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The phenomenon of yoga in the imagination of Turkish nursing students: "The way to place goodness in the heart"

Özüm Erkin¹, Aynur Çetinkaya² and Begüm Güler^{3*}

Abstract

Background The aim of the research is to shed light on the experiences of a group of nursing students enrolled in a yoga elective course who practiced yoga regularly for 14 weeks, regarding yoga and the phenomenon of doing yoga, with a qualitative approach.

Methods This qualitative study was conducted at a public university in Izmir, Turkey. The study sample consisted of 61 students enrolled in the 1st-year yoga course at the Department of Nursing, Faculty of Health Sciences. Except for two students, 59 of them participated in the study. Participants attended a face-to-face yoga course once a week for 1.5 h over a 14-week period. Each session comprised 30 min of theoretical instruction and 60 min of practice. In data collection, an interview form containing five questions was used to understand nursing students' experiences and thoughts about practicing yoga. In addition, A4 sized papers in different colors were presented to the participants. The participants were asked to draw and/or cut a shape by choosing the paper in the color that most evokes yoga. Then they were asked to explain why they chose this color and why they drew this shape. Participants were given one hour. After the data were collected, the pictures drawn by the participants and their descriptions of their drawings were transferred to the computer and included in the analysis. Qualitative data were hand-coded by the researchers. Within in-vivo coding, code names were formed from the participants' expressions. The findings analyzed by content analysis were interpreted with the literature under the themes by presenting quotations.

Results It was determined that the participants used nature figures (sun, cloud, tree, sky, flower) ($f=75$), people doing yoga ($f=12$), and sound, light and other figures (bird sound, wave sound, candle, light bulb, traffic light, heart, eye, left key, peace, swing, India, circle, etc.) ($f=29$) in the shapes they drew and cut out on A4 sized papers in different colors to describe their experiences and thoughts about practicing yoga. The participants mostly chose blue-green-yellow colors ($n=41$). With qualitative question analysis, a list of codes was created from the answers given by the students to the questions for the phenomenon of "doing yoga" (number of codes = 98). After the analysis of the data, four categories were reached. The category names and frequency numbers explaining the phenomenon of practicing yoga were distributed as "symbol of health and serenity ($f=345$)", "the way to place goodness in your heart ($f=110$)", "the most effective way to meet the self ($f=93$)" and "no guarantee of relaxation ($f=71$)", respectively.

Conclusions The results indicate that yoga is perceived by nursing students as a multifaceted practice that evokes a range of emotional and physical responses. Most participants associate yoga with symbols of health, serenity, and self-awareness, often using natural elements and blue-green-yellow the colors to represent these feelings.

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However, there is also recognition that yoga may not guarantee relaxation for everyone, as some students reported difficulties in meditation, physical discomfort, and challenges in focusing. The study highlights the variability in how individuals experience yoga, emphasizing both its positive effects on well-being and the potential challenges in practice. These findings suggest that while yoga is widely valued for its calming and health-promoting benefits, it may not be universally effective in achieving relaxation or mindfulness.

Keywords Yoga, Nursing student, Qualitative research

Introduction

Yoga is a practice that has been subject to many different interpretations and translations over thousands of years. Patanjali's phrase "Yogas Chitta Vrittis Nirodha" translates to "Yoga is the cessation of the fluctuations of the mind" in English [1]. Hagen & Hagen (2024) have emphasized that yoga is commonly understood in society as a tool for mental calmness and balance [2]. This provides a comprehensive model for personal development, contributing to the individual's balanced harmony in every aspect—mental, physical, emotional, and spiritual [3, 4]. By developing inner awareness as well as meta-awareness, yoga offers a roadmap for individuals to see and understand their own state and surroundings more clearly [5]. Yoga enhances physical functionality by alleviating pain and discomfort, thereby reducing physical ailments. Moreover, yoga offers physical health benefits, including increased strength and flexibility, as well as improved posture [6–10].

According to Bhavanani (2014), yoga extends beyond mere physical or mental health; it also addresses emotional, social, and spiritual needs [11]. By increasing personal awareness, it can strengthen both inner attachment and social connections [6, 9, 12]. Research shows that participants' self-confidence increases during yoga practice, and they might gain better skills to manage their mental health. This underscores not only the physical advantages of yoga but also its significant contributions to mental and emotional well-being [8, 9, 13, 14]. Yoga can foster heightened bodily awareness, elevate mood, and enhance overall well-being. It also promotes self-acceptance, personal fulfillment, and social harmony. This holistic process provides psychological relief and mental tranquility, aiding in the management of common mental health issues such as anxiety and depression [11].

Today, young adults increasingly experience stress, pressure, and mental health issues [15]. Research links young people's stress levels to high demands at school and the pressure to meet these demands [16]. Additionally, lack of physical activity and sleep problems also can contribute to their difficulties in coping with these issues [17, 18]. Academic expectations from parents, especially those from middle-class families, can further increase the pressure on young people, leading them to evaluate their self-worth

solely based on their achievements. This adds to the existing academic pressures, causing young people to worry more about future educational and career opportunities [19].

Yoga can physically contribute to nervous system balance by decreasing stress-related sympathetic activity and stimulating the parasympathetic system. Consequently, it can positively impact stress and mental health issues, particularly in young people. Nursing students, who often undergo a stressful educational period, can also benefit from these effects [20–24]. Therefore, it is recommended to integrate mindfulness programs, including breathing techniques, meditation, and yoga, into the nursing curriculum [21, 22]. In the literature, a yoga course was integrated into the nursing curriculum in Turkey for the first time by Erkin and Aykar (2021) [20]. Most studies with students in the field of yoga in the literature are quantitative, although yoga has been studied in college students using qualitative methods, no studies found in nursing. This is one of the starting points of this research. The aim of the research is to shed light on the experiences of a group of nursing students enrolled in a yoga elective course who practiced yoga regularly for 14 weeks, regarding yoga and the phenomenon of doing yoga, with a qualitative approach. This qualitative study tries to fill this gap in the literature by explaining the imaginary meanings that nursing students attending yoga courses attribute to the yoga experience.

