IMPACT OF SUPPORT PERSON'S PRESENCE ON LABOR OUTCOMES AMONG PRIMIPAROUS MOTHERS IN A SELECTED HOSPITAL IN NADIAD,GUJARAT, India

ABSTRACT

BACKGROUND: Allpregnantwomenseekacomforting,encouragingcompanionduringlabour toassist theminmanagingthevariousdifficulties ofchildbirth,such aspain,anxiety, exhaustion and ambiguity. The concept of **"companion of choice at birth"** entails having a supportive individualpresentcontinuously duringlabourand delivery.A birthingcompanionisessentialfor providingexpectantmotherswithvitalinformation,proceduraltechniquesandemotionalsupport during labor. Theyfacilitate communication between themedicalstaffand the mother, help keep her calm, mobile, hydrated and promote a positive environment. Additionally, they assist with Lamaze breathing techniques, guiding the mother through contractions and pushing with less physical tension, ultimately making the labor process smoother and more manageable.

OBJECTIVE:

1. Toevaluatetheeffectivenessofpresenceofsupportpersononlabouroutcomeamong primi-parturient women in experimental and control group.
2. To find out the association between labour outcome among primi-parturient women inexperimental group and their selected demographic variable.
3. To find out the association between labour outcome among primi-parturient women incontrol group and their selected demographic variables.

METHODOLOGY: Thequantitativeresearchapproachwithpost-testonlycontrolgroupdesign was used in this study with the sample size 30 in both experimental and control group in the selected Maternal hospital of Nadiad. Convenient sampling technique used for control and experimental group. Self-structured labour progress record to assess the labour progress, Visual analogscaletomeasurethelevelofpainandModifiedHAM-Atoassessthelevelofanxiety.The inferential and descriptive statistics was used.

RESULT: The results indicate significant differences between the experimental and control groups in labor progress, pain levels, and anxiety. Labor progress scores, ranging from 0–7 (with lower scores indicating better progress), were significantly lower in the experimental group, indicating better labor progress ($p < 0.05$). Pain levels assessed using the Visual Analog Scale showed that 10% of the experimental group reported mild pain, 70% moderate, and 20% severe, compared to 0% mild, 20% moderate, and 80% severe in the control group, highlighting less severe pain in the experimental group. Anxiety levels, measured using the modified Hamilton Anxiety Scale, revealed that 73.34% of the experimental group reported mild anxiety, 23.33% moderate, and 3.33% severe, while the control group reported 17.67% mild, 36.66% moderate, and 46.67% severe anxiety, demonstrating significantly lower severe anxiety and higher mild anxiety in the experimental group. These findings suggest that the experimental group experienced better outcomes overall, with improved pain and anxiety management compared to the control group.

CONCLUSION: The study highlights that having a birth companion during labor significantly improves labor progress and maternal outcomes. Companions provide crucial emotional support, reduce stress, and enhance comfort, leading to better childbirth experiences. Given these benefits, hospitals nationwide should adopt a birth companion policy to ensure continuous support for all birthing individuals, ultimately improving maternal and neonatal health outcomes.

KEYWORDS: Supportperson,Labouroutcome,Primiparturientmother,Birthcompanion.

INTRODUCTION

In every nation and society across the globe, pregnancy and childbirth mark significant milestones in the lives of women and families, embodying a period of profound vulnerability.[1]

Labor can be an intimidating experience for women, particularly during their first childbirth, as they may encounter a wide range of physical sensations, from mild discomfort to intensepain.However,ensuringthatthewomanfeelsasrelaxedandinformedaspossiblecanhelp alleviate both the physical and emotional challenges of labor and delivery. This can be achieved throughprovidingadequatecare,timelyupdates,comfort,supportandreassurancethroughoutthe process.[2,9,10]

In traditional labour practices, women are typically supported by another woman. The conceptof"**safemotherhood**"hastraditionallyfocusedsolelyonphysicalwell-being.However, itisimperativetobroadenthescopeofsafemotherhoodbeyondmerelypreventingillnessordeath toincludeupholdingwomen'sfundamentalhumanrights.Thisencompassesrespectingwomen's autonomy, dignity, emotions, choices and preferences including the provision of companionship during maternity care.[3]

