

Journal of Pharmaceutical Research International

33(47B): 636-644, 2021; Article no.JPRI.74404 ISSN: 2456-9119 (Past name: British Journal of Pharmaceutical Research, Past ISSN: 2231-2919, NLM ID: 101631759)

A Comparative Study to assess the Stress Buster among Working and Non-Working Women

Z. Fathima Hinaz¹, R. Gayatri Devi^{1*} and A. Jothi Priya¹

¹Saveetha Dental College and Hospital, Saveetha Institute of Medical and Technical Science (SIMATS), Saveetha University, Chennai, India.

Authors' contributions

This work was carried out in collaboration among all authors. Author ZFH Literature search, data collection, analysis, manuscript drafting. Author RGD data verification, manuscript drafting. All authors read and approved the final manuscript.

Article Information

DOI:10.9734/JPRI/2021/v33i47B33165 <u>Editor(s):</u> (1) Dr. Mohamed Fawzy Ramadan Hassanien, Zagazig University, Egypt. (1) Padmavali Palange, Rajiv Gandhi Institute of Medical Sciences, Adilabad, India. (2) Alireza Mohtashami, Islamic Azad University, Iran. (3) Naveen Kumar, Lifecell INT PVT LTD, India (4) P. Naresh, Jawaharlal Nehru Technological University Hyderabad, India. Complete Peer review History: https://www.sdiarticle4.com/review-history/74404

Original Research Article

Received 02 August 2021 Accepted 07 October 2021 Published 04 November 2021

ABSTRACT

Introduction: Stress is the body's response to the daily events that occur in one's life. Everyone experiences stress. Stress can be positive and motivate women to achieve notable goals. But stress can also be negative and destructive, taking its toll in many life areas. When stress becomes chronic or excessive, it becomes harder to adapt and cope. Chronic stress builds up so that stress seems like a normal way of life for some women. Women have undergone various different stresses, which vary from person to person. The objective of this study is to assess stress buster among working and non-working women.

Materials and Methods: This cross-sectional survey study carried out among working and nonworking women. The total sample size was 103. A self administered questionnaire was used for the survey and was distributed through an online platform. Data was collected and analysed by Pearson and chi-squares test and p-value of 0.05 was said to be statistically significant.

Result: When compared to non working women, working women stress level was higher and they search for stress busters. Majority of the women population feel stressed, irritable, grouchy and

^{*}Corresponding author: E-mail: gayatri.physio88@gmail.com;

anxious. Majority of the population also prefer listening to songs and also prefer to sing to overcome their stress. **Conclusion:** Both working and non-working women are equally stressed, while non-working women tend to overreact to situations. Majority of the women population prefer listening to songs to overcome stress.

Keywords:Stress; women; overcoming; stressors; mental health; innovative.

1. INTRODUCTION

Stress can be defined as any kind of mental distress that induces anger and frustration among individuals. Stress and the kind of stress can vary from person to person[1]. Women suffer increased rates of physical and mental stress than men. The male-female health survival paradox is a phenomenon in which women undergo various medical conditions and disability during their lifespan[2]. Degree of stress and stressors in a woman's life is entirely dependent on her surroundings,[3] let it be the place where she works, or at home[4]. The socio-cognitive explanation of the difference in health among working and non-working women is considerably huge both emotionally and physically[5][6]. Degrading mental health can be observed in the case of both working and non-working women[7]. The implication of stress on reproductive health is also associated with their evervdav stressors[8] . Chronic stress is the prolonged feeling of stress that can show negative consequences on life[9,10]. When you have a look at the history of stress, there are various other parameters that affect your mental health[11][12]. All of this can be overcome through relevant mental and health care and also through proper activities[13]. Stress also has its major impact on the HPA axis (hypothalamic pituitary adrenal axis) and on the autonomic nervous system[13,14]. It contributes to stress response and also to chronic elevation[15]. Various other health changes can also be monitored such as blunting of cortisol, physiological dysfunction, decreased DHEAS and increased blood pressure[16]. Recent studies conducted on the US population revealed that African-American women of midlife experience a unique kind of stress due to racism[17]. Stress can be positive and motivate women to achieve notable goals. But stress can also be negative and destructive, taking its toll in many life areas[15,18]. When stress becomes chronic or excessive, it becomes harder to adapt and cope[19]. Stress in women's life can be very tiresome and hectic that women often forget to rest[20].Our team has extensive knowledge and

research experience that has translate into high quality publications[21–25].

