



Psychosocial Stresses and Its Social Determinates: A Population-Based Survey in Tehran, Iran

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Received: 23 May, 2025; Revised: 26 August, 2025; Accepted: 27 August, 2025

Abstract

Background: Psychosocial stress has become a significant public health concern globally, particularly in urban environments characterized by fast-paced lifestyles, technological overload, and social isolation.

Objectives: This study aimed to assess psychosocial stress and its social determinants among adults in Tehran, Iran.

Methods: A cross-sectional study was conducted in 2023 involving residents of Tehran aged 18 years and older. A cross-sectional study was conducted in 2023 among 1,008 adult residents of Tehran using a multi-stage cluster sampling method. The sample size was determined based on an expected 80% stress prevalence, a 95% confidence level, 10% relative error, and a 15% anticipated dropout rate. The primary outcome was psychosocial stress, measured using a standardized questionnaire on stressful events. Descriptive statistics and regression analyses were employed for data analysis.

Results: Of the study participants, 50.6% were male, 36.4% were married, and 41.0% held a bachelor's degree. Approximately half (49.5%) were employed, while 18.2% were unemployed. The findings revealed that 45.6% of participants experienced at least one severe economic stressor, 32.3% at least one severe family-related stressor, 28.8% at least one severe health-related stressor, and 25.7% at least one severe stressor related to the future. Higher levels of social interaction were significantly less likely to experience psychosocial stress ($P < 0.001$, $OR = 0.48$).

Conclusions: To reduce the mental health burden in urban Iran, policymakers should implement a dual strategy: Alleviating economic stress through macroeconomic reforms and enhancing psychological resilience through targeted interventions that promote well-being and social support. Addressing psychosocial stress is essential not only for individual health but also for strengthening community resilience and fostering long-term social development.

Keywords: Psychosocial Stresses, Social Determinates, Tehran

1. Background

Psychosocial stress is a critical determinant of mental health and a major risk factor for psychiatric disorders, including depression, anxiety, post-traumatic stress disorder (PTSD), and substance use disorders. It refers to the complex mental and physiological responses that

individuals experience when they perceive a threat or challenge that exceeds their coping resources (1). It is not solely the nature of external events that induces stress, but rather how individuals interpret and react to them – particularly in situations marked by uncertainty, lack of control, or insufficient information (2). Within the field of psychiatry and behavioral sciences,

psychosocial stress is not only a consequence of life adversity but also a clinically significant contributor to the onset, course, and severity of psychiatric illnesses.

Clark *et al.* categorize psychosocial stress into two broad domains: Psychological and social-behavioral. Psychological stress, frequently encountered in clinical psychiatry, arises from chronic uncertainty, emotional overload, and perceived lack of meaning – all of which are associated with mood and anxiety disorders. Social-behavioral stress, in contrast, is driven by isolation, role strain, and perceived injustice – factors that often contribute to behavioral dysfunction and psychiatric morbidity. These stressors are embedded within the interplay between internal emotional states and the external social environment – workplace dynamics, interpersonal relationships, and societal conditions all play a role (3).

On an individual level, characteristics such as neuroticism, low self-esteem, and prior trauma can increase vulnerability to stress (4). These are well-established risk factors in psychiatric research. However, social determinants – including interpersonal conflict, lack of social support, and community-level instability – often exacerbate these internal vulnerabilities (1). The growing emphasis on social determinants in psychiatric research highlights how environmental and structural stressors shape population mental health. Chronic psychosocial stress is also associated with neurocognitive changes and behavioral dysfunction, which are relevant to clinical psychiatry and neuropsychiatry. Broader environmental conditions such as poverty, economic disparity, and political upheaval further intensify stress by restricting access to essential resources (5).

Cultural expectations also influence stress levels. In societies with rigid gender roles and heightened performance demands, individuals – particularly women – may experience disproportionate psychological burdens (6). The chronicity of such stress is linked not only to poor mental health outcomes – including anxiety, depression, and cognitive impairments – but also to physical illnesses like cardiovascular disease and immune system dysfunction (7).

