ORIGINAL ARTICLE

DOI: 10.4274/nkmj.galenos.2022.48568
Nam Kem Med J 2022;10(4): 392-400

Psychological Resilience and Adaptation Difficulties in Older Adults

Yaşlı Bireylerde Psikolojik Dayanıklılık ve Uyum Zorlukları

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ABSTRACT

Aim: Mental health structural characteristics, such as psychological resilience, in addition to the physical and social losses which occur with ageing are effective in providing adaptation to the changes that occur in the normal ageing process.

Materials and Methods: The study was conducted with 200 individuals aged 60 years and above, and living in İstanbul and Afyon. Data were collected using a Socio-demographic Form, Assessment Scale of Adaptation Difficulty for the Elderly, and the Resilience Scale for Adults.

Results: According to the results of this study, as psychological resilience increased, difficulty in adaptation to ageing decreased. The study results demonstrated that female gender, advanced age, and not being married constituted disadvantages in respect of both psychological resilience and adaptation difficulty, while a high income and literacy reduced difficulty in adaptation to ageing.

Conclusion: Measures to increase psychological resilience may be beneficial to reduce adaptation difficulties due to aging.

Keywords: Mental health, aging, adaptation difficulty, psychological resilience, geropsychiatry

ÖZ

Amaç: Yaşlanma ile ortaya çıkan fiziksel ve sosyal kayıplara ek olarak psikolojik dayanıklılık gibi ruh sağlığı yapısal özellikleri, normal yaşlanma sürecinde meydana gelen değişikliklere uyum sağlamada etkilidir.

Gereç ve Yöntem: Araştırma, İstanbul ve Afyon'da yaşayan 60 yaş ve üzeri 200 kişi ile yapıldı. Veriler Sosyo-demografik Form, Yaşlılar için Uyum Zorluğu Değerlendirme Ölçeği ve Yetişkinler için Dayanıklılık Ölçeği kullanılarak toplandı.

Bulgular: Bu çalışmanın sonuçlarına göre psikolojik dayanıklılık arttıkça yaşlanmaya uyum güçlüğü azalmaktadır. Araştırma sonuçları, kadın cinsiyet, ileri yaş ve evli olmamanın hem psikolojik dayanıklılık hem de uyum güçlüğü açısından dezavantaj oluşturduğunu, yüksek gelir ve okuryazarlığın ise yaşlılarda uyum güçlüğünü azalttığını gösterdi.

Sonuç: Dünya nüfusu hızla yaşlanmaktadır. Bu nedenle özellikle bu grupların iyi oluşları açısından uyum güçlüğünü azaltacak ve psikolojik dayanıklılığı artıracak önleyici tedbirler alınmalıdır.

Anahtar Kelimeler: Ruh sağlığı, yaşlanma, uyum zorluğu, psikolojik dayanıklılık, geropsikiyatri

INTRODUCTION

Just as stressful life events can create immediate effects on the psychological well-being and physical health of individuals, they can also have a cumulative effect[1]. Psychological resilience is defined as a process of successful adaptation against significant sources of stress such as trauma, problems arising from threats, family, workplace, and close relationships, serious health problems, and financial problems[2-4]. The American Psychological Association defines resilience as "the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress," or "bouncing back" from difficult experiences[5]. It is also expressed as the ability to gather one's strength and make changes to overcome difficult processes faced throughout life[6,7].

According to Zautra[8], there are two aspects of resilience, namely improvement and sustainability. Improvement is defined as the

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Received: 12.08.2022 **Accepted**: 04.10.2022

ability to regain function after stressful situations or trauma, and sustainability as the ability to resist and continue against difficulties encountered throughout life. Some individuals can transform stressful experiences into growth and learning opportunities which increase their capabilities of overcoming difficulties in the future.

