



Knowledge and Awareness about Postpartum Distress among the Students of Saveetha Dental College

Jessly Daniel ^a, A. Jothi Priya ^{b*} and R. Gayatri Devi ^b

^a Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Chennai, India.

^b Department of Physiology, Saveetha Dental College, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, India.

Authors' contributions

This work was carried out in collaboration among all authors. Author JD Literature collection, framing the manuscript. Author JP Statistics approval, approval of manuscript. Author RGD Final approval of manuscript. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JPRI/2021/v33i58A34105

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/74408>

Original Research Article

Received 04 August 2021
Accepted 08 October 2021
Published 14 December 2021

ABSTRACT

Introduction: Postpartum depression (PPD) is the most common psychiatric condition after childbirth.

PD has adverse long-term consequences for the mother, the infant's development and the family environment symptoms-the core symptom of sadness or low mood, as well as fatigue/sleep disturbance and irritability. The aim of the study is to determine the Knowledge and awareness about postpartum distress among the students of saveetha dental college.

Materials & Methods: A cross-sectional survey was conducted among the study population with a sample size of 100. A self administered structured questionnaire was prepared and consisted of 15 questions. It was circulated to participants through an online platform (google form). The statistics were done using SPSS software, chi-square test was used to check the association and P value of 0.05 was said to be statistically significant. The pros of the survey is that the students of different lifestyles and cultures were surveyed. Children and adults were excluded from the survey. Simple random sampling method was the sampling method used to minimise the sampling bias.

Results: Women during postpartum go through a lot of hormonal changes which lead to mood swings etc. They become very self conscious about their body. Mothers can also be depressed due to financial trouble, lactation etc. Chi square test: $p\text{-value}=2.98 > 0.05$ hence significant.

*Corresponding author: E-mail: jothipriya.sdc@saveetha.com;

Conclusion: In summary, this study demonstrated an honest level of data and positive attitudes towards women with postpartum depression. However, negative beliefs, stigma, and misconceptions still prevailed among the relations.

Keywords: Postpartum depression; questionnaire; chi square analysis.

1. INTRODUCTION

Postpartum distress is a psychiatric disorder. It has adverse consequences for the mother. PPD is the costliest public health problem for women. Seeking help for PPD symptoms isn't a private decision, it includes the entire women group[1]. A prior study shows that prenatal women are encouraged by their husband to seek help regarding PPD. Postpartum depression lasts from the onset of pregnancy till 12 months after birth[2]. About 18% of pregnant women are depressed during pregnancy. 13-19% of new mothers have minor/major depression in the first year after delivery. Left untreated prenatal depression has a damaging impact on the women and their family[3]. Women see their GP at 6-8 week postpartum. If a prenatal mental illness is identified by health professionals, NICE recommends GP as the first line of assessment. Studies reporting on psychosis illness are not considered anxiety or depression in the prenatal period is prevalent, not identified and needs unique attention[4]. Better community mental health literacy is associated with positive helping and help seeking behavior [5]. Reduced stigma and reduced social distancing toward individuals with mental health problems and higher resilience in families affected by a mental health difficulty[6]. Results suggested that awareness of postpartum depression was higher in the community, men and women difference in their knowledge and perception.[7] It is the lack of pleasure thanks to anxiety symptoms, panic attack, crying, depression, suicidal thoughts [6,8]. In India PPD tends to be 22% evidence suggest that poor mental health cognitive and socio economic development of children are at great risk of developing delays, the children are at great risk of developing delays, behavioral problems, mother infant bonding disorder [8]. Unfortunately prenatal mental health remains an unrecognized part of MCH programs in India. Women in general enjoy special attention from family during their pregnancy [9]. Lack of family support will be an important risk factor for PPD. Postpartum depression affects about 15% of mothers. Studies have discovered several psychosocial and biological risk factors for PPD [9,10]. The negative short term and long term

effect on children development is well established. Treatment options include psychotherapy and antidepressant medication[9–11], depression during[12] PPD is a serious mental health problem for women and its complication has serious implications for the welfare of the family and therefore the psychological development of the kid. The purpose of this study is to summarize findings regarding rates of postpartum depression and risk factors for postpartum depression during a quantitative fashion [9–11,13]. The first part of this review will summarize findings from a large number of different methods and specific measures to determine depression. There's an expectation that new parents, especially mothers are going to be in joyfull if not tired during this time[14,15] Our team has extensive knowledge and research experience that has translate into high quality publications[16–20].

