

Quality of Life and Psychological Resilience in Menopausal Women During the COVID-19 Pandemic

COVID-19 Pandemisi Sürecinde Menopozal Kadınlarda Yaşam Kalitesi ve Psikolojik Dayanıklılık

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ABSTRACT

Background: This study aimed to determine the quality of life and psychological resilience of women in the menopausal period during the COVID-19 pandemic.

Methods: This cross-sectional study was conducted online with 171 participants during the COVID-19 pandemic. Data were collected using a Personal Information Form, the Menopause-Specific Quality of Life Questionnaire, and the Psychological Resilience Scale for Adults.

Results: Women who reported changes in physical activity had significantly higher scores in the psychosocial subscale of the MENQOL ($t = 2.617, p = 0.010$), indicating poorer quality of life in this domain. Similarly, those who experienced changes in eating habits showed significantly higher scores in both the psychosocial ($t = 2.704, p = 0.008$) and physical ($t = 2.873, p = 0.005$) subscales. Women who reported changes in sexual habits also had significantly higher scores in the psychosocial ($t = 2.226, p = 0.027$) and sexual ($t = 3.392, p = 0.001$) subscales, reflecting lower quality of life. Participants who experienced changes in their use of healthcare services demonstrated significantly lower psychological resilience, particularly in the social resources domain ($t = -2.688, p = 0.008$). Weak negative correlations were observed between the social resources dimension of psychological resilience and the physical ($r = -0.204, p = 0.007$) and sexual ($r = -0.207, p = 0.007$) domains of quality of life.

Conclusion: Physical restrictions and social isolation during the COVID-19 pandemic negatively affected quality of life and psychological resilience among menopausal women. Higher psychological resilience, particularly social resources, was associated with better quality of life.

Keywords: COVID-19 pandemic, menopause, quality of life, psychological resilience

ÖZ

Giriş ve Amaç: Bu çalışma, COVID-19 pandemisi sırasında menopoz dönemindeki kadınların yaşam kalitesi ve psikolojik dayanıklılık düzeylerini belirlemeyi amaçlamaktadır.

Yöntem: Bu kesitsel çalışma, COVID-19 pandemisi sırasında 171 katılımcı ile çevrimiçi olarak yürütülmüştür. Veriler, Kişisel Bilgi Formu, Menopoz Özgü Yaşam Kalitesi Anketi ve Yetişkin Psikolojik Dayanıklılık Ölçeği kullanılarak toplanmıştır.

Bulgular: Fiziksel aktivitesinde değişiklik bildiren kadınların yaşam kalitesi, Menopoz Özgü Yaşam Kalitesi Anketi'nin psikososyal alt boyutunda anlamlı düzeyde daha düşük bulunmuştur ($t = 2.617, p = 0.010$). Yeme alışkanlıklarında değişiklik yaşayan kadınların yaşam kalitesi, hem psikososyal ($t = 2.704, p = 0.008$) hem de fiziksel ($t = 2.873, p = 0.005$) alt boyutlarda anlamlı düzeyde daha düşük bulunmuştur. Cinsel alışkanlıklarında değişiklik bildiren kadınların yaşam kalitesi, psikososyal ($t = 2.226, p = 0.027$) ve cinsel ($t = 3.392, p = 0.001$) alt boyutlarda anlamlı düzeyde daha düşük bulunmuştur. Sağlık hizmetlerini kullanımında değişiklik yaşayan katılımcıların psikolojik dayanıklılık düzeyleri, özellikle sosyal kaynaklar alt boyutunda anlamlı düzeyde daha düşük bulunmuştur ($t = -2.688, p = 0.008$). Psikolojik dayanıklılığın sosyal kaynaklar alt boyutu ile yaşam kalitesinin fiziksel ($r = -0.204, p = 0.007$) ve cinsel ($r = -0.207, p = 0.007$) alanları arasında zayıf düzeyde negatif ilişkiler saptanmıştır.