This research basically fulfils the understanding of causes and differences in stress and how they are overcome among the working and nonworking women.

2. MATERIALS AND METHODS

A cross sectional study was conducted within the south Indian population particularly in Chennai among the working and non-working women, with an estimated sample size of 103 and the sampling technique used was a simple random sampling method with a standard questionnaire. To ensure anonymity, questions regarding the names were not included in the questionnaire. As the questionnaire is circulated via online mode the responses were different with varied perspectives of answers. The cons were biased answers, as the answers for the questions could have been randomly chosen. This survey was conducted in February 2021. SPSS is the statistical software that was used for this survey. External validity was email-verification and expert verification. Women of various ethnicities were included; women from rural areas were not included due to lack of potential knowledge and communication. The correlation of working and non working women was done using Pearson and Chi-Square test and p values less than 0.05 were found to be statistically significant.

3. RESULTS

In the present study, 51 were working women and 52 were non-working women. 57% of the population feel that too many decisions are being imposed on them (Fig. 1). 54% of the population is mentally exhausted (Fig. 2). 59% of the populations have trouble relaxing (Fig. 3). When compared to non working women, the working women felt more helpless and frustrated at the time of stress (Fig. 4). Majority (71%) of them felt that they made too many decisions (FIGURE 5) and the majority of them also felt irritable, grouchy and anxious (FIGURE 6). 61% prefer Hinaz et al.; JPRI, 33(47B): 636-644, 2021; Article no.JPRI.74404

listening to songs and also enjoy singing to overcome stress. 55% were willing to cook at home and also prefer watching satisfying videos on YouTube. While 54% of the population feel that sleeping helps them to overcome stress. 54% of the populations have stress-eating habits. 54% prefer going on a small vacation every now and then. 54% of the population felt that they do have enough time for themselves, while the rest disagree. 45% of the population prefers doing stress relieving rangolis. Both working and nonworking women equally feel emotional at times of stress. Majority of the working women feel anxious, agitated and restless at times of stress, when compared to that of non-working women. Both working and non-working women feel extremely irritable and grouchy (55%). At the same time the majority of them feel they have enough time, that will be 57% and the remaining 46% disagree. In this survey, the majority of the women feels too many demands are being made on them, and are also mentally exhausted. Both the Working and non-working women feel they have too many decisions to make in their life.



Fig. 1. This bar graph depicts the association between women and feelings of demand among working and non-working women. X axis represents working and non working women, Y axis represents number of responses. Blue denotes yes and green denotes no. Pearson chi square test showed p value was 0.692 (> 0.05), hence insignificant



Fig. 2. This bar graph depicts the association between women and mental exhaustion among working and non-working women. X axis represents working and non working women, Y axis represents number of responses. Green represents no and blue represents yes. Pearson chi square test showed p value was 0.238(>0.05), hence insignificant



Error Bars: 95% CI

Fig. 3. This bar graph depicts the association between women and time management among working and non-working women.X axis represents working and non working women, Y axis represents number of responses. Green represents no and blue represents yes. Pearson chi square test showed p value was 0.029 (<0.05), hence significant





Fig. 4. This bar graph depicts the association between women and frustration among working and non-working women. X axis represents working and non working women, Y axis represents number of responses. Green represents no and blue represents yes. Pearson Chi square test showedp value was 0.116(>0.05), hence insignificant Hinaz et al.; JPRI, 33(47B): 636-644, 2021; Article no.JPRI.74404









Fig. 6. This bar graph depicts the association between women and irritability among working and non-working women. X axis represents working and non working women, Y axis represents number of responses. Blue represents yes and green represents no. Pearson chi square test showed p value was 0.844(>0.05), hence insignificant

4. DISCUSSION

Previous study revealed that working women such as IT professionals experienced higher levels of stress when compared to the nonworking women and that safeguarding the mental health of the employees is the basis for a peaceful nation[26,27]. According to the previous research conducted, most of working women when they are feeling stressed, they are getting angered(30%) and others when they are getting stressed ,they don't get proper sleep[28]. Also that 22% of working women are having poor concentration and 20% of working women are having emotional outbursts, the impact of stress on personal problems and family problems are equal to 40% and only 20% of the working women are facing job & organizational problems [29].

