

V. SUMMARY AND CONCLUSION

This chapter summarizes the entire study's key findings, conclusions, researcher recommendations, limitations, and directions for further research.

The purpose of this study was to assess psychological status of pregnant women using a self-structured questionnaire on "Pregnancy Psychological Status Scale" (PPSS) which was constructed referring to various scales related to the psychological well-being of normal individuals and based on the articles related to pregnancy psychological status. The researcher aimed to construct this tool as there was no such tool available for pregnant women considering these required dimensions such as Happiness, Stress, Anxiety, Family Relationships, Socialization, Physical Health and Body Image. After assessing the psychological status of selected pregnant women, this study also analysed the effectiveness of music and meditation interventions adopted to improve the psychological status of pregnant women.

Pregnancy is a period filled with feelings of joy and excitement; nevertheless, negative emotions such as stress, anxiety, depression, mood swing, etc. are prevalent during pregnancy (Lindsay et al., 2019). In the previous decade, many researchers have viewed the impact of stress and other negative feelings on pregnant mothers and foetal development (Lindsay et al., 2019). However, some other studies have revealed that higher stress during pregnancy leads to greater levels of spontaneous preterm childbirth and decreased birth weight (Liou et al., 2016; Staneva et al., 2015; Su et al., 2015). It has been noticeable that one-fifth of pregnant mothers face psychological complications before or soon after childbirth (Austin et al., 2008). Especially during the first and third trimesters two-thirds of pregnant women go through some specific psychological difficulties such as stress, mood swings, anxiety, irritability, and depression. a study revealed that depression is present among 10% of first-trimester pregnant women which was proven clinically (Leon, 1992). During pregnancy, anxiety results specific kinds of fear or panic attacks, while anxiety is a bodily response to stress (Hofberg & Brockington, 2000; Cantwell & Cox, 2003). Also, pregnant women experience memory-related problems in their everyday life that are not readily detected in the laboratory. Depression, anxiety, lack of sleep & tiredness, the influence of cortisol, and busyness on pregnancy-related difficulties revealed that it negatively impacts prospective memory (Cuttler et al., 2011). Recent studies conducted in India have reported the prevalence of perinatal depression to range from 14% to 24% (Sidhu et al., 2019).

Additionally, in 2020, researchers estimated the prevalence of pregnancy-related stress to be 30.9% (Aneja et al., 2018) and the prevalence of pregnancy-related anxiety to be 23% (Jyothi et al., 2020). During pregnancy, anxiety often manifests in panic attacks or specific forms of fear, while anxiety symptoms occur as a physiological response to stress (Hofberg & Brockington, 2000; Cantwell & Cox, 2003).

Research indicates that interventions like meditation, yoga, listening to music and relaxation techniques can reduce stress, depression, and anxiety during pregnancy and increase mindfulness levels (Dhillon et al., 2017). Stress reduction exercises during pregnancy also decreased caesarean section birth rates and low birth weight, among other benefits (Bastani et al., 2005). Pre-natal meditation has been shown to support the pregnancy process, including during delivery (Jahdi et al., 2017). Mindfulness meditation was found to be helpful for pregnant women to reduce their symptoms of anxiety, stress, and depression (Yang et al., 2017). Mindfulness-based training interventions reduce pregnancy stress and improve women's psychological health (Matvienko-Sikar et al., 2016). Furthermore, music therapy has been shown to improve pregnant women's psychological well-being by lowering emotional problems such as maternal stress, concern, and poor mood. As an accessible, non-pharmacological, and harmless technique, music therapy can be critical in boosting mental well-being throughout pregnancy (Chang et al., 2008).