Sonuç: COVID-19 pandemisi sürecinde fiziksel kısıtlamalar ve sosyal izolasyon, menopozal kadınlarda yaşam kalitesi ve psikolojik dayanıklılığı olumsuz etkilemiştir. Özellikle sosyal kaynaklar boyutu olmak üzere yüksek psikolojik dayanıklılık, daha iyi yaşam kalitesi ile ilişkilidir.

Anahtar Kelimeler: COVID-19 pandemisi, menopoz, yaşam kalitesi, psikolojik dayanıklılık

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INTRODUCTION

The COVID-19 pandemic constituted a global health crisis that profoundly affected multiple aspects of daily life. To mitigate the spread of the virus, governments worldwide, including in our country, implemented strict stay-at-home measures that substantially limited individuals' mobility. Evidence suggests that prolonged social isolation is associated with increased levels of

depression, anxiety, and cognitive decline, while reducing resilience-related factors such as self-esteem and a sense of personal worth (1,2). In addition, pandemic-related stressors—including fear of infection, misinformation, mobility restrictions, governmental mandates, emotional distress, and financial losses—may exert significant physical and psychological effects on women undergoing the menopausal transition (3). Importantly, these adverse effects may persist even after the termination of isolation measures (4,5).

Menopause is a biopsychosocial process in which changes in lifestyle patterns, interpersonal relationships, nutrition, physical activity, and sexual functioning may exacerbate menopausal symptoms and negatively influence quality of life (6). The COVID-19 pandemic disrupted many of these domains simultaneously, raising concerns about its potential to intensify menopausal challenges. In this context, psychological resilience—defined as the capacity to adapt positively in the face of adversity—emerges as a key protective factor. Studies have demonstrated that women with higher psychological resilience are more likely to maintain adaptive behaviors, experience fewer symptoms, and preserve overall well-being despite challenging conditions (7–9).

Empirical evidence from the pandemic period further supports this relationship. Coronado et al. (2020) reported that perimenopausal and postmenopausal women who maintained physical and sexual activity during quarantine exhibited higher levels of both quality of life and psychological resilience. In contrast, antidepressant use was associated with lower scores in both domains, whereas women living with others reported relatively higher quality of life (10).

Despite these contributions, important gaps remain in the literature. Specifically, studies examining the combined effects of pandemic-related psychosocial stressors and the menopausal transition on both quality of life and psychological resilience are limited. Furthermore, the potential buffering role of psychological resilience in

mitigating the negative effects of pandemic-related disruptions on menopausal women's well-being has not been sufficiently explored.

Therefore, this study aims to assess the quality of life and psychological resilience of women during the menopausal period in the context of the COVID-19 pandemic, thereby addressing an important gap in the literature and contributing to a more comprehensive understanding of these interrelated constructs within a global crisis context.

Research Questions

1. What are the levels of quality of life and psychological resilience among menopausal women during the COVID-19 pandemic?
2. How do pandemic-related changes affect the subdimensions of quality of life and psychological resilience?
3. Is there a relationship between quality of life and psychological resilience?

METHODS

Study Design

This study was conducted using a cross-sectional research design.

Participants

The study population consisted of menopausal women in Türkiye who actively used social media. Data were collected online via widely used social media platforms, including WhatsApp®, Facebook®, Instagram®, and Twitter®, due to pandemic-related restrictions on face-to-face data collection.

Participants were recruited using a convenience sampling method combined with a snowball sampling approach. The survey link was initially shared through the researchers' social media accounts and subsequently disseminated through participants' networks to increase accessibility and participation.

The required sample size was determined through

a priori power analysis based on the mean quality of life score reported by Coronado et al. with a statistical power of 99% and an effect size of 0.5. Accordingly, a minimum sample of 171 participants was calculated. The study was completed with 171 women residing in Ankara who met the inclusion criteria and voluntarily agreed to participate.

