Revista de Enfermagem UFPE On Line
ISSN:1981-8963

J Nurs UFPE on line.
2021;15:e246133
DOI:
10.5205/1981-8963.2021.246133
https://periodicos.ufpe.br/revistas/revistaenfermagem

HEALTH AT SCHOOL: THE INSERTION OF *KUNDALINI YOGA* AS A CARE PRACTICE

SAÚDE NA ESCOLA: A INSERÇÃO DO *KUNDALINI YOGA* COMO PRÁTICA DE CUIDADO*

SALUD EN LA ESCUELA: LA INSERCIÓN DEL *KUNDALINI YOGA* COMO UNA PRÁCTICA DE ATENCIÓN

Emanuela Fernandes[1], Gustav Oscar Dumke[2], Luciana Maria Mazon[3], Bruna Pescador[4]

ABSTRACT

Objective: to evaluate the effects of the *Kundalini Yoga* practice on the mental health of students and civil servants of a public educational institution. ***Method:*** it is an action research, developed in four phases: exploratory, action planning, action and evaluation. ***Results:*** we noted that yoga practice contributed to the reduction of depression, anxiety, stress, and insomnia scores, evaluated by Perceived Stress Scale, Insomnia Severity Index, and Depression, Anxiety and Stress Scale. In qualitative analysis, the individuals reported benefits of yoga practice in learning, mental health and physical conditioning. ***Conclusion:*** the data obtained in this study, supported by previous works, indicate that yoga practice in the school environment can be a contribution to the care, health and well-being of students, teachers and other servants.

Descriptors: Yoga; Mental Health; Schools; Stress; Anxiety; Sleep Initiation Maintenance Disorders.

RESUMO

***Objetivo*:** avaliar os efeitos da prática de *Kundalini* Yoga na saúde mental de estudantes e servidores de uma instituição pública de ensino. ***Método*:** trata-se de uma pesquisa-ação, desenvolvida em quatro fases: exploratória, planejamento da ação, ação e avaliação. ***Resultados*:** observou-se que a prática de yoga contribuiu para a redução dos escores de depressão, ansiedade, estresse e insônia, avaliados pelas escalas **de Estresse Percebido**, Índice de Gravidade de Insônia e

Escala de Depressão, Ansiedade e Estresse. Em análise qualitativa, os sujeitos relataram benefícios da prática de yoga na aprendizagem, saúde mental e condicionamento físico. ***Conclusão***: os dados obtidos neste estudo, apoiados em trabalhos anteriores, indicam que a prática de yoga no ambiente escolar pode ser um contributo ao cuidado, saúde e bem-estar dos estudantes, professores e demais servidores.

***Descritores*:** Ioga; Saúde Mental; Instituição Acadêmica; Estresse; Ansiedade; Insônia.

RESUMEN

Objetivo: evaluar los efectos de la práctica de *Kundalini Yoga* en la salud mental de estudiantes y servidores de una institución pública de enseñanza. ***Método:*** se trata de una investigación-acción, desarrollada en cuatro fases: exploratoria, planificación de la acción, acción y evaluación. ***Resultados:*** se notó que la práctica del yoga contribuyó a la reducción de las puntuaciones de depresión, ansiedad, estrés e insomnio, evaluadas mediante las Escala de Estrés Percibido, el Índice de Severidad del Insomnio y la Escala de Depresión, Ansiedad y Estrés. En el análisis cualitativo, los sujetos informaron los beneficios de la práctica del yoga en el aprendizaje, la salud mental y el acondicionamiento físico. ***Conclusión:*** los datos obtenidos en este estudio, apoyados en trabajos previos, señalan que la práctica del yoga en el ámbito escolar puede ser un aporte al cuidado, salud y bienestar de estudiantes, maestros y otros servidores.

***Descriptores*:** Yoga; Salud Mental; Instituciones Académicas; Estrés; Ansiedad; Transtorno de Inicio e del Mantenimiento del Sueño.

