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### **Yoga Self-efficacy, Self-compassion and Subjective Well-being in Adult Women**

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#### **Abstract**

This study aimed to investigate the mediating role of self-compassion in the relationship between yoga self-efficacy and subjective well-being among yoga practitioners. Employing a quantitative relational research design, the study included 357 female participants aged between 18 and 67, all of whom had been practicing yoga for at least one month. Data were collected between May and August 2023, primarily through face-to-face interactions, and participation was voluntary. The Yoga Self-Efficacy Scale, Positive-Negative Affect Scale, Satisfaction with Life Scale, Self-Compassion Scale, and a Personal Information Form were utilized as data collection instruments. Statistical analyses were conducted using SPSS v26 and Hayes Macro v4. The findings revealed that yoga self-efficacy significantly predicted both self-compassion and subjective well-being. Furthermore, self-compassion was found to mediate the relationship between yoga self-efficacy and subjective well-being, indicating that yoga practices enhance individuals' well-being through the mechanism of self-compassion.

**Keywords:** Self-compassion, Subjective Well-being, Yoga, Yoga Self-efficacy



## Introduction

Psychological research over the past two decades has increasingly focused on the strengths of individuals, particularly through the lens of the positive psychology movement. Studies within this framework have aimed to identify and enhance individuals' current levels of well-being (Seligman & Csikszentmihalyi, 2000). Subjective well-being is defined as the judgments individuals make based on the cognitive and affective evaluations of their lives. While affective evaluations pertain to positive and negative emotions, cognitive evaluations reflect life satisfaction (Diener, 2006). In this context, subjective well-being is conceptualized as the experience of more frequent positive emotions, less frequent negative emotions, and high levels of life satisfaction (Dursun, 2021). In the literature, subjective well-being has been associated with several positive constructs, including meaning in life (Doğan et al., 2012), emotional awareness and the expression of emotions (Kuyumcu, 2011), self-efficacy (Santos et al., 2014), optimism and hope (Dursun, 2021), inner peace (Liu et al., 2015), and mindfulness (Jin et al., 2020).

Numerous studies have aimed to improve individuals' subjective well-being through various methods, including environmental interventions, mindfulness practices, cognitive-behavioural approaches, and physical activity programmes (Iwon et al., 20-21). In recent years, yoga has gained attention as a complementary and alternative practice for improving well-being (Gaiswinkler & Unterrainer, 2016). Defined by Patanjali as 'the calming of the fluctuations of the mind' (Bryant, 2015), yoga offers psychological benefits such as fostering mental calmness, improving concentration, promoting self-awareness and cultivating compassion (Tiwari, 2016). In addition, yoga has been shown to improve self-efficacy, body image, and overall quality of life (Martin et al., 2015; Ross & Thomas, 2010), while also serving as a tool for stress management and burnout prevention (Tulloch et al., 2018; Nespor, 1993). By enhancing positive emotions and reducing negative ones, yoga contributes to both mental and emotional balance (Gunnensen et al., 20-22; Gupta & Singh, 2016; Mahalingam et al., 2015).

The multifaceted benefits of yoga extend beyond enhancing subjective well-being to promoting deeper psychological growth and transformation. Furthermore, yoga seeks to cultivate a deep sense of interconnectedness and compassion for all living beings (Shroff & Asgharpour, 2017). Meditation-based yoga practices are particularly effective in increasing self-awareness and self-compassion while reducing self-criticism, enabling individuals to develop a kind and accepting relationship with themselves (Newby, 2014; Neff, 2003a). Research highlights that self-compassion - defined as treating oneself with kindness and understanding rather than judgement - plays a crucial role in supporting psychological balance and significantly improving subjective well-being by promoting emotional resilience and reducing self-criticism (Ge et al., 2019; Neff et al., 2007; Zessin et al., 2015). Taken together, these findings highlight the critical role of yoga in improving mental health and fostering a compassionate, balanced approach to life.