All pregnant women seek a comforting, encouraging companion during labour to assist them in managing the various difficulties of childbirth, such as pain, anxiety, exhaustion and ambiguity.Theconceptof"**companionofchoiceatbirth**"entailshavingasupportiveindividual present continuously during labour and delivery. A "**Doula**", derived from the Greek term for a female caregiver, can fulfil these requirements and the continuous support provided by a doula labour can enhance childbirth experiences and outcomes.[4]

Labour companionship involves providing support to a woman during labour and childbirth,whichcancomefromvarioussourceslikepartners,familymembers,friends,doulasor health careprofessionals. It hasbeenatraditionalpracticeforwomentohavecompanionsduring childbirth however some healthcare initiatives have overlooked this tradition, leaving women to give birth alone in health facilities.[5]

OBJECTIVESOFTHESTUDY

1. To evaluate the effectiveness of presence of support person on labouroutcome among primi-parturient women in experimental and control group.

2. Tofindouttheassociationbetweenlabouroutcomeamongprimi-parturientwomeninexperimental group and their selected demographic variable.
3. Tofindouttheassociationbetweenlabouroutcomeamongprimi-parturientwomenincontrol group and their selected demographic variables.

REVIEWOFLITERATURE

1) **Berlington M. J. Munkhondya et al. (2020)**, conducted a quasi-experimental study in Malawi, involving 70 primigravid women, to evaluate the effectiveness of Companion-Integrated Childbirth Preparation (C-ICP). The intervention group, receiving two sessions of C-ICP, demonstrated significant reductions in childbirth fear ($p < .001$), along with notable enhancements in self-efficacy ($p < .001$) and maternal support ($p < .001$) compared to the control group receiving routine care. Data analysis utilized simple linear regression. The intervention group experienced a significant decrease in childbirth fears by approximately 86.6%, a significant increase in childbirth self-efficacy by approximately 90.3%, and an increase in birth companion support by approximately 78.1% compared to the control group. However, there were no significant differences in pregnancy outcomes between the two groups.[6]

2) Ylva Vladic Stjernholm et al. (2021) conducted a randomized controlled study at a Swedish university hospital from 2015 to 2017, finding that continuous support during labor significantly shortened active labor duration (11.0 ± 5.7 hours vs. 13.7 ± 3.9 hours, $p = 0.001$) and led to lower cortisol levels. This support also increased spontaneous vaginal deliveries (73% vs. 62%) and the use of combined analgesic methods ($p = 0.04$), highlighting its benefits for improving birth outcomes in primiparous women.[7]

3) Almutawtah, M (Nov 2023), Examined social support experiences during pregnancy among women worldwide. They conducted a search across PubMed, CINAHL, MEDLINE, APA PsycINFO, and Scopus databases, identifying 14 relevant studies involving 571 participants. Data collection methods varied, with two studies employing focus groups and 12 using interviews. The analysis revealed four main themes and six sub-themes regarding social support during pregnancy. Notably, 14% of participants reported dissatisfaction with relationships, while 30% highlighted the importance of financial support from spouses and family. These findings underscore the diverse aspects of social support pregnant women encounter, emphasizing the significance of interpersonal connections and tangible assistance during this critical life stage.[8]

MATERIALANDMETHOD:

Researchapproach: Quantitativeresearchapproach

ResearchDesign: Posttestonlycontrolgroup

ResearchVariable:

IndependentVariable: Presenceofsupportperson

DependentVariable: Labouroutcome

DemographicVariables: Age,Religion,Residentialstatus,Familytype,Regularexercise, Education, Occupation, Monthly family income, Support person present during labour

Target Population: Consists of all the primi-parous mothersbetween the age group of 20-30years living in Nadiad.

ResearchSetting: MaternalhospitalsofNadiad

SamplingTechnique: Convenientsamplingtechnique

SampleSize: Samplesizeforthisstudyis60primi-parousmothers,30samplesforexperimental group and 30 samples for control group.

