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Original article

# Effectiveness of a counselling intervention implemented in antenatal setting for pregnant women facing domestic violence: a pre-experimental study

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**Objective** To assess the effectiveness of a counselling intervention in antenatal care settings for pregnant women who report domestic violence.

**Design** Pre-experimental study with pretest-posttest design.

**Settings** Two public hospitals in Mumbai, India.

**Sample** In all, 2778 pregnant women accessing antenatal care (ANC) in the hospitals from February to November 2016 were approached for study participation; 2515 women consented. These women were screened by trained counsellors for domestic violence during pregnancy (domestic violence during pregnancy). Domestic violence during pregnancy was reported by 16.2% (408) of women. Of these, 155 women sought counselling services. Post-intervention analyses were carried out with 142 women at 6 weeks post-delivery; 13 women were not contactable.

**Methods** The 442 women who reported domestic violence during pregnancy were provided a minimum of two counselling sessions by trained counsellors during their ANC visits. A counselling intake form was used to collect pre- and post-intervention data.

**Main outcome measures** Prevalence of domestic violence during pregnancy, change in women's ability to cope, safety, and health.

**Results** Prevalence of domestic violence during pregnancy (16.1%) was comparable to those of common obstetric complications routinely screened for during ANC. In all, 60–65% women reported cognitive changes such as recognising impact of violence and need to speak out against it. In all, 50.7% women took action at the individual level to address domestic violence during pregnancy. This change was not statistically significant (*P*-value 0.193). Of the women studied, 35.9% adopted at least one safety measure, and 84% of the women reported better health status post-intervention.

**Conclusions** Routine enquiry and counselling for domestic violence during pregnancy are effective in improving women's ability to cope, safety, and health.

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**Keywords** Antenatal care setting, counselling, intervention, pregnancy, violence.

**Tweetable abstract** Improving coping strategies, safety and health of pregnant women who reported domestic violence by providing counselling in antenatal care setting.

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## Introduction

Pregnancy is a phase of complex transition with increased vulnerability both physically and emotionally. The social determinants' approach to health has identified factors that further increase the risk of maternal morbidity, mortality, and adverse pregnancy outcomes. One of these risk factors is intimate partner violence during pregnancy (IPVDP), which carries the dual threats of poor maternal health and birth outcomes.[1,2] A WHO multi-country study on women's health and domestic violence against women found the prevalence of violence during pregnancy to vary from 1 to 28%, with many in the range of 4–12%.[3]

As violence from husband and/or family members is more common in the Indian context, literature focuses on domestic violence during pregnancy (DVDP), which is violence against a pregnant woman by any male or female relative living in a shared household.[4] Various population and

facility-based studies in India have found a rate of violence against pregnant women of between 13 and 49%.[5–9] Domestic violence in India may not be limited to the women's partner and husband but may be experienced from other family members due to the culture of extended families living together. The National Family Health Survey, which is a representative household survey in India, has estimated domestic violence during pregnancy for the first time in its fourth round and found that reports of physical violence vary from 0.2 to 6.5%.[10]

Several studies in high- and low/middle-income countries have reported adverse health outcomes of VDP.[11–15] These include injuries, impairment, postpartum depression, miscarriage, unsafe abortion, low birthweight, pre-term delivery, caesarean sections, and sexually transmitted infections. The limiting impact of violence on antenatal care seeking by women has been well documented.[16] IPVDP is a leading factor contributing to homicide and suicide of pregnant women in many countries.[13,17,18] A study based on surveillance data from 17 states of the USA found that 54.3% of suicides and 45.3% of deaths due to homicide during pregnancy were due to IPV.[18] Although IPVDP contributes to poor maternal health, it is neglected as a contributing factor when estimating maternal mortality and morbidity. The definition of maternal mortality followed by most LMICs excludes deaths due to homicides, suicides, and accidents, and considers them 'pregnancy-related deaths due to injuries'.[19]