One manifestation of postpartum psychosis is severe unipolar depression and some postpartum blues develop into postpartum depression[13]. Moreover, there is some evidence that a sub group of women have depression only in the postpartum period and that some women are particularly vulnerable to all types of hormonal changes.[21] The aim of the study is to determine the Knowledge and awareness about postpartum distress among the students of saveetha dental college

2. MATERIALS AND METHODS

A cross-sectional survey was conducted among the study population with a sample size of 100. A self administered structured questionnaire was prepared and consisted of 15 questions. It was circulated to participants through an online platform (google form). The statistics were done using SPSS software, chi-square test was used to check the association and P value of 0.05 was said to be statistically significant. The pros of the survey is that the students of different lifestyles and cultures were surveyed. Children and adults were excluded from the survey. Simple random sampling method was the sampling method used to minimise the sampling bias.

2.1 Inclusion and Exclusion Criteria

All those who are willing to participate were included in this study. Those who were not willing and had language barrier in answering the English version of the questionnaire were excluded from the study

3. RESULTS

Majority of the participants were female and in the age group 18-20. A majority of 60% have felt scared or panicked for reason (figure 1) ,61% of the population feel that things have been getting on top of them (figure 2), 56% of the mothers haven't been looking forward to things with enjoyment (figure 3),63% weren't interested in doing household chores during postpartum (figure 4), Around 51% haven't been able to see

the funny side of thing during postpartum (figure 5) ,62% are worried if they won't bond with the baby (figure 6), a majority ie; 69% feel anxious or scared for no reason (figure 7). Among Females, 41.38 % (blue) of the participants are not aware about postpartum distress and 34.48 % (green) are aware about postpartum distress. Among Males, 17.24 % (blue) are not aware about postpartum distress and 6.9 % (green) are aware about postpartum distress. Chi square test is done to note the statistical significance. The p value found to be 0.217 ($P > 0.05$), hence proving the study is not statistically significant (figure 8). Among the study population females showed greater knowledge and awareness in comparison to males. This study demonstrated a good level of knowledge and positive attitudes towards women with postpartum depression.