According to previous literature, music and meditation interventions significantly lowered stress, worry, and anxiety while boosting psychological well-being throughout pregnancy. Mindfulness meditation, deep breathing, and pranayama have been shown in studies to significantly enhance mental and psychological wellness. It alleviates symptoms of sadness and anxiety, improves sleep quality, and decreases cortisol stress levels. Many studies, however, have concluded that music can calm both the mother and the unborn child, and evidence suggests that it effectively reduces the secretion of cortisol, a stress hormone, while also lowering blood pressure and fostering a greater sense of relaxation and well-being. Thus, music and meditation interventions have been shown to improve pregnant women's emotional states, which can benefit both the mother's psychological well-being and the growing foetus. However, there has been little study on the efficacy of music and meditation therapies for pregnant women. The researcher focused on all previous literature and tried to fill the gap with the following objectives and hypotheses:

AIM AND OBJECTIVES OF THE STUDY

The aim of the present study is to design, implement and evaluate the effectiveness of the following two strategies on psychological status of pregnant women.

- c. Music intervention
- d. Meditation intervention.

The primary and secondary objectives of the present study are as follows:

Primary Objective:

- To measure the effectiveness of Music and Meditation on psychological status of pregnant women in two different groups.

Secondary objectives:

- To study the socio-demographic profile of the selected pregnant women
- To construct and validate Pregnancy Psychological Status Scale
- To assess psychological status and its dimensions of pregnant women based on socio-demographic profile
- To plan music and meditation interventions for selected pregnant women
- To explore the effectiveness of intervention module on selected pregnant women
- To compare the effectiveness of interventions on pregnant women's psychological status

HYPOTHESES

H0₁: There would be no significant difference in the psychological status and its dimensions among pregnant women based sociodemographic variables.

H0₂: There might be no significant difference in psychological status of pregnant women in Pre, Mid and Post test under music intervention group.

H0₃: There may be no significant difference in psychological status of pregnant women in Pre, Mid and Post test under meditation intervention group.

H0₄: There would be no significant difference found in effectiveness of music and meditation intervention among pregnant women.

5.1 Sample

A total of 300 first trimester pregnant women were selected from government and private hospitals of the Lakhimpur district of Assam through purposive sampling technique. Prior permission/consent was obtained from the pregnant women, her family, and from hospital

authorities. There were 5 hospitals including one government and four private hospitals as well as 3 Sub-centres (PHCs) were selected to conduct the study. The researcher applied inclusion and exclusion criteria for sample selection. After screening eligibility criteria, Inclusion criteria involve pregnant women of the 1st trimester, between the age group of 18-40 years, and first/second/third pregnancies. Whereas, in exclusion criteria, the points that would be considered are- Unwillingness of participate, below 18 years and above 40 years, having previously participated in the pilot study, and places other than Lakhimpur. The respondents successfully filled the questionnaire given to them. The dependent variable in the present study were psychological status including the dimensions like happiness, stress, anxiety, family relationships, socialization, physical health, and body image, whereas the independent variables were age, education, occupation, income, area of living, family type, type of pregnancy, number of pregnancies, music, and meditation intervention.

5.2 Method

The study employed a quasi-experimental design with purposive sampling, selecting 120 pregnant women out of 300 pregnant women, with moderate and low psychological status. The participants were divided into control (60) and experimental (60) groups, further randomized into meditation and music intervention subgroups. Meditation sessions were conducted weekly for five months at Anganwadi centres, covering breathing exercises, relaxation techniques, and various pranayama. Simultaneously, online music sessions were provided for five months, including nature music, instrumental, folk music, Garbha Mantra, classic Hindi Instrumental Music, and lullabies. Pre-recorded music underwent expert review for refinement. Pregnant women's psychological status was assessed through Pregnancy Psychological Status Scale each trimester. The study demonstrated the effectiveness of both interventions, emphasizing their positive impact on the psychological well-being of pregnant women.