Methods

Design and participants

The research, designed in a qualitative type, was conducted during the 2018–2019 academic year. In line with the qualitative research approach, a purposeful sampling method was used. The qualitative method sees the experience of reality as subjective, varying from person to person. Moreover, it is a reliable method for studying a little known or understood area. Therefore, a qualitative descriptive design was adopted to explore students' knowledge and perspectives [25].

Participants attended a face-to-face yoga course once a week for 1.5 h over a 14-week period. Each session comprised 30 min of theoretical instruction and 60 min of practice. The content of the yoga course is detailed in

Table 1. The theoretical component included a weekly 30-min PowerPoint presentation covering topics such as the history of yoga, meditation, breathing techniques (pranayama), yoga poses (asanas), chakras, mindfulness, and compassion. The practical sessions were conducted in a tranquil and dimly lit room, following a structured 60-min schedule: 15 min of pranayama (e.g., ocean breath, equal breathing, cooling breath, humming bee breath, alternate nostril breath, kapalbhata pranayama), 30 min of hatha yoga asanas involving gentle stretching and strengthening exercises with each pose held for 5–10 breaths and repeated five times, 5 min of meditation, and 10 min of shavasana. These sessions were led by a yoga instructor (first author) registered with the Yoga Alliance. No home practice was required. According to the course rules, students were allowed up to 20% absenteeism. At the end of the 14-week period, it was determined that students were absent for an average of 1.5 weeks. There was only one change in the planned yoga protocol. Although it was initially planned to use one breathing technique every two weeks, all breathing techniques were combined based on the students' feedback and used in the sessions after students learned all the techniques (after the 6th week). Class attendance was encouraged through messages in a WhatsApp group. However, attendance was not included in the scoring.

Table 1 The content of the yoga course

Weeks	The content of the yoga course (theoretical: 30 min; practical: 60 min)
1	Greeting, informing about the study, receiving a written consent form Introduction of the yoga course: each class includes a theme, posture, breathing exercises, meditation
2	History of yoga, what is/is not yoga? Myths about yoga
3	Yoga and meditation
4	Your breath-Your best friend, affectionate breathing
5	Yoga poses, their names and benefits
6	Surya Namaskar (Sun Salutations) Yoga Poses
7	Yoga and chakras
8	Samsara (film screening), discussion of the film in terms of awareness
9	Yoga nidra
10	Compassionate body scan
11	Noting your emotions, compassionate letter to myself
12	Yoga and nutrition
13	Bringing mindfulness into your life -Gratitude exercises
14	Draw a picture and write a text representing the concept of doing yoga

The sample of the research was planned to consist of first-year students enrolled in the elective course "Yoga" in the Nursing Department of the Faculty of Health Sciences at İzmir Democracy University in Izmir (N=61). Two students did not participate in the study because the topic and objectives did not interest them. Data were collected from a total of 59 nursing students on a voluntary basis. After the yoga course, the last week interviews were conducted with 59 participants who voluntarily agreed to participate in the study. Of the participants (n:59), 40 were female and 19 were male, with ages ranging from 18 to 21. Forty-six participants described their health perception as "good," nine as "very good," and four as "poor." (Appendix 1).

Data collection

Data collection was conducted using a structured interview form alongside a creative activity where participants were asked to draw a picture and write a text representing the concept of doing yoga. Data were collected through structured interviews guided by a pre-developed interview Schedule (see Appendix 1). The structured interview form developed for this study included seven open-ended questions and prompts designed to elicit detailed responses from the participants regarding their experiences with the yoga course. Prior to commencing data collection with the main participant group, the interview schedule was pilot tested with five nursing students who met the inclusion criteria but were not part of the final sample. This pilot testing allowed for refinement of the interview questions and ensured clarity and comprehensiveness.

After obtaining the necessary permissions for the research, the students engaged in the yoga course were comprehensively briefed on the study's objectives, content, methodology, and the individuals responsible for its execution. The last week of "Yoga" course (14th week), students asked to draw a picture and write a text representing the concept of doing yoga. Each student was given colored A4 papers and, for those who wished to use them, colored pencils in the classroom environment. Before starting to draw, students were asked to write their gender on the back of the paper, but not their name or surname. In addition to the picture they drew, they were asked to write their thoughts about yoga and what they drew regarding the concept of doing yoga on a separate piece of paper or in appropriate spaces on their drawing paper. Besides students filled the interview form. They also filled out a structured interview form to capture their experiences and thoughts about practicing yoga. Participants were given one hour to complete the task. After the data were collected, the drawings and their related descriptions made by the participants were

digitized and included in the analysis [26]. For security purposes, the data were stored in Google Drive™ accessible to authors.

To examine subjective experiences, the techniques of "drawing" and "description" were used together, attempting to integrate the strengths of both methods. Participants were provided with A4 papers in different colors and asked to choose the color that most reminded them of yoga. Starting from the theme of "The meaning of doing yoga for them," participants were asked to draw pictures representing their perceptions and to write descriptions related to their drawings. In a similar approach referred to as "projective technique" in the literature, the drawing is accepted as a tool for reflecting emotions. Projection means expression and is based on the assumption that "an individual's behavior is a reflection of their personality" [26, 27].

Data analysis and interpretation process

The data were analyzed using an inductive approach. Inductive analysis involves coding the data to categorize it, identifying relationships between these categories, and reaching a holistic picture based on this. The key point in data analysis in this study was to create categorical labels embedded in the data [26, 27]. In this study, a code list was developed, data were coded, categories were created, and data were reported within these categories. Data analysis was conducted by the researchers through coding. For some themes, in-vivo coding, which is included in the qualitative research methodology of grounded theory, was used as an inductive coding process. In vivo coding involves creating a theme tag using the code that comes directly from the data, i.e., the participant's own expressions [28].