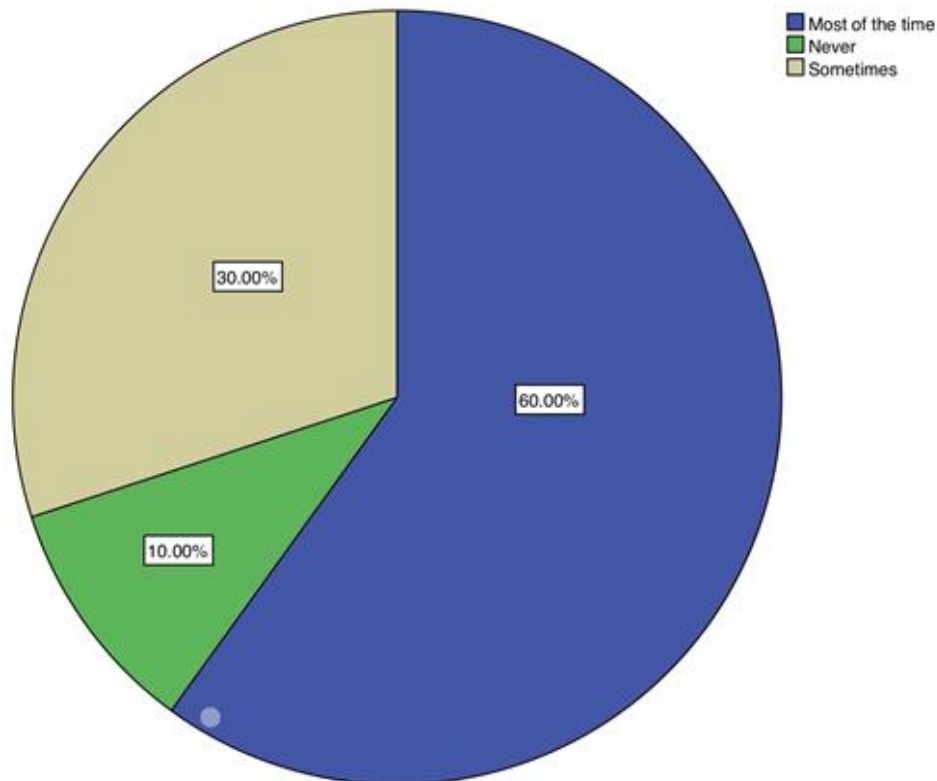


Fig. 1. Pie chart shows the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. 60% of participants feel anxious or scared during postpartum, 30% of the participants sometimes feel scared or anxious during postpartum, 10% of participants never feel scared or anxious during postpartum. Blue represents the population who chose most of the time, green represents the population who chose never and beige represents the population whose choice sometimes. The majority of the participants feel anxious or scared for no reason during postpartum

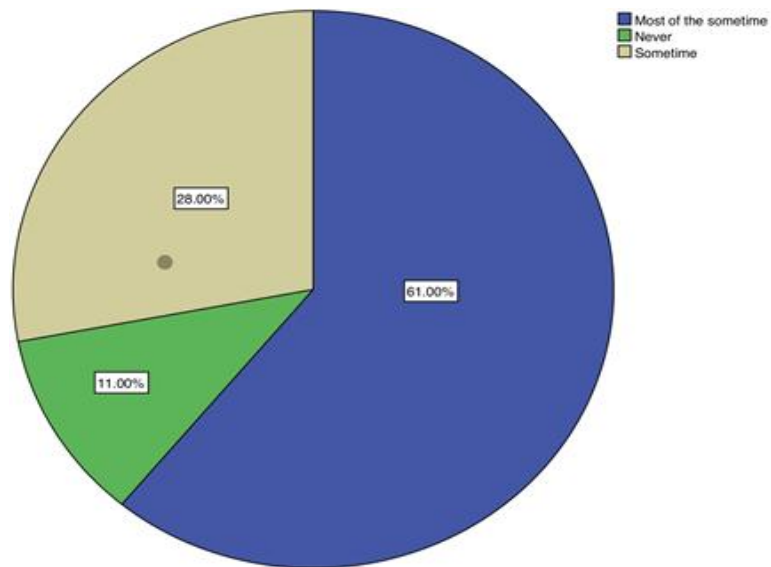


Fig. 2. Pie chart shows the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. 61% of participants feel that things have been getting on top of them during postpartum, 28% of the participants sometimes feel that things have been getting on top of them during postpartum, 11% of participants never felt that things have been getting on top of them during postpartum. Blue represents the population who chose most of the time, green represents the population who chose never and beige represents the population whose choice sometimes. majority of the participants feel that things have been getting on top of them during postpartum

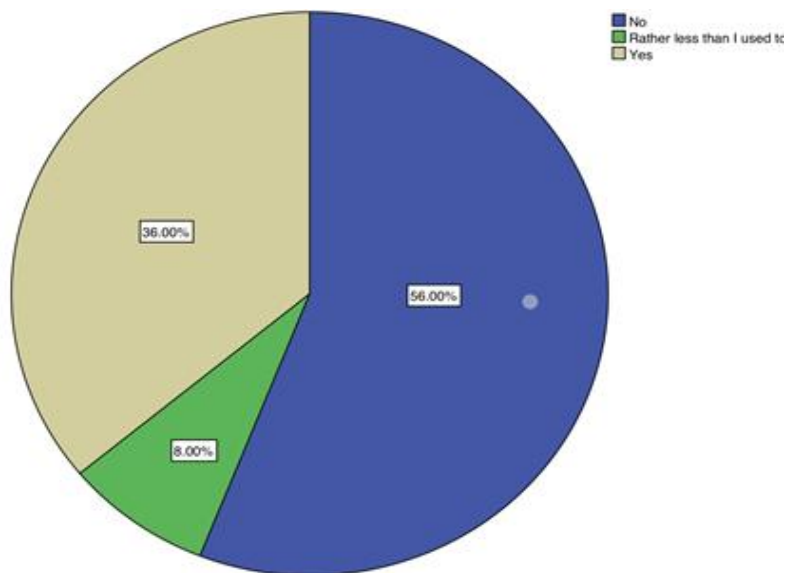


Fig 3. Pie chart showing the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. 61% of participants aren't looking forward to things with enjoyment during postpartum, 38% of the participants are looking forward to things with enjoyment during postpartum, 8% of participants have been looking forward to things with enjoyment rather less than they used to during postpartum. Blue represents the population who chose never, green represents the population who chose rather less than I used to and beige represents the population whose choice is yes. majority of the participants aren't looking forward to things with enjoyment during postpartum