In the global context, psychosocial stress has emerged as a major public health concern, particularly in urban environments marked by fast-paced lifestyles, technological overload, and social isolation (8). In low- and middle-income countries, additional stressors –

such as political instability and limited access to healthcare – further compound this burden (9).

Iran presents a unique case. Economic sanctions, political tensions, and inflation have created a backdrop of persistent stress for many Iranians (10). In Tehran – the country's most densely populated urban center – residents face mounting financial insecurity, unemployment, and a rapidly transforming cultural and social landscape. Traditional support structures are eroding, and expectations surrounding gender roles and family obligations continue to place disproportionate pressure on women (11).

According to a landmark study by Noorbala *et al.*, 82.7% of Tehran residents had experienced at least one major stressful life event in a single year, with the most common sources of stress being related to family health, economic insecurity, and concerns about the future (12). Given these widespread challenges, identifying the most pressing stressors – and understanding how social determinants such as gender, socioeconomic status (SES), and life satisfaction interact with them – is vital for informing mental health interventions and public policy.

2. Objectives

This study bridges psychiatry, psychology, and social science by examining psychosocial stress as a behavioral and psychiatric outcome shaped by environmental and demographic factors. It aims to identify the most common psychosocial stressors experienced by adult residents in Tehran in 2023 and to examine the social determinants associated with severe stress. Understanding these psychiatric and behavioral implications can inform evidence-based policies, preventive mental health strategies, and interventions tailored to high-risk urban populations.

3. Methods

3.1. Participants and Study Design

A cross-sectional study was conducted in 2023 among residents of Tehran aged 18 years and older. However, research and method sampling were described elsewhere (12, 13). Briefly, proportional stratified random sampling was employed to recruit 1,008 participants. This sample size was calculated based on a confidence level of 95%, the experience of stress among 80% of citizens (based on previous studies), as well as accounting for a 10% error in the rate of stress

experiences and a 15% dropout rate. According to the statistical formula, the sample size was 112 individuals for each of the three age groups from three socioeconomic areas (R). Tehran was stratified into four districts based on developmental status: Fully developed, developed, less developed, and requiring intervention. Each district served as a separate stratum. Subsequently, three neighborhoods were randomly selected from each district. Participants were then recruited from various public locations within these neighborhoods where individuals commonly congregate for daily activities, including bus stops, subway stations, department stores, banks, mosques, healthcare centers, libraries, universities and campuses, restaurants, and parks.

3.2. Measures

The main outcome was considered to be psychosocial stress. We assessed psychosocial stress using a questionnaire on stressful events. This questionnaire was developed and validated by Noorbala *et al.* This instrument has been previously published (12). This comprehensive tool evaluates various types of psychological and social stressors across different categories, including personal, family-related, economic, social, and educational. The questionnaire's design allows for a multifaceted assessment of stressful events, providing a nuanced understanding of the stressors experienced by the study population.

3.3. Data Collection

Data collection was carried out by ten trained interviewers, each of whom received a one-day training session on the objectives of the study and the proper administration of the questionnaire. Based on the selected neighborhoods, each interviewer conducted face-to-face assessments using a standardized checklist to document stressful social and psychological events, following the acquisition of informed consent from participants. In addition, demographic information was collected using a separate, purpose-designed checklist. The main inclusion criteria for participation in this study were: (1) Being 18 years of age or older, and (2) providing informed consent.

3.4. Statistical Analysis

We used descriptive statistics to describe the characteristics of participants by sex, age, SES, and other variables. We also examined the associations between

variables using bivariate and multiple logistic regression tests. All analyses were performed using SPSS software (Version 25).

4. Results

Of the study participants, 50.6% were male, 36.4% were married, and 41.0% held a bachelor's degree. Approximately half (49.5%) were employed, while 18.2% were unemployed (Table 1).