Inclusion and Exclusion Criteria

Women who were at least literate and classified as premenopausal, perimenopausal, or postmenopausal according to the Staging Reproductive Aging in Women (STRAW) criteria were included in the study (11). According to the STRAW staging system, the perimenopausal period included the early menopausal transition (STRAW -2), characterized by cycle length variability of ≥ 7 days, and the late menopausal transition (STRAW -1), defined by amenorrhea lasting ≥ 60 days. The postmenopausal period was defined as amenorrhea for at least 12 consecutive months. Participants were required to be able to understand and respond to the online questionnaire and to have access to the internet and social media platforms.

Participation in the study was voluntary, and individuals who agreed to take part provided informed consent prior to completing the survey. Women who did not meet the menopausal classification criteria or who provided incomplete responses were excluded from the analysis.

Data Collection Tools

Data were collected using an online questionnaire developed by the researchers, which included the following instruments:

Personal Information Form: This form consisted of 13 items assessing sociodemographic characteristics (e.g., age, education level), menopausal characteristics, and pandemic-related factors.

Menopause-Specific Quality of Life Scale (MENQOL)

The Turkish validity and reliability of the

Menopause-Specific Quality of Life Scale (MENQOL) was established by Kharbouch and Şahin (2007) (12). The scale consists of four subscales: vasomotor (items 1–3), psychosocial (items 4–10), physical (items 11–26), and sexual (items 27–29). The vasomotor subscale assesses symptoms such as hot flashes and night sweats. The psychosocial subscale evaluates psychological well-being, including anxiety, dissatisfaction with life, memory problems, and emotional distress. The physical subscale covers a wide range of somatic symptoms such as fatigue, sleep disturbances, musculoskeletal pain, and urinary complaints. The sexual subscale assesses changes in sexual desire, vaginal dryness, and avoidance of sexual activity.

Participants are asked whether they have experienced problems related to each item in the past month. If present, symptom severity is rated on a 7-point Likert scale ranging from 0 (not at all bothersome) to 6 (extremely bothersome). Higher scores indicate greater symptom severity and lower quality of life. In the Turkish validation study, Cronbach's alpha coefficients were 0.73 for vasomotor, 0.84 for psychosocial, 0.88 for physical, and 0.84 for sexual subscales. In the present study, the Cronbach's alpha values were 0.92, 0.91, 0.94, and 0.89, respectively.

Psychological Resilience Scale for Adults (PRSA)

The Psychological Resilience Scale for Adults (PRSA) was originally developed by (13), and its Turkish validity and reliability study was conducted by (14). The scale consists of 33 items rated on a five-point Likert scale and includes six subscales: self-perception, future perception, structural style, social competence, family cohesion, and social resources. The scale includes reverse-scored items, and after appropriate scoring, higher total scores indicate higher levels of psychological resilience. The total score ranges from 33 to 165. The Cronbach's alpha coefficient of the original scale was reported as 0.86, while in the present study it was found to be 0.97, indicating excellent internal consistency.

Data Collection

Data were collected online between August 15 and November 29, 2021, during the COVID-19 pandemic. An online survey link was created and initially distributed through the researchers' social media accounts, including platforms such as WhatsApp®, Facebook®, Instagram®, and Twitter®. The survey was subsequently disseminated through participants' networks using a snowball sampling approach, enabling broader reach.

Before accessing the questionnaire, participants were informed about the purpose of the study and provided informed consent electronically. The questionnaire consisted of structured items and required approximately 10–15 minutes to complete. Measures were taken to prevent duplicate responses, and participants were able to complete the survey only once.

Data Analysis

Data were analyzed using IBM SPSS Statistics version 20.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the data. The normality of the data distribution was assessed using skewness and kurtosis values. As the data met the assumptions of normality, parametric tests were employed. Differences between two independent groups were analyzed using the independent samples t-test. Statistical significance was set at $p < 0.05$. In addition, Pearson correlation analysis was performed to examine the relationships between quality of life and psychological resilience. Statistical significance was set at $p < 0.05$.

Ethical Considerations

Approval for conducting research during the pandemic was obtained from the Scientific Research Platform of the Ministry of Health in Türkiye. Ethical approval was granted by the Gazi University Ethics Committee (10.08.2021-E.133715). The study was conducted in accordance with the principles of the Declaration of Helsinki. Participants were informed about

the study and provided informed consent before accessing the questionnaire. No personal identifying information was collected, and all responses were anonymous. Measures were taken to prevent duplicate responses, and all collected data were stored securely and confidentially.