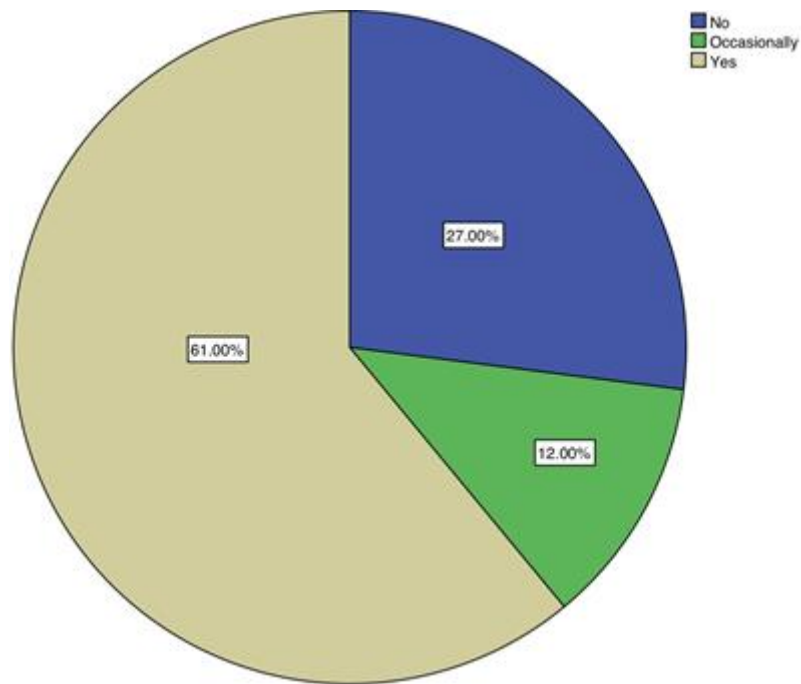


Fig. 4. Pie chart showing the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. 61% of participants are not interested in household works during postpartum ,27% of the participants are interested in household works during postpartum,12% of participants are occasionally interested in household works during postpartum. Blue represents the population who chose no, green represents the population who chose occasionally and beige represents the population whose choice is yes. majority of the participants are not interested in household works during postpartum

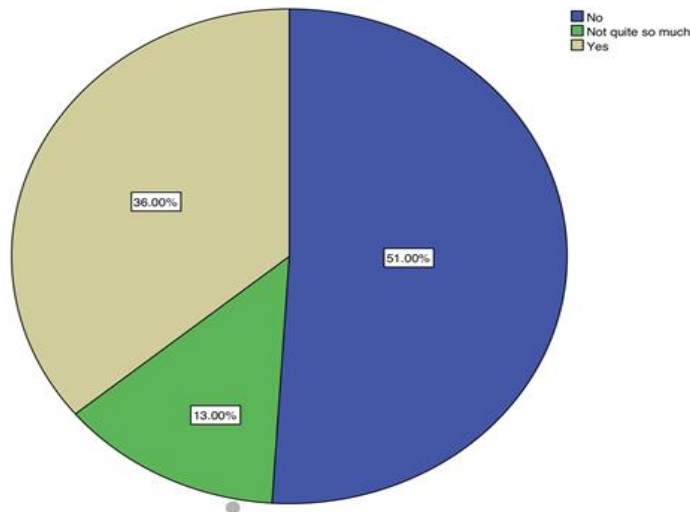


Fig. 5. pie chart showing the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. 51% of participants are not able to see the funny side of things during postpartum ,36% of the participants are able to see the funny side of things during postpartum,13% of participants aren't quite able to see the funny side of things during postpartum. Blue represents the population who chose no, green represents the population who chose not quite so much and beige represents the population whose choice is yes. The majority of the participants are not able to see the funny side of things during postpartum