All these processes were carried out in collaboration with two field experts (ÖE, AÇ). Similar codes were grouped together to form a certain number of categories and reported to establish the main idea in the data. Comparing codes and categories with the literature aimed to contribute to the validity of the data analysis. At the end of the data collection phase, a conceptual model related to the topic was developed by the researchers [26]

The research team acknowledges the importance of reflexivity in qualitative research. The first researcher, who has a PhD degree in public health nursing with 16 years of experience in nursing, is an instructor of yoga courses for undergraduate nursing students. The researcher maintained a critical awareness of their own biases and assumptions that could potentially influence the data analysis throughout the research process. We aimed to minimize bias by employing a systematic thematic analysis approach and by regularly discussing the emerging themes with a second author, who is a specialist

on qualitative research and has a qualitative PhD thesis in public health nursing. This cooperation contributed to ensuring the findings' objectivity and reliability. Regrettably, it was not possible to get direct participant input on the findings because of the anonymous nature of the data collection process. The third researcher, who is a master's degree student in public health nursing with 3 years of clinical experience in nursing, is an instructor of yoga. Nonetheless, we think that the utilization of rich participant quotes in conjunction with the iterative analytic process guarantees that the results truly reflect the participants' experiences with the yoga course.

Ethics approval and consent to participate

Before starting data collection, information about the research was provided to the school administration, permission was obtained, and contact was made with the participants. Approval was obtained from the Ethics Committee of Manisa Celal Bayar University (02/12/2019, no:20.478.486). Participation was based on voluntariness and willingness, and students were informed about sensitive points related to the teacher-student relationship (such as participation or non-participation in the research not affecting their performance evaluations, etc.). Written informed consent to participate was obtained from all of the participants in this study.

Research validity and reliability

In qualitative research, the researcher investigating the problem is at the center of the research. The main measurement tool in the research is the researcher themselves. Therefore, the issue of objectivity has always been at the center of methodological debates in social sciences. In qualitative research, the concept of "trustworthiness" is considered instead of validity and reliability [27]. Various criteria of trustworthiness were considered in the processes of this research.

During the data analysis phase, in the creation of the code list, and in the interpretation of the findings, a comprehensive perspective was attempted to be reflected through a thorough literature review on the subject. All records in the data collection and analysis processes were kept systematically. Quotations were made from all data sources. The frequencies of the drawings and descriptions were determined, and those with high frequencies and those that were strikingly related to the topic were included. The data collection and data analysis processes were reported in detail as far as space limitations allowed, and original quotations from the data were included. Furthermore, in the quotations, descriptions written by the participants in their own handwriting were also used.

The number of participants in the study was 56. This number is considered sufficient for an in-depth exploration of the research topic. Students were instructed to create an illustration and compose a text depicting the concept of practicing yoga. Each student received colored A4 paper, and colored pencils were provided for those who wished to use them within the classroom setting. Prior to beginning their drawings, students were asked to indicate their gender on the back of the paper, ensuring that they did not include their name or surname. Alongside their drawings, students were required to write their reflections on yoga and describe what they had drawn related to the practice of yoga, either on a separate sheet of paper or in suitable spaces on their drawing paper. Additionally, students completed an interview form. Participants were allotted one hour to finish the assignment. This approach allowed for a thorough and comprehensive examination of the participants' perspectives. To enhance transferability, purposive sampling was employed in the study. In purposive sampling, participants are selected to have specific characteristics relevant to the research topic. This approach ensured that the participants' perspectives would represent the research topic effectively. To ensure dependability, interview questions, data collection, and analysis were consistently applied throughout the entire research process. In this study, to achieve confirmability, all stages of the research were described openly and transparently, aiming to reduce the impact of researcher bias. All transcripts and notes used in the study were stored for reference.

The reporting process of the study adhered to the COREQ (CONSolidated criteria for Reporting Qualitative research) guidelines, as outlined by Tong et al. (2007) [29]. The study follows CLARIFY 2021 guidelines for reporting yoga research [30].

Results

Participants expressed their experiences and thoughts about practicing yoga by drawing and cutting shapes on A4-sized papers of different colors. It was determined that they used nature figures (sun, cloud, tree, sky, flower) ($f=75$), figures of people practicing yoga ($f=12$), and other figures such as sound, light, and others (bird sound, wave sound, candle, light bulb, traffic light, heart, eye, key, peace, swing, India, circle, etc.) ($f=29$). Participants mostly chose blue-green-yellow colors ($n=41$).

A code list was created from the responses of students to questions about the concept of "practicing yoga" through qualitative question analysis (number of codes=98). After analyzing the data, four categories were reached. The categories describing the concept of

practicing yoga were distributed as follows in terms of symbols and frequency numbers: "symbol of health and tranquility ($f=345$)", "the way to place goodness in your heart ($f=110$)", "the most effective way to meet oneself ($f=93$)", and "no guarantee of relaxation ($f=71$)" (Fig. 1).

Category 1. Symbol of health and serenity ($f=345$)

The subcategories that received the most references from nursing students in explaining the phenomenon of practicing yoga under this category are "Serenity and Peace ($f=169$)", "Comfort ($f=120$)", "Health, Well-being, Happiness, and Energy ($f=56$)". Below is the picture and description of the participant related to the subcategory "Symbol of Health and Serenity" (Fig. 2): "The reason for choosing the shape of a cloud and the color blue is that it brings me peace, reminds me to take deep breaths and be grateful. It reminds me that there are beautiful things in life and that I need to enjoy life." Additionally, "when you start doing yoga, your thoughts change, you feel rested, and your heart fills with peace." Participant 7, Female.

Participant 22 wrote the following in the interpretation of the figure they drew (Fig. 3): "The color blue always makes me feel happy and peaceful. I chose this color because yoga makes me feel peaceful and happy. For example, when I feel restless and unhappy, going to the beach, seeing the sea, seeing blue calms me down. Also, when I think of yoga, I imagine an endless deep blue sea. A sea with birds flying over it and a deep blue sky. A painting with sunny weather" Participant 22.