SAMPLINGCRITERIA

- **Inclusioncriteria:**
  1. Primi-Parturientmotherswhohavecompleted37weeksofgestationalage.
  2. 20-30 years of age group
  3. Truelabourpainandadmittedtolabourward.
  4. Vaginaldelivery
- **Exclusioncriteria:**
  1. Highriskmothers
  2. Criticallabour
  3. 19yearsofage
  4. 31yearsofage
  5. Pretermandpost-termdeliveries
  6. LowerSegmentCesareanSection(planned)

TOOLFORDATACOLLECTION

Section- A: Demographic data

Section-B: Labour progress record

Section-C:Visualanalogpainscale

Section-D:ModifiedHamiltonAnxietyAssessmentScale(HAM-A)

RESULT&DISCUSSION:

SECTIONI:Descriptionofthedemographicvariablesofprimi-parousmothers.

The frequency and percentage distribution of the samples by their personal data in experimentalandcontrolgroup.Thedatashowsthatin**experimentalgroup**,thelargestagegroup consistsofparticipantsaged23-25years 10(33.33%).ThemajorityidentifyasHindu16(53.34%). A significant portion of participants reside in rural areas17(56.67%) and come from joint families21(70%). Most participants do not engage in regular exercise19(63.33%). Regarding education, the majority have completed primaryschool16(53.33%). In terms ofoccupation, most participants are housewives21(70%). The largest group of participants has a monthly family income of less than ₹ 20,00013(43.33%). Lastly, most participants receive support from relatives18(60%).

Inthe**controlgroup**,themajorityofparticipantsareaged20-22years15(50%).Mostidentifyas Hindu 26(86.7%) and live in rural areas 27(90%). A large portion come from joint families 25(83.33%). Most participants do not engage in regular exercise 25(83.33%). The majority have completedprimaryschooleducation23(76.66%).Mostarehousewives24(80%),andasignificant portion has a monthly family income of less than ₹ 20,000 20(66.67%). All participants in this group reported having no support person present 30(100%).

SECTIONII:DESCRIPTIONOFTHELABOURPROGRESSINGVARIABLESOF PRIMI-PAROUS MOTHERS.

Table-1: FrequencyandPercentagedistributionoflabourprogress

[N=30]

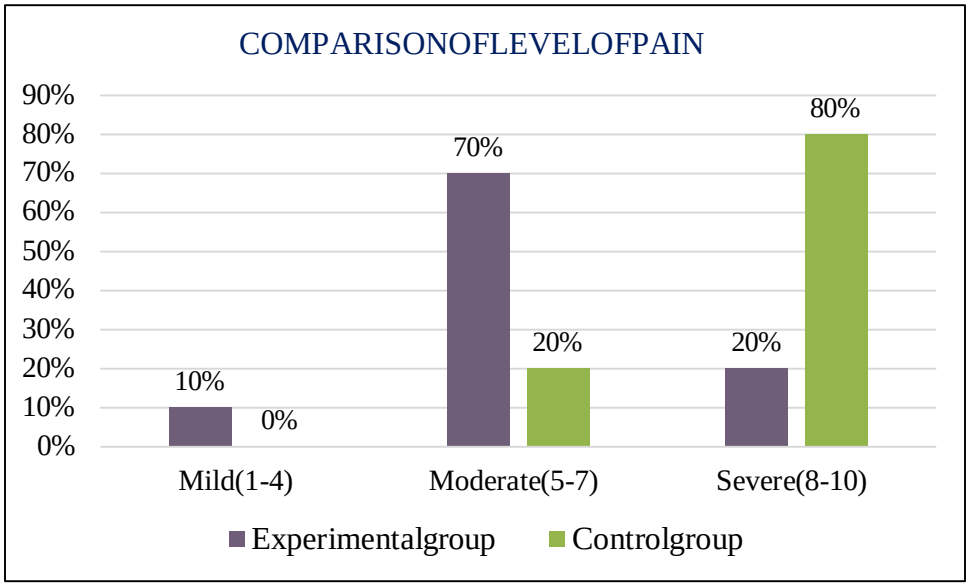
Sr. No.	CriteriaforLabour Observation	ExperimentalGroup		ControlGroup	
		Frequency	**Percentage**	**Frequency**	**Percentage**
1.	**ModeofDelivery**				
	a) VaginalDeliverywithor without episiotomy	**25**	**83.33**	**29**	**96.67**
	b) Assisteddelivery (Forceps,Vacuum)	05	16.67	01	3.33
2.	**Durationof1st stageof labour.**				
	a) ≤12hours	**23**	**76.67**	**17**	**56.67**
	b)>12hours	07	23.33	13	43.33
3.	**Durationof2nd stageof labour.**				
	a)≤2hours	**27**	**90**	**27**	**90**
	b)>2hours	03	10	03	10
4.	**Durationof3rd stageof labour.**				
	a)≤30minutes	**26**	**86.67**	**25**	**83.33**
	b)>30minutes	04	13.33	05	16.67
5.	**Totaldurationoflabour.**				
	a)≤18hours	**29**	**96.67**	**26**	**86.67**
	b)>18hours	01	3.33	04	13.33
6.	**APGARscoreat1 minute.**				
	a)≥7	**19**	**63.33**	09	30
	b)≤6	11	36.67	**21**	**70**
7.	**APGARscoreat5 minutes.**				
	a)≥7	**26**	**86.67**	11	36.67
	b)≤6	04	13.33	**19**	**63.33**