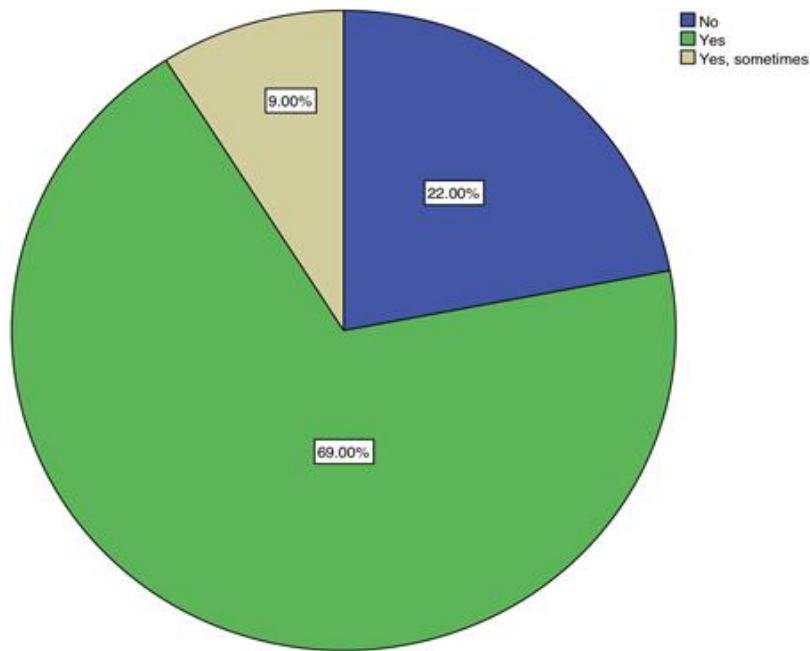


Fig. 6. pie chart showing the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. 69% of participants feel that they wont bond with the baby during postpartum, 22% of the participants feel that they will bond with the baby during postpartum,and 9% of participants feel that they might bond with the baby during postpartum. Blue represents the population who chose no, green represents the population who chose yes and beige represents the population whose choice sometimes. the majority of the participants feel that they wont bond with the baby during postpartum

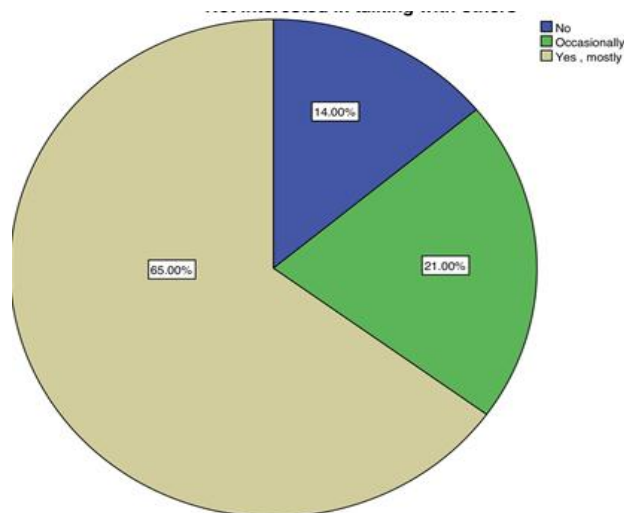


Fig. 7. pie chart showing the percentage distribution about the mode of knowledge on postpartum distress in saveetha dental college. Whereas , 65% of participants are not interested in talking to others during postpartum,21% of the participants sometimes are not interested in talking to others during postpartum,14% of participants aren't interested in talking to others during postpartum. Blue represents the population who chose no , green represents the population who chose occasionally and beige represents the population whose choice mostly . the majority of the participants feel anxious or scared for no reason during

