

COMPREHENSIVE INSIGHTS INTO THE MULTIFACETED ASPECTS OF MATERNAL WELLBEING: NURTURING THE HEALTH OF PREGNANT WOMEN

Dr. A. Sivagami ¹ and V. Reka ²

¹ Associate Professor, Department of Social Work, Bharathidasan University, Khajamalai Campus, Tiruchirappalli, Tamil Nadu, India.
Email: sivagami@bdu.ac.in, LinkedIn: [dr-a-sivagami-54408266](https://www.linkedin.com/in/dr-a-sivagami-54408266),
ORCID: 0000-0002-5788-6856

² Research Scholar, Department of Social Work, Bharathidasan University, Khajamalai Campus, Tiruchirappalli, Tamil Nadu, India.
Email: rekamphil86@gmail.com

Abstract

Pregnancy and child birth are significant phases of her life. Assessing quality of life is important in terms of timely preventive measures during pregnancy and should lead to an increase in the quality of care for pregnant women and their well-being, with emphasis on the health of pregnant women. Pregnancy is a period of transition with important physical and emotional changes. Even in uncomplicated pregnancies, these changes can affect the quality of life pregnant women, affecting both maternal and infant health. This descriptive nature of the study will help to identifying the prevalence of wellbeing and quality of life among women during pregnancy in the district of Thanjavur. The study found that more than half of the respondents (59.6 percent) had low level of quality of life. Thus, it is important for primary care providers to be aware of the changes in health status of pregnant women to help them to promote their quality of lives. Improving the quality of life among pregnant women requires better identification of their difficulties and guidance.

Keywords : Pregnancy, Maternal Wellbeing, Maternal Health, Nutrition.

1. INTRODUCTION

Pregnancy is a time of change and demands, which can impact both maternal and infant well-being. The nature, prevalence, and detrimental repercussions of negative feelings (e.g., stress, depression, anxiety) during pregnancy have been extensively examined and documented. Motherhood is a special and sacred fulfilment in a women's life. But this period is associated with certain complications and many women die in the process of childbirth, especially in developing countries. The health problems of mothers may have an effect on child's health because the health of children lies much more in the nutrition and health of women.

Pregnant women's psychological well-being affects their emotional state, which in turn has a significant impact on fetal development, the course of labor, and the mother's adaptation in the postpartum period. Social support, especially partner support, is proven to have a protective effect against stress, worries, and concerns that occur in pregnancy.

The stress a pregnant woman is exposed to due to adaptive difficulties, everyday challenges or a threat to pregnancy determines emotions that arise in such a situation, which may reciprocally affect the individual's cognitive assessment of the situation and hinder the adaptive process. Each pregnancy, including those not encumbered with social and obstetric risks, is a stressful situation considered by some researchers as a critical event related to psychological distress.

The birth of a child is a critical and potentially stressful experience for women, entailing several changes both at the individual and interpersonal level. This event can lead to

different forms of distress, ranging in intensity and duration. Many studies highlighted medical, psychological, and social variables as risk factors potentially influencing the onset or aggravation of perinatal maternal conditions.

1.1 Review of Literature

The researcher reviewed various books, journals, news papers, research reports and several websites to avail the information the anxiety of pregnancy women. Pregnancy often brings about a significant fear of childbirth in many women, a clinical condition marked by various symptoms such as sleep disorders and panic attacks. This fear not only disrupts their daily lives but also hinders their ability to prepare for labor and childbirth, as documented in studies by **Fenwick et al. (2009)**, **O'Connell et al. (2017)**, and **Molgora et al. (2018)**. At an interpersonal level, research has consistently demonstrated a strong connection between the psychological well-being of expectant mothers and various relational factors, particularly the quality of their relationships with their partners and the support they receive, both during pregnancy and childbirth, as elucidated by studies like that of **Lukasse et al. (2014)**.

In **2010**, **Shay-Zapien** conducted a comprehensive study to investigate the repercussions of abuse on women, fetuses, and developing children. Despite extensive research in this domain, the complete extent of abuse's long-term physical and psychosocial consequences on women and their families remains incompletely understood. Intimate partner violence during pregnancy affects not only the woman but also has profound implications for the developing fetus and the extended family. Therefore, it is imperative that all women undergo screening for intimate partner violence, and healthcare professionals, particularly nurses, are well-versed in effective interventions for this vulnerable patient group. In a study conducted by **Sydsjo and Sydsjo (2002)**, the attitudes of employed pregnant women toward their personal health status were examined. The study involved the assessment of 384 women after childbirth. These women were queried about their working conditions, self-assessment of their well-being, and information regarding their absence from work and any social benefits they may have received.