Pregnancy Psychological Status Scale

Pregnant women's psychological status was assessed in the pre, mid and post intervention period. A self-constructed tool, namely 'Pregnancy Psychological Status Scale' was used to assess the psychological status of selected pregnant women. The tool was developed by referring to "State-Trait Anxiety Inventory (STAI) by Spielberger and Diaz-Guerrero (1976)", "Psychological Well-being (42 items) (Ryff, 1989)" tools based on psychological status and psychological conditions during pregnancy. The tool has 40 items in seven dimensions, namely "happiness (4 items), stress (10 items), anxiety (7 items), Family

Relationship (5 items), Socialization (4 items), Physical Health (6 items), and Body Image (4 items)”. Of the 40 items, 17 are true-keyed while the remaining 23 are false-keyed. Each statement was evaluated using a 4-point Likert scale: often, sometimes, rarely, and never. Pregnant women with higher scores had better psychological well-being than those with lower scores. The tool’s highest score is 160, with a minimum of 40. Cronbach’s alpha was calculated for the tool, and the result was 0.71.

At the time of intervention, the samples were divided into control and experimental groups. The assessments were performed at baseline, after the sixth and eighth months of pregnancy.

Implementation of intervention

Meditation therapy, conducted offline once a week till the eighth month, encouraged participants to practice at home, gradually increasing from 15-20 minutes. Monitoring used a sign-off sheet, with weekly progress assessments, feedback, and interactive activities. The researcher's meditation diploma facilitated program execution. The music intervention, initially online due to COVID-19, included daily WhatsApp uploads for consistent exposure. Varied music themes were presented weekly, with intermittent offline sessions. Bi-weekly Google Meet sessions monitored progress. Music CDs and sign-off sheets aided follow-ups, and psychological status was assessed through the Pregnancy Psychological Status Scale each trimester for both control and experimental groups.

5.3 Statistical analysis

The collected data exhibited a normal distribution, enabling the utilization of both descriptive and inferential statistics. In inferential statistics, Analysis of variance (ANOVA), independent t-tests, paired t-tests, and repeated measures ANOVA were employed to evaluate the participants' psychological status pre, mid and post intervention.

5.4 Major findings of the study

From the results of the present study, it can be concluded as the following:

5.4.1 Socio-demographic profile of the respondents

- Socio-demographic profile of 300 pregnant women showed that more than half (50.00%) are aged 18-24, with the remaining 49.70% between 25-40 years. Based on education, 4.7% were illiterate, 39.3% completed 10th standard, and 8.00% were post-graduated. The majority (60.00%) were housewives, 27.00% were working in government sector,

and 13.00% worked in the private sector. Regarding income, 82.70% fell in the 5,000-30,000-income group. In terms of family structure, 32.00% belonged to nuclear families, while 68.00% are from joint families. Most respondents (75.70%) resided in rural areas. It was found that 48.30% had planned, 51.70% had unplanned pregnancy, and the majority (60.00%) were experiencing their first pregnancy, with 33.70% on their second and 6.30% on their third pregnancy.

5.4.2 Levels of psychological status and its dimensions among pregnant women

- Based on overall psychological status, 46.30% had a moderate psychological status, 28.00% reported good, and 25.70% reported poor psychological well-being.
- The findings of psychological status of 300 pregnant women across seven dimensions such as Happiness, Stress, Anxiety, Family Relationships, Socialization, Physical Health, and Body Image revealed that 44.70% reported high happiness, while 29.70% experienced high stress and 34.00% had high anxiety levels. 43.70% showed good family relationships, while 41.00% had good socialization. Physical health was found good by 28.30%. Body image satisfaction was reported by 26.0%.

5.4.3 levels of psychological status based on demographic variables

- Based on various variables among 18-24 age group, 25.80% had good, 47.70% fell under moderate, and 26.50% had low psychological status. Similarly, for the age group 25-40, 24.80% had good status, 50.30% moderate, and 24.80% low psychological status. Education-wise, postgraduates showed 25.00% good, 50.00% moderate, and 25.00% low psychological status. Occupation-wise, among government employees, 28.60% had good, 45.70% moderate, and 25.70% low status. Income-wise, in the 55,001-80,000 group, 52.60% had good, 31.60% moderate, and 15.80% low status. Regarding family type, in nuclear families, 26.00% had good, 49.00% moderate, and 25.00% low psychological status. In urban areas, 49.30% had good, and 26.00% had low psychological status among pregnant women. In planned pregnancies, 25.50% had good, 49.00% moderate, and 25.50% low status. For the third pregnancy, 31.60% had good and 42.10% had moderate status.