[1,2,3] Federal Institute of Santa Catarina/IFSC. Joinville (SC), Brazil. [1]https://orcid.org/0000-0003-1708-4696 [2]https://orcid.org/0000-0001-5489-1484 [3]https://orcid.org/0000-0002-6380-2233. E-mail: luciana.mazon@ifsc.edu.br [4] University of the Far South of Santa Catarina/UNESC. Criciúma (SC), Brazil. https://orcid.org/0000-0002-1306-2660

How to cite this article
Fernandes E, Dumke GO, Mazon LM, Pescador B.Health at school: the insertion of *Kundalini* Yoga as a care pratice. J Nurs UFPE on line. 2021;15:e246133 DOI: https://doi.org/10.5205/1981-8963.2021.246133

INTRODUCTION

Integrative and Complementary Practices is the nomenclature that the Brazilian Ministry of

Health (MS, as per its Portuguese acronym) has designated to classify the various unconventional health care practices. These practices have the potential to revitalize health discussions and stimulate changes in the biologizing and medicalizing pattern of health care and promotion, marked by Western care models.[1] They involve approaches that seek to stimulate the natural mechanisms of disease prevention and health recovery through effective and safe technologies, with an emphasis on welcoming listening, development of the therapeutic bond and integration of the human being with the environment and society, especially the stimulation of self-care. [2]

In 2006, the National Policy on Integrative and Complementary Practices (PNPIC, as per its Portuguese acronym) was established by the Brazilian Ministry of Health (MS) by Ordinance nº 971/ GM/MS, which included five practices in the public health network: acupuncture, homeopathy, phytotherapy, social thermalism and crenotherapy. In 2017, by Ordinance nº 849, fifteen new practices were incorporated, among them yoga.[3]

Despite the strong discussions that emerge from Western medicine, about the real therapeutic effects of these practices, there is strong and sustainable scientific evidence of their benefits in reducing pain, anxiety and stress.[4-5-6-7]

The insertion of Integrative and Complementary Practices in the school environment, such as yoga, can contribute to the reduction of physical and emotional problems of students, teachers and other collaborators. There is evidence that the nervousness generated by the school environment significantly affects the mental health of children and adolescents.[8] The report “Students’ Well-being” published in 2016 by the *Organisation for Economic Cooperation and Development* (OECD), showed that Brazilian students are among the most stressed in the world and with the highest levels of anxiety during exams.

Studies reveal that yoga has an important therapeutic effect, contributing to the self-perception and body self-care of young students and teachers.[9] Furthermore, a study that evaluates the specific effects of yoga on mental health points out contributions such as feelings of well-being, lightness, tranquility and peace; enhancement in the thinking pattern; breach of paradigms and improvement in sleep quality.[10]

Yoga practice is a type of Integrative and Complementary Practice, which integrates meditative practices and acts as a catalyst for these positive effects, constituting itself as an integral practice, reestablishing contact with the body itself through respiratory, postural and emotional awareness. Even though most people’s views are based on “Hollywoodian” concepts, which are nothing like reality, about this ancient practice, its beneficial effects are documented in the literature.[9-10-11]

Kundalini yoga is a strand of yoga that allows access and use of creative power to raise awareness and self-healing.[12] This practice focuses on aspects such as the combined use of sound currents (*mantras*), breathing techniques (*pranayamas*), body postures (*asanas*), hand positions (*mudras*) and meditation. What separates *Kundalini Yoga* from other types is the ability to include all elements of ancient yoga practices: *mantras*, *pranayamas*, *asanas*, *mudras* and meditation.

Considering that the Integrative and Complementary Care Practices are therapeutic resources, recognized by the World Health Organization (WHO), we have questioned: what are the effects of the *Kundalini Yoga* practice on the mental health of students and teachers? In this context, this study aimed to evaluate the effects of the *Kundalini Yoga* practice on the mental health of students and servants of a public educational institution.

OBJECTIVE

To evaluate the effects of the Kundalini Yoga practice on the mental health of students and servants of a public educational institution.

METHOD

It is an action research, developed with students, civil servants and the community in general. The activities were organized into four phases and took place at the Federal Institute of Santa Catarina (IFSC, as per its Portuguese acronym), Joinville Campus, Brazil. Action research followed the theoretical framework of Michel Thiollent.[13]

The first was exploratory, also defined as the “Contextualization” phase. It aimed to establish a first contact with the academic community and external to IFSC. In this phase, the “Yoga at School” project was widely disseminated through digital media and folders. Subsequently, people who showed interest in participating in the activities were invited to answer a semi-structured questionnaire about their profile and health/disease conditions.