Women's physiological health and its response to stressors have various health effects on the body [30]. The autonomic nervous system also responds to various stress stimuli[31,32]. The present competitive age which includes the young generation possesses comparatively higher degree of stress, depressions and attempted suicide [33]. Adolescence is the dangerous period when physiological and behavioral changes occur [34]. Participants when questioned during a survey reveal that everyday stressors cause most stress which has its impact processes and enjoyment[30,35][36,37]. on Concerning health and lifestyle in a study health status conducted, participants' and depression was calculated using (Depression, anxiety and stress scale-21) DASS-21[38][28,39]. Stressors influence mood and also the sense of well being [40][41]. In a study conducted, students either have normal or lower stress levels but the stress levels among mothers are reported significantly higher[42].

Limitation includes random picking of answers by the responders. And only women of a smaller group that is a 103 sample size were analyzed through online survey. The sample size could have been larger including women of various ethnicities. The same survey can be conducted on a larger sample size, to understand various stress parameters among the working women and their occupational difficulties and differences. The stress difference between differentwomen of different ethnicities and countries can be analyzed through a global survey.

5. CONCLUSION

From this study, the authors concluded that both working and nonworking women feel mentally exhausted. Working women comparatively have trouble relaxing when compared to non-working women. Both working and non-working women feel they do not have enough time for themselves. Finally women of various working sectors and also the non-working women are aware of the various stressors that influence their everyday life.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

We conducted our research after obtaining proper IEC approval.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

- Aria KM. Role of trpv4 channel signaling in shear stress responses. The FASEB Journal.2020;34:1–1. Available:https://doi.org/10.1096/fasebj.20 20.34.s1.04328.
- Bhargava D, Trivedi H. A Study of Causes of Stress and Stress Management among Youth. IRA-International Journal of Management & Social Sciences (ISSN 2455-2267).2018;11:108. Avaialble:https://doi.org/10.21013/jmss.v11 .n3.p1.
- Biggs A, Brough P. The potential benefits of police culture and support and work outcomes among police officers. Stress in Policing. 2016:309–22. Avaialble:https://doi.org/10.4324/97813156 11075-18.
- Dewe P. The appraisal process: Exploring the role of meaning, importance, control and coping in work stress. Anxiety, Stress, & Coping.1992;5:95–109.
 Avaiable: https://doi.org/10.1080/10615809

Avaialble:https://doi.org/10.1080/10615809 208250490.

- Nambi G, Kamal W, Es S, Joshi S, Trivedi P. Spinal manipulation plus laser therapy versus laser therapy alone in the treatment of chronic non-specific low back pain: a randomized controlled study. Eur J Phys Rehabil Med.2018;54:880–9.
- Fischer T, Riedl R. On the stress potential of an organisational climate of innovation: a survey study in Germany. Behaviour& Information Technology. 2020:1–22. Available:https://doi.org/10.1080/0144929x .2020.1836258.
- Bharath B, Perinbam K, Devanesan S, AlSalhi MS, Saravanan M. Evaluation of the anticancer potential of Hexadecanoic acid from brown algae Turbinaria ornata on HT–29 colon cancer cells. Journal of Molecular Structure. 2021;1235:130229. Avaialble:https://doi.org/10.1016/j.molstruc. 2021.130229.
- Gerber LM, Sievert LL. Neighborhood disorder, exposure to violence, and perceived discrimination in relation to symptoms in midlife women. Women's Midlife Health. 2018;4. Available:https://doi.org/10.1186/s40695-018-0043-0.
- Barabadi H, Mojab F, Vahidi H, Marashi B, Talank N, Hosseini O, et al. Green synthesis, characterization, antibacterial and biofilm inhibitory activity of silver nanoparticles compared to commercial silver nanoparticles. Inorganic Chemistry Communications.2021;129:108647. Avaialble:https://doi.org/10.1016/j.inoche.2 021.108647.
- Mudigonda SK, Murugan S, Velavan K, Thulasiraman S, Krishna Kumar Raja VB. Non-suturing microvascular anastomosis in maxillofacial reconstruction- a comparative study. J Craniomaxillofac Surg. 2020;48:599–606.
- 11. Solai Prakash AK, Devaraj E. Cytotoxic potentials of S. cumini methanolic seed kernel extract in human hepatoma HepG2 cells. Environ Toxicol.2019;34:1313–9.
- Hauksdóttir A, McClure C, Jonsson SH, Olafsson O, Valdimarsdóttir UA. Increased stress among women following an economic collapse--a prospective cohort study. Am J Epidemiol. 2013;177:979–88.
- 13. Clarizia G, Bernardo P. Diverse Applications of Organic-Inorganic Nanocomposites: Emerging Research and Opportunities: Emerging Research and Opportunities. IGI Global; 2019.