As individuals grow older, there is an increasing probability of encountering new difficulties in life. For some people, the ageing process is a time to acquire new skills, and a time of growth and personal discovery, whereas for others, it is a process greatly affected by physical losses, emotional losses such as the loss of a spouse, and environmental barriers. In this respect, the importance of psychological resilience is clear in the period of old age, which is a period when there is an increased frequency of many different stressful life events[9,10]. When psychological resilience studies are evaluated in this field in literature, it can be seen that most studies have focused on pediatric and adolescent groups, although there has been an increase in studies related to resilience in the elderly in the last decade[11-13]. The concept of psychological resilience in old age is affected by components such as the internal plasticity of an individual and cognitive reserve capacity. The personal resources, environmental factors, and social support of an individual can change the effects of stress on the health and welfare of the person[14,15]. Personal resources which increase resilience are personality traits, coping skills, and spiritual and physical health, whereas the environmental and social support resources include age-friendly household practices, easy access to medical facilities, and close relationships with friends and family[14,15]. In this context, this study aims to determine the adaptation difficulties of older adults according to their psychological resilience. From this point of view, the main research question of this study is as follows: Is there a relationship between the psychological resilience of older adults and adjustment difficulties?

MATERIALS AND METHODS

Research Model

In this study, a descriptive type of relational screening model was formed with the aim of comparing the adaptation difficulties of older adults according to psychological resilience levels and socio-demographic characteristics. In the relational screening model, it was aimed to determine the presence and/or degree of change in two or more variables. Relational analysis can be obtained by correlation type relationship or comparison[16].

Study Sampling

The research population consisted of individuals aged 60 and over living in the Çatalca district of Istanbul province and the Bolvadin district of Afyon province. The participants were contacted in places with a high density of older adults, such as cafes, public libraries, parks and gardens, and areas around mosques. The participants were first informed about that a study was being conducted in the field of geriatrics and they were invited to participate. After establishing a suitable environment for individual interviews with the older adults who volunteered to participate in the study, detailed information was given about the aim of the study in the scope of gerontological interview techniques. The study sample comprised these 200 subjects who voluntarily agreed to participate in the study and were fully cognisant and in good mental health. In this context, the mental health status of the participants was evaluated by a psychiatrist by performing a basic mental health examination. The number of subjects to be selected from this area was determined using a simple sampling method based on probability sampling techniques.

Data Collection Tools

Data for the study were collected using a face-to-face data collection technique. Informed consent was obtained from all the subjects before the study. The data collection process lasted for an average of 40 mins for each subject. A 17-item Socio-demographic Data Form, the Resilience Scale for Adults (RSA), and the Assessment Scale of Adaptation Difficulty for the Elderly (ASADE) were used as the data collection tools. All assessment tools were self-rating scales, but when necessary, the interviewer explained what the questions and options meant.

The Resilience Scale for Adults

This scale was developed by Friborg et al.[17] and was adapted to Turkish by Basım and Çetin[18]. The scale has 33 items in the sub-dimensions of "perception of self", "perception of future", "structural style", "social competence", "family cohesion", and "social resources". The Cronbach's alpha coefficient calculated for reliability of the whole scale was found to be 0.86, and between 0.66 and 0.81 for the sub-dimensions. In the context of this study, increasing scores indicated higher psychological resilience and in the evaluation selecting the items, the response boxes were evaluated from left to right as 1, 2, 3, 4, 5. Taking this into consideration, the items numbered 1-3-4-8-11-12-13-14-15-16-23-24-25-27-31-33 were coded in reverse[18].

Perception of Self is related to self-awareness of the individual and is expressed by the total responses to the question "who am I?" of how the person evaluates themself. *Perception of Future* is related to whether or not the person has a positive view of the future, expressing all of their thoughts about the future. *Structural Style* expresses characteristics such as self-confidence, personal strengths, and self-discipline[19]. *Social Competence* is the evaluation of the interpersonal relationships of the subject within society and positive evaluation by others[20].

Family Cohesion is related to support for the subject from the family and whether or not there is a compatible relationship with the family. *Social Resources* express the strength of the relationships of the subject with their social environment[21].