Anthropometric measurements, Heart Rate (HR) and Arterial Pressure (AP) were obtained in the pre-intervention phase. In order to measure weight and height, we used a portable digital model scale, with a capacity for 180 kg and precision of 100 grams, designed by the Sanny brand. The research subjects were weighed barefoot and wearing light clothing. The Body Mass Index (BMI) was calculated, a parameter used to define an individual’s ideal weight (weight divided by squared height), was calculated. BMI values between 18.5 and 24.9 were used as a reference for normal weight.

AP and HR were obtained by an Omron HEM 7122 Arm Digital Arterial Pressure and Heart Rate Measuring Device. This measurement was obtained after a minimum 15-minute rest of the

participants. In order to hold arm positioning, the manufacturer's recommendations were followed.

Self-reported "psychological measures" were also obtained, which were collected pre- and post-interventions using three instruments:

1. The Perceived Stress Scale (PSS), Brazilian version: PSS is a 10-item scale. Items are scored from 0 (never) to 4 (very often), and the total score is calculated as the sum of all 10 items. The parameters for this scale are: ≤ 18 (low), 19-24 (normal), 25-29 (moderate), 30-35 (high) and> 35 (very high).
2. The Insomnia Severity Index (ISI): ISI was designed as a brief screening measure for insomnia and an outcome measure for use in intervention research. The index contains 7 items including severity of sleep onset and maintenance, satisfaction with the current sleep pattern, among others. The items are classified on a five-point Likert scale, from 0 (nothing) to 4 (extremely), and the total score is calculated by adding up all 7 items. This index has as parameters from 0 to 7 – absence of clinically significant insomnia; 8 to 14 - mild insomnia; 15 to 21- moderate insomnia; 22 to 28 - severe insomnia.
3. Depression, Anxiety and Stress Scale (DASS-21): The Portuguese version of the Depression, Anxiety and Stress Scale (DASS-21) proposed in 2014 by Vignola and Tucci was used. The items are divided into three factors (Depression item: 3, 5, 10, 13, 16, 17, 21; Anxiety item: 2, 4, 7, 9, 15, 19, 20; Stress item: 1, 6, 8, 11, 12, 14, 18). The scale is a Likert type of four points ranging from 0 (not applied at all) to 3 (applied a lot or most of the time). The parameters for this scale are as follows: for the Depression category: normal: 0 to 4; low: 5 to 6; moderate: 7 to 10; severe: 11 to 13; extremely severe: greater than 14; for the Anxiety category: normal: 0 to 3; low: 4 to 5; moderate: 6 to 7; severe: 8 to 9; extremely severe: greater than 10; for the Stress category: normal: 0 to 7; low: 8 to 9; moderate: 10 to 12; severe: 13 to 16; extremely severe: greater than 17.

The instruments allowed researchers to access the universe of the study participants, in order to discuss the main issues related to the object of action research.

The second phase was called "Action Planning" and started from the initial evaluation of the health reality obtained in the exploratory phase. Yoga practices were organized based on this reality and conducted by a professional properly trained in the area.

The third phase of the research was called "Action". It was the stage in which the practical activities were developed. The activities were offered weekly in the afternoon on Thursdays for four months (from September to December 2019), totaling twelve weeks. Each session lasted approximately 50 minutes and took place in the physical activity rooms.

The practice was underpinned by the philosophical aspects of *Kundalini Yoga*. The practice included activities of vocalization/intonation, breathing, balance, slow physical exercises and relaxation. In addition to specific *Kundalini* techniques such as *bandhas* or muscle contractions and locks in specific regions, we can mention the "*Drishti*", which consists of focusing the eye on a specific point during this practice.