SECTIONIII:EFFECTIVENESSOFPRESENCEOFSUPPORTPERSONONLABOUR OUTCOME AMONG PRIMI-PARTURIENT WOMEN IN EXPERIMENTAL AND CONTROL GROUP.

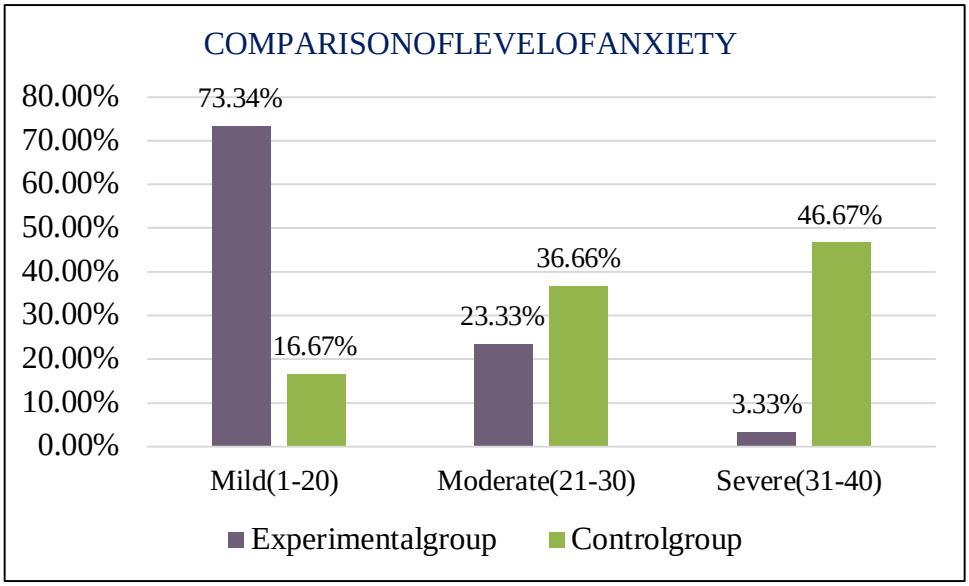
Table-2: Comparisonbetweenexperimentalandcontrolgroupamongthevariablesoflevelof pain, level of anxiety and labour progress.