RESULTS

The distribution of participants' characteristics is presented in Table 1. The mean age of the women was 52.14 ± 5.72 years. Of the participants, 49% were university graduates, 40.4% were not employed in income-generating jobs, and 93.6% lived with others. Additionally, 62% of the women were in the perimenopausal period (Table 1).

During the pandemic, 24% of the participants reported being in quarantine, while 52.6% experienced restrictions on leaving their homes. Among those who experienced such restrictions, 33.9% reported doing so to protect themselves, 30.4% to protect their relatives, and 12.3% due to fear. Regarding psychological effects, 46.8% of women reported experiencing anxiety, 19.3% reported increased sleep tendency, 11.7% reported depression, and 11.7% reported fear of death, whereas 18.1% stated that they were not psychologically affected (Table 1).

A majority of participants (70.8%) reported changes in their use of healthcare services, most commonly due to fear of infection (56.1%). Other reasons included hospitals being designated as pandemic hospitals (19.3%), preventing relatives from visiting healthcare facilities (11.7%), and difficulties in obtaining appointments (11.7%). Similarly, 70.8% reported changes in physical activity, with 39.8% indicating that they were unable to engage in walking or exercise. Changes in eating habits were reported by 57.9% of participants, while 31.6% reported changes in sexual habits, with 29.8% indicating decreased sexual activity (Table 1).

Table 1. Changes in Women's Lives During the COVID-19 Pandemic (n:171), Ankara, 2021

Characteristics	n	%
Quarantine Status		
Yes	41	24.0
No	130	76.0
Restrictions on Leaving Home		
Yes	90	52.6
No	81	47.4
Reasons for Restrictions on Leaving Home*		
Fear	21	12.3
Being in quarantine	17	9.9
Family not allowing	4	2.3
Protecting oneself	58	33.9
Protecting loved ones	52	30.4
Curfew for individuals aged ≥ 65 years	2	1.2
Psychological Impact of the Pandemic		
Anxiety	80	46.8
Increased sleep tendency	33	19.3
Depression	20	11.7
Fear of death	20	11.7
Not affected	31	18.1
Wanted to see a psychologist/psychiatrist but could not	10	5.8
Visited a psychologist/psychiatrist	2	1.2
Increased religious feelings	1	0.6
Change in Use of Healthcare Services		
Yes	121	70.8
No	50	29.2
Reasons for Change in Healthcare Use*		
Avoided due to fear of infection	96	56.1
Hospitals converted to pandemic hospitals	33	19.3
Relatives not allowed to visit	20	11.7
Difficulty obtaining appointments	20	11.7
Delayed appointments	13	7.6
Lack of healthcare personnel	10	5.8
Could not go due to quarantine	10	5.8
Financial constraints/unemployment	6	3.5
Change in Physical Activity		
Yes	121	70.8
No	50	29.2
Type of Change in Physical Activity*		
No walking/exercise/sports	68	39.8
Limited physical activity	48	28.1
Exercising at home	19	11.1
Change in Eating Habits		
Yes	99	57.9
No	72	42.1
Type of Change in Eating Habits*		
Increased appetite	49	28.7

Characteristics	n	%
Paying more attention to diet	36	21.1
Taking vitamin supplements	38	22.2
Increased fruit and vegetable intake	24	14.0
Loss of appetite	7	4.1
Change in Sexual Habits		
Yes	54	31.6
No	117	68.4
Type of Change in Sexual Habits*		
Decreased	51	29.8
No change	2	1.2
No response	118	69.0

* Multiple responses were allowed.