Therefore, this study seeks to fill the gap in the literature by exploring the relationship between yoga practices, subjective well-being, and self-

compassion in greater depth. Further research into the psychological effects of yoga can provide guidance on whether these practices can be supportive for mental health. A recent study found that Hatha yoga practice combined with self-compassion mediation led to a greater increase in positive emotions and a greater decrease in negative emotions (De Giorgio et al., 2023). Another study found that the positive effect of a yoga intervention programme on quality of life was mediated by self-compassion (Gard et al., 2013). However, no other practice or model has been found in the literature that addresses yoga practice, subjective well-being, and self-compassion together. In this context, this study aims to examine the mediating role of self-compassion in the relationship between yoga self-efficacy and subjective well-being among woman yoga practitioners.

The research questions consist of the following:

1. Is there a mediating role of self-compassion in the relationship between yoga self-efficacy and subjective well-being in individuals with an active yoga practice?
2. Do the subjective well-being levels of active yoga practitioners differ significantly according to the following variables;
  - Age groups
  - Perceived level of yoga practice
  - How long they have been practising yoga
  - Frequency of weekly yoga practice
  - Frequency of weekly meditation practice

## **Methodology**

### **The Research Design**

This study, which aimed to investigate the mediating role of self-compassion in the relationship between yoga self-efficacy and subjective well-being, was designed according to the correlational design. The correlational design is used to obtain evidence about the cause-effect relationship by determining the existing relationships between two or more variables (Cohen et al., 2013). In the conceptual model developed for the mediation analysis, it was modelled that there is a relationship between yoga and subjective well-being and that self-compassion mediates this relationship. Yoga self-efficacy was defined as the independent variable, subjective well-being as the dependent variable, and self-compassion as the mediating variable. It is known that the mediating variable makes it possible to explain the dynamics of the relationship between the independent and dependent variables and to seek answers about 'how' or 'why' this relationship is realised (Namazi & Namazi, 2016).

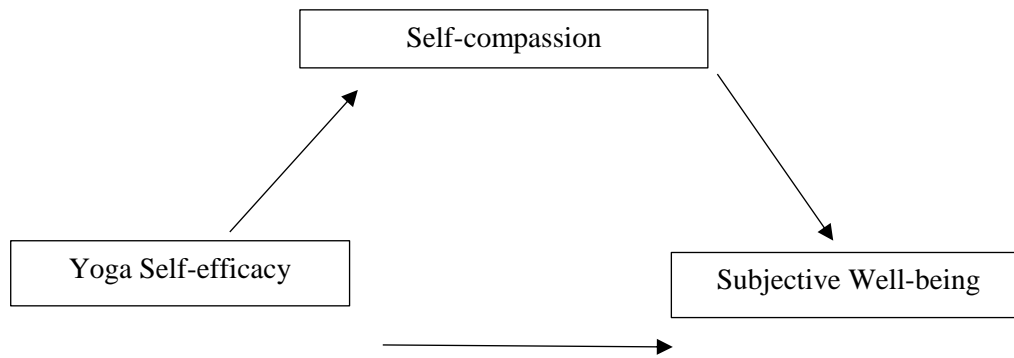


Figure 1. The Conceptual Model

### Participants

The inclusion criteria of the participants in the study were that they were over the age of 18 and had been actively practicing yoga for at least 1 month. In this scope, 410 people living in different cities of Turkey were reached. While the data were transferred to the SPSS program, it was noticed that 42 participants left more than half of the scales blank or frequently ticked the same options. Therefore, 42 data were excluded from the analysis. In addition, since a limited number of male participants were reached, the data of 11 male participants were not included in the analysis. The final sample consisted of 357 females (Mage= 39.32 years, SD=11.45, range=18 to 67). The most frequently reported demographic characteristics were having undergraduate and graduate education (n=287), being in an active working life (n=193), having a yoga history of one year (n=140), describing yoga level as intermediate (n=166), practicing yoga 1-2 days a week in terms of frequency (n=194) and meditation (n=114). Introductory information about the participants is presented in Table 1.