1.2 Statement of the Problem

The well-being of expectant mothers encompasses their physical, emotional, mental, and spiritual dimensions, all of which exert a significant influence on the developing fetus. Throughout pregnancy, it is paramount for mothers to earnestly strive to provide both wholesome nutrition for the fetus and a tranquil, nurturing environment for its optimal growth. The post-pregnancy period often introduces changes that result in various physical and emotional stresses. To mitigate these challenges and promote overall well-being during pregnancy, practices such as yoga, breathing techniques, meditation, and spiritual connection have been found to be invaluable. These holistic approaches help maintain physical health, manage emotional well-being, and reduce the risk of pregnancy-related complications.

To gain deeper insights into the impact of these exercises on common pregnancy complaints, a comprehensive research initiative was undertaken. Antenatal care, a vital component of pregnancy health, revolves around maintaining a well-balanced diet, ensuring adequate rest and sleep, adhering to rigorous personal hygiene practices, attending regular antenatal checkups, and incorporating antenatal exercises into the regimen. This multifaceted approach underscores the holistic nature of

maternal care, emphasizing the importance of nurturing both the body and the mind during this transformative period.

1.3 Scope

Research on social support during pregnancy has predominantly focused on its various facets, delving into a thorough analysis of their primary impacts. These investigations consistently underscore the profound significance of social support in promoting the health and overall well-being of both expectant mothers and their unborn children. Such support has been shown to play a pivotal role in reducing the likelihood of obstetric complications, premature delivery, and subsequent health and developmental outcomes for the child after birth. These findings collectively emphasize the invaluable role that robust social support networks play in the journey of pregnancy and beyond, underscoring their positive effects on maternal and infant health.

1.4 Significance

The significance of initiating an exercise program during pregnancy cannot be overstated, as it not only contributes to improved pregnancy outcomes but also positively impacts the health of the infant. It's important to note that weight loss may occur in cases where individuals previously led a sedentary lifestyle but have now adopted an active one, though weight loss is not the primary goal during pregnancy; it may be a potential side effect. Engaging in proper exercise during pregnancy, however, can facilitate post-delivery weight loss, promoting overall maternal well-being. This study holds significant importance as it focuses on empowering expectant mothers with self-care strategies through a self-instructional module. These strategies aim to prevent pregnancy-related complications and enhance the well-being of both the mother and the developing fetus. The ultimate goal is to ensure the safety and well-being of both the mother and the child throughout the pregnancy journey.

Pregnant women commonly experience various discomforts during pregnancy, including backaches, depression, fatigue, nausea, headaches, and leg cramps. These discomforts can lead to both mental and physical distress, potentially causing stress and complicating the pregnancy. However, many of these common complaints can be alleviated through the incorporation of yogic exercises, meditation, regular walking, and antenatal exercises into the maternal care regimen. These interventions have the potential to significantly reduce the impact of these discomforts, enhancing the overall pregnancy experience for expectant mothers.

1.5 Objectives of the Study

- To explore and analyze the intricate relationship between the socio-demographic characteristics of the study participants, such as age, education, income, marital status, and employment status, and various selected dimensions of well-being closely associated with the journey of pregnancy.
- To comprehensively gauge and measure the levels of well-being among the respondents in the context of pregnancy. This objective involves assessing and quantifying the emotional, physical, mental, and social well-being of pregnant individuals, aiming to provide a holistic understanding of their overall well-being during this transformative period.

2. MATERIALS AND METHODS

The researcher opted for a descriptive research design for this study. Descriptive research is commonly employed when the primary goal is to describe, record, and analyze specific phenomena or variables within a particular population. In this case, the research's principal objective was to provide a comprehensive understanding of the well-being of pregnant women in the Thanjavur district, focusing on various aspects related to their pregnancy experiences. To gather relevant information, data were collected from approximately 250 pregnant women residing in the Orathanadu Block of Thanjavur district. Simple random sampling, a common method in survey research, was employed to select the study participants. This approach ensured that each pregnant woman in the study population had an equal chance of being chosen, which helps reduce potential bias and improve the generalizability of the findings.