Recently, interventions to address IPVDP have gained significance globally as a strategy to reduce maternal mortality and morbidity. Various intervention studies in countries such as the USA, Australia, Hong Kong and Peru have provided substantial evidence by evaluating the interventions on the role of healthcare providers (HCPs) in responding to pregnant women either reporting or at risk of DV.[20–24] The interventions which have been implemented and evaluated include screening pregnant women for violence in the antenatal clinic (ANC) setting, referral to the services, safety planning, cognitive behavioural therapy, home visits by nurses, and offering empowerment counselling.[25] Studies using empowerment counselling as an intervention showed significant reduction in violence,[21,23] improved health status,[23] and increased use of safety measures by women.[24]

This study aimed to assess the effectiveness of a counselling intervention for pregnant women who reported DV in improving their coping strategies, safety, and health.

## Methods

### Patient involvement

Women were followed for 6 weeks after delivery to measure the effectiveness of intervention. Participants were women attending their first antenatal appointment in one of the two hospitals, irrespective of age, marital status, number of children, residency status, and gestational age.

The counsellors approached all women and provided information about the study and the available support services, emphasising confidentiality. Written consent was sought from women who agreed to participate. Women who reported domestic violence were offered counselling intervention. They were given the option of attending counselling on the same day or when they attended for their 'blood report', usually 2 days later. However, women whose immediate safety was a concern were advised to attend the counselling intervention on the same day.

Women were approached over a period of 10 months to obtain the optimum sample size, which was calculated according to the prevalence of domestic violence during pregnancy reported in the literature. During this time, 2778 women were approached by the counsellors. The participation rate in the study was 90.5%, thus 2515 women consented to administration of the screening tool.

### Intervention

The counselling intervention implemented is based on the concept of empowerment where solutions to woman's problems are strategised by working with the women's existing resources and strengths. The intervention comprises empathetic listening, provision of emotional support, safety planning, assisting with filing police complaints, and helping with referrals to other support services. Safety assessment and planning was undertaken for all women, including those currently living in their parental homes. Safety planning focused on ways for the women to protect themselves against violence, e.g. by shouting, getting out of the room, calling for help from neighbours, calling a police helpline. Similarly, the counsellor helped women to develop strategies that can be used at the individual level, and also discussed the informal and formal support systems to cope with the violence, and trauma associated with it.

A minimum of two intervention sessions were provided for every woman. Each session lasted 30–45 minutes. Of the women, 68 (47.8%) sought more than two sessions.

### Theoretical framework

Sullivan's social and emotional well-being framework for evaluating DV programmes informed the outcomes of the counselling intervention.[26] The framework describes components of intervention which result in changes for women at intrapersonal (individual) and interpersonal levels (social environment). The expected outcomes according to the framework were combined to present cognitive changes, coping, safety, and health of women after the intervention. A schematic presentation of the themes analysed as per Sullivan's framework is provided in Figure 1.

## Outcome measures

A core outcome set (COS) was not used as there is no relevant existing COS. The effectiveness of healthcare settings-based interventions is listed as an ongoing peer review COS in the Core Outcomes in Women's and Newborn health database.

In this study, cognitive outcomes included changes in women's understanding and perceptions regarding DV. Coping strategies were specific efforts employed by women after intervention at individual, informal, and formal levels. At the individual level, these were feeling empowered to seek financial independence by seeking employment and to challenge the abuser. Actions at the informal level involved seeking support from family, friends, and neighbours. Actions at the formal level included finding support from organisations, community leaders, the police, and legal systems. Safety strategies were steps taken by women post-intervention to reduce and mitigate the negative physical and psychological consequences of DV, such as stepping out of the house, keeping valuables and documents in a safe place, alerting neighbours for help, shouting for help, and calling the police.

Changes in health after intervention were measured based on self-reported health status of women, and physical and emotional health consequences of violence. Physical health consequences included injuries, aches, fatigue, and fractures. Suicidal ideation, fear, nervousness, and anxiety are examples of emotional health consequences included in the data collection form.