5.4.4 Mean, SD values of psychological status among pregnant women under pre-intervention group ($n=300$).

- Based on the overall psychological status with respect to socio-demographic factors revealed that younger age group (18-24 years) experienced poorer psychological status than the older group (25-40 years), supported by a t-value of 4.078 ($p<0.01$). Education

levels also played a significant role, with illiterate participants and postgraduates exhibiting significant differences in psychological status ($t=4.677$, $p<0.01$). Higher monthly income (55,001-80,000) was associated with a higher mean psychological status score ($M=111.63$, $t=3.41$, $p=0.05$). Planned pregnancies showed a higher mean psychological status score compared to unplanned pregnancies, supported by a t -value of 4.165 ($p<0.01$). However, other variables like occupation, family type, area of living, and the number of pregnancies did not show statistically significant differences.

- Based on age, it was revealed that the overall psychological status of pregnant women aged 25-40 was significantly better than those aged 18-24. The older age group reported less anxiety, higher happiness, better family relationships, improved socialization, and greater satisfaction with body image. However, stress levels and physical health were not significantly influenced by age. Pregnant women aged 18-24 reported higher anxiety levels and poorer psychological status compared to others.
- A significant difference between education and anxiety levels among pregnant women ($F=5.576$, $p<0.01$) was observed. Family relationships and socialization are also influenced by education, as indicated by significant F values ($F=3.278$, $p=0.05$) and ($F=2.742$, $p=0.05$) respectively. However, happiness, stress, physical health, and body image did not significantly differ based on education levels. Overall psychological status demonstrated a highly significant F value ($F= 4.677$, $p<0.01$), suggesting that higher education positively influences overall psychological status of pregnant women, potentially due to enhanced coping skills, access to resources, and a sense of control.
- Findings highlighted a significant connection between occupation and overall psychological status among pregnant women ($F=3.02$, $p< 0.01$). Government employees showed higher mean scores ($M=109.46$, $SD=10.64$) compared to housewives and private employees, indicating better psychological status. Family relationship also displayed significant differences among government-employed pregnant women, suggesting improved family relationships. However, happiness, stress, anxiety, physical health, and body image did not significantly differ based on occupation. The study indicates that government-employed pregnant women benefit from better family and social support, financial independence, especially amid the COVID crisis.

- Based on the income, overall psychological status was found to be significant ($F=3.41$, $p=0.05$). Family relationships are also influenced by income levels ($F=5.27$, $p<0.01$). However, 55,001-80,000 income group exhibited better overall psychological status and higher satisfaction with family relationships compared to other income groups. However, no significant differences were observed in happiness, stress, anxiety, socialization, physical health, and body image based on income.
- Significant differences in stress and socialization between pregnant women in nuclear and joint families (p -values: 0.035 and 0.030, respectively) were observed. Pregnant women in nuclear families showed slightly higher stress-coping abilities and better socialization. However, no significant differences were observed in happiness, anxiety, family relationships, physical health, and body image based on family type. The study observed that nuclear families might offer advantages in stress management and social interactions for pregnant women compared to joint families.
- Based on the type of pregnancy (planned or unplanned) and various dimensions of psychological status among pregnant women were found to be significant. Planned pregnancies are linked to better overall psychological well-being, higher happiness, lower anxiety, effective stress management, improved family relationships, and enhanced socialization indicating that the intentional nature of planning positively impacts various aspects of psychological status, contributing to a more stable and positive pregnancy experience, while unplanned pregnancies face challenges in adjustment, financial, and emotional readiness.
- With respect to area of living and number of pregnancies, overall psychological status of pregnant women did not find significant relationship. In case of number of pregnancies, women who attempted for 2nd time pregnancy were satisfied with their body image than 1st and 3rd pregnancy.