Participant 35's drawn figure is a butterfly, and their description is as follows (Fig. 4): "When I think of yoga, I think of a butterfly. Because when I do yoga, I feel as free and light as a butterfly. I imagine my wings taking me wherever I want inside. The green color relaxes me and makes me happy. The wings of the butterfly in my soul's greenery take me to purity...".

Participant 9, in the chosen color and the comment on their drawing, expressed the following regarding the sub-category "Symbol of Health and Serenity" (Fig. 5): "I chose this color for its energy. Since energy is important in yoga, I chose orange. I chose this shape because I believe yoga is best done in a natural environment. Yoga reminds me of serenity, the feeling of being in emptiness, and relaxation (Fig. 5)."

Participant 19, in the chosen figure and the comment on their drawing, stated the following (Fig. 6): "Because yoga reminds me of mental and physical health. In my opinion, health is manifested in the combination of blue and green colors. That is, balance in nature is something that exists in the soul and body." Participant 19 depicted a ladder figure in combination with blue and green, defining yoga as "soul and body therapy" (Fig. 6).

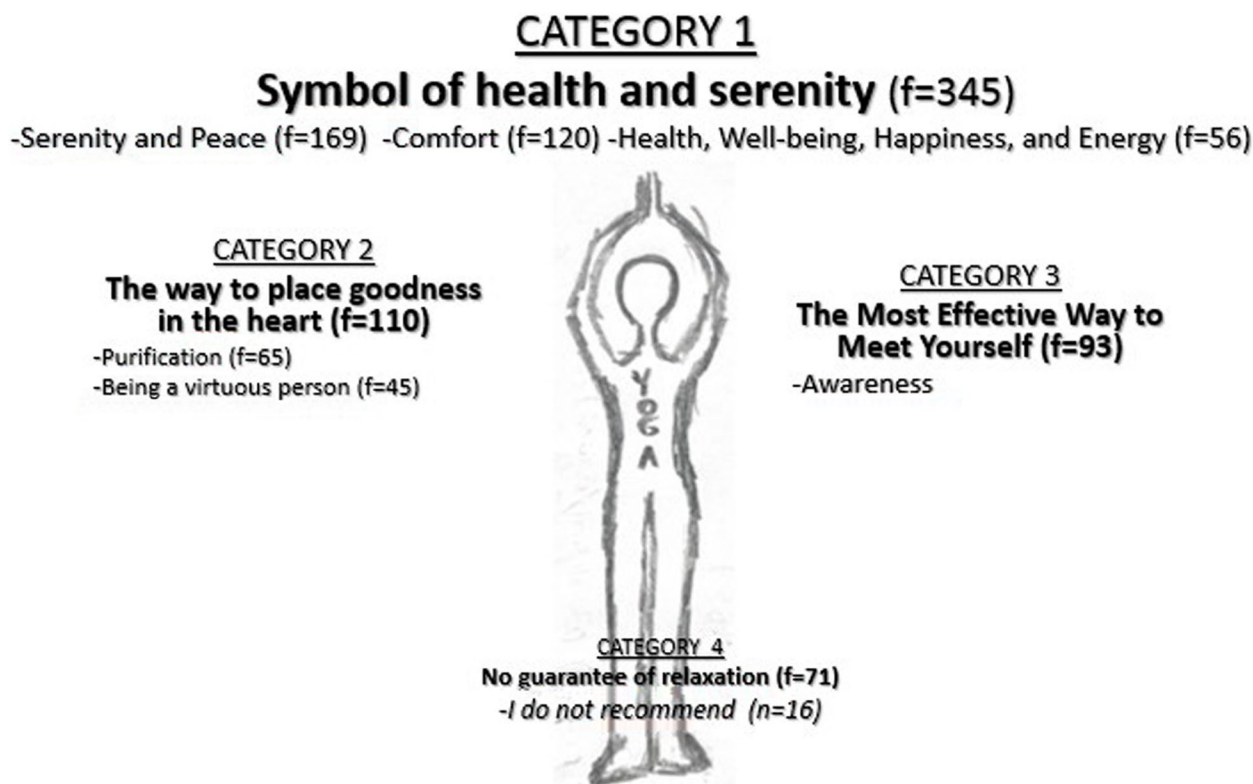


Fig. 1 Concepts and codes identified in the qualitative analysis of nursing students' perception of the phenomenon of "practicing yoga"

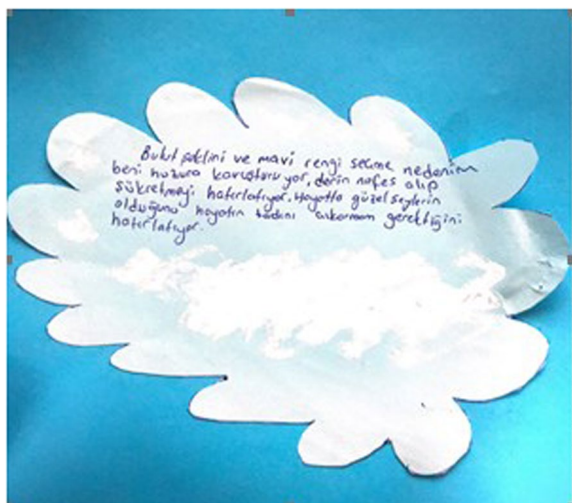


Fig. 2 Cloud figure (blue) -participant 7

Category 2. The way to place goodness in your heart (f= 110)

The meaning of the phenomenon of doing yoga by participant 11, an 18-year-old female nursing student, was labeled as "being aware of placing goodness in heart" as

the category tag. This category, referred to 110 times by the participants, includes the subcategories of "Purification (f=65)" and "Being a virtuous person (f=45)". Participants mentioned virtues such as "patience, tolerance, love for all creatures, flexibility, equality, non-prejudice, peace, optimism, freedom" contributing to the concept.