2.1 Methods

Both primary and secondary data sources were utilized for this research. The primary data collection involved the use of a pre-tested questionnaire. This questionnaire was specifically designed to capture essential information related to the well-being of pregnant women during their pregnancy journey. Pre-testing the questionnaire beforehand helps ensure that it effectively gathers the necessary data and identifies any issues or ambiguities that might arise during the actual data collection process. In addition to primary data, the researcher also accessed secondary sources of information. These sources might have included existing research studies, reports, or relevant literature pertaining to pregnancy well-being, which could provide valuable context and background for the study.

3. RESULTS AND DISCUSSION

3.1 Socio-demographic Profile

This socio-demographic profile provides insights into the composition of the study's participants. It highlights the diversity in age, education, religion, domicile, and family type among the respondents. Understanding these demographic characteristics is essential for contextualizing the research findings and drawing meaningful conclusions related to the study's objectives.

Age: The study includes respondents from a range of age groups. The majority of respondents fall within the age group of 25 to 27 years, comprising 36.0% of the total sample. The second-largest age group is 18 to 21 years, representing 24.0% of the respondents. Age groups 22 to 24 years and 28 to 35 years constitute 20.8% and 19.2% of the participants, respectively.

Table No 1: Socio-Demographic Profile of the Respondents

S.NO	Particulars	Frequency (n = 250)	Percentage
I	Age		
	18 to 21 years	60	24.0
	22 to 24 Years	52	20.8
	25 to 27 Years	90	36.0
	28 to 35 Years	48	19.2
II	Religion		
	Hindu	96	85.6
	Muslim	83	1.6
	Christian	116	12.8
III	Education		
	Upto Higher Secondary Education	49	19.6
	Under Graduation	84	33.6
	Post Graduation	96	38.4
	ITI and Diploma	21	8.4
IV	Domicile		
	Rural	204	81.6
	Urban	46	18.4
V	Type of Family		
	Nuclear	84	33.6
	Joint	166	66.4

Religion: The majority of respondents in the study are Hindu, accounting for 85.6% of the total sample. A smaller proportion of respondents are Christians (12.8%), while Muslims make up a minimal percentage (1.6%).

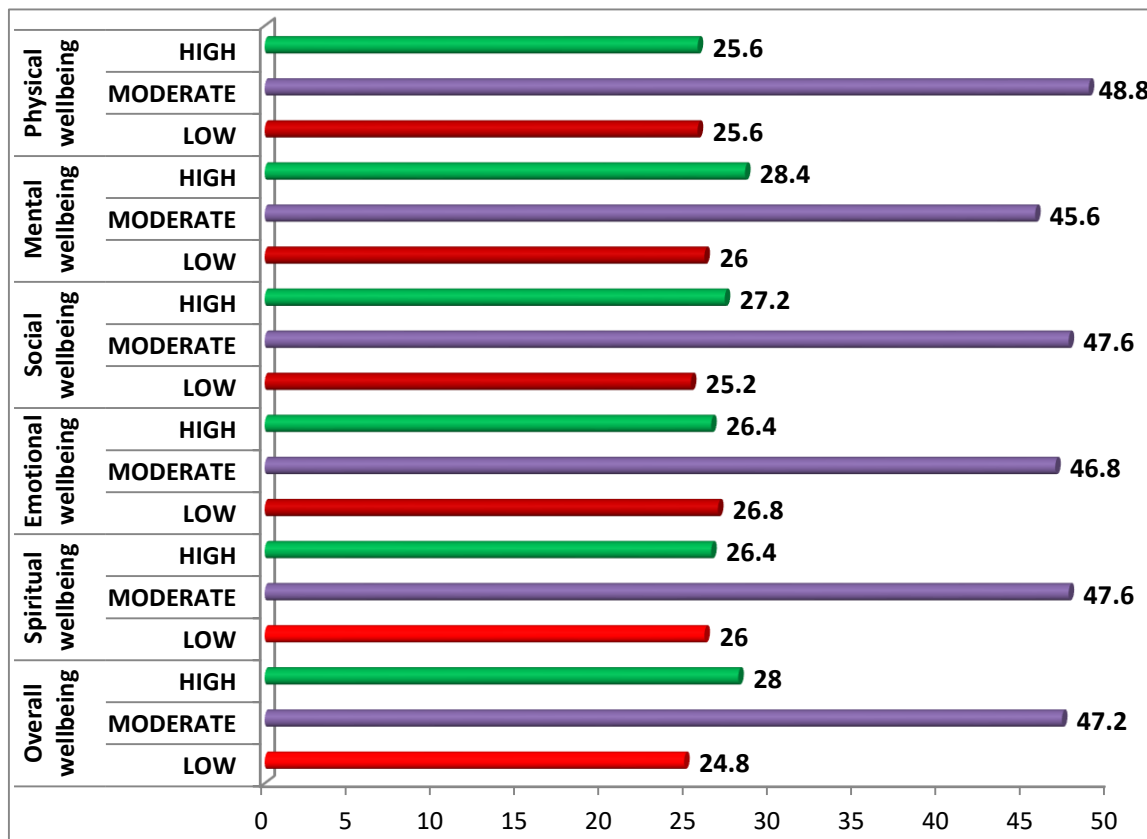
Education: Respondents in the study exhibit a diverse educational background. The highest percentage (38.4%) of respondents have completed post-graduation. Undergraduates comprise the second-largest group, constituting 33.6% of the sample. A significant proportion (19.6%) of respondents have education up to the higher secondary level. A smaller group (8.4%) has pursued ITI and diploma courses.