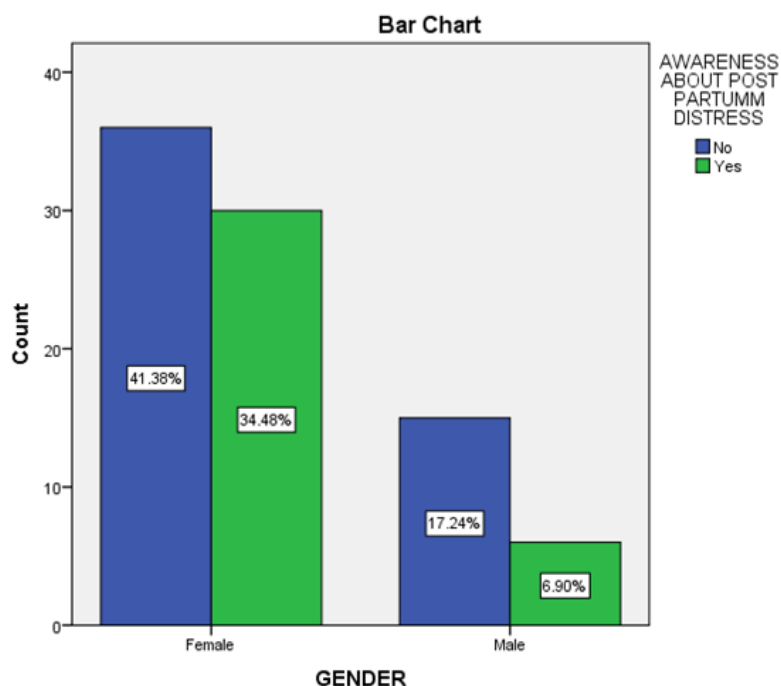


Fig. 8. Bar graph represents the association between the gender and the awareness about postpartum distress among the students of saveetha dental college. X axis represents the Gender and Y axis represents the number of participants. Among Females, 41.38 % (blue) of the participants are not aware about postpartum distress and 34.48 % (green) are aware about postpartum distress. Among Males, 17.24 % (blue) are not aware about postpartum distress and 6.9 % (green) are aware about postpartum distress. Chi square test is done to note the statistical significance. The p value found to be 0.217 ($P > 0.05$), hence proving the study is not statistically significant

3. DISCUSSION

Signs and symptoms of depression after childbirth vary, and they can range from mild to severe.[22]Symptoms usually develop within the first few weeks after giving birth, but may begin earlier during pregnancy or later up to a year after birth.[12]Fathers can experience postpartum depression, too. They may feel sad or fatigued, be overwhelmed, experience anxiety, or have changes in their sleeping patterns ,the same symptoms mothers with postpartum depression experience[23].The prevalence of Postpartum Depression was 23.7%.Factors like legal status , prim parity, unwanted pregnancy, delivery complication, number of live babies, unpreferred infant sex by the mother, infant illness, previous infant loss, previous history of depression, substance abuse of husband and social support were associated with Postpartum distress in Bivariate analysis [24].

Marital status, unwanted pregnancy, unmet sex preference of the mother, infant illness and social

support were independently related to postnatal distress (Ross 2013; Cohen-Hanegbi 2019.) (Divorced/widowed) women were 3.45 times more likely to develop PPD than married women. Possibly, those women are susceptible to social, economic, and psychological challenges, which successively may aggravate the condition of depression. It may even be the very fact that the difficulty of adverse life events of losing someone they like most, then both economical and social loss follows [12][25].

Pregnancy in itself may be a major experience in women's life, So it demands physiological, psychological, social adjustments and financial preparation.[26] The social and economic burden resulting from unplanned pregnancies that adequate preparation wasn't made might end in psychological distress. Also in our setting unwanted pregnancy is mostly associated with economical status and this can lead to worrying for parents' and the coming babies' basic needs and better quality life[6,8]. [27]Around 57% of the study population belonged to the age group 18-

20. 74% are female . Around 60% of the people felt scared or panicky for no good reason, the similar result ie; (55% felt scared or panicky) was observed when compared to a different article[28,29]. 61% of the population felt that things have been getting on top of them, the similar result ie; (52.5%) was observed when compared to a different article[30].[31]61% of the population have blamed themselves unnecessarily when things go wrong, the similar result ie; (69%) was observed when compared to a different article[30,32]. 61% of the population was worried if they won't bond with the baby, the similar result ie; (80%) was observed when compared to a different article[32][33].51% weren't able to laugh or see the funny side of things, the similar result ie; (55%) was observed when compared to a different article[34]. 69% were anxious or worried for no good reason, the similar result ie; (55%) was observed when compared to a different article[34,35].[12,36,37] 61% felt so unhappy they had difficulty in sleeping, the similar result ie; (78%) was observed when compared to a different article[30,32].The limitations of this survey lies in the fact that cross-sectional survey was done among a restricted population (i.e) 100 dental students .Further research is needed on this topic by including the parents of the students and the school faculty.