Assessment Scale of Adaptation Difficulty for the Elderly

This scale was developed by Şişman and Kutlu[22], and its reliability and validity studies were performed. The Cronbach's alpha value of 0.93 was evaluated as high internal consistency of the scale. The ASADE consists of 24 items with 4-point Likert-type responses to determine the ability to adapt to ageing. The responses for each item are scored as 0 for "never", 1 point for "a little", 2 points for "very much", and 3 points for "extremely". The total of the item points is divided by the number of items to give an average score for the scale from 0 to 3, with points approaching 3 indicating a low level of adaptation to ageing and points approaching 0 indicating better adaptation. The scale has 4 sub-dimensions of "Role and Self-actualization" (items 1, 5, 9, 12, 13, 14, 15, 16, 24), "Interdependence" (items 17, 18, 19, 20, 21, 22, 23), "Physiological State" (items 2, 4, 10, 11) and "Self-Concept" (items 3, 6, 7, 8).

The sub-dimensions of the scale are consistent with the four adaptation forms of the Roy Adaptation Model. The scale can be evaluated as a whole or the factors can be assessed separately. The first factor of role and self-actualization is important in respect of determining what the functions are in the new role of the subject that has developed in association with ageing. The underlying basic requirement for role and self-actualization is social integrity. Insufficient adaptation of the elderly subject to the basic role is evaluated as a warning of associated problems. The second factor of interdependence encompasses the relationships of the elderly person with support systems. Problems experienced in this area can cause problems in maintaining emotional integrity. The third factor of physiological state is related to the physical reactions of the person to stimuli in the environment. This factor provides important data showing the physical behavior to stimuli that affect adaptation of the elderly subject. The fourth and final factor of self-concept is defined as the underlying basic requirement for psychological integrity. To determine adaptation problems in this area, it is important to determine the ability of the subject to improve or maintain health.

Ethical approval was received from the Social and Human Sciences Ethics Committee of İstanbul University (date: 01/04/2019 and no: 35980450-663.05). Verbal and written informed consent was provided by all the participants. The study was carried out in accordance with the Declaration of Helsinki. Informed consent for the procedure was obtained from the volunteers before starting the study.

Statistical Analysis

Data obtained in the study were analyzed statistically using Statistical Package for the Social Sciences 21.0 software. Data control and any necessary corrections were made before starting the analyses. Descriptive statistics and hypothesis tests were applied to the characteristics of the study participants. Conformity of the data to normal distribution was assessed with the Kolmogorov-Smirnov test, and as the data did not show normal distribution, non-parametric tests were used. To determine the relationships between the data obtained from two scales, the Spearman's correlation analysis was applied. In the comparisons of the mean points obtained from the continuous data of paired groups (gender, marital status), the Mann-Whitney U test was used, and for the comparisons of more than two groups (age, education level, living environment, income level), the Kruskal-Wallis test was applied. A value of $p<0.05$ was accepted as statistically significant in all the analyses.

RESULTS

The socio-demographic characteristics of the study participants are presented in Table 1.

Table 1. Distribution of the socio-demographic characteristics of the older adult participants

Variables	Categories	n	%
Gender	Female	100	50
	Male	100	50
Age group	Age group of 61-65 years	21	10.5
	Age group of 66-70 years	80	40
	Age group of 71-75 years	46	23
	Age group of 75+ years	53	26.5
Marital status	Married	121	60.5
	Single	4	2
	Widowed	75	37.5
	Divorced	-	-
Education level	Illiterate	11	5.5
	Primary school	151	75.5
	Middle school	7	3.5
	High school	10	5
	University graduate	21	10.5
Living environment	Alone	64	32
	With their spouse only	106	53
	With their spouse and children	30	15
Income level	Level below the minimum wage	94	47
	Minimum wage	50	25
	2-fold higher than the minimum wage	30	15
	3-fold higher than the minimum wage	26	13

The RSA points according to the socio-demographic characteristics of the study participants are presented in Table 2.

