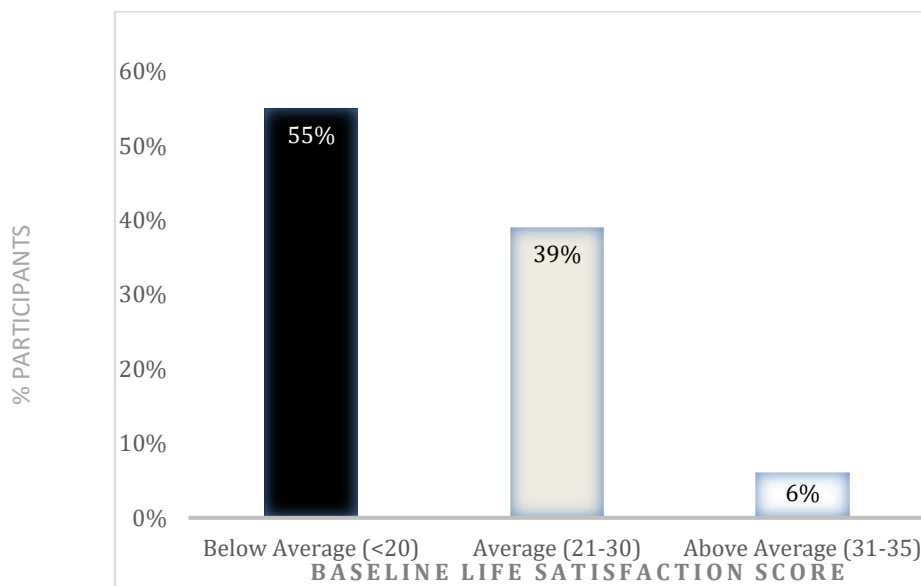


**Figure 1:** Baseline Mental Wellbeing Score Mapping against Benchmark



**Satisfaction with Life Score.** To measure contentment and satisfaction with life, the five-question-based SWLS scale was assessed on a 7-point Likert scale which assessed Life Proximity, Excellent Conditions, Life Satisfaction, Achieved Goals, and Minimal Regrets. The scale has a potential score ranging

from 5 to 35, with a score of 20 reflecting the cutoff point. In all, 55% (34) of the participants scored below the cut-off line, representing dissatisfaction with their lives, (n=24) 39 % scored average, and (n=4) 6.4% scored above average in both groups (Figure 2).



**Figure 2:** Baseline Satisfaction with Life Score Mapping Against Benchmark

**Table 2.** Presents the correlation analysis between women’s Satisfaction with Life Score (SWLS) and their Warwick-Edinburgh Mental Well-being Score. The results indicate a statistically significant positive correlation between these two variables ( $r = 0.459$ ,  $p < 0.01$ , 2-tailed), suggesting that as individuals

report higher levels of life satisfaction, they also tend to experience better mental well-being according to the WEMWBS. This suggests a meaningful relationship between life satisfaction and mental well-being, with the higher levels of one being associated with the higher levels of the other.

<b>TABLE 2: CORRELATIONS BETWEEN SATISFACTION WITH LIFE SCORE (SWLS) AND WARWICK EDINBURGH MENTAL WELLBEING SCORE</b>			
<b>Variable</b>	<b>n</b>	<b>Correlation</b>	<b>Sig</b>
Mental Well-being Scores	62	0.459**	0.001
Satisfaction with life scores	62		0.001
Note ** Correlation is significant at the 0.01 level (2-tailed).			

**Correlation Analysis between Exercise and Social activities on Mental Well-being Score**

A weak positive correlation of 0.206 was found between habits of performing daily exercise and mental well-being scores. But, this correlation is not statistically significant (p-value = 0.109). Similarly, a weak positive correlation coefficient of 0.126 was found between involvement in social activities and

mental well-being scores. However, as in the prior situation, this relationship is also not statistically significant (p-value = 0.327). This means that those who regularly participate in exercise and social activities have slightly higher mental well-being scores, but this correlation is not significant enough to be considered statistically valid.

**TABLE 3: CORRELATIONS BETWEEN THE EXERCISE AND SOCIAL ACTIVITIES WITH MENTAL WELL-BEING SCORE**

Test Variable	n	Correlation	Sig
Habits of Performing Exercise	62	0.206	0.109
Involvement in Community Activities	62	0.126	0.327
Note ** Correlation is significant at the 0.01 level (2-tailed).			

**Correlation Analysis between Demographics variables (Age and Qualification) on Mental Well-being Score**

The correlation between age and mental well-being score is -0.64, indicating a strong negative link in which mental well-being scores tend to deteriorate as age increases. The stated p-value of 0.621 is very high and may necessitate the observed link between qualification and mental well-being score is not statistically significant at a usual significance level, according to a p-value of 0.784.