The data were analysed using SPSS Statistics for Windows, Version 20.0. Armonk, NY by IBM Corp. The descriptive analyses present socio-economic characteristics, forms of violence, and health consequences. McNemar's test for paired groups at a confidence interval (CI) of 95% (>0.05) was used to assess the effectiveness of the intervention.

## Tools

A review of screening tools such as the Woman Abuse Screening Tool (WAST),[27] Hurt Insult Threat Scream (HITS),[28] and Abuse Assessment Screen (AAS)[29] indicated that these were focused on intimate partner violence and physical violence. The field setting required that the tool be such that it captures domestic violence and not just IPV. The AAS tool was found to be most relevant but was modified to assess physical, emotional, financial, and sexual forms of domestic violence. The developed tool was piloted in a third hospital and the order of screening questions was changed to begin with non-threatening forms of abuse instead of starting with physical violence. The intake form used for documentation of counselling sessions was used for data collection and recorded information on the socio-economic background of the woman, history of violence, health complaints, and coping mechanisms before intervention. A further form used at 6 weeks post-delivery was modified to include additional information on pregnancy outcomes, improvement in the health of women, and coping and safety strategies used by women after the intervention. All outcome variables were derived from the checklists for assessing safety, coping strategies, and health consequences.

The process of administering the tool and providing counselling was conducted in a separate room within the

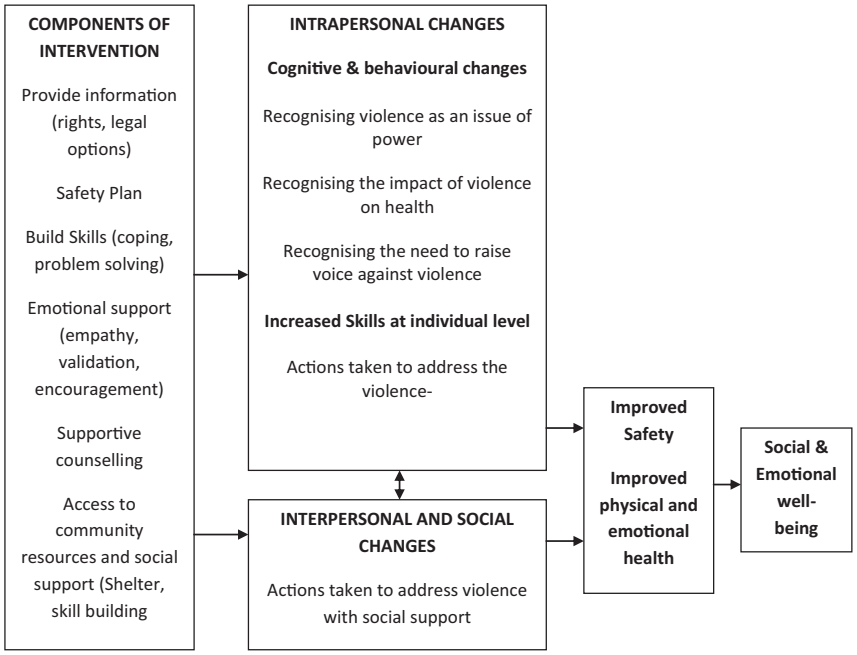


**Figure 1.** Outcomes analysed.

gynaecology department which offered complete privacy. The screening was carried out while women waited for antenatal care so that women did not have to stay longer. On an average, it took 5–8 minutes for counsellors to screen women for DV.

### Ethical considerations

The project was reviewed and approved by the Institutional ethics committee (IEC). Counsellors were trained to ensure the privacy and confidentiality of women, and to deal with emotional distress of women during counselling. The screening and counselling took place in a separate room on a one-to-one basis and was not accessible to family members accompanying the woman for antenatal care. Women were given the option to refuse to answer questions that they found uncomfortable or to withdraw at any point during the study.