No statistically significant difference was determined in the RSA points according to gender, education level and income (p>0.05). Considering RSA points according to age groups and marital status. there were determined to be a significant difference in the sub-dimensions of Perception of Future (X^2_{AG}=11.101; p_{AG}=0.011; U_{MS}=3598.00; p_{MS}=0.003) and Social Competence (X^2_{AG}=14.520; p_{AG}=0.002; U_{MS}=3987.50; p_{MS}=0.047). The study participants at the age group of ≥76 years were determined to have lower points and those who were married were determined to have higher points in the Perception of Future and Social Competence sub-dimensions compared to other groups. Considering RSA points according to the living environment, there was determined to be a significant difference in the sub-dimensions of Perception of Future (X^2=12.032 p=0.002), Perception of Self (X^2=9.170 p=0.010), and Social Competence (X^2=9.947 p=0.007). The study participants who lived together only with their spouse were determined to have higher points in the Perception of Future, Perception of Self, and Social Competence sub-dimensions compared to those who lived with their spouse and children or who lived alone.

The ASADE points according to the socio-demographic characteristics of the study participants are presented in Table 3.

Considering ASADE points according to gender, marital status and education level, there was determined to be a significant difference in the sub-dimensions of Role and Self-actualization (U_G=3841.00; p_G=0.004; U_{MS}=3641.00; p_{MS}=0.004; X^2_E=8.906; p_E=0.012), Physiological State (U_G=3559.50; p_G=0.000; U_{MS}=3625.00; p_{MS}=0.002; X^2_E=7.207; p_E=0.027), and Self-concept (U_G=3172.00; p_G=0.000; U_{MS}=3674.00; p_{MS}=0.005; X^2_E=19.099; p_E=0.000). The study participants who were female and illiterate were determined to have higher points and those who were married were determined to have lower points in the Role and Self-actualization, Physiological State and Self-concept sub-dimensions compared to other groups. In terms of ASADE points according to age groups, a significant difference was determined in the sub-dimensions of Role and Self-actualization (X^2=24.431; p=0.000) and Physiological State (X^2=8.029; p=0.045). The study participants at the age group of ≥76 years were seen to have higher points in the Role and Self-actualization and Physiological State sub-dimensions compared to the other age groups. In terms of ASADE points according to the living environment, there was determined to be a significant difference in the sub-dimensions of Role and Self-actualization (X^2=7.624; p=0.022), Interdependence

Table 2. Comparison of resilience scale scores according to the socio-demographic characteristics of the participants

Variables	Categories	n	Structural Style (mean rank)	Perception of Future (mean rank)	Family Cohesion (mean rank)	Perception of Self (mean rank)	Social Competence (mean rank)	Social Resources (mean rank)
Gender	Female	100	107.09	93.46	103.37	99.75	104.94	102.95
	Male	100	93.92	107.55	97.63	101.25	96.06	98.06
			U=4341.50 p=0.106	U=4295.50 p=0.084	U=4713.00 p=0.482	U=4925.00 p=0.854	U=4556.00 p=0.276	U=4755.50 p=0.549
Age group	61-65 years	21	103.55	110.21	118.86	122.95	138.12	114.88
	66-70 years	80	106.38	114.30	102.00	106.16	105.48	103.44
	71-75 years	46	101.68	92.54	91.30	98	93.75	99.66
	76+ years	53	89.40	82.73	98.94	85.24	83.94	91.09
			X^2=2.876 p=0.411	**X^2=11.101 *p=0.011**	X^2=3.391 p=0.335	X^2=7.737 p=0.052	**X^2=14.520 *p=0.002**	X^2=2.936 p=0.402
Marital status	Married	121	101.48	110.26	104.81	105.99	107.05	106.70
	Widowed/divorced	79	99.01	85.54	93.91	92.09	90.47	91.01
			U=4661.50 p=0.767	**U=3598.00 *p=0.003**	U=4258.50 p=0.191	U=4115.00 p=0.096	**U=3987.50 *p=0.047**	U=4029.50 p=0.060
Living environment	Alone	64	100.24	87.50	89.85	95.43	90.30	93.80
	With their spouse only	106	105.97	113.69	105.99	110.54	112.26	107.09
	With their spouse and children	30	81.72	81.62	103.82	75.85	80.68	91.52
			X^2=4.142 p=0.126	**X^2=12.032 *p=0.002**	X^2=3.243 p=0.198	**X^2=9.170 *p=0.010**	**X^2=9.947 *p=0.007**	X^2=2.979 p=0.225