[N=30]

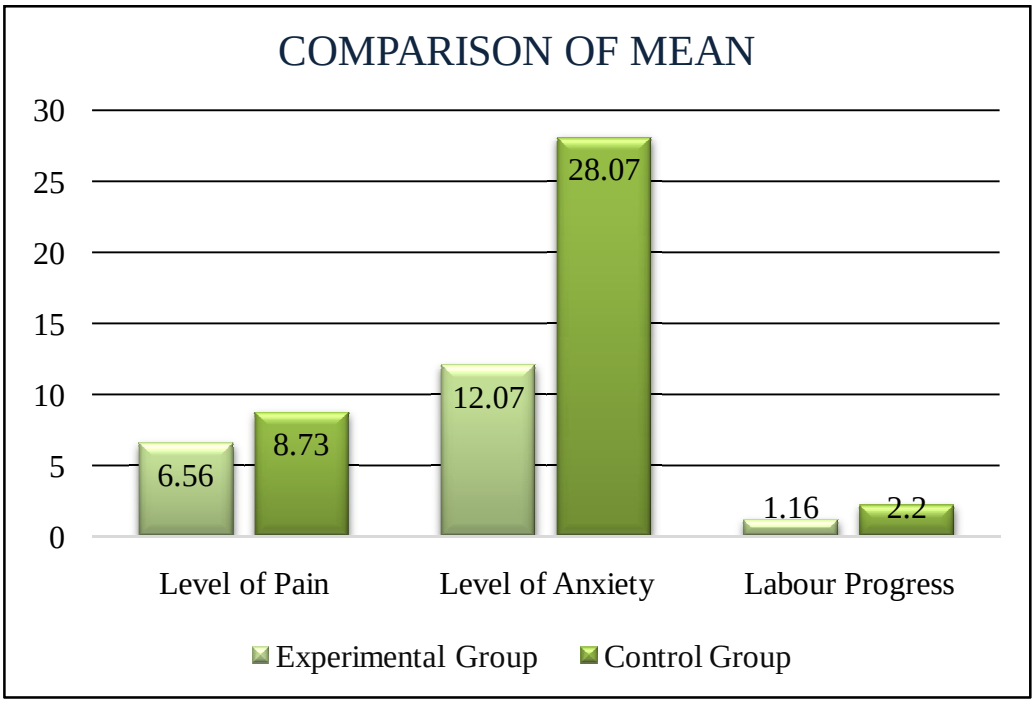
Sr. No.	Variables	Maximum Score	ExperimentalGroup		ControlGroup		t-value
			Mean	SD	Mean	SD	
1.	LevelofPain	10	6.56	1.47	8.73	1.52	2.0017
2.	Levelof Anxiety	40	12.07	8.93	28.07	7.62	2.0025
3.	LabourProgress	07	1.16	1.36	2.2	1.14	2.0167



[Figure:1 Percentage distribution of pain levels among primi-parous mothersin the experimental and control groups.]



[Figure:2Percentagedistributionofanxietylevelsamongprimi-parousmothersintheexperimental and control groups.]



[Figure:3Comparison of the means between theexperimental and control groups for the variables of pain, anxiety and labour progress.]

The bar graph compares mean difference of the experimental and control groups for three variables: level of pain, level of anxiety, and labor progress. The experimental group reported lower pain and anxiety levels compared to the control group, indicating better outcomes. For labor progress, lower mean scores in the experimental group suggest better progress, as lower scores reflect more favorable labor conditions. These findings highlight the positive impact of the

intervention on reducing pain and anxiety and improving labor progress.

SECTIONIV:ASSOCIATIONBETWEENLABOUROUTCOMEAMONGPRIMI-PARTURIENT WOMEN IN EXPERIMENTAL GROUP AND THEIR SELECTED DEMOGRAPHIC VARIABLE.

1:Associationofselecteddemographicvariablestothelevelofpainregardingpresenceof support person among primi-parous mothers in experimental group.

Association of selected demographic variables to the level of pain (classified as mild, moderate, or severe) regarding presence of support person among primi-parous mothers in experimental group.Foreachdemographicvariable,thenumberofindividualsineachpaincategoryisprovided, along with the chi-square (χ^2) value and its corresponding degrees of freedom (df) and p-value. Thechi-squaretestsassesstheassociationbetweendemographicfactorsandpainlevels.Notably, significantassociationsareindicatedbyhigherchi-squarevaluesandcorrespondingp-values(e.g., age, religion, and occupation), suggesting that certain demographic factors may influence the severity of pain experienced by individuals.

2:Associationofselecteddemographicvariablestothelevelofanxietyregardingpresence of support person among primi-parous mothers in experimental group.