Domicile: The respondents in the study primarily come from rural areas, representing 81.6% of the total sample. A smaller portion (18.4%) of respondents reside in urban areas.

Type of Family: The study includes individuals from both nuclear and joint family setups. A substantial proportion (66.4%) of the respondents belong to joint families. The remaining 33.6% are from nuclear families.

3.2 Dimensions of wellbeing experienced by the respondents

Diagram No 1: Dimensions of wellbeing experienced by the respondents



Statistics		Physical wellbeing	Mental wellbeing	Social wellbeing	Emotional wellbeing	Spiritual wellbeing	Overall wellbeing
Percentiles	25	25.0000	27.0000	25.0000	25.0000	25.0000	141.500
	50	29.0000	34.0000	32.0000	31.0000	31.0000	157.000
	75	37.0000	38.2500	37.0000	37.0000	38.0000	174.500

The diagram no.1 designated that nearly half of the respondents (48.8 percent) had moderate level of physical wellbeing, (25.6 percent) had high level. And another (25.6 percent) respondents had low level. It also showed that that nearly half of the respondents (45.6 percent) had moderate level of mental wellbeing, (28.4 percent) had high level and another 26 percent of the respondents had low level. With regard to the social wellbeing, nearly half of the respondents (47.6 percent) had moderate level of social wellbeing, (27.2 percent) had high level of social wellbeing and another 25.2 percent of the respondents had low level. Further it was demonstrated that nearly half of the respondents (46.8 percent) had moderate level of emotional wellbeing, another 26.8 percent of the respondents had low level and 26.4 percent had high level. The figure also explained that nearly half of the respondents (47.6 percent) had moderate level of spiritual wellbeing, (26.4 percent) had high level and another 26 percent respondents had low level. With regard to overall wellbeing the analysis indicated that that nearly half of the respondents (47.2 percent) had moderate level of wellbeing, (28 percent) had high level of wellbeing and another 24.8 percent respondents had low level. It is inferred that most of the respondents had moderate level of wellbeing. It may be due to the anxiety of being pregnant for the first time.

3.3 Respondents Wellbeing and Emotional Problems

Results of t-test shows that there was a statistically significant mean difference between emotional problems (M = 29.85, SD = 7.89, n = 54) and lack of emotional problem (M = 31.29, SD = 8.86, n =196) with regard to physical wellbeing dimension at .05 level of significance (t = 2.104, df. = 248, p< .05, 95% mean difference -1.35). There was a statistically significant mean difference between emotional problems (M = 31.27, SD = 8.59, n = 54) and lack of emotional problem (M = 32.93, SD = 8.42, n =196) with regard to mental wellbeing dimension at .05 level of significance (t = 2.013, df. = 248, p< .05, 95% mean difference -1.66).