*p<0.05

(X^2=12.145; p=0.002), and Physiological State (X^2=17.587; p=0.000). The study participants who lived together only with their spouse were determined to have lower points in the Role and Self-actualization, Interdependence, and Physiological State sub-dimensions compared to those who lived with their spouse and children or who lived alone. In terms of ASADE points according to income level, A significant difference was determined in the Self-Concept sub-dimension (X^2=30.839; p=0.000). The study participants with an income level 3-fold higher than the minimum wage were seen to have lower points in the Self-Concept sub-dimension compared to those with lower income levels.

The comparisons of the RSA points and the ASADE points of the study participants are shown in Table 4.

A significant negative correlation was determined between the RSA Structural Style sub-dimension points and the points of the ASADE sub-dimensions of Role and Self-actualization (r=-0.277; p=0.000), Interdependence (r=-0.157; p=0.026), Physiological State (r=-0.185; p=0.009) and Self-Concept (r=-0.161; p=0.023). A significant negative correlation was determined between the RSA Perception of Future sub-dimension points and the points of the ASADE sub-dimensions of Role and Self-actualization (r=-0.516;

Table 3. Comparison of the scores of the development of an assessment scale on adaptation according to the socio-demographic characteristics of the participants

Variables	Categories	n	Role and Self-actualization (mean rank)	Interdependence (mean rank)	Physiological State (mean rank)	Self-Concept (mean rank)
Gender	Female	100	112.09	97.79	114.91	118.78
	Male	100	88.91	103.22	86.10	82.22
			U=3841.00 *p=0.004	U=4725.50 p=0.484	**U=3559.50 *p=0.000**	**U=3172.00 *p=0.000**
Age group	61-65	21	91.48	90.00	92.24	114.05
	66-70	80	80.80	101.13	90.21	96.43
	71-75	46	104.24	107.78	103.73	95.59
	76+	53	130.57	97.39	116.51	105.55
			X^2=24.431 *p=0.000	X^2=1.765 p=0.623	**X^2=8.029 *p=0.045**	X^2=2.354 p=0.502
Marital status	Married	121	91.09	97.16	90.96	91.36
	Widowed/divorced	79	114.91	105.62	115.11	114.49
			U=3641.00 *p=0.004	U=4375.00 p=0.286	**U=3625.00 *p=0.002**	**U=3674.00 *p=0.005**
Education level	Illiterate	11	149.18	126.36	142.32	151.77
	Primary school	151	99.32	98.16	99.31	103.98
	Middle school and more than middle school	38	91.09	102.32	93.12	71.82
			X^2=8.906 *p=0.012	X^2=2.767 p=0.251	**X^2=7.207 *p=0.027**	**X^2=19.099 *p=0.000**
Living environment	Alone	64	113.16	103.11	112.68	114.17
	With their spouse only	106	89.92	90.64	85.81	92.16
	With their spouse and children	30	110.88	129.78	126.42	100.80
			X^2=7.624 *p=0.022	**X^2=12.145 *p=0.002**	**X^2=17.587 *p=0.000**	X^2=5.955 p=0.051
Income level	Level below the minimum wage	94	92.71	105.05	105.12	120.77
	Minimum wage	50	105.84	96.69	90.53	99.09
	2-fold higher than the minimum wage	30	118.80	99.60	107.00	72.28
	3-fold higher than the minimum wage	26	97.29	92.42	95.46	62.50
			X^2=5.243 p=0.155	X^2=1.462 p=0.691	X^2=2.983 p=0.394	**X^2=30.839 *p=0.000**