### Funding

This study was funded for a period of 3 years by The John D. and Catherine T. MacArthur Foundation under the theme of 'Maternal Health Quality of Care Strategy in India'.

## Results

### Prevalence of domestic violence during pregnancy

Of the 2515 women who consented to participate in the study, 16.2% (408) reported domestic violence during pregnancy. Of these, 155 sought counselling. Women who did not seek intervention stated that they did not require any help at present and would seek services in the future if required. They felt that it is a part of life, and normalized the violence they were facing. Of 155 women, 142 completed pre- and post-intervention assessment; 13 women were lost to follow-up at 6 weeks post-delivery.

### Socio-demographic characteristics

The socio-demographic characteristics of the women included in the study are presented in Table S1. The mean age of women was 25.3 years (SD = 4.06 year) and ranged from 19 to 40 years. The majority of women were recently married and many (45.1%) were primigravida. Of women, 68.3% had completed secondary education and 28.9% were engaged in paid work, with the majority working as domestic workers, housekeeping staff or factory workers.

### History of violence

DV for 1–3 years was reported by 46.5% of women; 59.2% of women were facing DV from both husband and marital family, whereas in more than one-fourth (27.5%) the abuser was the husband.

Emotional abuse (98.6%) in the form of verbal abuse, persistent criticism, isolation, and restricting the mobility of woman was found to be the most common forms of violence. Physical violence was found to be the second most common (74.6%) form of violence experienced by women, followed by financial violence, which was faced by 72.5% of the women. The most common forms of physical violence included slapping, pulling hair, and pushing. Denying a woman access to basic needs such as food and shelter, as well as not allowing her to seek employment were recorded as forms of financial violence reported by women. In all, 40.1% of women reported sexual violence within the marriage from the husband. The common forms of sexual violence faced by women include forced sex, denying use of contraceptives, and being forced to have children. Table S2 presents the history of violence and health consequences.

### Health consequences

Physical health consequences such as cuts, bruises, and swellings due to violence were reported by 40.8% of women. Reproductive health problems as a result of sexual violence such as genital injury, discharge, and burning during urination were reported by nearly 21.1% of women. A huge burden of emotional health consequences (96.5%) such as persistent feelings of fear, worthlessness, and suicidal ideation was reported by women, 29% of whom reported suicidal thoughts at the time of screening. Seven women reported attempting suicide in the current pregnancy.

Furthermore, 22% of women reported that their current pregnancy was unwanted as a result of forced sex by husband, and denial of the use of any contraceptives. Of women, 29% had registered in the second or third trimester due to ongoing violence such restricted mobility, lack of support (both physical and financial), being overburdened with household chores, and stress due to constant abuse at home. As a result, ANC registration was not one of the women's priorities.

### Impact of intervention

*Cognitive changes*

It was found that post-intervention, 60.6% of women recognised violence as an issue of power, 65.5% recognised the impact of violence on health, and 59.9% recognised the need to take steps to stop abuse.

*Actions at individual, formal, and informal levels*

Empowerment counselling enabled more than half the women (50.7%) to take concrete action at the individual level (Table 1). This commonly included taking a job and moving out of the abusive house. Similarly, 57.9% of

 

**Table 1.** Proportion of women who took action at individual level after intervention

| Pre-intervention | Post-intervention | | | McNemar test, *P*-value |
|---|---|---|---|---|
| | Action at individual level | | | |
| | Yes | No | Total | |
| **Action at individual level** | | | | |
| Yes | 49 (67.1%) | 24 (39.1%) | 73 (51.4%) | 0.193 |
| No | 35 (50.7%) | 34 (49.3%) | 69 (48.6%) | |
| Total | 84 (59.1%) | 58 (40.9%) | 142 (100.0%) | |