Table no 2: T-test for Dimensions of Wellbeing and Emotional Problems

	Emotional problems						Mean difference	't'	df.
	Yes			No					
	n	M	SD	n	M	SD			
Physical wellbeing	54	29.85	7.89	196	31.29	8.86	-1.35	2.104	248
Mental wellbeing	54	31.27	8.59	196	32.93	8.42	-1.66	2.013	248
Social wellbeing	54	30.43	8.59	196	32.50	9.57	-2.07	2.996	248
Emotional wellbeing	54	29.74	8.62	196	30.80	7.78	-1.06	2.068	248
Spiritual wellbeing	54	30.98	8.21	196	31.55	8.12	-.57	1.674	248
Overall wellbeing	54	153.79	29.52	196	155.58	31.23	-1.79	2.050	248

There was a statistically significant mean between emotional problem (M = 30.43, SD = 8.59, n = 54) and lack of emotional problem (M = 32.50, SD = 9.57, n =196) with regard to social wellbeing dimension at .05 level of significance (t = 2.996, df. = 248, p< .05, 95% mean difference -2.07). There was a statistically significant mean difference between emotional problem (M = 29.74, SD = 8.62, n = 54) and lack of emotional problem (M = 30.80, SD = 7.78, n =196) with regard to social wellbeing dimension at .05 level of significance (t = 2.068, df. = 248, p< .01, 95% mean difference -1.06). There was a statistically significant mean difference between emotional problem (M = 157.76, SD = 29.52, n = 54) and lack of emotional problem (M = 155.58, SD = 33.20, n =196) with regard to social wellbeing dimension at .05 level of significance (t = 2.050, df. = 248, p< .05, 95% means difference -1.79).

3.4 Age and Well being of the Respondents

The chi-square test was employed to investigate the relationship between respondents' age groups and their well-being across various dimensions: physical, mental, social, emotional, and spiritual. The results indicate that there is no statistically significant association between age and well-being in any of these dimensions, as evidenced by the p-values exceeding the significance level of 0.05 for all chi-square tests. In essence, this suggests that age does not play a significant role in determining the level of well-being across these dimensions among the respondents.

Table no 3: Chi-square Test for Age and Well being of the Respondents

Wellbeing	Age				Total
	Up to 21 years	22 to 24 Years	25 to 27 Years	28 and above years	
Physical wellbeing					
Low	15	14	25	10	64
Moderate	30	24	39	29	122
High	15	14	26	9	64
Mental wellbeing	$\chi^2 = 3.912, df. = 6. p > .05$				
Low	14	15	23	13	65
Moderate	33	22	39	20	114
High	13	15	28	15	71
Social wellbeing	$\chi^2 = 1.87, df. = 6. p > .05$				
Low	13	12	26	12	63
Moderate	29	26	39	25	119
High	18	14	25	11	68
Emotional wellbeing	$\chi^2 = 2.003, df. = 6. p > .05$				
Low	12	16	26	13	67
Moderate	33	24	39	21	117
High	15	12	25	14	66
Spiritual wellbeing	$\chi^2 = 3.148, df. = 6. p > .05$				
Low	16	10	25	14	65
Moderate	26	26	45	22	119
High	18	16	20	12	66
	$\chi^2 = 2.955, df. = 6. p > .05$				
	Overall wellbeing				
Low	12	14	26	10	62
Moderate	32	22	37	27	118
High	16	16	27	11	70
	$\chi^2 = 4.597, df. = 6. P > .05$				

3.5 Respondents Wellbeing and their Confidence level

The t-test results indicate a comparison of mean scores between individuals who answered "Yes" and "No" to feeling confident. Here's the interpretation of the t-test results for each dimension of well-being:

- **Physical Wellbeing:** Individuals who reported feeling confident (Yes) had a slightly higher mean score (30.73) compared to those who didn't (No) (29.23). The t-value of 2.124 with 248 degrees of freedom suggests that this difference is statistically significant ($p < 0.05$).
- **Mental Wellbeing:** Those who felt confident (Yes) had a notably higher mean score (33.32) than those who didn't (No) (30.35). The t-value of 2.613 with 248 degrees of freedom indicates a statistically significant difference ($p < 0.05$).