The structure of the yoga sessions consisted of:

1. Initial moment of introspection in silence, followed by the chanting of the connecting mantra (*Adi Mantra*) and protection (*Mangalacharan Mantra*) (on average 5 minutes);
2. Joint heating of the main joints involved in the execution of *asanas* combined with breathing exercises (on average 5 minutes);
3. *Pranayamas* (8-11 min), which consist of conscious and structured breathing movements;
4. Kriya or sequence of exercises (each with a specific and unique time);
5. Relaxation: guided or free (on average 5 minutes);
6. Active or "vocalized" meditation and completion of the practice with *Song of the Sun* and intonation of *Bij Mantra* or *Sat Nam* mantra. (5-11 minutes).

The project foresaw 30 vacancies, initially aimed at students and IFSC employees, and then was opened to the community in general. The vacancies were 100% filled, but only 24 attended the first session and only 9 participants completed the project. People over 18 years of age, who signed the Free and Informed Consent Form (FICF), or minors, provided that they had the consent and/or accompaniment of parents or legal guardians, were eligible to participate in the activities.

The last phase was "Evaluation". It translated the need to know the course of the proposed actions. The evaluation took place in the last yoga session. The participants answered again the same instruments applied in the first session (PSS, ISI and DASS-21). In addition to these instruments, qualitative data on individual perception of yoga practice were obtained. Quantitative data were expressed in absolute numbers, percentage, average and standard deviation. For qualitative data, discourse analysis was conducted.

The study was submitted to and approved by the Research Ethics Committee of the Hans Dieter Schimidt Regional Hospital, Joinville/SC, with the consubstantiated opinion number 3.543.679. People over the age of 18 were eligible to participate in the activities, who signed the Free and Informed Consent Form or minors with the consent and/or accompaniment of parents or legal guardians.

RESULTS

Demographic and anthropometric profile

A total of 24 people participated in the first Yoga session. The profiles of the participants are shown in Table 1. The results revealed that most members of the project were students (50%), female (87.5%; 21), with a mean age of 32 years, predominantly in the age group from 18 to 25 years, 50% (12).

Table 1. Demographic profile of participants in the Yoga at School Project, 2019

Demographic variables	n	(%)
Gender		
Female	21	87.5
Male	3	12.5
Total	24	100
Mean age ± SD	32.4	13.2
18-25	12	50
26-33	0	0
34-41	3	12.5
42-49	6	25
50-57	3	12.5
Total	24	100
Occupation		
Student	12	50
Teacher	3	12.5
Administrative Technicians	2	8.3
Others	7	29.2
Total	24	100

The anthropometric profile of the participants is shown in Table 2. Regarding the Body Mass Index (BMI), the average was 24.6, which means an adequate weight. The mean HR was 86 beats per minute (bpm), median 85 bpm. For systolic arterial pressure, the mean of the study participants was 116.9 mmHg, median 116.5 mmHg. The mean diastolic arterial pressure was 68.1 mmHg, median 67 mmHg. The lowest arterial pressure obtained among the study participants was 88/50mmHg and the highest 160/86 mmHg.

Table 2. Demographic and anthropometric profile of participants in the Yoga at School Project, 2019

	Weight (kg)	Height (cm)	BMI	HR (bpm)	SAP (mmHg)	DAP (mmHg)
Mean	66.9	163.9	24.8	86	116.9	68.1
Median	67.5	165	23.8	85	116.5	67
Standard Deviation	11.5	7.7	4.1	15	14.7	9.5
Minimum	47	141	18.83	63	88	50
Maximum	91	177	34.67	116	160	86

Self-reported psychological measures

As for the self-reported psychological measures collected in the pre-intervention phase, we noted that the mean of the values obtained in PSS was 22.6 points, a value within the parameter considered normal. In the Insomnia Severity Index Scale, the mean obtained score was 12.9 points, an indicator of mild insomnia. When answering the DASS-21 tool, a mean of 7.1 points was identified in the Depression category, which indicates a moderate degree of depression. For the Anxiety category, the mean obtained value was 6.5 points (moderate anxiety); and, for the Stress category, the mean was 8.3 points (low level of stress) (Table 3).