**Table 2.** Proportion of women who took action at informal and formal levels after intervention

| Pre-intervention | Post-intervention | | | Mc-Nemar Test, *P* value |
|---|---|---|---|---|
| | Action at informal and formal level | | | |
| | Yes | No | Total | |
| **Action at informal and formal levels** | | | | |
| Yes | 111 (92.7%) | 10 (8.3%) | 121 (85.2%) | 0.832 |
| No | 12 (57.9%) | 9 (42.1%) | 21 (14.8%) | |
| Total | 123 (86.6%) | 19 (13.4%) | 142 (100.0%) | |

women took action with the help of various informal and formal support systems such as family, friends, relatives, police, and the legal system after intervention. However, these post-intervention actions taken by women at individual, informal and formal levels were found to be statistically insignificant (individual action *P*-value = 0.193, informal and formal level *P*-value = 0.832). The proportion of women who took action after intervention at the informal and formal levels is presented in Table 2.

*Adopting safety measures*

In all, 35.9% of women adopted safety measures. A non-cognizable complaint about abuse of were filed in the police station by 37.3%, indicating the taking of steps to resist violence. Other common safety strategies included keeping valuables such as marriage certificates, birth certificates of children, property papers, jewellery bank cards, and bank account details at a safe place. What was most significant was that 62% of women recalled a safety measure at 6 weeks post-delivery and asserted that they would adopt them in future. Experience of domestic violence was measured before delivery and 6 weeks post-delivery. There was a considerable reduction in violence as reported by women. No sexual violence was reported. Physical and financial violence decreased to 3.6 and 11.3%. Emotional violence, which was as high as 98.6%, was reduced to 34.5% (Table S3).

*Impact on health*

At 6 weeks post-delivery, improvement in physical health status was reported by 84% of women. The pregnancy outcomes were live birth in 89% of cases, three women had preterm birth, and three had a stillbirth. Three women who had a stillbirth had faced an immediate episode of physical violence and four women undergoing repeated emotional abuse reported spontaneous miscarriage.

A three-fold decrease was found in the emotional health problems due to violence at post-intervention assessment. The proportion of women experiencing any emotional health consequences decreased from 96.5 to 33.3%. Similarly, the women who had physical health problems due to stress associated with domestic violence dropped from 54.7 to 10.5% (refer to Table S4).

## Discussion

### Main findings

The prevalence of domestic violence during pregnancy in this study was found to be comparable to the occurrence of the common obstetric conditions for which the pregnant

women are routinely screened throughout the ANC in Indian healthcare settings. These conditions include hepatitis B (1–9%),[30] HIV (0.88%),[31] pre-eclampsia (8–10%),[32] thyroid disorders (4.8–11%),[33] and gestational diabetes (3.8–17.9%).[34] The most significant impact of domestic violence during pregnancy was its impact on physical and mental health. In all, 41% of women reported physical health consequences and 29% of women presented with suicidal ideation.

The results of intervention indicated considerable changes in women's understanding of the impact of violence on their health as well as their perceptions of violence. The intervention enabled more than half of the women to recognise violence as an issue of power and the need to speak out against it. As larger social structures maintain the cultural status quo and expect women to tolerate violence, most women had not challenged it. The counselling intervention had a positive impact on coping, safety, and health of women, and resulted in a considerable reduction in violence.

## Strengths

The study has highlighted the effectiveness of a counselling intervention in the ANC setting for pregnant women who report domestic violence; the study made a unique attempt to assess changes in the understanding of women about the phenomenon of violence. No previous studies based on evaluating a psycho-social intervention have considered this as an outcome.

## Limitations

In this study, the process of screening was carried out by trained counsellors. Future research studies should involve training existing hospital staff in the screening process to establish the sustainability of such interventions. Further, the screening tool developed for the study needs to be further validated.