- 14. Egbuna C, Mishra AP, Goyal MR. Preparation of Phytopharmaceuticals for the Management of Disorders: The Development of Nutraceuticals and Traditional Medicine. Academic Press; 2020.
- Ezhilarasan D. Critical role of estrogen in the progression of chronic liver diseases. Hepatobiliary & Pancreatic Diseases International.2020;19:429–34. Available:https://doi.org/10.1016/j.hbpd.20 20.03.011.
- 16. Kelso T, French D, Fernandez M. Stress and coping in primary caregivers of children with a disability: a qualitative study using the Lazarus and Folkman Process Model of Coping. Journal of Research in Special Educational Needs. 2005;5:3–10. Avaialble:https://doi.org/10.1111/j.1471-3802.2005.00033.x.
- Kotler P, Wingard DL. The effect of occupational, marital and parental roles on mortality: the Alameda County Study. American Journal of Public Health. 1989;79:607–12. Avaialble:https://doi.org/10.2105/ajph.79.5. 607.
- 18. GowhariShabgah Α, Ezzatifar F. Aravindhan S, OlegovnaZekiy A, Ahmadi M, Gheibihayat SM, et al. Shedding more of light on the role Midkine in hepatocellular carcinoma: New perspectives on diagnosis and therapy. IUBMB Life.2021;73:659-69.
- J PC, Marimuthu T, C K, Devadoss P, Kumar SM. Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study. Clin Implant Dent Relat Res.2018;20:531–4.
- Kamath SM, Manjunath Kamath S, Jaison D, Rao SK, Sridhar K, Kasthuri N, et al. In vitro augmentation of chondrogenesis by Epigallocatechin gallate in primary Human chondrocytes Sustained release model for cartilage regeneration. Journal of Drug Delivery Science and Technology. 2020;60:101992. Available:https://doi.org/10.1016/j.jddst.202 0.101992.
- Krishnaswamy H, 21. Muthukrishnan Thanikodi S, Arockiaraj G, Venkatraman V. Investigation of air conditioning temperature variation by modifying the structure of passenger car using computational fluid dynamics. Thermal Science.2020;24:495-8.

Avaialble:https://doi.org/10.2298/tsci19040 9397k.

- 22. Sathish T, Karthick S. Wear behaviour analysis on aluminium alloy 7050 with reinforced SiC through taguchi approach. Journal of Materials Research and Technology.2020;9:3481–7.
- 23. Campeau PM, Kasperaviciute D, Lu JT, Burrage LC, Kim C, Hori M, et al. The genetic basis of DOORS syndrome: an exome-sequencing study. Lancet Neurol.2014;13:44–58.
- 24. Dhinesh B, Niruban Bharathi R, Isaac JoshuaRameshLalvani J, Parthasarathy M, Annamalai K. An experimental analysis on the influence of fuel borne additives on the single cylinder diesel engine powered by Cymbopogon flexuosus biofuel. J Energy Inst 2017;90:634–45.
- 25. Parthasarathy M, Isaac JoshuaRameshLalvani J, Dhinesh B, Annamalai K. Effect of hydrogen on ethanol-biodiesel blend on performance and emission characteristics of a direct injection diesel engine. Ecotoxicol Environ Saf.2016;134:433–9.
- Pavithra, Pavithra, Chandra Kumar Mangalam S. Role Stress and Changes in Behavior Pattern among Women IT Professionals in Bangalore. Asian Journal of Research in Social Sciences and Humanities. 2016;6:1793. https://doi.org/10.5958/2249-7315.2016.00543.8.
- Rajakumari R, Volova T, Oluwafemi OS, Rajesh Kumar S, Thomas S, Kalarikkal N. Grape seed extract-soluplus dispersion and its antioxidant activity. Drug Dev Ind Pharm.2020;46:1219–29.
- Santhakumar P, Roy A, Mohanraj KG, Jayaraman S, Durairaj R. Ethanolic Extract of Capparis decidua Fruit Ameliorates Methotrexate-Induced Hepatotoxicity by Activating Nrf2/HO-1 and PPARγ Mediated Pathways. Indian Journal of Pharmaceutical Education and Research. 2021;55:s265–74. Available:https://doi.org/10.5530/ijper.55.1 s.59.
- 29. Koneru K. A Study on Job Stress Among Employees of Software Industries in Hyderabad. SSRN Electronic Journal n.d. https://doi.org/10.2139/ssrn.3109468.
- Tahmasebi S, Qasim MT, Krivenkova MV, Zekiy AO, Thangavelu L, Aravindhan S, et al. The effects of oxygen-ozone therapy on regulatory T-cell responses in multiple