Table 3. Self-reported psychological measures collected during the pre-intervention phase of the Yoga at School Project, 2019

	PSS-10*	Insomnia**	DASS_D***	DASS_A****	DASS_S*****
Mean	22.6	12.9	7.1	6.5	8.3
Median	25	13	6.5	6	7.5
Standard Deviation	7.8	6.08	5.2	5.2	5.2
Minimum	7	1	0	0	2
Maximum	31	23	16	19	19

* Perceived Stress Scale

** Insomnia Severity Index

*** Depression, Anxiety and Stress Scale (Depression Category)

**** Depression, Anxiety and Stress Scale (Anxiety Category)

***** Depression, Anxiety and Stress Scale (Stress Category)

Table 4 shows the values of the self-reported psychological measures obtained in the pre- and and post-intervention phases of the 09 participants who completed the Yoga at School Project. At the beginning of the project, the participants presented the Brazilian version of PSS with 23.1

points (normal stress); and, at the end, 16 points (low stress). In the Insomnia Severity Index, the mean in the pre-intervention phase was 14 points (mild insomnia) and remained as mild insomnia in the post-intervention phase, but with a reduction in the score (9.4 points). In the Depression, Anxiety and Stress Scale, the score obtained in the Depression category was 8.1 points (moderate depression) in the pre-intervention phase, while it was 3.2 points (normal) in the post-intervention phase. In the Anxiety category in the pre- and post-intervention phases, the obtained values were 7.3 (moderate) and 3.3 points (normal), respectively. In the Stress category, the mean was 8.5 points (moderate) in the pre-intervention phase and 4.3 points (normal) after completing yoga practices (Table 4).

Table 4. Self-reported psychological measures collected during the pre- and post-intervention phases of the 09 participants who completed the Yoga at School Project, 2019

	Before Yoga practice		After Yoga sessions	
	Mean	Standard Deviation	Mean	Standard Deviation
PSS-10*	23.1	9.2	16.6	7.8
Insomnia**	14	6.3	9.4	3.5
DASS_D***	8.1	6.1	3.2	2.2
DASS_A****	7.3	5.2	3.3	4
DASS_S*****	8.5	5.7	4.3	3.5

* Perceived Stress Scale (PSS-10)

** Insomnia Severity Index

*** Depression, Anxiety and Stress Scale (Depression Category)

**** Depression, Anxiety and Stress Scale (Anxiety Category)

***** Depression, Anxiety and Stress Scale (Stress Category)

Perception about kundalini yoga practices at school

We sought qualitative data to identify how participants felt after *Kundalini Yoga* practices. The following stretches are reports on the perceptions of participants.

It has helped me to have self-control with situations. Before, it irritated me frequently. (P2, 10th session).

I was in need of that! (P8, 4th session)

I felt more controlled and calm. (P4,10th session).

Reports highlighted benefits for mental health enhanced by postural, breathing and relaxation exercises.

The posture, breathing, and the way I deal with problems have changed, I tried to put into practice the breaths learned in class. (P3, 10th session).

Tranquility and peace in traffic and with people of my daily life (P5, 10th session).

I feel more relaxed in the classroom. (P7, 2nd session).

The benefit of *Kundalini Yoga* in the control of anxiety was also reported by participants.

(...) it reduced my anxiety and difficulty sleeping. (P1, 10th session).

I was able to feel less anxious and happier. (P6, 10th session).

I defended my doctoral thesis and remembered to do "Breath of Fire", which calmed me down at the time. (P5, 8th session).

In addition to the benefits on mental health, the effects on physical fitness were cited.

(...) the quality of my walk has improved, doubling the distance I covered. (P8, 8th session)

In the school environment, reports can also be identified in relation to the effects of this practice on the teaching and learning process.

I took a public exam and only got 3 questions wrong, breathing helped a lot. (P8, 5th session)

I failed and had difficulty in the course, but after starting the sessions, everything seemed easier. (P9, 8th session).

DISCUSSION

Regarding the demographic profile of the participants, we can note that there was a predominance of the female gender. The greater adherence of women to the practices is possibly due to the fact that the self-care index is higher in this group. In a research on the difference in self-care between diabetic men and women, it was possible to notice that women are more aware of physical signs and symptoms than men and that is why they seek health services and forms of self-care more often.[14]

In addition to the female prevalence in yoga practices, we noted that the participants were part of a younger group. The more youthful profile was due to the fact that many participants were students of the institution where the practices were made available.