5.4.5 Results of psychological status among final selected respondents ($n=120$)

- Based on overall levels, majority of respondents (45.00%) had moderate psychological status, followed by low (30.00%) and high (25.00%) psychological status.
- Based on the results, levels of pregnant women with respect to dimensions, it was found that the majority of pregnant women are happy, with 45.8% expressing high happiness, 17.5% reporting moderate happiness, and 36.7% reporting poor happiness. They also had stronger stress management abilities, with 26.7% indicating better, 32.5% indicating

moderate stress, and 40.80% indicating bad. They have decent anxiety control abilities, with 26.70% rated as good, 40.0% as moderate, and 33.3% as bad. 41.7% of respondents are satisfied with their family ties. The level of satisfaction with socialization is modest, with 41.70% rating it as good, 25.8% as moderate, and 32.50% as poor. Physical health satisfaction is high, with 25.0% rating it as good, 49.2% saying it is moderate, and 25.8% saying it is poor. Body image satisfaction is high, with 20.80% happy, 42.5% moderate, and 36.7% dissatisfied. The study provides a comprehensive understanding of the psychological status of pregnant women post-intervention.

5.4.6 Results of the effectiveness of music intervention on psychological status of pregnant women

- Based on the music intervention, the results of multivariate analysis of variance showed significant differences highly significant differences in overall psychological status between the groups (experimental and control groups), with a significant F value 9.11 ($p<0.01$). Additionally, Happiness levels throughout trimesters were significant ($F=6.23$, $p<0.01$), with a large effect size ($\eta^2=0.18$). Stress was not significantly different across trimesters, but a significant difference was found between trimesters and groups (experimental and control) with an F value of 5.26 ($p<0.01$) with η^2 value of 0.16, indicating a large effect size. Anxiety did not show significant differences between trimesters or groups. However, family relationships showed a significant difference between trimesters, with a significant F value 5.56 ($p<0.01$) and a partial eta square value of 0.16, indicating large effect size. Similarly, family relationships revealed significant differences between trimesters and groups ($F=6.75$, $p<0.01$) with a η^2 value 0.19, showed large effect size. Socialization showed significant differences based on trimesters with an F value 7.72 ($p<0.01$), and η^2 value 0.21 indicated a large effect size of the intervention. Physical health showed a significant difference ($F=4.86$, $p=0.011$) between trimesters (1st, 2nd, and 3rd), with a large effect size in the intervention ($\eta^2=0.15$). Interaction effects between trimesters and groups (experimental and control) also showed a significant difference ($F=5.90$, $p<0.01$) along with a large effect size in music intervention ($\eta^2=0.17$). Body image showed no significant difference across trimesters, but interaction effects between trimesters and groups were significant with F value 4.43 which is significant at 0.05 level, indicating a medium effect size ($\eta^2=0.13$) in music intervention.
- The univariate results of repeated measures ANOVA for the control and experimental groups with music intervention across various dimensions were presented. Significant

improvements were found in happiness scores ($F=5.780$, $p=0.004$) regardless of trimesters. Stress scores did not show significant changes overall ($F=1.219$, $p=0.294$), but there was a significant difference in coping abilities between trimesters and groups ($F=4.399$; $p=0.021$). Music intervention did not significantly affect anxiety levels ($F=2.360$, $p=0.099$). Family relationship scores significantly increased ($F=6.116$, $p=0.003$) across trimesters and between trimesters and groups ($F=6.371$; $p=0.002$), indicating positive impacts. Socialization scores also significantly increased across trimesters ($F=5.728$, $p=0.009$), while physical health scores showed significant improvement between trimesters and groups ($F=6.756$; $p=0.003$). However, no significant changes were observed in body image scores ($F=1.387$, $p=0.253$). Overall psychological status did not show significant differences ($F=.481$, $p=0.553$), but there was a significant improvement among groups and trimesters ($F=6.841$; $p=0.005$), indicating the positive effect of music intervention on psychological well-being. Post-hoc comparisons between trimesters with music intervention are provided below the table and graphs for further analysis.