Table 1. The Demographic Variables of Participants

Demographic Variables	No. (%)
Gender	
Male	490 (50.6)
Female	470 (48.6)
Marital status	
Single	479 (49.5)
Married	352 (36.4)
Divorced	51 (5.3)
Widowed	38 (3.9)
Education level	
Elementary, middle, and high school	72 (7.4)
Diploma	178 (18.4)
Bachelor	132 (13.6)
Associate's degree	397 (41.0)
Master	152 (15.7)
PhD	26 (2.7)
Employment	
Employed	479 (49.5)
Unemployed	157 (18.2)
Housewife	87 (9.0)
Retired	85 (8.8)
Others	149 (15.4)

To identify the most prevalent psychosocial stressor events, the frequency of these events over the past year was assessed. As shown in Table 2, the most commonly reported stressors included concerns about personal or family future (57.6%), inflation, rising prices, and market instability (57.1%), and worries about financial and economic prospects (55.0%).

Table 3 summarizes the psychosocial stressor events reported to have caused severe stress among participants. The findings indicate that future-related concerns were strongly associated with elevated stress levels. The most commonly reported severe stressors were concerns about the health of family members (14.4%), uncertainty about the personal or family future (13.2%), and apprehension about the financial and economic outlook (12.7%). Overall, 45.6% of participants reported experiencing at least one severe stressor. Economic stress was reported by 32.3% of participants,

Table 2. The Most Common Events Producing Psychosocial Stress Within the Last Year

The Most Common Events Producing Psychosocial Stress	Prevalence Percentage
Concerns about personal and family future (e.g. fear of sickness, death, addiction, unemployment and other social issues for children or brother or sister, failure to do personal affairs in the future)	57.6
Inflation, rising prices, and market instability	57.1
Concerns about financial and economic future (e.g. fear of bankruptcy or future poverty)	55.0
Expensive housing	43.4
Concerns about future of employment (e.g. fear of joblessness, being fired, failure to do business responsibilities)	40.7
Concerns about health of a family member (father, mother, sister, brother, spouse, and child)	39.2
Traffic problems	38.3
Dissatisfaction with facial appearance, height, weight, and other aspects of appearance, or concern about their unfavorable changes (such as aging, becoming overweight or underweight, becoming unattractive, hair loss, etc.)	35.6
Dealing with unforeseen expenses (such as illness, marriage, and theft)	35.4
Changes in sleep habits	35.2
Salary and wage problems	35.1
Low socioeconomic and cultural level of the neighborhood	35.0
Unemployment	34.8
Internet-related issues (including filtering, slowness, disconnection, and lack of sufficient coverage)	34.2
Air, noise, and food pollution	32.1
Death of main family members	31.2
High educational costs and expenses for family members	31.0
Uncertainty of people's real point of view	30.5
High crime (such as robbery and murder) and low sense of security in the neighbourhood and society	27.8
Corruption in the police, court, government offices and institutions, municipality, and the like	27.6

while 28.8% experienced at least one severe family-related stressor. Additionally, 25.7% of the sample reported a severe health-related stressor, and an equal proportion (25.7%) experienced at least one severe future-related stressor.

Table 3. Events Producing Severe Psychosocial Stress Within the Last Year

Events Producing Psychosocial Stress	Severe Stress (%)
Concerns about personal and family future	39.4
Inflation, rising prices, and market instability	38.7
Concerns about financial and economic future	38.1
Expensive housing	31.1
Concerns about future of employment	26.8
Salary and wage problems	20.5
Internet-related issues	19.7
Concerns about health of a family member	19.5
High educational costs and expenses for family members	18.9
Traffic problems	18.3
Unemployment	18.2
Dealing with unforeseen expenses	18.1
Concerns about educational future	17.7
Uncertainty of people's real point of view	15.0
Death of main family members	14.7
Low socioeconomic and cultural level of the neighborhood	14.4
Unfavorability of domestic and foreign policies	14.4
Concerns about future of society and community	13.7
Corruption in the police, court, government offices and institutions, municipality, and the like	13.3
Dissatisfaction with quality of housing	13.3

Logistic regression analysis was conducted to identify factors associated with experiencing severe psychosocial stress in the past year (Table 4). The final model adjusted for potential confounders, including sex, age, SES, and marital status. The results indicated that both social interaction and life satisfaction were statistically significant predictors. Specifically, higher levels of social interaction were associated with a lower likelihood of experiencing severe psychosocial stress ($P < 0.001$, $OR = 0.48$). Additionally, greater life satisfaction was significantly associated with reduced odds of experiencing psychosocial stress over the past year.