5. CONCLUSION

The study population of 100 dental students showed fair awareness and knowledge about postpartum distress. Among the study population females showed greater knowledge and awareness in comparison to males. Psychotherapy is a treatment option for women with PPD, with IPT being the most validated psychotherapy to be studied to date.In summary, this study demonstrated a good level of knowledge and positive attitudes towards women with postpartum depression. However, negative beliefs, stigma, and misconceptions still prevailed among the family members.

ACKNOWLEDGEMENT

We thank all the participants and Saveetha Dental College for their support to conduct this study.

FUNDING

The study was funded by Saveetha Institute of Medical and Technical sciences and Kuwait oil company, Kuwait.

CONSENT

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

ETHICAL APPROVALS

we conducted our research after obtaining proper IEC approval.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Thome M. Severe postpartum distress in Icelandic mothers with difficult infants: a follow-up study on their health care. *Scandinavian Journal of Caring Sciences*. 2003;17:104–12. Available:<https://doi.org/10.1046/j.1471-6712.2003.00110.x>.
2. Allison KC, Wenzel A, Kleiman K, Sarwer DB. Postpartum Distress Measure. *PsycTESTS Dataset*; 2014. Available:<https://doi.org/10.1037/t35682-000>.
3. Shokuhi ZB, Ranjbar F, Hakimi S, Bahri R, Ghaffarifar S. Postpartum Distress Measure--Persian Version. *PsycTESTS Dataset*; 2020. Available:<https://doi.org/10.1037/t75744-000>.
4. Hirsch NM, Fingerhut R, Allison KC. The Prenatal Distress Measure: Adaptation of the Postpartum Distress Measure for a Prenatal Sample. *Journal of Women's Health*; 2017;26:1193–200. Available:<https://doi.org/10.1089/jwh.2016.5962>.
5. Shukla AK, Iravani S. *Green Synthesis, Characterization and Applications of Nanoparticles*. Elsevier; 2018.
6. Ajslev TA, Andersen CS, Ingstrup KG, Nohr EA, Sørensen TIA. Maternal Postpartum Distress Measure. *PsycTESTS Dataset* 2014. Available:<https://doi.org/10.1037/t28697-000>.
7. Bharath B, Perinbam K, Devanesan S, AISalhi 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. Available:<https://doi.org/10.1016/j.molstruc.2021.130229>.
8. Don BP, Mickelson KD. Paternal Postpartum Distress: The Role of Maternal PPD, Spousal Support, and Relationship Satisfaction. *PsycEXTRA Dataset* 2011. <https://doi.org/10.1037/e706582011-001>.
 9. Frost LA. Postpartum Distress in Fathers: Predicting Depressive Symptoms, Anxiety and Anger at One Month Postpartum; 1996.
 10. O’Loughlen E, Galligan R. Disordered eating in the postpartum period: Role of psychological distress, body dissatisfaction, dysfunctional maternal beliefs and self-compassion. *J Health Psychol* 2021;1359105321995940.
 11. Millwood MC. Cesarean Birth As a Risk Factor for Postpartum Relationship Distress. *PsycEXTRA Dataset* 2010. Available:<https://doi.org/10.1037/e631982010-001>.
 12. Factors Contributing to Emotional Distress among Postpartum Mothers with Newborns at Newborn Unit Kenyatta National Hospital, Kenya. *Medico-Legal Update* 2021. Available:<https://doi.org/10.37506/mlu.v21i1.2399>.
 13. Pedrina F. Postpartum crisis in migrant families : dealing with cultural differences in situations of special distress. *L’Autre* 2001;2:537. Available:<https://doi.org/10.3917/lautr.006.0537>.
 14. Adams SS, Eberhard-Gran M, Sandvik ÅR, Eskild A. Mode of delivery and postpartum emotional distress: a cohort study of 55 814 women. *BJOG: An International Journal of Obstetrics & Gynaecology* 2012;119:298–305. Available:<https://doi.org/10.1111/j.1471-0528.2011.03188.x>.
 15. Clarizia G, Bernardo P. Diverse Applications of Organic-Inorganic Nanocomposites: Emerging Research and Opportunities: Emerging Research and Opportunities. IGI Global; 2019.
 16. PradeepKumar AR, Shemesh H, Jothilatha S, Vijayabharathi R, Jayalakshmi S, Kishen A. Diagnosis of Vertical Root Fractures in Restored Endodontically Treated Teeth: A Time-dependent Retrospective Cohort Study. *J Endod* 2016;42:1175–80.