Participant 51, an 18-year-old male who described his health as poor, used the light bulb figure to express "happiness, peace, security" and commented, "It causes positive effects on people" (Fig. 7). Participant 51 expressed the following regarding the subcategory "The way to place goodness in your heart" in the figure and comment (Fig. 7): "The light bulb illuminating the environment is connected to yoga. Yoga enlightens a person's mind."

Participant 39, a 19-year-old male, mentioned that practicing yoga leads to "thinking more compassionately." Participant 21, a female, stated, "Yoga is something that requires patience."

Here is the drawn peace figure and comment by participant 46, related to this category (Fig. 8). This participant said, "I chose pink because it opens up and gives peace. Of course, there is also light pink, not just dark pinks. I chose this sign because where there is yoga, there is love for all living beings, and where there is love, peace is inevitable."

Bana mavi rengi hep kendimi mutlu ve huzur- Mavi lu hissettirir. Yagada insanı huzurlu ve mutlu hissettiği için bu rengi tercih ettim. Mesela ben kendimi huzurlu ve mutlu olduğum zaman sahile gitmek deniz görmek yani maviye görmek beni sakinleştirir.

Yoga dince aklıma uçuşur bucağız masmaui bir deniz geliyor. Üstünde kuskun uavduğu mavi bir deniz ve masmaui bir gökyüzü. Günezi: bir havanın olduğu bir tablo.

Fig. 3 Interpretation by participant 22 (blue)

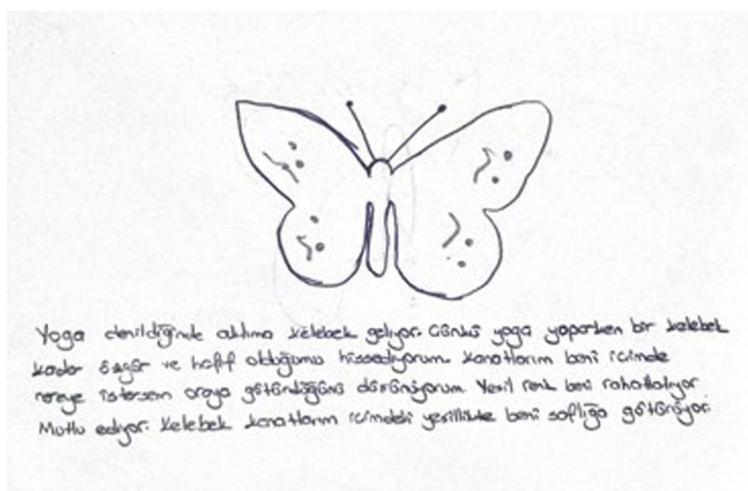


Fig. 4 Butterfly figure (green) -participant 35

Category 3. The most effective way to meet yourself (f= 93)

For nursing students, practicing yoga means creating "awareness" and is the most effective way to meet oneself (f=93). Participant 43, a 19-year-old female with a poor health perception, described feeling "calmer, more aware, and internally peaceful" when practicing yoga, as shown in Fig. 9. Under the category of "the most effective way to meet oneself," Participant 43's figure and comment about yoga are as follows (Fig. 9): "...I chose this color because it gives me peace. The other colors make me restless, but this color makes me feel like I can breathe. Yellow is like an endless void to me. A color that makes me experience everything with all its reality.

It's like a sky where you can escape from the chaos of the world and get lost in it..."

Participant 8 chose a cloud figure, describing yoga as "like rising above the clouds" and wrote the following about yoga practice: "Finding oneself in life, being at peace with oneself... [someone who starts practicing yoga] starts to know themselves, their love for life increases." Participant 8, Female.

Participant 33, a female who chose yellow for its calmness and non-straining quality, described the effect of yoga as "self-discovery" and wrote the following (Fig. 10): "You awaken your sleeping mind and body, and find the 'self' within you." Participant 33, Female.