5. Discussion

This study examined the prevalence and determinants of psychosocial stressors among adult residents of Tehran in 2023. The findings revealed a high burden of stress, with the most commonly reported stressors being concerns about the personal or family future (57.6%), inflation and market instability (57.1%), and financial insecurity (55.0%). These results are consistent with previous findings by Noorbala *et al.*, who reported that over 80% of Tehran residents experienced at least one severe stressor annually – primarily related to family well-being and economic uncertainty (12). The slight increase in prevalence

Table 4. Multiple Regression Analysis and Adjusted Odds Ratio of Factors Associated with Severe Stressful Events in the Last Year

Characteristics	Severe Stressful Event		P-Value
	AOR	%95 CI	
Age (y)			0.001
20-39	0.06	0.44 - 0.82	
40-59	1.2	1.1 - 2.31	
60+	1	-	
Marital status			0.01
Single	1	-	
Married	0.67	0.41 - 0.91	
Sex			0.5
Male	1	-	
Female	1.2	0.8 - 1.31	
Social interaction (last 12 mo)			0.001
Yes	0.48	0.2 - 0.8	
No	1	-	
Life satisfaction			0.01
Yes	1	-	
No	2.11	1.9 - 3.3	
SES			0.02
High	0.58	0.42 - 0.85	
Low	1	-	

Abbreviations: AOR, adjusted odds ratio; SES, socioeconomic status.

observed in the present study may reflect growing anxieties fueled by ongoing macroeconomic instability and sociopolitical tensions in Iran.

Economic-related stressors emerged as the most prominent theme, underscoring the central role of financial instability in shaping psychological well-being in urban environments. This trend aligns with prior research, including the Tehran Cohort Study, which reported a 37.1% prevalence of mental health disorders – particularly among women (45%) – and linked these outcomes to factors such as high living costs, traffic congestion, and environmental degradation. These findings reinforce the well-established association between chronic structural stressors and adverse mental health outcomes, especially within densely populated urban areas. Global evidence similarly links economic uncertainty to heightened levels of depression and anxiety, particularly in cities undergoing rapid socioeconomic change (14).

Notably, the results of this study identified two key protective factors against psychosocial stress: Social interaction and life satisfaction. Participants with stronger social ties reported significantly lower levels of severe stress ($OR = 0.48, P < 0.001$), echoing previous research that emphasizes the buffering role of social capital in stressful environments. Social connectedness

has consistently been associated with lower morbidity and mortality, particularly in high-stress settings (15). For example, studies involving older adults in Tehran and earthquake survivors in Iran have shown that perceived social support and community cohesion can substantially reduce psychological distress and post-traumatic symptoms (16).

Similarly, higher life satisfaction was associated with reduced odds of experiencing severe stress. Participants with lower satisfaction scores were more than twice as likely to report severe stress ($OR = 2.11, P = 0.01$). These findings are consistent with national data from Iran, which identify income, employment, and educational attainment as key predictors of subjective well-being. Globally, life satisfaction is widely recognized as a protective factor that enhances psychological resilience and lowers the risk of stress-related disorders (17). Given the growing body of evidence linking life satisfaction with resilience to stress, enhancing overall quality of life must be a central component of public mental health interventions.

Demographic variables also played a role in stress exposure. Married individuals reported significantly lower levels of stress compared to their unmarried counterparts [adjusted odds ratio (AOR) = 0.67, $P = 0.01$], potentially reflecting the emotional and financial

support available within marital relationships. Interestingly, gender was not a significant predictor of severe stress in the final model. This contrasts with findings from prior studies that have identified greater stress burdens among women, often attributed to caregiving responsibilities and cultural expectations. The lack of gender disparity observed in this study may point to a growing universality of stress exposure across social groups, particularly in the face of widespread economic pressures.