Table 1. Introductory Information for the Participants

Variable Groups	Subgroups	N	%
Age	18-32	117	32.8
	33-44	121	33.9
	45-67	119	33.3
Education Level	Primary and Secondary	70	19.6
	Undergraduate	223	62.5
	Above Undergraduate	64	17.9
Employment Situation	Working	193	54.1
	Not working	84	23.5
	Student	27	7.6
Yoga Practice Background	Retired	53	14.8
	0-1 years	140	39.2
	1-2 years	93	26.1
	2-4 years	74	20.7
Perceived Yoga Level	4 years and above	50	14.0
	Beginning	141	39.5
	Middle	166	46.5
Weekly Yoga Practice Frequency	Advanced	50	14.0
	1-2 days a week	194	54.3
	2-3 days a week	57	16.0
	3-4 days a week	49	13.7
	5 or more per week	57	16.0

Variable Groups	Subgroups	N	%
Weekly Meditation Practice Frequency	1-2 days a week	114	46.9
	2-3 days a week	49	19.8
	3-4 days a week	44	17.7
	5 or more per week	41	16.5

## Data Gathering Tools

### ***Socio-demographic Characterictis and Information about Yoga Practices***

A personal information form was used to learn some sociodemographic characteristics of the participants and information about their yoga practice. Items related to age, gender, educational level, employment situation; perceived yoga level, yoga practice background, weekly yoga practice frequency, etc. were included in the form.

### ***Subjective Well-being***

One of the scales used to assess the subjective well-being levels of the participants is the Satisfaction with Life Scale developed by (Diener et al., 1985). It consists of a total of five items under a single-dimensional structure. It is a five-point Likert type. The Turkish adaptation study was done by Dağlı & Baysal (2016). Within the scope of the scale, a strong reliability level has been obtained in this study ( $\alpha=.88$ ).

The other data collection tool used to assess subjective well-being levels is the Positive and Negative Emotion Scale. It was originally developed by Watson et al., (1988). The Turkish adaptation study was done by Gençöz (2000). The scale demonstrates the emotion levels of the last two-week period. It was added to the literature to evaluate positive and negative effects. It has two sub-dimensions as positive and negative affect and a total of twenty emotion expressions. It is a five-point Likert type. The Cronbach's alpha value obtained in this study is at an adequate level ( $\alpha=.78$ ).

### ***Self-compassion***

The Self-Compassion Scale was used to measure the self-compassion levels of the participants. The original of this scale was developed by (Neff, 2003b). Turkish adaptation study was conducted by Akın et al., (2007). The scale consists of 26 items and six sub-dimensions: self-compassion, self-judgment, awareness of sharing, isolation, consciousness, and over-identification. It is graded on a five-point Likert scale. In this study, the internal consistency reliability coefficient for the whole scale has been found at a high level ( $\alpha=.93$ ).

### ***Yoga Self-efficacy***

The yoga self-efficacy scale was used to measure the participants' level of capability regarding their yoga practice. Yoga self-efficacy refers to the individual's perceived competence to practice yoga (Bryant, 2015). This scale was originally developed by Birdee et al., (2016). Its adaptation into Turkish was carried out by (Küçükkelçi, 2018). It is a five-point Likert type. The scale, which consists of 11 items in total, has 3 sub-dimensions: body, mind and breath. The total score obtained from the sub-dimensions gives the level of yoga self-efficacy. Cronbach's alpha value of the scale has been found to be sufficient ( $\alpha=.91$ ).

## Procedure

The scales were applied to individuals attending yoga courses in a province of Turkey with permission from the authors. Participants were reached with the support of online yoga practice groups, and face-to-face courses organized by municipalities or private yoga studios. During the data acquisition process, yoga instructors were contacted through face-to-face and online opportunities. The researchers conducted interviews with the identified yoga instructors in advance, and the application was carried out by the researchers on a voluntary basis at the beginning and end of the courses or between the courses. In addition, the study link was sent to the yoga practice groups founded by the instructors contacted online. Those who wanted to participate were interviewed through telephone. An informed consent form was used to inform the participants about the purpose and period of the study, the voluntary nature of participation, the contact information of the researcher, and to obtain a declaration from the participants. Data-gathering tools were presented to each participant in the same order. The application took approximately 15 minutes. The research data were collected mainly face-to-face between June 2023 and August 2023. The process was conducted in accordance with the requirements of the Declaration of Helsinki.