Fig. 5 Tree figure and comment (orange) -participant 9

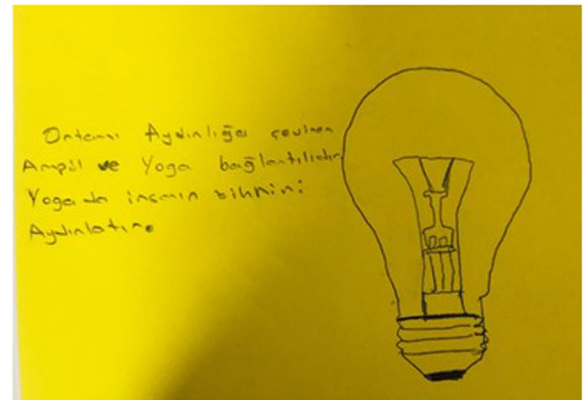


Fig. 7 Light bulb (yellow) -participant 51

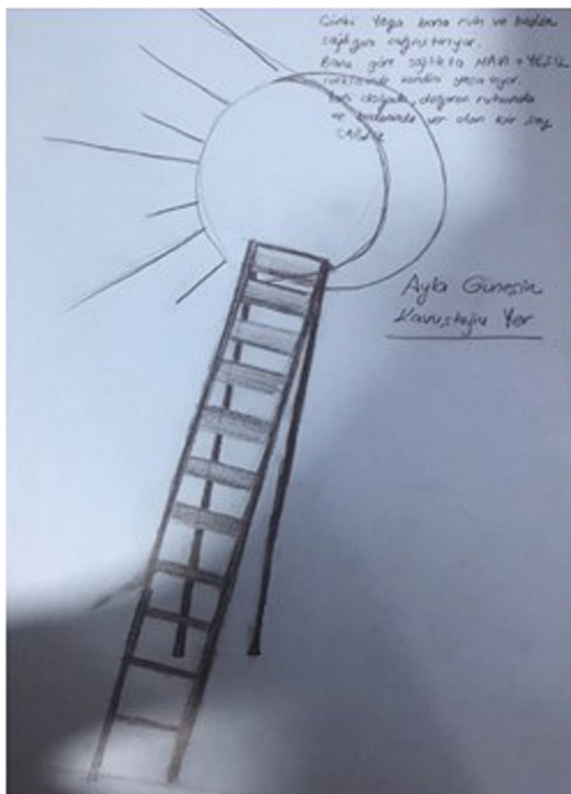


Fig. 6 The place where the moon meets the sun (turquoise)-participant 19

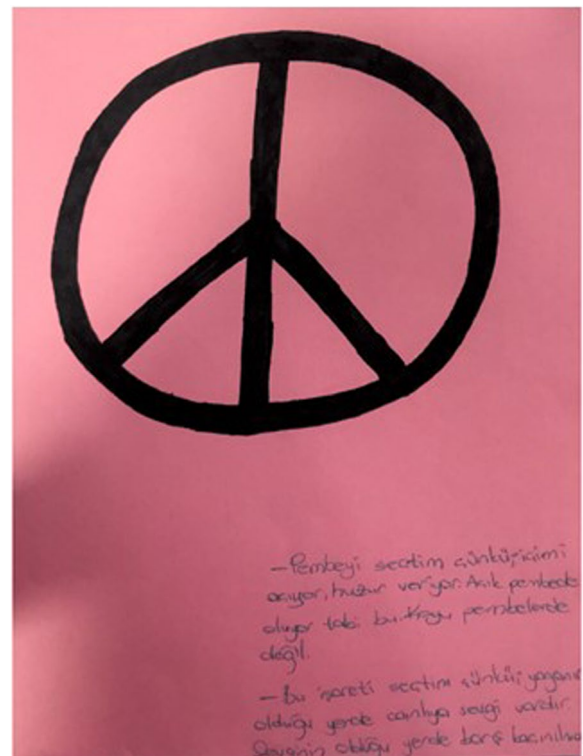


Fig. 8 Peace figure (pink) -participant 46

The statement from participant 48 is as follows (Fig. 11): "In this image, what I want to convey is; the individual who practices yoga finds themselves, reaches their essence, and becomes aware of their own existence after a long and perhaps short journey. I chose the color orange because it reminds me that energy exists, is alive, and can be transmitted at any moment. For me, yoga is an indicator of energy. After yoga, the body revives and rejuvenates."

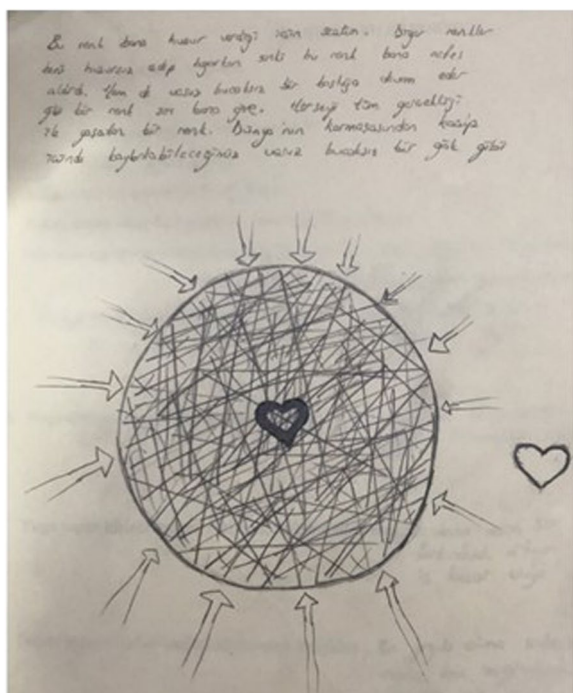


Fig. 9 The world and heart (yellow) -participant 43



Fig. 10 Flower and human (yellow)- participant 33

Category 4. No guarantee of relaxation (f = 71)

Among the nursing students (n=59), 16 (27.1%) indicated that they do not recommend yoga. The subcategories of this category include "difficulty in relaxing during meditation/emptying the mind (f=23)", physical complaints (f=21)", "difficulty in focusing (f=18)", and "negative perceptions (f=9)". Participants used expressions such as "headache, neck pain, back pain, dizziness, exhausting, feeling bad, difficult, fear, nervousness, inability to relax, disbelief" in relation to this category. A 19-year-old male participant, participant 41, stated about yoga, "I cannot meditate, I do not feel comfortable." Participant 44, a 19-year-old female participant who rated her health as poor, stated during yoga, "I cannot fully control my breathing and do meditation, I cannot empty my mind, so I cannot achieve complete peace."

Discussion

Yoga, often conceptualized in the Western world as a physical practice [31], is considered a practice that can calm the mind and access a higher state of consciousness where individual and universal consciousness merge, using the body [32], in yoga traditions, the physical, mental, and spiritual dimensions of the individual are intricately connected [1]. When we relate the benefits of yoga to traditional yoga theories and systems, it can be interesting to explore its connection with the chakra system and colors. The main focus of yoga can be to regulate the