sclerosis patients. Cell Biol Int. 2021;45: 1498–509.

- Macintyre S, Hunt K, Sweeting H. Gender differences in health: Are things really as simple as they seem? Social Science &Medicine.1996;42:617–24. Avaialble:https://doi.org/10.1016/0277-9536(95)00335-5.
- 32. R GD, Gayatri DR, Sethu G. Evaluation of Adenoids by Oronasal And Nasal Spirometry. Asian Journal of Pharmaceutical and Clinical Research. 2018;11:272. Available:https://doi.org/10.22159/ajpcr.20 18.v11i10.27365.
- Sridharan G, Ramani P, Patankar S, Vijayaraghavan R. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. J Oral Pathol Med.2019;48:299–306.
- 34. Mayor E. Gender roles and traits in stress and health. Frontiers in Psychology. 2015;6. Avaialble:https://doi.org/10.3389/fpsyg.201
- 5.00779. 35. Vivekanandhan K. Shanmuqam Р Barabadi H, Arumugam V, Raj DDRD, Sivasubramanian M, et al. Emerging Therapeutic Approaches to Combat COVID-19: Present Status and Future Frontiers Perspectives. in Molecular Biosciences. 2021;8. Avaialble:https://doi.org/10.3389/fmolb.202 1.604447.
- Molton IR, Siegel SD, Penedo FJ, Dahn JR, Kinsinger D, Traeger LN, et al. Promoting recovery of sexual functioning after radical prostatectomy with groupbased stress management: the role of interpersonal sensitivity. J Psychosom Res.2008;64:527–36.
- Wadhwa R, Paudel KR, Chin LH, Hon CM, Madheswaran T, Gupta G, et al. Antiinflammatory and anticancer activities of Naringenin-loaded liquid crystalline nanoparticles in vitro. J Food Biochem. 2021;45:e13572.
- Natelson BH, Ottenweller JE, Cook JA, Pitman D, McCarty R, Tapp WN. Effect of stressor intensity on habituation of the adrenocortical stress response. Physiology & Behavior.1988;43:41–6. Avaialble:https://doi.org/10.1016/0031-9384(88)90096-0.
- 39. Saraswathi I, Saikarthik J, Senthil Kumar K, Srinivasan KM, Ardhanaari M, Gunapriya R. Impact of COVID-19

outbreak on the mental health status of undergraduate medical students in a COVID-19 treating medical college: a prospective longitudinal study. PeerJ. 2020;8:e10164.

Avaialble:https://doi.org/10.7717/peerj.101 64.

40. R H, Hannah R, Ramani P, Ramanathan A, Jancy MR, Gheena S, et al. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene. Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology. 2020;130:306–12. Avaialble:https://doi.org/10.1016/j.oooo.20 20.06.021.

- Sex differences in biological markers of health in the study of stress, aging and health in Russia. The Gerontologist. 2016;56:301–301. Avaialble:https://doi.org/10.1093/geront/gn w162.1225.
- 42. Wahab PUA, Madhulaxmi M, Senthilnathan P, Muthusekhar MR, Vohra Y, Abhinav RP. Scalpel Versus Diathermy in Wound Healing After Mucosal Incisions: A Split-Mouth Study. J Oral Maxillofac Surg.2018;76:1160–4.

© 2021 Hinaz et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history: The peer review history for this paper can be accessed here: https://www.sdiarticle4.com/review-history/74404