Table 2. Mean Scores of the Menopause-Specific Quality of Life Scale and the Psychological Resilience Scale for Adults (n:171), Ankara, 2021

Scales and Subscales	Mean $\pm$ SD	Min–Max
Menopause-Specific Quality of Life Scale (MENQOL)		
Vasomotor Subscale	10.84 $\pm$ 7.06	3.00–24.00
Psychosocial Subscale	23.81 $\pm$ 13.06	7.00–56.00
Physical Subscale	59.39 $\pm$ 28.13	16.00–128.00
Sexual Subscale	10.34 $\pm$ 6.71	3.00–24.00
Psychological Resilience Scale for Adults (PRSA)		
Self-Perception	17.77 $\pm$ 1.31	13.00–22.00
Future Perception	12.08 $\pm$ 1.33	7.00–17.00
Structural Style	12.21 $\pm$ 1.36	6.00–16.00
Social Competence	18.02 $\pm$ 1.85	13.00–26.00
Family Cohesion	19.05 $\pm$ 2.64	11.00–26.00
Social Resources	19.32 $\pm$ 2.28	13.00–28.00
Total Score	98.47 $\pm$ 4.61	84.00–113.00

Note: Values are presented as mean $\pm$ SD. MENQOL: Menopause-Specific Quality of Life Scale; PRSA: Psychological Resilience Scale for Adults.

The mean scores of the Menopause-Specific Quality of Life Questionnaire (MENQOL) and the Psychological Resilience Scale for Adults (PRSA) are presented in Table 2. The mean MENQOL scores were 10.84 $\pm$ 7.06 for the vasomotor subscale, 23.81 $\pm$ 13.06 for the psychosocial subscale, 59.39 $\pm$ 28.13 for the physical subscale, and 10.34 $\pm$ 6.71 for the sexual subscale. The mean total PRSA score was 98.47 $\pm$ 4.61. Subscale mean scores were as follows: self-perception (17.77 $\pm$ 1.31), future perception (12.08 $\pm$ 1.33), structural style (12.21 $\pm$ 1.36), social competence (18.02 $\pm$ 1.85), family cohesion (19.05 $\pm$ 2.64), and social resources (19.32 $\pm$ 2.28) (Table 2).

Comparisons of MENQOL scores according to pandemic-related characteristics are presented in Table 3. A statistically significant difference was found in the MENQOL sexual subscale scores between women who experienced restrictions on leaving home and those who did not ($t = 3.232$, $p = 0.001$), indicating lower sexual quality of life among those with restrictions. Significant differences were also observed in the psychosocial ($t = 2.822$, $p = 0.005$) and physical ($t = 2.029$, $p = 0.044$) subscales among women who reported changes in healthcare service use, with higher scores indicating poorer quality of life (Table 3).

Table 3. Mean Scores of the Menopause-Specific Quality of Life Scale According to Pandemic-Related Characteristics (n:171), Ankara, 2021

Characteristics	Vasomotor	Psychosocial	Physical	Sexual
Quarantine Status				
Yes (n=41)	11.24 ± 7.08	25.09 ± 13.36	56.51 ± 27.20	11.85 ± 7.01
No (n=130)	10.71 ± 7.07	23.41 ± 12.99	60.30 ± 28.46	9.86 ± 6.57
t, p	0.417, 0.677	0.718, 0.474	-0.751, 0.454	1.658, 0.099
Restrictions on Leaving Home				
Yes (n=90)	11.81 ± 7.29	25.43 ± 12.52	63.38 ± 27.21	11.87 ± 6.69
No (n=81)	9.76 ± 6.66	22.02 ± 13.48	54.95 ± 28.64	8.64 ± 6.35
t, p	1.906, 0.058	1.713, 0.089	1.975, 0.050	3.232, 0.001*
Changes in Healthcare Services Use				
Yes (n=121)	11.03 ± 7.06	25.59 ± 12.64	62.17 ± 26.31	10.95 ± 6.55
No (n=50)	10.38 ± 7.09	19.52 ± 13.19	52.66 ± 31.39	8.88 ± 6.94
t, p	0.549, 0.584	2.822, 0.005*	2.029, 0.044*	1.847, 0.067
Changes in Physical Activity				
Yes (n=121)	10.91 ± 6.91	25.47 ± 12.70	61.95 ± 26.17	10.89 ± 6.67
No (n=50)	10.66 ± 7.47	19.82 ± 13.18	53.18 ± 31.82	9.02 ± 6.68
t, p	0.216, 0.829	2.617, 0.010*	1.869, 0.063	1.667, 0.097
Changes in Eating Habits				
Yes (n=99)	11.56 ± 7.34	26.08 ± 12.78	64.55 ± 26.18	10.98 ± 6.72
No (n=72)	9.84 ± 6.58	20.70 ± 12.89	52.29 ± 29.33	9.45 ± 6.65
t, p	1.578, 0.116	2.704, 0.008*	2.873, 0.005*	1.478, 0.141
Changes in Sexual Habits				
Yes (n=54)	11.55 ± 6.35	27.05 ± 13.57	62.01 ± 27.73	12.83 ± 6.74
No (n=117)	10.51 ± 7.36	22.32 ± 12.60	58.17 ± 28.35	9.19 ± 6.41
t, p	0.897, 0.371	2.226, 0.027*	0.829, 0.409	3.392, 0.001*