- Based on post hoc results, happiness showed a significant difference between pre and mid intervention phases ($M=-1.67$, $p=0.028$), while stress showed no significant difference between pre and post intervention periods ($M=-0.20$, $p=1.00$). Anxiety showed no significant difference between pre- and mid-intervention phases ($M=0-.33$, $p=1.00$), but a significant difference was observed in both pre- and post-intervention phases ($M=2.53$, $p=0.034$) and in mid and post-intervention phases ($M=2.20$, $p=0.005$). Physical health showed no significant difference between pre- and mid intervention phases ($M=-0.93$, $SE=0.999$), but a significant difference was reported in pre and post intervention phases ($M=3.93$, $p=0.001$) as well as in mid and post intervention phase ($M=3.00$, $p=0.001$). Overall psychological status showed no significant difference between pre- and mid intervention phases ($M=-3.07$, $p=1.00$), but a significant difference was reported in pre and post intervention phases ($M=-11.73$, $p=0.049$) also in mid and post intervention phase ($M=4.60$, $p=0.049$). However, family relationships, socialization, and body image dimensions did not show significant differences in pre, mid, and post-intervention phases.

5.4.7 Results of the effectiveness of meditation intervention on psychological status of pregnant women

- Based on the multivariate analysis of variance, the results showed significant differences in psychological status, with an F value of 8.87 ($p<0.01$) and a partial eta square value of

0.24. The study also found significant effects of interaction ($F=5.87$, $p<0.01$, $\eta^2=0.17$) between trimesters and groups (experimental and control). In terms of happiness, there was a significant difference between trimesters with an F value of 18.47 ($p<0.01$) but the results did not show significant differences based on groups. In terms of stress, there was a significant difference throughout the trimesters, with an F value of 30.92 ($p<0.01$), and η^2 value of 0.52 indicated a large effect size. Similarly, based on groups, stress dimension also showed significant differences ($F=30.92$, $p<0.01$) and a partial eta square η^2 value of 0.31, showing a large effect size of meditation intervention. Regarding anxiety, there was a significant difference between trimesters with an F value of 27.33 ($p<0.01$) and η^2 value of 0.49, showing a large effect size. Regarding family relationships, there was a significant difference between trimesters with an F value of 5.42 and ($p<0.01$), with η^2 value of 0.16, indicating a large effect size of the intervention. However, there was no significant interaction effect between trimesters and groups based on family relationships, finding a medium effect size ($\eta^2=0.07$) in the intervention. In case of socialization, there was no significant difference observed in trimesters, but a significant difference was seen between experimental and control groups with F value 4.48 ($p<0.05$). In terms of physical health, there was a significant difference across trimesters ($F=6.58$, $p<0.01$) as well as between trimesters and groups with an F value of 6.44 ($p>0.01$) and η^2 value of 0.18, showing a large effect size. Additionally, body image showed a significant difference in trimesters ($F=4.60$, $p<0.05$) between trimesters and groups with an F value of 4.09, $p<0.05$, indicating a medium effect size of the meditation intervention.

- The univariate results of repeated measures ANOVA for experimental and control groups during Meditation intervention showed significant improvements in happiness ($F=18.739$, $p<0.01$), stress ($F=27.178$, $p<0.01$), and anxiety ($F=35.007$, $p<0.01$) scores across trimesters. Group-wise analysis revealed significant differences in stress ($F=11.442$; $p<0.01$) and anxiety ($F=37.177$; $p<0.01$), indicating better coping. Family relationships showed a significant increase ($F=5.661$, $p<0.01$), but no significant difference was found between groups ($F=2.393$; $p=0.096$). Socialization scores didn't significantly increase across trimesters ($F=1.056$, $p=0.351$), but group-wise analysis showed significance ($F=4.642$; $p<0.05$), suggesting enhanced socialization with meditation intervention. Physical health scores significantly differed among trimesters ($F=5.976$, $p<0.01$), with significant differences between trimesters and groups ($F=6.905$; $p<0.01$), indicating improvements due to meditation intervention. Body image scores significantly varied

across trimesters ($F=3.161$, $p<0.05$) and between trimesters and groups ($F=4.736$; $p<0.05$), showing changes with trimester progression. Overall psychological status significantly differed among trimesters ($F=8.424$, $p<0.01$), with highly significant differences among groups and trimesters ($F=7.521$; $p<0.01$), indicating improved psychological status with meditation intervention.