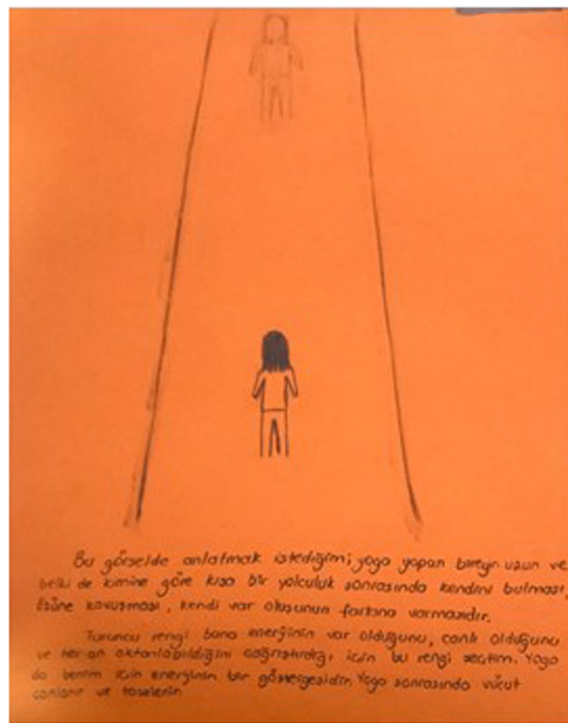


Fig. 11 The road (orange)- participant 48

functioning of chakras while awakening the associated energies [33, 34]. It was thought that the free association of the students' drawings and descriptions could provide guidance in determining their experiences related to the concept of yoga. In this study, where the experiences of nursing students who took the elective yoga course were evaluated with a qualitative approach, participants mostly chose blue, green, and yellow-colored papers, symbolizing nature. When viewed from the perspective of the chakra-yoga system explained in the yoga course, it was thought that the participants might have resonated with certain energy centers or chakras. Blue, green, and yellow colors are respectively associated with the throat chakra, heart chakra, and solar plexus chakra [35]. The throat chakra is associated with communication, speech power, intellectual development, creativity, and expression [36]. Participants 7 and 22, who currently perceive their health as good, and participant 19, who chose blue and turquoise colors, may reflect a desire for in-depth communication and original expression, or a need for improvement in these areas. During yoga practice, especially breathing exercises and poses focusing on the throat region can be worked on this chakra, thus enhancing students' capacity for clearer communication and expressing inner truths [37, 38].

The philosophy of yoga emphasizes the importance of harmony and unity with nature, which is why many yoga asanas (poses) are named after elements from nature, such as the tree pose, which symbolizes the stability and balance of a tree through its strong roots and upward-reaching branches [39]. In this study, visuals related to yoga such as the sun, clouds, trees, sky, and flowers were found. Participant 9 recalling and drawing a tree figure during yoga experiences indicates their awareness of this symbolic relationship. Research has shown that spending time in nature has positive effects on people's mood and mental health [40, 41]; similarly, many yoga philosophies emphasize the importance of being in harmony with nature [42]. Therefore, a student's preference for a natural environment while practicing yoga and associating this practice with a tree in nature is thought to reflect both the healing power of nature and the relationship of yoga poses with elements in nature. This symbiotic relationship reminds us of how interconnected humans are with nature and how yoga practice can strengthen this connection. This aspect of yoga can also encourage individuals to strengthen their relationship with nature and adopt a more respectful attitude towards the environment. This can be seen as a reflection of the principle of 'ahimsa' or non-harming, which is one of the foundational principles of yoga philosophy [43].

Deep breathing practices are fundamental components of yoga and meditation. Consciously controlling

breathing can activate the parasympathetic nervous system and trigger the relaxation response [44, 45]. Additionally, breath awareness is part of mindfulness practice and brings the individual into the present moment. Feeling gratitude helps a person recognize the positive aspects of their life and develop a more positive life perspective [46]. Gratitude practice can improve mental health and allow for greater enjoyment of life [47]. Participant 7's choice of a cloud shape and blue color is explained by the feeling of tranquility it brings, reminding them to take deep breaths and be thankful, and to remember that there are beautiful things in life that they should enjoy. Participant 7's statement confirms this. The shape of a cloud and the choice of the color blue directing them to take deep breaths, be thankful, remember that there are beautiful things in life, and enjoy life, can contribute to the participant's spirituality [48]. Such an approach can be balancing both mentally and emotionally, especially for students under academic pressure [49].

Yoga, meditation, and breathwork (pranayama) practices can be effective in creating a deep sense of peace by bringing individuals to the present moment and calming their inner dialogue [50, 51]. Participant 22's statement, "*The color blue always makes me feel happy and peaceful. I chose this color because yoga makes me feel peaceful and happy. For example, when I feel restless and unhappy, going to the beach, seeing the sea, and seeing blue calms me down,*" also indicates the participant's association of yoga practice with feelings of peace and happiness, demonstrating the potential of yoga experience to provide inner tranquility and balance. Furthermore, the participant's desire to go to the beach and see the sea may refer to the healing and calming effect of nature [52]. Participant 19 states, "*Yoga reminds me of spiritual and physical health. For me, health lives in the colors blue and green, meaning it is something in nature and in the spirit of nature,*" and Participant 35 says, "*When I think of yoga, I think of a butterfly because when I do yoga, I feel as light as a butterfly. I think my wings take me wherever I want inside me. The color green relaxes me, makes me happy, and the green inside me takes me to purity.*" These statements may be associated with the heart chakra represented by the color green. This chakra is considered the center of love, compassion, and connection [36], and therefore, the association of green with this chakra may symbolize the participant's feelings of relaxation and happiness during yoga practice [48]. The phrase "*the green inside me takes me to purity*" in Participant 35's statement indicates that green represents purity and healing in the heart chakra, and the opening of this chakra allows the person to feel more peaceful and purer [53]. In this context, Participant 35's positive feelings toward green and the sense of relaxation may be a result of balancing and opening the heart

chakra, contributing to their emotional experiences such as lightness and tranquility in yoga practices [54].

Participant 51, despite describing their health as poor, mentioning positive effects such as "*Happiness, peace, trust*" through the figure of a light bulb during yoga practices, can be explained by the illuminating effect of yoga on the mind. Just as a light bulb illuminates its surroundings, yoga enlightens the individual's mental and spiritual state, capable of transforming negative thoughts and emotions into positive ones. This contributes to achieving a general state of well-being and a positive mood by providing both physical and mental relaxation [55]. Participant 39 mentioned the effect of "*thinking more humanely*" while practicing yoga. Participant 21 commented that "*yoga requires patience.*" Participant 46 chose pink because "*It opens up and gives peace within me, where there is yoga, there is love for all living beings, and where there is love, peace is inevitable.*" Yoga can facilitate a tranquil mental state, reducing stress and tension, thereby promoting harmonious relationships and fostering peace within individuals and their social interactions. Central to yoga philosophy are humanism and the pursuit of a peaceful life [56] qualities reflected in participants' experiences, affirming yoga's role in cultivating positive personal and societal outcomes.