## Analysis

The sample size should be sufficient to detect the effects occurring between variables. When conducting mediation analysis, a sample of 115 to 285 participants seems to be sufficient to examine indirect effects between variables (Fritz & MacKinnon, 2007). Since this study has been conducted with 357 participants, the power to detect the indirect effect is high. In addition, preliminary analyses have been done to examine the reliability values of the scales, normality assumption, and correlation results between the research variables. The normality criterion has been evaluated through kurtosis and skewness coefficients. Pearson product-moment correlation analysis has been performed to investigate the relationships between the research variables.

Following these, PROCESS macro for SPSS version v4.2 [Model 4 (Hayes, 2013)] was used to analyze the mediating role of self-compassion in the relationship between yoga self-efficacy and subjective well-being levels of yoga practitioners. Results from the model test have been interpreted using standardized path coefficients ( $\beta$ ), squared-multiple correlations ( $R^2$ ), and conventional effect sizes: .01-.059 = small, .06-.139 = medium, and  $\geq .14$  = large (Cohen, 1988). One of the important outputs of the mediation model is that it can also show indirect effects between variables. The bootstrap method is superior in testing the significance of indirect effects (Alfons et al., 2022). The bootstrap confidence interval is constructed by randomly resampling instead of the  $n$  number of samples (Çelik, 2022). Results above or below zero support that the mediated effect is meaningful (Preacher & Hayes, 2008). In this study, the bootstrap method with 10,000 re-sampling has been utilized to estimate 95% confidence intervals (CIs).

Finally, One-Way Analysis of Variance (ANOVA) was used to determine whether the subjective well-being levels of individuals with active yoga practice differed significantly according to age groups, perceived yoga level, weekly yoga practice frequency, and weekly meditation practice frequency; the Welch test was performed to examine whether there was a significant

difference according to the background of active yoga practice. The homogeneity of the variances between the groups has been interpreted through Levene's test. Post Hoc tests Tukey, Games Howell and LSD tests were applied to test the significant difference between the groups. IBM SPSS v26 was used in all analyses.

## Results

### Preliminary Analyses

According to the findings obtained from the preliminary analysis, skewness values were between -.25 and 1.40 and kurtosis values were between -.74 and -.06 (see Table 2). The results have shown that all variables are normally distributed. George & Mallery (2003) suggest that the skewness and kurtosis coefficients should be between |2| and |2| values, respectively, to satisfy the normality assumption.

Table 2. Descriptive Statistics and Cronbach's Values of the Scales Used in the Study.

	Descriptive Statistics						
	Min.	Max.	M	SD	Skew.	Kurt.	$\alpha$
Yoga self-efficacy	15	55	44.27	6.60	-.74	1.40	.91
Self-compassion	1.83	4.93	3.69	.62	-.37	-.17	.93
Satisfaction with life	5	25	16.37	4.14	-.32	-.25	.88
Positive-negative affect	23	87	51.41	8.60	-.06	1.17	.78

The results of the correlation analysis have indicated that there is a significant positive correlation between yoga self-efficacy and subjective well-being levels ( $r=.50$ ,  $p<.01$ ); between yoga self-efficacy and self-compassion ( $r=.49$ ,  $p<.01$ ); between self-compassion and subjective well-being ( $r=.63$ ,  $p<.01$ ) (see Table 3). The absence of high correlation coefficients between the variables has confirmed that there is no multicollinearity error in the model.

Table 3. Correlation Values of Research Variables.