The correlation value of -0.36 suggests a moderately weak negative association between the variables "qualification" and "mental well-being score." A p-value of 0.784 indicates that the observed link between qualification and mental well-being score is not statistically significant at a usual significance level. This suggests that the correlation could be due to chance, and there may not be a true association between qualification and mental well-being score in the sample.

**TABLE 4: CORRELATIONS BETWEEN THE SOCIO-DEMOGRAPHIC VARIABLES AGE AND QUALIFICATION WITH MENTAL WELL-BEING SCORE**

Test Variable	n	Correlation	Sig
Age	62	-0.64	0.621
Socio-demographic variables	62	-0.36	0.784
Note ** Correlation is significant at the 0.01 level (2-tailed).			

**Discussion**

This study was conducted to assess the level of mental well-being and life satisfaction

levels of the bereaved martyr's families, struggling to rear their children after the death of their spouse. In the current study, 55% (34) of the participants scored below the cut-off line, representing dissatisfaction with their lives, while 29% (n=18) had scores below 42, showing poor mental health. These findings have been supported by a cross-sectional study, conducted by Ahmed (2020) on 380 Kurdish martyrs' families in Erbil City, Iraq from January 2018 to April 2019, which found, after assessing the physical and mental health of women of martyrs' families, that they were distressed and dissatisfied with their quality of Life (5). The unexpected loss of a young military soldier disrupts the developmental life phases of their families and they feel entirely alone, disengaged, confused, and disenfranchised (3). Furthermore, the more the level of prior association, the more the loss is felt and the repercussions are greater (4).

The current study data supports that martyrs' families are especially susceptible to psychiatric impairment due to the high level of traumatic experiences after a loved one is martyred and faces frequent stressful situations, which increases the probability of psychiatric disorders (16). According to the Global Burden of Disease (17) report, depression is one of the leading causes of disability years lost in both developing and developed countries. The key implication drawn from this is that, despite being free of

mental illness, many individuals with traumatic experiences are believed to experience poor mental health (18). Therefore, it is becoming increasingly important to promote the mental health of martyrs' families in addition to preventing and treating the signs of mental illness. Likewise, a descriptive study, led by the Martyrs Foundation Iraq, spotlighted that more than half (>50%) of the martyrs' families fell victim to psychological illnesses (6).

In the current study, it has been revealed that the women who engaged themselves in physical activity and social activities have a better mental well-being score. Similarly, Williams, Shorter (19), emphasize that physical activity has been shown to improve mental health outcomes. Moreover, a qualitative study revealed that physical activity can help build resilience, provide social support, generate a stronger sense of self, and improve reported physical health and well-being. In a review, five publications gave evidence that physical activity can help people who have lost a loved one and want to live their lives to the fullest (20). These findings may aid in the future development of grief support services (21).

However, families rarely seek psychological assistance for their mental health issues because many find it embarrassing and stigmatizing to do so (22). Because of their reluctance to seek help from the mental health department, they are prone to many

illnesses. To preserve their mental health, it is essential to provide them with psycho social interventions, as a supportive measures package (5, 23).

### **Limitations**

The data was gathered by the researcher, and no steps were taken to reduce potential researcher bias on the part of the researcher. Reduced generalizability, limited statistical power, potential sampling bias, and context-specific findings are all limitations of small sample size and a particular study site.

### **Recommendations**

A significant proposal is to prioritize mental health by including it in primary care according to WHO guidelines. This strategy will ensure that mental health issues in the population are dealt with effectively and competently.

Social scientists and public health researchers can play an important role in improving the mental health of these bereaved families, and their engagement is expected to produce more substantial results in larger studies. Future research might include larger-scale intervention studies like RCTs or comparable designs to investigate the influence of psycho-social intervention on the mental well-being of martyr families including male members. These investigations would increase the generalizability of research findings. Furthermore, qualitative investigations and

feasibility studies that include in-depth interviews with participants should be undertaken to get deeper information from them.

### **Conclusion**

This study investigated the mental health and life satisfaction levels of martyrs' wives who have lost a loved one in martyrdom and are now faced with the challenge of parenting their children as single parents. A significant proportion of participants were dissatisfied with their lives, and a significant number had indicators of poor mental health. This study also highlighted martyr wives' susceptibility to psychiatric impairment as a result of their exposure to trauma of losing their loved one and sole responsibility of rearing the children. The study also revealed a positive note, revealing that women who participated in physical activity and communal activities reported higher levels of mental well-being. There is a dire need to provide critical support to these women to improve their overall quality of life by prioritizing their well-being

**Conflict of Interest:** Not Any

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