Table No 4: Results of t-test and Descriptive Statistics for dimensions of wellbeing and Feeling Confident

	Feeling of confident						Mean difference	't'	df.
	Yes			No					
	n	M	SD	n	M	SD			
Physical wellbeing	156	30.73	8.25	94	29.23	9.28	1.07	2.124	248
Mental wellbeing	156	33.32	9.08	94	30.35	7.37	2.97	2.613	248
Social wellbeing	156	31.97	9.00	94	28.87	10.06	3.10	2.196	248
Emotional wellbeing	156	31.60	9.00	94	28.95	5.90	3.65	3.068	248
Spiritual wellbeing	156	32.79	8.20	94	31.29	8.02	1.50	1.974	248
Overall wellbeing	156	159.76	29.39	94	155.92	33.20	1.84	2.050	248

- **Social Wellbeing:** Participants who expressed feeling confident (Yes) had a substantially higher mean score (31.97) compared to those who didn't (No) (28.87). The t-value of 2.196 with 248 degrees of freedom suggests a statistically significant difference ($p < 0.05$).
- **Emotional Wellbeing:** Those reporting feeling confident (Yes) had a significantly higher mean score (31.60) in comparison to those who didn't (No) (28.95). The t-value of 3.068 with 248 degrees of freedom indicates a statistically significant difference ($p < 0.05$).
- **Spiritual Wellbeing:** Individuals who felt confident (Yes) had a slightly higher mean score (32.79) than those who didn't (No) (31.29). The t-value of 1.974 with 248 degrees of freedom suggests that this difference is statistically significant ($p < 0.05$).
- **Overall Wellbeing:** The overall wellbeing score for those who felt confident (Yes) was higher (159.76) compared to those who didn't (No) (155.92). The t-value of 2.050 with 248 degrees of freedom indicates a statistically significant difference ($p < 0.05$).

The t-test results demonstrate that individuals who reported feeling confident generally had higher mean scores across all dimensions of well-being compared to those who didn't feel confident. These differences are statistically significant, highlighting the positive association between feeling confident and higher levels of well-being in various dimensions.

3.6 Testing of Hypotheses

Hypothesis 1 : There is a significant difference between emotional problems of the respondents and their wellbeing scale of the pregnancy. There was no statistically significant mean difference between emotional problem (M = 30.98, SD = 8.21, n = 54) and lack of emotional problem (M = 31.55, SD = 8.12, n = 196) with regard to overall wellbeing at .05 level of significance ($t = 1.674$, $df. = 248$, $p < .05$, 95% mean difference -.57). So the research is rejected and null hypothesis is accepted. Hence there is no significant difference between emotional problems of the respondents and the level of anxiety on pregnancy.

Hypothesis 2: There is a significant difference between confident feeling of the respondents and their of wellbeing during pregnancy. There was a statistically significant mean difference between feeling confident (M = 157.76, SD = 29.39, n = 156) and not feeling confident (M = 155.92, SD = 33.20, n = 94) with regard to overall wellbeing dimension at .05 level of significance ($t = 2.050$, $df. = 248$, $p < .05$, 95%

mean difference 1.84). So the research hypothesis is accepted and null hypothesis is rejected. Hence there is a significant difference between confident feeling of the respondents and p their well being during Pregnancy.

3.7 Recommendations

3.7.1. Pregnancy and the Importance of Care: Pregnancy is a unique power for a woman to enjoy and feel her role. If her family and the professionals do not care during this period, she may invite complications for herself and her baby. Efficient antenatal care is preventive medicine at its best. Pregnancy is an incredibly transformative period in a woman's life. It's not only a biological process but also a profound personal journey. During this time, a woman goes through numerous physical, emotional, and psychological changes. The care and support she receives from her family, healthcare professionals, and the broader community play a pivotal role in shaping her pregnancy experience. Neglecting adequate care during pregnancy can have detrimental consequences for both the mother and the developing baby. Complications can arise if the expectant mother doesn't receive the necessary medical attention and emotional support. These complications could impact the health and well-being of both the mother and the child. Efficient antenatal care, which includes regular medical checkups, emotional support, and education on healthy practices during pregnancy, can be likened to preventive medicine at its best. It serves to identify and address potential issues early on, reducing the risk of complications and ensuring the well-being of both the mother and the baby. It's a proactive approach that empowers women to navigate the challenges of pregnancy more confidently and with better health outcomes.