	1	2	3
1. Yoga self-efficacy	—	.49**	.50**
2. Self-compassion		—	.63**
3. Subjective well-being			—

Note. \*\*  $p<.01$

### Mediation Analyses

After examining the preliminary analyses, it was investigated whether self-compassion mediates the relationship between yoga self-efficacy and subjective well-being (see Table 4). The findings obtained from the mediation analysis have shown that yoga self-efficacy significantly and positively predicted self-compassion ( $\beta = .49$ ,  $p <.0001$ ) and subjective well-being ( $\beta = .25$ ,  $p <.0001$ ) and explained 24% of the variance in self-compassion. Subjective well-being was significantly predicted by self-compassion ( $\beta = .51$ ,  $p <.0001$ ). Yoga self-efficacy and self-compassion together have explained 44% of the variance in subjective well-being.

Table 4. Mediation Analysis Results

		M (Self-compassion)				Consequent				
		Coeff.	SE	t	p	Y (Subjective well-being)				
X (Yoga self-efficacy)	A	.05	.00	10.68	.0000	c'	.47	.09	5.40	.0000
Self-compassion		-	-	-	-	B	10.31	.93	11.15	.0000
Constant	i	1.64	.19	8.45	.0000	i	-	3.71	-6.36	.0000
	M					Y	23.56			
R <sup>2</sup> = .24					R <sup>2</sup> = .44					
F = 114.33; p = .0000					F = 140.53; p = .0000					

SE standart error, Coeff understand coefficient, X independent variable, M mediator variable, Y outcomes or dependent variable

According to the results, self-compassion has a mediating role in the relationship between yoga self-efficacy and subjective well-being and this role corresponds to a high level of mediating effect [ $\beta = .25, \geq .14 = \text{large}$  (Cohen, 1988)]. The indirect effect of self-compassion in the relationship between yoga self-efficacy and subjective well-being is also significant ( $\beta = .25, SE: .03, p < .0001, CI [.19, .31]$ ) see Table 5).

Table 5. Indirect Effect Values

				Indirect effect	%95 CI		
				Effect	SE	Lower	Upper
Yoga Self-efficacy	>	Subjective well-being	>	.25	.03	.19	.31

The statistical results of the difference analysis which investigates significance are given in Table 6.

Table 6. SBW Scores and Various Properties' Comparison.

SBW*		N	M	SD	F	Significant Difference	$\eta^2$
Age Groups	18-32 (A)	117	31.99	13.09	6.01**	B>C, C>A	.03
	33-44 (B)	121	36.89	12.01			
	45-67 (C)	119	36.78	12.08			
Yoga Practice Background	0-1 years (A)	140	34.81	12.08	3.21*	D> A, D>B	.03
	1-2 years (B)	93	33.48	14.10			
	2-4 years (C)	74	35.03	12.72			
	4 years and + (D)	50	40.10	9.44			
Perceived Yoga Level	Beginning (A)	141	33.97	13.00	3.72*	C> A	.02
	Middle (B)	166	35.14	12.59			
	Advanced (C)	50	39.22	10.52			



SBW* Total Score		N	M	SD	F	Significant Difference	$\eta^2$
Frequency of Weekly Yoga Practice	1-2 day (A)	194	34.32	12.38	3.06*	D> A, D> C	.03
	2-3 days (B)	57	37.49	11.92			
	3-4 days (C)	49	32.51	13.64			
	5 or more per (D)	57	38.51	12.22			
Frequency of Weekly Meditation Practice	1-2 days (A)	114	33.63	13.14	3.36*	D> A	.04
	2-3 days (B)	49	33.67	13.23			
	3-4 days (C)	44	37.57	12.10			
	5 or more per (D)	41	40.20	11.99			

Note. \* $p < .05$ , \*\* $p < .01$ . Eta squared is partial.