## Interpretation

The prevalence of domestic violence during pregnancy is in the range of 0.9–20.1%.[33] The high participation rate in the study indicates the acceptability of such intervention among women. It also reflects how women perceive the health setting as a safe place to speak about violence. This finding is in line with existing evidence in the literature that women are more likely to disclose violence to a healthcare provider.[34–39]

The finding on emotional violence as the most commonly reported form of violence is supported by other studies which concluded that emotional abuse is a precursor to physical violence.[40,41] The effect of violence on physical and mental health of women found in the study has been well documented in other literature.[42–44]

The results of the study demonstrate that the intervention enabled women to take actions at individual level and to seek support from informal and formal support systems, which in turn significantly improved the health of women. A study in an ANC setting has also found the crucial role of social support in mitigating the consequences of IPVDP.[45] A study evaluating the similar intervention through a randomised control trial also showed improvement in the health status of women[22] but another study in Peru found no statistically significant impact on health-related quality of life.[23]

This study suggests that the number of counselling sessions required to have an impact can vary from woman to woman. In some cases, even a single counselling session can help a woman by giving her space to share her feelings. Tiwari et al.[22] have also mentioned in their study that even a single 30-minute counselling session can have a 'cathartic effect'.

The study builds a strong case for case inclusion of enquiry about violence during ANC visits, as the prevalence of domestic violence during pregnancy is same as that of other obstetric complications that are regularly monitored throughout pregnancy. New WHO guidelines on ANC for positive pregnancy experience have also recommended inclusion of intimate partner violence during pregnancy as one of the parameters in maternal assessment.[46] As the majority of women in our study were young and in the early years of marriage, it suggests that the enquiry of violence during ANC can help in early identification of violence. Repeated contacts of women with HCPs at various levels during pregnancy offer an important opportunity to intervene as it increases the likelihood of disclosure.[47]

There are various occasions during the process of ANC where screening of pregnant women can be integrated. HCPs, including doctors, nurses, and paramedical staff involved in providing various ANC services to women, can ask structured questions about violence to pregnant women. In the Indian context, nurses recording measurements during routine visits are well-placed to ask women about domestic violence during pregnancy. The integrated counselling testing centre for HIV associated with all the health facilities also has potential to integrate a response for pregnant women facing violence if counsellors at centres are trained to enquire about domestic violence during pregnancy.

The integration of inquiry about domestic violence in clinical practice of HCPs needs strong system level changes such as training of HCPs, effective screening protocols, institutional support, and onsite support services.[48] Training of HCPs should address barriers faced by them in asking about violence. Further, it is imperative that the identification of women facing violence should be responded to by on-site support services. If HCPs are

 

unable to respond to the woman, this can lead to re-victimisation and can accentuate feelings of self-blame, hopelessness, and stigmatisation.[49] This clearly specifies the responsibility of health systems to collaborate with various stakeholders involved in providing support services to women reporting violence.

## Conclusion

Violence during pregnancy is a significant public health problem which has detrimental effects on maternal health and outcomes. This study highlights the need to address VDP within the framework of maternal health as a social issue. An antenatal care setting provides an important opportunity for integrating a comprehensive response to violence in maternal health services. Routine enquiry about violence and provision of a psychosocial intervention in ANC setting in response to pregnant women facing violence has the potential positively to impact the health, safety, and coping behaviour of women.

### Disclosure of interests

The authors declare that they have no conflict of interest. Completed disclosure of interests forms are available to view online as supporting information.

### Contribution to authorship

P B-D and SA were involved in conceptualising the research. SA and P B-D developed the methodology. SA, P-BD, and SR contributed to data collection and analyses. The manuscript was written by SA, and P B-D and SR provided constructive feedback towards the same. All the authors have read and approved of the final manuscript.

### Details of ethics approval

The project was reviewed and approved by the Anusandhan Trust Ethics Committee. The approval was granted on 18 January 2016 with reference number IEC01/2016.

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## Supporting Information

Additional supporting information may be found online in the Supporting Information section at the end of the article.

**Table S1.** Socio-demographic characteristics of women.

**Table S2.** History of violence and health consequences.

**Table S3.** Change in violence faced by women after intervention.

**Table S4.** Health consequences due to violence at post-intervention assessment. ■

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