*p<0.05

p=0.000), Interdependence (r=-0.308; p=0.001), Physiological State (r=-0.465; p=0.001) and Self-Concept (r=-0.382; p=0.001). A significant negative correlation was determined between the RSA Family Cohesion sub-dimension points and the points of the ASADE sub-dimensions of Role and Self-actualization (r=-0.241; p=0.001), Interdependence (r=-0.314; p=0.000), Physiological State (r=-0.236; p=0.001) and Self-Concept (r=-0.274; p=0.000). A significant negative correlation was determined between the RSA Perception of Self sub-dimension points and the points of the ASADE sub-dimensions of Role and Self-actualization (r=-0.421; p=0.000), Interdependence (r=-0.341; p=0.000), Physiological State (r=-0.439; p=0.000) and Self-Concept (r=-0.364; p=0.000). A significant negative correlation was determined between the RSA Social Competence sub-dimension points and the points of the ASADE sub-dimensions of Role and Self-actualization (r=-0.338; p=0.0001), Interdependence (r=-0.408; p=0.0001), Physiological State (r=-0.269; p=0.0001) and Self-Concept (r=-0.171; p=0.015). A significant negative correlation was determined between the RSA Social Resources sub-dimension points and the points of the ASADE sub-dimensions of Role and Self-actualization (r=-0.299; p=0.000), Interdependence (r=-0.400; p=0.0001), Physiological State (r=-0.269; p=0.000) and Self-Concept (r=-0.331; p=0.000).

DISCUSSION

In the examination of the psychological resilience data obtained in this study, the subjects aged ≥76 years were found to have lower scores than those in other age groups in the sub-dimensions of Perception of Future and Social Competence. As there is a range of factors that can affect both of these results, a broader evaluation is given below. This result shows that there is a decrease in the positive view of the future in line with increasing age. Similarly, previous studies have found that different age groups show a significant difference in respect of the psychological resilience of the elderly, and the resilience of the 60-69-year age group has been found to be higher[9,23]. This can be interpreted as a decrease in goals and dreams for the future due to decreasing life expectancy with increasing age, and because of increasing functional dependence on others, a negative perception of the future is formed.

In our study, it was found that individuals aged 76 years and older received lower scores from the Social Competence sub-dimension in terms of psychological resilience compared to other age groups. Social Competence refers to the development of good interpersonal relationships within society and positive evaluation of the subject by others[20]. As older people have less adequate relationships with others in society, they may be evaluated less positively by others. Gooding et al.[24] investigated resilience in early adulthood and in old age and determined that the effect of the age variable on resilience was supported at younger ages by social support independent of age, and at older ages, it progressed in direct proportion to emotional regulation and the development of coping skills. This could be related to the greater exposure of older people to social isolation and loneliness with factors such as chronic diseases, physical disabilities, loss of income and less socialization.

There are also studies in literature showing that individuals aged ≥85 years have the same or higher resilience capacity as younger older adults[10,25,26]. This can be explained by the longer lifespan of more resilient individuals. There are few studies in literature about psychological resilience in the very elderly (≥85 years). According to Hayman et al.[27], the susceptibility of this age group to damage is characterized by a balance

Table 4. Comparison of the scores of the development of an assessment scale on adaptation difficulty according to the psychological resilience scale scores of the participants

			Development of an Assessment Scale of Adaptation Difficulty			
			Role and Self-Actualization	Interdependence	Physiological State	Self-Concept
Resilience Scale for Adults	Structural Style	r	-0.277	-0.157	-0.185	-0.161
		P	*0.000	*0.026	*0.009	*0.023
	Perception of Future	r	-0.516	-0.308	-0.465	-0.382
		P	*0.000	*0.000	*0.000	*0.000
	Family Cohesion	r	-0.241	-0.314	-0.236	-0.274
		P	*0.001	*0.000	*0.001	*0.000
	Perception of Self	r	-0.421	-0.341	-0.439	-0.364
		P	*0.000	*0.000	*0.000	*0.000
	Social Competence	r	-0.338	-0.408	-0.269	-0.171
		P	*0.000	*0.000	*0.000	*0.015
	Social Resources	r	-0.299	-0.400	-0.269	-0.331
		P	*0.000	*0.000	*0.000	*0.000

*p<0.05

between potential benefits such as autonomy, knowledge, and experience and losses such as limited resources. Although maturation after difficulties is possible, the maintenance of daily capabilities is related more closely to resilience at an advanced age[27].