The results of the study have shown that age group, period of active yoga practice, perceived yoga level, weekly yoga, and meditation practice frequency have a significant effect on subjective well-being. The findings demonstrated that there is a significant difference between the subjective well-being levels of individuals according to their age group [ $F(2-354) = 6.01$ ,  $p < .01$ ]. According to Tukey test results, the average subjective well-being of individuals in the 33-44 age group ( $\bar{x} = 36.89$ ) has significantly higher than the average of individuals in the 18-32 age group ( $\bar{x} = 31.99$ ), and the average of individuals in the 45-67 age group ( $\bar{x} = 36.78$ ) has significantly higher than the average of individuals in the 18-32 age group ( $\bar{x} = 31.99$ ). There is a significant difference between the subjective well-being levels of individuals according to their yoga background [ $F(3-161.63) = 4.66$ ,  $p < .05$ ]. According to the results of the Games-Howell test, which was performed because the homogeneity of variances between groups was not ensured, the mean subjective well-being of individuals who have been practicing yoga for 4 years and more ( $\bar{x} = 40.10$ ) is significantly higher than both the mean of those who have been practicing yoga for 1-2 years ( $\bar{x} = 33.48$ ) and the mean of those who have been practicing yoga for 0-1 year ( $\bar{x} = 34.81$ ).

There is a significant difference between the subjective well-being levels of individuals according to their perceived yoga levels [ $F(2-354) = 3.27$ ,  $p < .05$ ]. According to the results of the Tukey test, the mean subjective well-being of individuals who perceive yoga practice as advanced level ( $\bar{x} = 39.22$ ) is significantly higher than the mean of those who report it as beginner level ( $\bar{x} = 33.97$ ). There is a significant difference between the subjective well-being levels of individuals according to the frequency of weekly yoga practice [ $F(3-353) = 3.06$ ,  $p < .05$ ]. According to the LSD test findings, the mean subjective well-being of individuals who practice yoga 5 or more days a week ( $\bar{x} = 38.51$ ) is significantly higher than both the mean of those who practice yoga 3-4 days ( $\bar{x} = 32.51$ ) and the mean of those who practice yoga 1-2 days ( $\bar{x} = 34.32$ ). There is a significant difference between the subjective well-being levels of individuals according to their weekly meditation frequency [ $F(3-244) = 3.36$ ,  $p < .05$ ]. According to Tukey test results, the

mean subjective well-being of individuals who meditate 5 or more days a week ( $\bar{x}=40.20$ ) is significantly higher than the mean of those who meditate 1-2 days a week ( $\bar{x}=33.63$ ).

### **Discussion**

This study examined the relationships between yoga self-efficacy, subjective well-being, and self-compassion through yoga practitioners. According to the literature, yoga practitioners are predominantly women between the ages of 32-38, with a high level of education, and working life (Arslan & Bulut, 2018; Erkin & Akçay, 2018). In the current study, it is also seen that the participants have similar qualities.

The findings obtained from the mediation model showed that yoga self-efficacy had a significant and positive predictive effect on subjective well-being and self-compassion. Hence, the findings confirm that individuals with high yoga self-efficacy have more subjective well-being and self-compassion. The findings that yoga practices can positively affect subjective well-being (Birdee et al., 2017, 2017; Gupta & Singh, 2016; Lee, 2004) and self-compassion (Gard et al., 2013; Gorvine et al., 2019; Newby, 2014) are consistent with the findings of previous studies. Yoga practices can help individuals to establish a compassionate relationship with themselves by improving their yoga self-efficacy and positively affect their psychological well-being levels (Gupta & Singh, 2016; Miyoshi et al., 2022; Nespors, 1993). In support, it has been observed that individuals with high levels of self-efficacy experience more subjective well-being (Ryan & Deci, 2001). These results underscore the potential of yoga practices as an effective tool for enhancing both subjective well-being and self-compassion, highlighting the pivotal role of yoga self-efficacy in fostering psychological health and resilience.