* $p < 0.05$. Values are presented as mean ± SD. Independent samples t-test was used.

Furthermore, women who reported changes in physical activity had significantly higher psychosocial subscale scores ($t = 2.617$, $p = 0.010$), indicating reduced quality of life in this domain. Similarly, changes in eating habits were associated with higher psychosocial ($t = 2.704$, $p = 0.008$) and physical ($t = 2.873$, $p = 0.005$) subscale scores. Women who reported changes in sexual habits also had significantly higher psychosocial ($t = 2.226$, $p = 0.027$) and sexual ($t = 3.392$, $p = 0.001$) subscale scores, reflecting poorer quality of life in these areas (Table 3).

Comparisons of PRSA scores according to pandemic-related characteristics are presented in Table 4. A statistically significant difference was observed in the structural style subscale between women who experienced restrictions on leaving home and those who did not ($t = -2.022$, $p =$

0.045), indicating lower resilience in this domain among those with restrictions (Table 4).

Women who reported changes in healthcare service use demonstrated significantly higher structural style scores ($t = 2.441$, $p = 0.016$), suggesting improved resilience in this domain, but lower social resources scores ($t = -2.688$, $p = 0.008$), indicating reduced resilience in social support. Additionally, women who reported changes in eating habits had significantly higher social resources scores ($t = 1.992$, $p = 0.048$), suggesting improved resilience in this domain (Table 4).

Table 4. Mean Scores of the Psychological Resilience Scale for Adults According to Pandemic-Related Characteristics (n:171), Ankara, 2021