- The results of post hoc comparisons showed significant differences in happiness, stress, anxiety, family relationships, physical health, overall psychological status, socialization, and body image dimensions. Happiness was significantly higher in pre-intervention phases ($M=2.23$, $p<0.01$), while stress was lower ($M=-2.67$, $p=0.073$) and higher in post-intervention phases ($M=-4.87$, $p<0.01$). Anxiety had significant mean differences in pre- and mid-intervention phases ($M=-3.20$, $p<0.01$), mid and post-intervention phases ($M=-1.5$, $p<0.05$). Family relationships had no significant difference in pre- and mid-intervention phases ($M=0.50$, $p=1.00$), but significant differences were reported in pre- and post-intervention phases ($M=-1.73$, $p<0.05$) as well as mid and post-intervention phases ($M=2.23$, $p<0.05$). Physical health had no significant difference in pre- and mid-intervention phases ($M=0.43$, $p=1.00$), but significant differences were observed in pre- and post-intervention phases ($M=-3.13$, $p<0.01$) and mid and post-intervention phases ($M=3.57$, $p<0.01$). Overall psychological status had no significant difference in pre- and post-intervention phases ($M=-7.97$, $p=0.111$), but a significant difference was reported in pre- and post-intervention phases ($M=-18.80$, $p<0.01$) as well as in mid and post-intervention phases ($M=10.83$, $p<0.01$). Socialization and body image dimensions did not report significant differences in pre-, mid, and post-intervention phases. Meditation intervention had a significant impact on psychological status in various aspects and these findings suggest that meditation can be a valuable tool for improving psychological well-being and overall well-being.

5.4.8 Comparison between two intervention protocols

- The multivariate analysis of variance revealed a significant difference in overall psychological status between trimesters, with the F value of 20.64 ($p<0.01$), and $\eta^2=0.420$, indicating a large effect size. However, based on overall psychological status, no significant interaction effects were found between the trimesters and the music and meditation experimental groups. In case of happiness, a significant difference was observed based on trimesters with an F value of 14.74 ($p<0.01$), however, no significant differences were observed between the groups. However, stress dimension showed significant

differences ($F=39.32$, $p<0.01$) in trimesters as well as between trimesters and groups ($F=14.09$, $p<0.01$). In terms of anxiety, a significant difference was observed in trimesters since F was 25.01 ($p<0.01$), as well as between trimester and groups ($F=37.38$, $p<0.01$). Family relationships reported significant differences in trimesters ($F=4.65$, $p<0.05$) but did not show significant differences between the groups. Physical health and body image showed a significant difference between trimesters, with ($F=24.22$, $p<0.01$) and ($F=4.94$, $p<0.05$), indicating a large effect size of 0.459 and 0.148, respectively. Socialization did not show significant differences between trimesters or interaction effects between the trimester and the music and meditation experimental group.

- The univariate analysis of repeated measures ANOVA showed significant improvements in happiness scores ($F=19.62$, $p<0.01$) and stress scores ($F=31.02$, $p<0.01$) among the music and meditation groups. However, no significant difference was observed between the groups. Anxiety scores increased significantly ($F=38.67$, $p<0.01$) among the music and meditation groups. Family relationships scores also increased significantly ($F=4.699$, $p<0.05$), but no significant difference was observed between the groups. Socialization scores showed no significant difference ($F=0.687$, $p=0.488$), physical health scores increased significantly ($F=22.278$, $p<0.01$), and body image scores increased significantly ($F=3.599$, $p<0.05$). Overall, the study found a significant increase in overall psychological scores ($F=16.383$, $p<0.01$) among pregnant women, but no significant difference was observed between the music and meditation groups. The results showed that both the music and meditation experimental groups were effective in their own way.