Regarding the anthropometric profile, we noticed that the AP and BMI of the majority of the participants fell within levels considered normal. As arterial pressure levels are associated with BMI and age, it is possible that the obtained results are due to the fact that the participants are young people with BMI within the normal range.[15]

The self-reported psychological measures were found to be at levels considered regular and low, with the exception of depression and anxiety, both obtained moderate results, according to the scales employed in the study.

Although depression affects various age groups, social classes, and exists in various cultures, this illness affects mainly 20% of women and 12% of men.[16] Studies reveal that a possible explanation for this rate being higher in females is due to the cultural factor, in which showing sadness and crying are not associated with masculinity, causing men to show these emotions in smaller proportions.[16] In addition, depression in men can manifest itself through symptoms not included in current forms of diagnosis, such as anger, self-distraction, gambling addiction and use of psychoactive drugs.[17] Although a conclusion is not possible, regarding the causal relationship between depression and the gender of the participants, we should underline that the representative sample of our study was 87.5% female.

Anxiety, like depression, affects people of different characteristics and cultures. Nevertheless, it becomes more common in the student period. Students experience many tensions during the training period, such as the stress of preparing for the job market, emotional stress, and worries about taking on responsibility.[18] We should underline that half of the individuals who participated in the surveyed practices are young students, which can contribute to the result found regarding anxiety.

In the pre- and post-intervention analysis, we can note a reduction in the score in all scales (PSS, ISI, DASS-21), after 06 sessions of *Kundalini Yoga*. These results can corroborate with the positive effects of this practice already documented in the literature.[9-10-11]

The perception of participants in relation to *Kundalini Yoga* in the school environment revealed that yoga provides a space of tranquility.[19] Participants gain access to the experiences of others and their answers to the exercises create moments for empathy, social union, tranquility and a sense of closeness to others, which contributes to the feeling of well-being reported by the study participants. The more dynamic yoga aspects, such as postural exercises and breathing, combined

with relaxation, enhance the positive effects of mental health, as identified in several of the reports.[19]

In addition, the benefit of *Kundalini Yoga* in the control of anxiety was also reported by the participants. Yoga is equipped with a vast arsenal of meditations, where many of them have been found to be specific for the treatment of psychiatric disorders. There are protocols already defined for a wide variety of anxiety disorders, as well as a prelude to addictive disorders, depression and dyslexia.[20] It is known that, occasionally, the own lifestyle of the individual is responsible for creating the contradiction between the physical body and the pranic energy or life force.[12] Accordingly, it is necessary to revaluate and create therapies that view the human being in a contextualized and singularized way; therapies capable of exploring Integrative and Complementary Practices such as yoga.[21]

A systematic literature review study corroborates with the reports related to the improvement of physical performance by pointing out the contributions of yoga in the improvement of neuromuscular parameters such as strength, balance and flexibility. Other physiological benefits have also been reported as improvements in arterial pressure, heart and breathing rates.[22]

In addition, in an analysis of the literature, yoga contributes directly to improving the academic performance of students by providing concentration, creativity and better emotional control.[4]

CONCLUSION

The *Kundalini Yoga* project in the school space emerged from the perspective that physical activity benefits mental health and can be a protective factor against the sedentary lifestyle and inactivity so common among young people.[23-24] In addition, the school is a good environment for young people to develop creativity and their potentialities, something that can be reinforced by yoga practices, according to authors.[4,25]

The study enabled us to identify that, despite the high initial demand for yoga practices, few managed to complete the 12 recommended sessions. The reasons for the withdrawal of participants were not evaluated, but some hypotheses can be suggested, such as incompatibility of schedules, low motivation and non-identification with these practices.

In relation to those who completed the *Kundalini Yoga* sessions, there was a reduction in the scores of all evaluated psychological variables. In the qualitative analysis, the individuals reported benefits of yoga practice in learning, mental health (control of anxiety and stress) and physical fitness.

The data obtained in this study, supported by previous works, indicate that yoga practice in the school environment can be a contribution to the health and well-being of students and teachers. In this context, despite all the limitations inherent to the method used in this study, regarding the establishment of cause-effect relationships, the results found are in line with the evidence described in the literature, supporting the benefits of yoga practice in the school space.