These different results can also be attributed to variations in sampling, cultural differences, differences in retirement or access to healthcare services, or that different resilience scales have been used in the studies, together with the fact that the nature of psychological resilience is due to the temperament characteristics of the individual from birth or the mental capacity that has been gained later. Therefore, it can be recommended that studies to be conducted on this subject include temperament scales that can evaluate the effect of innate temperament characteristics on psychological resilience. From the results of the current study, it was seen that individuals aged ≥76 years were not hopeful about the future and felt socially inadequate, so it can be concluded that from at least this age threshold, older adults require more social and psychological support.

In this study, married subjects had higher points in the Perception of Future and Social Competence sub-dimensions compared to those who were single or widowed. Based on these results, it can be said that being married has a positive effect both on having a positive view of the future and on the establishment of good relationships with others in society. Those who were living together with their spouse were also determined to have higher points in the sub-dimensions of Perception of Future, Perception of Self, and Social Competence. Thus, it can be said that the subjects who were able to maintain a life together with their spouse had high self-awareness and perceptions of their relationships and were hopeful about the future.

Although the findings of the study indicate that living with a spouse has a more positive effect, at least in terms of the relevant sub-dimensions of resilience, it is not possible to directly infer that marriage increases resilience because the study was cross-sectional and the sample's premarital resilience status was unknown. Although the data of the current study are generally compatible with the literature in this respect, there are also studies that have shown no significant relationship between marital status and psychological resilience[28,29].

When the data of difficulties of adaptation were examined according to the socio-demographic characteristics of the study participants, the points obtained for males were determined to be statistically significantly lower than those for females. This finding indicates that males showed better adaptation to ageing. Females obtained higher points than males in the ASADE sub-dimensions of Role and Self-actualization, Physiological State, and Self Concept, showing that they experienced more difficulty in adaptation to ageing in these areas. This means that females experienced more difficulty than males in accepting and releasing the new roles associated with age (Role and Self-actualization) and had greater physical reactions to stimuli originating from their surroundings (Physiological State). Their psychological integrity, which is necessary for improvement capabilities or maintenance of health, is more fragile (Self Concept). Moreover, epidemiological studies related to mental health have indicated that females are more vulnerable than males in respect of mood disorders, primarily depression, post-traumatic stress disorder, and several other diseases. For example, it is universally accepted that females experience more depression than males[30]. In several studies that have used the Geriatric Depression Scale, females at advanced age have been found to have higher mean points than males[31,32]. Aşiret and Dutkun[33] showed that adaptation difficulty was reduced and cognitive functions improved with recall therapy applied to females aged ≥50 years. This and similar studies are important as they show that adaptation difficulty related to age can be treated. In the light of these data, as also our study indicates, it can be concluded that it is necessary to plan more supportive interventions for elderly females experiencing age-related adaptation difficulties.

Adaptation to ageing has been studied more with adaptation and coping scales, and there are extremely few studies directly indicating adaptation difficulty in the literature so far. Adults aged 76 years and older scored higher on the Role and Self-Actualization and Physical Status sub-dimensions compared to other age groups. They showed more physical response to stimuli from their environment in accepting and performing new age-related roles. In a study by Jopp et al.[34], it was shown that the adaptation of the elderly was affected by age, and adaptation decreased especially as age increased. Thus, the critical age threshold is as important in showing adaptation to ageing as it is in psychological resilience. Individuals of advanced age experience difficulty in a social respect in knowing their function in the new role that emerges with ageing. The new conditions brought about by ageing, which disrupt adaptation, create more difficulty at an older age and lead to more physical reactions. This can be explained by an increase in health problems, physical losses, and dependence on others together with ageing, and a decrease in functionality. The results of our study show that older adults are a more disadvantaged group in terms of both psychological resilience and age-related adjustment difficulties.