5.4.9 Psychological status of pregnant women in post-test among music and meditation experimental group.

The comparison between the post-test results of the both music and meditation interventions did not show significant differences based on overall psychological status of pregnant women, which means they have benefits in their way. However, positive significant differences were observed based on family relationships among meditation group as the mean value was higher ($M=15.87$, $SD=2.788$) than the music group.

CONCLUSION

The study concludes that both meditation and music interventions are effective in enhancing the psychological well-being of pregnant women. Music intervention showed significant improvements in coping stress, family relationships, physical health, body image and overall psychological status among pregnant women. However, no significant difference was observed in control group except happiness dimension.

Similarly, meditation intervention proved improvements in coping stress and anxiety, socialization, physical health, body image and overall psychological status among pregnant women. However, no significant difference found in control group except happiness dimension. This indicates pregnant women are happy even though they did not receive music and meditation intervention. The findings highlight the significance of considering these dimensions when designing support and interventions to influence the psychological status of pregnant women positively.

IMPLICATIONS

- This study will help to conduct music and meditation intervention or counselling sessions for pregnant women in hospitals.
- The results may be useful for the further generations to get awareness on their health.
- This study would be helpful to conduct workshops, conferences and seminars to have better emotional and psychological health among pregnant women.
- An educational awareness program can be organized to train the health workers including doctors, nurses, about the use of music and meditation during pregnancy.
- Follow-ups can be conducted to assess the effectiveness of the interventions during the postpartum period and their impact on the infant or child.
- The results will be discussed with doctors and health workers in the area where data collection and intervention took place, with a request to implement similar interventions in hospitals and PHCs to improve the psychological status of pregnant women and their unborn children.

LIMITATIONS

- After pilot study ($n=66$) during 2019, again the data collection and intervention were carried out immediately after the second wave of COVID-19, is the main limitation.
- Limited access to data as this study is initially to be collected during the first trimester, and most of them did not respond

- As the pregnancy period itself is 8 to 9 months, I have a limited period to cover the intervention (4th month to 8th month) and also it is a vulnerable group many did not agree to continue.
- No tools were found with these seven dimensions measuring overall psychological status of pregnant women.
- The study analyzed the psychological status of pregnant women in a specific district of Assam. The findings cannot be extended to all pregnant women in India due to individual, socio-economic, and geographical variables that may impact the outcomes.
- Most items in the tool were constructed with positive statements based on recommendations from gynaecologists and psychiatrists, as it is intended for use with pregnant women.
- Dimensions such as depression and baby's growth could not be included because the experts who validated the tool advised against incorporating such items.

RECOMMENDATIONS FOR FUTURE STUDY

- Further studies could be done with a larger sample size.
- Mediation and Music can be combined. hospitals, clinics, and health centres should take the initiative to give such programmes to women.
- Further studies can focus on longitudinal research to see the impact of these interventions on child development.
- A pregnancy user-friendly app can be developed for future research for her wellbeing
- Psychological assessment tools can be developed especially for pregnancy-related issues.
- Interventions should begin as early as the first trimester to maximize their effectiveness. Future research should focus on evaluating the benefits of early intervention during pregnancy.
- Health centres should offer a variety of intervention packages specifically designed to address the psychological status of pregnant women. These packages should be made mandatory to ensure that all women receive appropriate care.
- Offline interventions have been shown to be more effective than online, especially during pregnancy. Further studies should emphasize the importance of in-person support.
- It is essential for all hospitals, both private and public, to have dedicated assessment and therapy centres for pregnant women. These centres would ensure that pregnant women receive the necessary psychological and emotional support throughout their pregnancy.