Characteristics	Self-Perception	Future Perception	Structural Style	Social Competence	Family Cohesion	Social Resources	Total
Quarantine Status							
Yes (n=41)	17.51 ± 1.18	12.02 ± 1.15	12.04 ± 1.41	17.85 ± 1.90	18.51 ± 2.43	19.29 ± 1.95	97.24 ± 4.14
No (n=130)	17.85 ± 1.35	12.10 ± 1.38	12.26 ± 1.35	18.08 ± 1.84	19.23 ± 2.69	19.33 ± 2.38	98.86 ± 4.70
t, p	-1.450, 0.149	-0.316, 0.752	-0.870, 0.386	-0.694, 0.489	-1.523, 0.130	-0.093, 0.926	-1.974, 0.050
Restrictions on Leaving Home							
Yes (n=90)	17.62 ± 1.18	12.11 ± 1.21	12.01 ± 1.28	18.14 ± 1.81	18.84 ± 2.59	19.47 ± 2.19	98.21 ± 4.50
No (n=81)	17.93 ± 1.44	12.04 ± 1.45	12.43 ± 1.42	17.90 ± 1.90	19.29 ± 2.69	19.14 ± 2.38	98.76 ± 4.74
t, p	-1.570, 0.118	0.302, 0.763	-2.022, 0.045*	0.855, 0.394	-1.116, 0.266	0.941, 0.348	-0.783, 0.435
Changes in Healthcare Services Use							
Yes (n=121)	17.81 ± 1.34	12.07 ± 1.23	12.37 ± 1.35	17.86 ± 1.73	19.04 ± 2.57	19.02 ± 2.23	98.20 ± 4.43
No (n=50)	17.66 ± 1.25	12.10 ± 1.54	11.82 ± 1.32	18.42 ± 2.08	19.08 ± 2.83	20.04 ± 2.28	99.12 ± 5.00
t, p	0.712, 0.478	-0.114, 0.909	2.441, 0.016*	-1.782, 0.077	-0.068, 0.946	-2.688, 0.008*	-1.179, 0.240
Changes in Physical Activity							
Yes (n=121)	17.80 ± 1.31	12.06 ± 1.38	12.29 ± 1.35	17.94 ± 1.83	18.95 ± 2.47	19.14 ± 2.19	98.19 ± 4.79
No (n=50)	17.70 ± 1.34	12.12 ± 1.20	12.00 ± 1.37	18.24 ± 1.90	19.32 ± 3.01	19.76 ± 2.46	99.14 ± 4.11
t, p	0.457, 0.648	-0.240, 0.810	1.300, 0.195	-0.955, 0.341	-0.830, 0.408	-1.619, 0.107	-1.215, 0.226
Changes in Eating Habits							
Yes (n=99)	17.78 ± 1.35	12.06 ± 1.11	12.35 ± 1.34	18.13 ± 1.78	19.10 ± 2.58	19.61 ± 2.23	99.05 ± 4.32
No (n=72)	17.75 ± 1.27	12.11 ± 1.58	12.01 ± 1.37	17.88 ± 1.95	19.00 ± 2.74	18.91 ± 2.31	97.68 ± 4.90
t, p	0.185, 0.854	-0.244, 0.807	1.615, 0.108	0.843, 0.400	0.246, 0.806	1.992, 0.048*	1.932, 0.055
Changes in Sexual Habits							
Yes (n=54)	17.81 ± 1.10	12.07 ± 1.35	12.31 ± 1.38	17.98 ± 1.66	18.83 ± 2.73	19.03 ± 2.53	98.05 ± 4.49
No (n=117)	17.75 ± 1.41	12.08 ± 1.32	12.16 ± 1.35	18.05 ± 1.94	19.16 ± 2.60	19.45 ± 2.15	98.66 ± 4.67
t, p	0.288, 0.774	-0.052, 0.959	0.678, 0.499	-0.228, 0.820	-0.755, 0.451	-1.106, 0.270	-0.816, 0.416

* p < 0.05. Values are presented as mean ± SD. Independent samples t-test was used.

Table 5. Correlations Between MENQOL and PRSA Scores (n:171) , Ankara, 2021

Variables	1	2	3	4	5	6	7	8	9	10	11
1. MENQOL Vasomotor	1										
2. MENQOL Psychosocial	0.387**	1									
3. MENQOL Physical	0.457**	0.751**	1								
4. MENQOL Sexual	0.325**	0.485**	0.498**	1							
5. PRSA Self-Perception	-0.154*	-0.125	-0.053	-0.028	1						
6. PRSA Future Perception	-0.017	0.077	0.025	0.022	-0.006	1					
7. PRSA Structural Style	-0.055	0.103	-0.082	0.044	0.180*	0.088	1				
8. PRSA Social Competence	-0.146	-0.004	-0.004	-0.155*	0.120	-0.046	0.021	1			
9. PRSA Family Cohesion	0.112	-0.068	0.045	0.099	0.009	-0.025	-0.096	0.006	1		
10. PRSA Social Resources	-0.084	-0.142	-0.204**	-0.207**	0.163*	0.038	-0.029	0.142	-0.218**	1	
11. PRSA Total Score	-0.102	-0.094	-0.109	-0.096	0.472**	0.298**	0.311**	0.503**	0.434**	0.476**	1

* p < 0.05, ** p < 0.01

Pearson correlation coefficients are presented.