In the chakra system, colors and their associated energy centers are believed to promote balance and harmony in our daily lives and physical well-being [33]. Students' selection of these colors related to chakras may reflect their own energy balances and personal development needs, often unconsciously. Yoga practice can equip individuals with tools to enhance the harmony and integrity of these energy centers [57]. Participant 43, with a negative perception of health, reported becoming "*A calmer person, awareness increases, and inner peace occurs; I chose this color (yellow) because it gives me peace. While other colors make me uneasy, when I look at this color, it feels like it gives me breath, and it continues to an endless void. Yellow, for me, is like escaping from the chaos of the world and getting lost in an endless sky.*" Participants finding the color yellow soothing and describing it as providing a sense of freedom and freshness like an endless sky can be associated with the solar plexus chakra, typically represented by the color yellow [35]. This chakra is linked to self-confidence, willpower, and self-realization. [58]. Participant 33 described the experience of yoga with a flower and human figure as "*Self-discovery,*" stating, "*you awaken your sleeping mind and body and find the 'self' within.*" Participant 8 drawn a cloud figure, describing yoga as "*like rising above the clouds,*" saying, "*finding yourself in life, being at peace with yourself... [someone who starts practicing yoga] begins to know themselves, their love for*

life increases." These statements and figures reinforce the basic themes of "self-discovery" and "being at peace with oneself" in yoga practice [59], indicating an important relationship between one's yoga practice, personal growth, and quest for inner peace [60]. Participant 48 believes that "*After a long and perhaps short journey of practicing yoga, individuals find themselves, reach their essence, and become aware of their existence. I chose this color (orange) because it reminds me that energy exists, is alive, and can be transmitted at any moment. For me, yoga is a sign of energy; after yoga, the body revitalizes and refreshes.*" The choice of orange suggests a strong relationship between yoga practice and energy, as this color can be associated with the Sacral chakra, symbolizes vitality, creativity, and emotional balance [36].

In this study, there seem to be mixed views among some participants regarding yoga practice. While yoga and meditation are generally recommended as tools for reducing stress and enhancing personal well-being [24, 61, 62], some students (participants 41–44) have reported not finding this practice beneficial. For example, some participants have advised against practicing yoga due to physical discomfort (head, neck, and back pain, dizziness), inability to empty the mind during meditation, difficulty in focusing, and negative perceptions. The comments of participants 41 and 44 are thought to indicate their individual experiences regarding their inability to meditate and the discomfort they feel during yoga practice. Yoga and meditation practices can create different experiences in each individual; while they can be relaxing and healing for some, they can be challenging and discomforting for others [63]. This suggests that yoga and meditation can not universal solutions but practices that should be compatible with an individual's personal preferences, experiences, and health conditions [26].

Participants' health conditions can influence their experiences during yoga practice. Participants who feel unwell or have a specific health problem may find the practice challenging. This underscores the importance for educators and health professionals to provide stress management and relaxation techniques tailored to individual needs [64].

Limitations

The qualitative data collected in this study regarding the phenomenon of yoga is in Turkish. However, selecting an international journal for publication and translating the text into English may have limited the full conveyance of the figures and participants' expressions to the readers due to the unique cultural characteristics of the language. The concepts of yoga and chakras, meditation, and

similar topics, which were theoretically as well as practically conveyed to the participants during the 14-week course content, may have influenced the participants' views on the phenomenon of yoga. The use of a qualitative design tradition in the research both limited the generalizability of the findings and contributed to the originality of the study.

Conclusion

This study has identified four themes that explain the phenomenon of practicing yoga. These are respectively; "symbol of health and tranquility", "way to place goodness in the heart", "most effective way to meet the self", and "no guarantee of relaxation" themes. The findings will contribute to a more comprehensive understanding of student experiences and ultimately understand their positive and negative experiences. By delving into the student perspective, this research aims to provide valuable insights for educators and healthcare professionals. Most of the research on the phenomenon of practicing yoga is conducted abroad, and it is a less studied area in Turkey. Although yoga, which is becoming increasingly popular in our country, is known to be a practice that makes a person feel good; research on how individuals feel about practicing yoga and how they think about it is specific to the subject. Participants associated practicing yoga with symbols and colors found in nature, emphasizing the importance of its effects on the body, mind, and spirituality. In addition, findings regarding the experiences of individuals practicing yoga, a practice that is also becoming increasingly popular in Turkey, have been obtained. Although it is seen that qualitative approaches such as in-depth interviews and content analysis are used in almost all of the qualitative studies on the subject [48, 65, 66], no study has been found that examines individuals' perceptions by drawing pictures and interpreting them. In this respect, the current research's unique research method can contribute to the literature.

Supplementary Information

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Supplementary Material 1. Applicable (Appendix 1).

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Human ethics and consent to participate declarations

Applicable.

Authors' contributions

ÖE and AÇ contributed to study design. AÇ contributed to analyze data. ÖE, AÇ and BG write the manuscript. All authors read and approved the final manuscript.

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Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available but are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

Ethical approval for the study was obtained from Manisa Celal Bayar University Non-invasive Clinical Research Ethics Committee (Decision no:20.478.486, Date:02/13/2019). We adhered to the principles of the Declaration of Helsinki and relevant guidelines. Written informed consent was obtained from all participants in this study. Participants were ensured to provide their consent voluntarily and without coercion. Written informed consent to participate was obtained from all of the participants in this study. Before the research, the purpose of the study was explained to the students and that they could leave the study at any time. At the beginning of the study, it was informed that participation in the study was voluntary and that no grade would be given. The evaluation of this course consisted of 10 open-ended questions as part of the year-end assessment. Students were asked to name 10 yoga poses they knew, describe the posture, explain the benefits, indicate the indications and contraindications, and identify the associated chakras. The grade distribution of the students was as follows: AA (n:31), BA (n:16), BB (n:6), CB (n:6). Necessary precautions were taken to protect the confidentiality of the data, the identity information of the participants was not included in the data collection tools and all personal details in the data collection forms were kept confidential. The identifying images or other personal details of participants are presented in a way that does not compromise anonymity.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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