CONTRIBUTIONS

All authors contributed equally in the design of the research project, collection, analysis and discussion of the data, as well as in the writing and critical review of the content with intellectual contribution, and in the approval of the final version of the study.

CONFLICTING INTERESTS

There is nothing to declare.

REFERENCES

1. Azevedo E, Pelicioni MCF. Práticas integrativas e complementares de desafios para a educação. *Trabalho, Educação e Saúde. 2011; 9(3):* 361-378. DOI: https://doi.org/10.1590/S1981-77462011000300002

2. Brasil. Portaria nº 971, de 03 de maio de 2006. Aprova a Política Nacional de Práticas Integrativas e Complementares (PNPIC) no Sistema Único de Saúde. Brasília, 2006. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2006/prt0971_03_05_2006.html

3. Brasil. Portaria nº 849, de 27 de março de 2017. Inclui a Arteterapia, Ayurveda, Biodança, Dança Circular, Meditação, Musicoterapia, Naturopatia, Osteopatia, Quiropraxia, Reflexoterapia, Reiki, Shantala, Terapia Comunitária Integrativa e Yoga à Política Nacional de Práticas Integrativas e Complementares. Brasília, 2017. Available from: http://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt0849_28_03_2017.html

4. Castro DC, Oliveira CR. Neurociência cognitiva e educação: os efeitos do "Yoga na Educação" (R.Y.E.) nos processos de aprendizagem. Paidéia. 2018 jul/dez; 13(20): 69-87.

5. Mafetoni RR, Shimo AKK. Effects of auriculotherapy on labour pain: a randomized clinical trial. Rev. esc. enferm. USP. 2016 Oct; 50(5): 726-732. DOI: http://dx.doi.org/10.1590/s0080-623420160000600003.

6. Toca-Villegas J, et al. Efficacy of modified auriculotherapy for post-operative pain control in

patients subjected to laparoscopic cholecystectomy. Cir Cir. May-Jun 2017;85(3):220-224. DOI: 10.1016/j.circir.2016.03.002.

7. Salles LF, Silva MJP. Efeito das essências florais em indivíduos ansiosos. Acta paul. enferm. 2012; 25(2): 238-242. DOI: http://dx.doi.org/10.1590/S0103-21002012000200013.

8. Lipp ME, et al. O estresse em escolares. Psicologia Escolar e Educacional. 2002; 6(1): 51-56. DOI: https://dx.doi.org/10.1590/S1413-85572002000100006

9. Barros NF, Siegel P, Moura SM, Cavalari TA, Silva LG, Furlanetti MR et al. Yoga e promoção da saúde. Ciênc. saúde coletiva [internet]. 2014 abr [acesso em 29 Abr 2020]; 19(4):1305-1314. Disponível em: https://scielosp.org/article/csc/2014.v19n4/1305-1314/pt/. DOI: https://doi.org/10.1590/1413-81232014194.01732013

10. Silva Filho JA, Schneider JF, Camatta MW, Nasí C, Tisott ZL, Schmid M. Patients' Perception of Yoga Practice In a Psychiatric Inpatient Unit Of A General Hospital. Cogitare Enfermagem . 2020; 25:151-160, 10.

11. Zhang Y, Chunxiao L, Zou L, Liu X, Song W. The Effects of Mind-Body Exercise on Cognitive Performance in Elderly: A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. 2018; 9;15(12):2791. DOI: 10.3390/ijerph15122791.

12. Khalsa, HK. Praana, Praanee, Praanayam: Exploring the Breath Technology of Kundaliní Yoga as Taught by Yogi Bhajan. Kundaliní Research Institute, Espanola, New Mexico. 2006.

13. Thiollent M. Metodologia da pesquisa-ação. 18. ed. São Paulo: Cortez, 2011.

14. Rossaneis MA, Haddad ML, Mathias TF, Marcon FF. Diferenças entre mulheres e homens diabéticos no autocuidado com os pés e estilo de vida. Rev. Latino-Am. Enfermagem [internet]. 2016 [acesso em 29 Abr 2020]; 24:e2761. Disponível em http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-11692016000100384&lng=en&nrm=iso. DOI: https://doi.org/10.1590/1518-8345.1203.2761.