Associationofselecteddemographicvariablestothelevelofanxiety(classifiedasmild,moderate, or severe) regarding presence of support person among primi-parous mothers in experimental group.Foreachvariable,thedistributionofindividualsineachanxietycategoryisprovided,along with thechi-square(χ^2) value,degreesof freedom (df), and p-value, which assess theassociation between demographic factors and anxiety levels. Significant associations are indicated by higher chi-squarevaluesandp-values(e.g.,age,religion,familytype,occupation),suggestingthatthese demographic factors have an impacton thelevel of anxiety experienced by individuals. Notably, variablessuchasoccupation,familyincome,andsupportpersonpresentshowstrongassociations with anxiety levels.

SECTION V: ASSOCIATION BETWEEN LABOUR OUTCOME AMONG PRIMI-PARTURIENT WOMEN IN CONTROL GROUP WITH THEIR SELECTED DEMOGRAPHIC VARIABLE.

1: Association of selected demographic variables to the level of pain regarding presence of support person among primi-parous mothers in control group.

Association of selected demographic variables to the level of pain (classified as mild, moderate, orsevere)regardingpresenceofsupportpersonamongprimi-parousmothersincontrolgroup.For each demographic category, the number of individuals in each pain level is shown, alongside the chi-square (χ^2) value, degrees of freedom (df), and p-value. These statistics help assess whether there is a significant association between demographic factors and pain severity. The table indicates that certain factors, such as age, education, family income, and occupation, show significantassociationswithpainlevels,particularlyhigherpainseverityamongindividualsfrom certainagegroups,educationlevels,andincomebrackets.However,variableslikesupportperson presenceandreligionexhibitnosignificantrelationshipwithpainseverity,asindicatedbylowor zero chi-square values.

2:Associationofselecteddemographicvariablestothelevelofanxietyregardingpresence of support person among primi-parous mothers in control group.

Associationofselecteddemographicvariablestothelevelofanxiety(classifiedasmild,moderate, or severe) regarding presence of support person among primi-parous mothers in control group. Thechi-square(χ^2)values,alongwithdegreesoffreedom(df)andp-values,areprovidedtoassess the significance of these associations. Notable findings include significant associations between age, family type, education, and occupation with anxiety levels, particularly showing higher anxiety incertainagegroups,familystructures, andeducationlevels.Forinstance,individualsin the"Joint" familytypeexperiencedhigheranxiety levels.However,variableslikesupportperson presence,religion,andresidentialstatusshowweakornosignificantassociations,asindicatedby loworzerochi-squarevalues.

CONCLUSION

The study highlights that having a birth companion during labor significantly improves labor progress and maternal outcomes. Companions provide crucial emotional support, reduce stress, and enhance comfort, leading to better childbirth experiences. The results suggest that demographic factors such as age and family type may have a considerable impact on the severity of anxiety experienced by individuals.

RECOMMENDATION

1) Hospitals and maternity care centers should adopt policies that encourage or mandate the presence of a support person during labor to improve maternal outcomes.
2) To conduct awareness sessions for pregnant women and their families about the benefits of having a support person during labor to reduce anxiety and pain and enhance labor progress.
3) To develop training programs for potential support persons (partners, family members, or friends) to provide emotional and physical assistance during labor effectively.
4) Integrate the concept of support persons into routine midwifery and nursing care to promote a holistic and patient-centered approach to childbirth.
5) The additional studies can be conducted with larger sample sizes and in different geographic regions to generalize findings and identify any cultural or regional variations in outcomes.
6) Investigate the long-term psychological impact of support person presence on both mothers and their support persons to enhance the understanding of this intervention's full benefits.
7) To ensure that labor rooms are designed to accommodate support persons comfortably, maintaining privacy and promoting a conducive environment for effective support.

ETHICALAPPROVALANDCONSENT

The study was approved by the institutional ethical committee (IEC) of Dinsha Patel College of Nursing,Nadiad.Thereisatotal15membersincommitteefromvariousdepartments.TheEthical

Approval Reference number is MAM Uni/IECHR/2024/51 And a formal written consent was gathered from the samples prior to data collection.

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