In the current study, the married participants obtained lower points than those who were single or widowed in the sub-dimensions of Role and Self-actualization, Physiological State, and Self Concept. This was interpreted as marriage facilitated the acceptance of new roles coming with age, enabled the person to be more psychologically whole, and reduced the physical reactions to environmental stimuli. As in psychological

resilience, those who were living together with their spouse obtained lower points than those living in other circumstances in the sub-dimensions of Role and Self-actualization, Interdependence, and Physiological State, which showed that those living with their spouse accepted age-related roles more easily, formed better relationships with social support systems and had fewer physical reactions to environmental stimuli.

In this study, the illiterate participants obtained higher points than those with a higher level of education in the sub-dimensions of Role and Self-actualization, Physiological State, and Self Concept, which was interpreted as illiteracy created more difficulty in accepting and realising new age-related roles, more physical responses to environmental stimuli, and was related to experiencing more difficulty in psychological integrity. Jopp et al.[34] reported a positive relationship between a high level of education and adaptation to the ageing process. In the light of these data, it can be concluded that education and continuous learning have a role in reducing adaptation difficulties.

The current study participants with an income level 3-fold higher than the minimum wage obtained lower points than those with lower income levels in the sub-dimension of Self Concept, which was interpreted as a good income level contributed to the psychological integrity of elderly individuals. Those with income 3-fold higher than the minimum wage had better psychological integrity and were more able to determine what was necessary to deal with age-related problems, and to improve or maintain health. A decrease in income that comes with retirement and increasing healthcare costs can make old age a more difficult time and increase the difficulty in adaptation. In the current study, although the level of income was only found to be related to the Self Concept sub-dimension of ASADE, there could be a relationship with other sub-dimensions. There is no previous study in literature that has directly used ASADE, but several studies, consistent with this research, have emphasized the importance of economic factors in respect of adaptation to ageing and coping with the difficulties encountered in old age[35,36].

Finally, according to the results of this research, there was a statistically significant negative correlation between all the RSA sub-dimensions and all the ASADE sub-dimensions. Therefore, as psychological resilience increases, the difficulty to adapt decreases, and an individual who is psychologically resilient adapts more easily to life.

Structural style refers to self-confidence and self-discipline, and when this is increased in an elderly individual, it can be said that they more easily accept age-related roles, are more successful in self-actualization, form better relationships with societal support systems and others around them, are more physically resistant to environmental stimuli, and have a higher level of psychological integrity. A positive perception of the future and compatibility with the family enable easier acceptance of age-related roles, more successful self-actualization, the forming of better relationships with societal support systems and others around them, more physical resistance to environmental stimuli, and these individuals have a higher level of psychological integrity. Just as all of these factors render the individual psychologically resilient, they also facilitate adaptation to age-related changes.

Studies conducted on resilience to date are almost all in agreement with that psychological resilience is related to successful adaptation to difficult circumstances[37].

Study Limitations

There are some limitations of our study. The study's main limitation was that it used face-to-face self-report questionnaires, which might be subject to individual bias. Second, the results cannot be generalized to older adults living in institutions because the study participants were community-dwelling older adults. The strengths of our study are that it included an acceptable number of participants for data extraction and that there are very few similar studies examining this issue in the Turkish population.

CONCLUSION

In conclusion, the results of this study have demonstrated that all the sub-dimensions of psychological resilience affect adaptation to ageing. Individuals with high psychological resilience experience less difficulty in adapting to old age. Therefore, it can be concluded that the developmental stages are important, and early mental health structure together with the mental health gains in childhood, youth, and middle-age can be protective in old age. Although our research is one of the first studies on psychological resilience and adjustment difficulties in the elderly, we hope that stronger evidence will be obtained on this subject as research increases.

Ethics

Ethics Committee Approval: Ethical approval was received from the Social and Human Sciences Ethics Committee of İstanbul University (date: 01/04/2019 and no: 35980450-663.05). The study was conducted in compliance with the principles of Declaration Helsinki.

Informed Consent: Informed consent was obtained from all the subjects before the study.

Acknowledgements

We would like to thank the Gerontology Department students who contributed to this study as part of their final assignment course.

Peer-review: Internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices - Concept - Design - Data Collection or Processing - Analysis or Interpretation - Literature Search - Writing: S.Ç., H.S.I.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

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