15. Carneiro G, Faria AN, Ribeiro Filho FF, Guimarães A, Lerário D, Ferreira SG, et al. Influência da distribuição da gordura corporal sobre a prevalência de hipertensão arterial e outros fatores de risco cardiovascular em indivíduos obesos. Rev. Assoc. Med. Bras[internet]. 2003 [acesso em 29 Abr 2020]; 49(3):306-311. DOI: https://doi.org/10.1590/S0104-42302003000300036

16. Depressão: causas, sintomas, tratamentos, diagnósticos e prevenção. Ministério da Saúde.

[acesso em 06 Maio 2020]. Available from: https://www.saude.gov.br/saude-de-a-z/depressao.

17. Fernandes MA, Vieira FR, Silva JS, Avelino FD, Santos JM.Prevalência de sintomas ansiosos e depressivos em universitários de uma instituição pública. Rev. Bras. Enferm [internet]. 2018 [acesso em 06 Maio 2020]; 71(Suppl 5): 2169-2175. Disponível em http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0034-71672018001102169&lng=en&nrm=iso. DOI: http://dx.doi.org/10.1590/0034-7167-2017-0752.

18. Jorge MB. Situações vivenciadas pelos alunos de enfermagem, durante o curso, no contexto universitário, apontadas como norteadoras de crises. Rev. esc. enferm [internet]. 1996 [acesso em 06 Maio 2020]; 30(1):138-148. DOI: https://doi.org/10.1590/S0080-62341996000100011

19. Vallejos EP, Ball MJ, Brown P, Crepaz-Keay D, Haslam-Jones E, Crawford Paul, (2016),"Kundalini yoga as mutual recovery: a feasibility study including children in care and their carers". Journal of Children's Services. 2016 [acesso em 02 maio 2020]; 11(4): 261–282. Available from: https://www.emerald.com/insight/content/doi/10.1108/JCS-11-2015-0034/full/html.

20. Shannahoff-Khalsa DS. An introduction to Kundalini yoga meditation techniques that are specific for the treatment of psychiatric disorders. The Journal of alternatice and complementary Medicine [internet]. 2004 [acesso em 02 maio 2020]; 10(1):91–101. Available from: https://www.ncbi.nlm.nih.gov/pubmed/15025884.

21. Tesser CD. Cuidado Clínico e Sobremedicalização na Atenção Primária à Saúde. Trab. educ. saúde [internet]. 2019 [acesso em 07 Jan 2020]; 17(2):e0020537. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1981-77462019000200400&lng=en&nrm=iso. DOI: https://doi.org/10.1590/1981-7746-sol00205

22. Colaça N, Lacerda PC, Martins RL, Bartholomeu Neto J, Asano RY. Efeito de um programa de Hatha Yoga na capacidade neuromuscular de mulheres do programa saúde da família: revisão literária. Revista Amazônia Science & Health. 2015 3(2):3-7.

23. Campos CG, Muniz LA, Belo VS, Romano MCC, Lima MC. Conhecimento de adolescentes acerca dos benefícios do exercício físico para a saúde mental. Ciênc. saúde coletiva [internet]. 2019 [acesso em 08 Jan 2020]; 24(8):2951-2958. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1413-81232019000802951&lng=en&nrm=iso. DOI: https://doi.org/10.1590/1413-81232018248.17982017

24. Santos JB; Serra H, Pereira AS. Compreensão de estudantes do ensino médio sobre sedentarismo, nível de atividade física e exposição a comportamentos sedentários. 2019. 16(4): 818-831.

25. Cordeiro KC, Gomes PN, Campos LM, Santana JD, Cruz MA, Mota RS. Domestic violence experienced by adolescents: the discouse of women educators. Texto contexto - enferm [internet]. 2019 [acesso em 08 Jan 2020]; 28:e20180275.Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072019000100398&lng=en&nrm=iso. DOI: https://doi.org/10.1590/1980-265x-tce-2018-0275

Correspondence Address

Luciana Maria Mazon
luciana.mazon@ifsc.edu.br
Submissão: 06/10/2020
Aceito: 04/15/2021