3.7.2. The Role of Yoga in Pregnancy Care: The government should appoint a yoga teacher for every primary health center. It is very useful for pregnant women to improve their mental well-being and reduce their stress and anxiety and also reduce the complications of delivery through simple exercises and yoga. Yoga is recognized worldwide for its holistic benefits, and it holds particular promise during pregnancy. The government's involvement in providing access to yoga instructors at primary health centers can have several positive impacts. Firstly, yoga is known to enhance mental well-being. Pregnancy can be emotionally challenging, and many expectant mothers experience stress and anxiety. Yoga's combination of physical postures, breathing exercises, and meditation techniques can significantly reduce stress levels and promote mental calmness. This can contribute to a more positive pregnancy experience and potentially reduce the risk of pregnancy-related mental health issues. Secondly, yoga can help in physical preparation for childbirth. Simple exercises and yoga postures tailored to pregnancy can improve flexibility, strength, and stamina. This physical conditioning can make labor and delivery smoother and less complicated. It may also help in postnatal recovery. Moreover, yoga fosters a sense of community and support among pregnant women who attend classes together. Sharing experiences and building connections can provide emotional comfort during this transformative time.

4. CONCLUSION

In conclusion, this study underscores the critical importance of providing comprehensive care and support to pregnant women. Pregnancy is a unique and transformative experience in a woman's life, and it requires attention from both

healthcare professionals and the broader community. Neglecting the care and well-being of expectant mothers can lead to complications that affect not only the mother but also the developing baby. Efficient antenatal care emerges as a preventive medicine strategy of paramount importance. It serves as an early intervention mechanism that identifies and addresses potential issues during pregnancy, reducing the risk of complications and promoting the overall health and well-being of both the mother and the child.

Additionally, the incorporation of yoga and exercise, as suggested in the study, holds immense promise in enhancing the pregnancy experience. Yoga, with its focus on mental well-being and physical fitness, can reduce stress and anxiety, providing emotional support to pregnant women. Moreover, it can prepare expectant mothers physically for childbirth, potentially reducing complications during delivery. In light of these findings, it is recommended that governments and healthcare systems prioritize the provision of holistic antenatal care and consider the inclusion of yoga instructors at primary health centers. Such initiatives can significantly contribute to the mental and physical well-being of pregnant women, ensuring a safer and more empowering pregnancy journey. Ultimately, this study reinforces the idea that pregnancy care is not just a medical necessity but a societal responsibility, with the potential to positively impact the lives of both mothers and their newborns.

References

- 1) Alwan N, Hamamy H. Maternal iron status in pregnancy and long-term health outcomes in the offspring. *J Pediatr Genet.* 2015; 4:111–123. doi: 10.1055/s-0035-1556742.
- 2) Amer MG, Mohamed NM, Shaalan AAM (2017) Gestational protein restriction: study of the probable effects on cardiac muscle structure and function in adult rats. *Histol Histopathol* 11883. 10.14670/HH-11-883
- 3) Austin, M.P. (2004). Antenatal screening and early intervention for prenatal distress depression and anxiety: where to from here? *Arch Women's Mental Health* 7:1–6.
- 4) Austin, M.P., Hadzi-Pavlovic, D., Leader, L., Saint, K. & Parker, G., (2005). Maternal trait anxiety, depression and life event stress in pregnancy: relationships with infant temperament. *Early Hum Dev.* 81(2). 183-90.
- 5) Bech P. Measuring the Dimension of psychological general well-being by the WHO-5. *Quality of Life Newsletter* 2004 32 15-16.
- 6) Buck, H. G., Dickson, V. V., Fida, R., Riegel, B., D'Agostino, F., Alvaro, R., & Vellone, E. (2015). Predictors of hospitalization and quality of life in heart failure: a model of comorbidity, self-efficacy and self-care. *International Journal of Nursing Studies*, 52, 1714-22.
- 7) Diener, E, Napa Scollon C, Lucase RE. The Evolving Concept of Subjective Well-being: The Multifaceted Nature of Happiness. in Diener E (Ed) *Assessing Well-being Social Indicators Research Series* 2009 Number 39 Springer USA.
- 8) Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicator Research Series*, 97, 143–156.
- 9) Ferrari N, Graf C. [Recommendations for Physical Activity During and After Pregnancy]. *Gesundheitswesen.* 2017 Mar;79(S 01):S36-S39.
- 10) Flores D, Connolly CP, Campbell N, Catena RD. Walking balance on a treadmill changes during pregnancy. *Gait Posture.* 2018 Oct;66:146-150.