According to another finding of the study, individuals who practice yoga experience an improvement in their subjective well-being levels through their increased self-compassion. Although there is no study directly examining the relationships between yoga, self-compassion, and subjective well-being in the literature, in line with the findings obtained from the mediation model, it was observed that self-compassion mediated the relationship between yoga experience and emotional dysregulation (Parkinson & Smith, 2022); and mindfulness and self-compassion mediated the relationship between participation in yoga practices and increased quality of life (Gard et al., 2013). The finding that Hatha yoga practice is more effective in improving subjective well-being when combined with self-compassion meditation is consistent with these findings (De Giorgio et al., 2023). As a matter of fact, the positive effect of self-compassion on subjective well-being has also been reported in previous studies (Kishida et al., 2019; Neely et al., 2009; Neff & McGehee, 2010; Phillips & Ferguson, 2013). As a result, self-compassion skills also have a role in some of the increased levels of subjective well-being associated with yoga practices. This research proved that self-compassion indirectly influences the contribution of yoga practices to the well-being of the individual.

In the last part of the study, the differentiation of the participants' subjective well-being levels in terms of the variables determined was examined. According to the results, the subjective well-being levels of individuals with active yoga practice differ significantly in terms of age

groups and are higher in favor of those in the 33-44 and 45-67 age groups. This finding is in line with a study conducted on yoga practitioners in which a higher age predicted a good mood (Moliver et al., 2013). Similarly, advancing age has been shown to be a strong factor in life satisfaction in adults (Cho & Cheon, 2023). Age-related differences are known to lead to remembering emotional experiences less negatively and sometimes more positively. According to the age-related positivity effect, elder adults focus on and remember more positive features of their environment and life compared to younger adults (Reed et al., 2014). Therefore, age is a determinant of subjective well-being. Considering the fact that yoga practices promote positive outcomes such as self-acceptance, self-compassion, harmony, and awareness and that individuals remember negative experiences less as they get older, it seems possible that subjective well-being may differ according to age.

According to another finding, the participants' subjective well-being levels differed significantly in terms of their yoga background. As a matter of fact, having a long-term yoga practice positively affects the mental and physical quality of life (Birdee et al., 2017) and predicts increased levels of psychological well-being (Moliver et al., 2013). In this study, the fact that subjective well-being levels were higher in favor of participants who had been practicing yoga for 4 years or longer is consistent with the literature. It has been shown that yoga practice can have a greater impact on psychological health if it becomes a lifestyle (Gaiswinkler & Unterrainer, 2016). According to the results of a qualitative study conducted with 18 participants aged 23-68 with long-term regular yoga practice, yoga helps to cope with anxiety and stress by increasing positive emotions (Akdeniz & Kaştan, 2023). Perhaps we can say that yoga practices, which deepen as time progresses and become a lifestyle, support individuals to feel more positive affect and satisfaction with life.

According to another result of the study, the subjective well-being levels of the participants differ significantly in terms of their perceived yoga level and are higher in favor of advanced yoga practitioners. This finding is in line with studies showing that advanced yoga practitioners have higher subjective well-being levels than beginner yoga practitioners (Lee, 2004); experience higher mindfulness and lower stress (Brisbon & Lowery, 2011), and exhibit greater body awareness (Tihanyi et al., 2016). Considering that participation in a yoga program predicts an increase in quality of life and a decrease in perceived stress through mindfulness and self-compassion, it is also possible that advanced yoga practices may lead to a decrease in negative affect (Gard et al., 2013). In addition to all these, the deepening of the participants' practices as a result of their dedication to yoga practices seems to encourage the development of skills to relate to themselves (such as observation, acceptance, compassion, and mindfulness).