These results underscore the multifaceted nature of psychosocial stress in urban Iran, highlighting the need to address both individual-level and structural determinants. In particular, economic insecurity, housing instability, and employment uncertainty emerge as key stressors requiring systemic intervention. Urban populations consistently report higher rates of psychiatric morbidity due to overcrowding, financial strain, and social fragmentation (16-18). Addressing these stressors demands coordinated public health strategies that extend beyond individual coping mechanisms.

This study reveals a high prevalence of psychosocial stress among adults in Tehran, with the most pressing stressors rooted in economic instability, concerns about the future, and inflation. These stressors reflect deeper structural issues that affect quality of life and mental well-being in Iran's largest urban centers. Crucially, the findings also emphasize the protective value of social and psychological resources. Strengthening social networks, fostering community cohesion, and improving overall quality of life – particularly through equitable access to education, employment, and healthcare – should be central components of mental health interventions. To effectively reduce the mental health burden in urban Iran, policymakers must adopt a dual approach: Implementing macroeconomic reforms to mitigate structural stressors, and promoting psychological resilience through targeted support and well-being programs. Addressing psychosocial stress is essential not only for individual mental health, but also for enhancing community resilience and fostering long-term social development.

This study has several notable strengths. It is among the few large-scale, population-based investigations of psychosocial stress in Tehran, conducted across all 22 municipal districts using a stratified, multi-stage cluster sampling design. This approach ensured a broad representation across socioeconomic and demographic

groups, enhancing the generalizability of the findings. The use of a culturally validated instrument further allowed for contextually relevant assessment of stressors, capturing the lived experiences of Tehran's residents. The study also provides timely data during a period of considerable economic and political uncertainty, offering valuable insights for public health planning and mental health policy in Iran.

Despite its strengths, this study has limitations. Its cross-sectional design limits causal inference, precluding conclusions about the temporal relationship between stressors and outcomes. Longitudinal studies would be better suited to capturing the evolution and cumulative effects of psychosocial stress over time. Additionally, reliance on self-reported data introduces the potential for recall bias and social desirability bias, especially when reporting sensitive information about mental and emotional distress. Although the sample is representative of Tehran's urban population, the findings may not generalize to rural areas or other Iranian cities, where stressors and coping mechanisms may differ. Finally, while the survey covered a broad spectrum of stress domains, emerging stressors – such as digital overload, climate anxiety, or experiences of structural discrimination – may not have been fully captured.

5.1. Conclusions

In conclusion, this study highlights a high prevalence of psychosocial stress among adults in Tehran, Iran, with economic instability, future uncertainty, and inflation emerging as predominant stressors. Protective factors such as social interaction and life satisfaction were significantly associated with reduced stress levels. These findings emphasize the need for multifaceted public health strategies that combine structural economic reforms with community-level interventions aimed at enhancing social cohesion and individual well-being. Future research should employ longitudinal designs to better understand causal pathways and stress trajectories in urban populations.

Acknowledgements

We thank all individuals who participated and contributed to this study.

Footnotes

Authors' Contribution: Study conceptualization and design were performed by M. N., H. R., and F. A. Data gathering and data analysis were performed by Sh. A. Drafting and writing were carried out by M. N., M. B., M. S., and G. Gh. All authors contributed to the drafting, writing, and editing of the article. All authors have read and agreed to the published version of the manuscript.

Conflict of Interests Statement: The authors declare no conflict of interest.

Data Availability: The raw data supporting the conclusions of this article will be made available by the authors without undue reservation.

Ethical Approval: The study design and research method have been approved by the Ethics Committee of the University of Social Welfare and Rehabilitation Sciences with the ethical code [IR.USWR.REC.1402.039](#).

Funding/Support: This article is part of a broader research project on psychosocial tensions in Tehran, which was supported and funded by the University of Social Welfare and Rehabilitation Sciences.

Informed Consent: Written informed consent was obtained from the participants.

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