Pearson correlation analysis revealed significant positive correlations among the MENQOL subscales, ranging from moderate to strong ($r = 0.325-0.751$, $p < 0.001$). The strongest association was observed between the psychosocial and physical subscales ($r = 0.751$, $p < 0.001$). Regarding psychological resilience, the PRSA total score was positively and significantly correlated with all its subscales ($r = 0.298-0.503$, $p < 0.001$). Among these, the strongest correlation was found between social competence and the total score ($r = 0.503$, $p < 0.001$). In terms of the relationship between quality of life and psychological resilience, weak but significant negative correlations were observed between the PRSA social resources subscale and the MENQOL physical ($r = -0.204$, $p = 0.007$) and sexual ($r = -0.207$, $p = 0.007$) subscales. Additionally, a weak negative correlation was found between the MENQOL vasomotor subscale and the PRSA self-perception subscale ($r = -0.154$, $p = 0.044$) (Table 5).

DISCUSSION

Quality of life in menopausal women is a multidimensional construct encompassing physical, psychosocial, sexual, and vasomotor domains (15–23). In line with the holistic definition of health, optimal functioning in each of these domains is essential for overall well-being, and disruptions in any area may significantly impair quality of life during the menopausal transition.

The findings of this study indicate that both quality of life and psychological resilience in menopausal women were adversely affected by pandemic-related factors. Women who reported restrictions on leaving home experienced poorer sexual quality of life and lower psychological resilience, particularly in the structural style domain. Previous studies support these findings, showing that sexual activity decreased during quarantine due to reduced privacy, diminished psychological stimulation, and decreased sexual desire (24,25). These results suggest that pandemic-related restrictions negatively affected sexual health and overall well-being.

Similarly, changes in physical activity and sexual habits were associated with poorer quality of life, particularly in psychosocial and sexual domains. These findings are consistent with the literature indicating that physical and sexual activity play a key role in maintaining both quality of life and psychological resilience (10,26–28). In addition, women who experienced changes in healthcare service use during the pandemic reported poorer psychosocial and physical quality of life, possibly due to limited access to care, increased uncertainty, and reduced opportunities for symptom management (29,30).

Furthermore, changes in dietary habits were associated with poorer quality of life, while an increase in psychological resilience was observed in the social resources domain. This may reflect a compensatory reliance on social support systems during the pandemic, despite adverse lifestyle changes (31,32).

Importantly, correlation analysis revealed that the subdimensions of quality of life were strongly interrelated, particularly between psychosocial and physical domains, highlighting the interconnected nature of menopausal symptoms. In addition, weak but significant negative correlations were observed between certain dimensions of psychological resilience—especially social resources—and quality of life, suggesting that higher resilience is associated with better outcomes. These findings indicate that psychological resilience, particularly social support-related components, may buffer the negative impact of menopausal symptoms on quality of life.

Overall, the results support the view that psychological resilience functions as a protective factor in mitigating declines in quality of life among menopausal women, especially under challenging conditions such as the COVID-19 pandemic.

CONCLUSION

This study demonstrated that pandemic-related lifestyle and social changes significantly affected both quality of life and psychological resilience

among menopausal women. Changes in physical activity, eating habits, and sexual habits were associated with poorer quality of life, particularly in psychosocial, physical, and sexual domains. In addition, restrictions on leaving home and changes in healthcare service use were linked to lower psychological resilience, especially in structural style and social resources. Overall, these findings suggest that social restrictions and lifestyle disruptions during the COVID-19 pandemic adversely affected multiple dimensions of well-being, highlighting the need for supportive interventions to maintain both quality of life and psychological resilience.

Acknowledgments

Non

Limitations

This study has several limitations. First, due to its cross-sectional design, causal relationships cannot be established, and individual experiences could not be explored in depth. Second, the use of convenience sampling and recruitment via social media may limit the representativeness and generalizability of the findings. Third, reliance on self-reported data may have introduced recall and social desirability biases. Finally, online data collection and inclusion of only women with internet access may have resulted in participation bias.

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