 17. Dhinesh B, Isaac JoshuaRamesh Lalvani J, Parthasarathy M, Annamalai K. An assessment on performance, emission and combustion characteristics of single cylinder diesel engine powered by *Cymbopogon flexuosus* biofuel. *Energy Convers Manage* 2016;117:466–74.
 18. Lekha L, Kanmani Raja K, Rajagopal G, Easwaramoorthy D. Schiff base complexes of rare earth metal ions: Synthesis, characterization and catalytic activity for the oxidation of aniline and substituted anilines. *J Organomet Chem* 2014;753: 72–80.
 19. Soh CL, Narayanan V. Quality of life assessment in patients with dentofacial deformity undergoing orthognathic surgery—A systematic review. *Int J Oral Maxillofac Surg* 2013;42:974–80.
 20. Krishnan V, Lakshmi T. Bioglass: A novel biocompatible innovation. *J Adv Pharm Technol Res* 2013;4:78–83.
 21. Ezhilarasan D. Critical role of estrogen in the progression of chronic liver diseases. *Hepatobiliary Pancreat Dis Int* 2020;19:429–34.
 22. Gowhari Shabgah A, Ezzatifar F, Aravindhan S, Olegovna Zekiy A, Ahmadi M, Gheibihayat SM, et al. Shedding more light on the role of Midkine in hepatocellular carcinoma: New perspectives on diagnosis and therapy. *IUBMB Life* 2021;73:659–69.
 23. 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.2020.101992>.
 24. Peer Review #2 of “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 (v0.2)” 2020. Available:<https://doi.org/10.7287/peerj.10164v0.2/reviews/2>.
 25. Slominski AT, Zmijewski MA, Skobowiat C, Zbytek B, Slominski RM, Steketee JD. Sensing the Environment: Regulation of Local and Global Homeostasis by the Skin’s Neuroendocrine System. *Springer Science & Business Media*; 2012.
 26. 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.
27. 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.
28. Ross R. Psychological Distress Among HIV-Positive Pregnant and Postpartum Women in Thailand. *Women, Motherhood and Living with HIV/AIDS* 2013:191–200. Available: https://doi.org/10.1007/978-94-007-5887-2_12.
29. Cohen-Hanegbi N. Postpartum Mental Distress in Late Medieval Europe. *The Mediaeval Journal* 2019;9:109–41. <https://doi.org/10.1484/j.tmj.5.119914>.
30. Sompalli S, Farrukh H, Faiek S, Higgins N. acute postpartum pulmonary edema: a mother in distress. *Chest* 2020;158:A2303. Available: <https://doi.org/10.1016/j.chest.2020.08.1954>.
31. 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.
32. Lane DA. Early Postpartum Discharges: Impact on Distress and Outpatient Problems. *Archives of Family Medicine* 1999;8:237–42. <https://doi.org/10.1001/archfami.8.3.237>.
33. 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 PPAR γ Mediated Pathways. *Indian Journal of Pharmaceutical Education and Research* 2021;55:s265–74. Available: <https://doi.org/10.5530/ijper.55.1s.59>.
34. Obrochta CA, Chambers C, Bandoli G. Psychological distress in pregnancy and postpartum. *Women and Birth* 2020;33:583–91. Available: <https://doi.org/10.1016/j.wombi.2020.01.009>.
35. Tronick EZ, Beeghly M, Katherine Weinberg M, Olson KL. Postpartum exuberance: Not all women in a highly positive emotional state in the postpartum period are denying depression and distress. *Infant Mental Health Journal* 1997;18: 406–23. Available: [https://doi.org/10.1002/\(sici\)1097-0355\(199724\)18:4<406::aid-imhj7>3.0.co;2-i](https://doi.org/10.1002/(sici)1097-0355(199724)18:4<406::aid-imhj7>3.0.co;2-i).
36. 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.
37. Hossain S, Rahaman A, Nahar T, Basunia MA, Mowsumi FR, Uddin B, et al. *Syzygium cumini* (L.) skeels seed extract ameliorates in vitro and in vivo oxidative potentials of the brain cerebral cortex of alcohol-treated rats. *Oriental Pharmacy and Experimental Medicine* 2012;12:59–66. Available: <https://doi.org/10.1007/s13596-011-0044-0>.

© 2021 Daniel 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.sdiarticle5.com/review-history/74408>