The subjective well-being levels of the participants differ significantly according to the frequency of weekly yoga practice and are higher in favour of individuals who practice yoga 5 or more days a week. As a matter of fact, weekly yoga practice frequency was found to be an important variable in predicting subjective well-being. It has been observed that individuals who are intensive practitioners (5+ days per week) have higher subjective well-being levels than less intensive practitioners (Ross et al., 2012). In line with this, it has been reported that regular yoga practitioners benefit more from

yoga than intermittent yoga practitioners (Parkinson & Smith, 2022). In other research, it has also been shown that increasing the frequency of yoga practices has a consistent effect on psychological well-being (Moliver et al., 2013; Tihanyi et al., 2016). The fact that the yoga group produces more tranquility, less burnout, fatigue, and stress in participants compared to other types of exercise (Szabo et al., 1998) explains the effects of increased frequency of yoga practices on subjective well-being. Yoga program is significantly effective in emotion regulation, self-esteem, and emotions (Janjhua et al., 2020). In this respect, it can be estimated that individuals' subjective well-being may be attributed to their mastery of emotion regulation skills as a result of yoga practices and deliberately generating thoughts that will trigger positive emotions.

While the subjective well-being levels of the participants differed significantly according to the frequency of weekly meditation practice, they are higher in favour of individuals who meditate 5 or more days a week. This finding is consistent with the research finding that a longer meditation experience is associated with lower levels of recurrent negative thoughts and higher levels of self-compassion and mindfulness (Schlosser et al., 2022). According to a study comparing individuals who regularly practice mindfulness meditation with individuals without meditation experience, meditation frequency and period predicted higher emotional well-being. More importantly, individuals who integrate mindfulness meditation into their daily life activities show more emotional adjustment (Keune & Perczel-Forintos, 2010). In another study, it was concluded that weekly meditation time consistently predicted a decrease in anxiety and an increase in happiness (Lahtinen & Salmivalli, 2020). From these perspectives, individuals meditating at certain frequencies contribute to their subjective well-being by promoting more happiness, mindfulness, self-compassion, and emotional harmony, and experiencing less anxiety and negative thoughts.

### **Conclusions and Recommendations**

This study offers perspectives on the relationships between yoga self-efficacy, self-compassion, and subjective well-being in the context of female yoga practitioners in Turkey. Yoga self-efficacy has a positive effect on subjective well-being by encouraging individuals to approach themselves with a caring attitude. Therefore, yoga dynamics that support both subjective well-being and self-compassion can be used in positive psychology programs prepared to support mental health. Psychological studies blended with yoga practices can facilitate individuals to feel happy in their subjective worlds and experience spiritual well-being utilizing establishing a compassionate relationship with themselves. Similar to mindfulness practices, these studies may involve the individual following, observing, and contacting the emotions that emerge by practicing cult yoga poses and breathwork. At the same time, by allowing yoga practices to be experienced as a group, both the social relationships and subjective well-being of individuals can be encouraged. The fact that yoga reveals compassion towards all living forms can be a means for individuals to establish fulfilling relationships with each other. The synchronized practice of yoga, meditation, and breathing exercises in parallel with yoga systematics may allow individuals to experience the state of flow more. In summary, the eclectic use of yoga-based body-mind exercises and positive psychology studies can support individuals in terms of psychological,

physiological, social, emotional context, and spiritual well-being in a multidimensional way.

As with every research, this research also has some limitations. Firstly, this research was conducted cross-sectionally. Therefore, it is difficult to conclude the relationships between variables. Another limitation is that yoga practitioners of the male gender could not be represented in the study. Therefore, the findings of the research show limitations in the female gender. It is seen that yoga practitioners are predominantly female. Culturally, male yoga practitioners are less common in Turkey. It is also important to reach male yoga practitioners in future studies. Thus, examining the effect of gender may be helpful for intervention strategies to improve subjective well-being.

### **Declarations**

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**Authors' contributions:** In this study, Author H put forward the research idea, conducted a literature review, reached yoga practitioners during the data collection process, wrote the first draft and final version of the study, and interpreted the findings obtained as a result of the analyses by associating them with the literature.

Author S designed the research methodologically, analysed the data, interpreted the findings obtained as a result of the analyses by associating them with the literature and undertook the general supervision of the study.

**Competing interests:** The authors declare that they have no competing interests.

**Ethics approval and consent to participate:** The research process was conducted in accordance with the requirements of the Declaration of Helsinki. All individuals participating in the study completed the informed consent form.

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