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'This is normal during pregnancy': A qualitative study of anaemia-related perceptions and practices among pregnant women in Mumbai, India

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ABSTRACT

Objectives: to explore anaemia-related perceptions and practices among pregnant women in Mumbai, India.
Design: descriptive qualitative study using in-depth interviews and focus group discussions.
Setting: three government-run maternity hospitals in Mumbai, India.
Participants: 31 pregnant women aged 18–33 years; three women completed higher secondary school; 28 were homemakers.
Findings: respondents described anaemia as 'lack of blood in the body' because that was the term used by health providers; yet they did not seem worried about the consequence on their own health. Women perceived anaemia as 'normal during pregnancy' because their body had to simply share resources with the fetus and every female relative had suffered from it during pregnancy. Respondents did recognise weakness and dizziness as symptoms of anaemia. They attributed the cause to a poor diet, but did not know the specific link with iron-deficiency. They listed various negative effects of anaemia on the fetus, but very few stated ill-effects on the mother, and none stated maternal death as an outcome. Women saw their role primarily as child-bearers and prioritised newborn's health over their own.
Conclusion and implications: anaemia stands at the intersection of health, nutrition, culture and gender. Interventions in the country have to go beyond distributing or monitoring compliance with iron–folic acid (IFA) supplements. Health education programmes for women and household members have to highlight the seriousness of anaemia and address socio-cultural norms and gendered behaviours in families with respect to nutrition and health. There is an urgent need in maternal and child health programmes to emphasise the importance of the mother's own health. Anaemia interventions have the potential to become proxies for women's health and empowerment programmes.

Introduction

Anaemia is a serious health problem in India. Data from the third round of National Health and Family Survey (NFHS-3) showed a high prevalence of anaemia – 56% of all women and 59% of pregnant women (IIPS and Macro International, 2007). Analysis of two rounds of cross-sectional, nationally representative data collected as part of National Family Health Surveys (NFHS) from 164,600 ever-married women aged 15–49 years from 25 Indian states in the NFHS-2 (1998/1999; $n=79,197$) and NFHS-3 (2005/2006; $n=85,403$) revealed that prevalence of anaemia had increased significantly from 51% to 56% over the 7-year period (Balarajan et al., 2013). The percentage of maternal deaths caused by haemorrhage is greater in India than in the rest of the world and has been attributed to higher rates of anaemia in Indian women (Registrar General of India, 2006; Center for Reproductive Rights, 2008). Even in the city of Mumbai, the commercial capital of India, nearly half of all married women (47.7%) and almost three in five (59.2%) pregnant women were diagnosed with anaemia (IIPS and Macro International, 2007). Anaemia was also reported to be one of the major causes of the 206 maternal deaths in the city in 2010 (Shelar, 2010; Advani et al., 2011; Vora, 2012).

Anaemia is particularly high in women in the lowest wealth quintiles. Balarajan et al. (2013) found that in both NFHS-2 and NFHS-3 wealth was a stronger indicator of anaemia, even more than education. Anaemia was positively associated with lower wealth status, lower education and being part of scheduled tribes and scheduled castes.

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Anaemia continues to persist despite India being one of the first among developing countries to launch a National Nutritional Anaemia Prophylaxis Programme in 1970 consisting of antenatal nutrition counselling and provision of Iron and Folic Acid (IFA) supplements containing 100 mg elemental iron and 0.5 mg folic acid for daily consumption to all pregnant women during pregnancy and lactation (Ministry of Health and Family Welfare, 1991; Ministry of Women and Child Development, 2007; National Institute of Health and Family Welfare, 2012). Compliance with IFA supplements remains particularly low, with only 31% of pregnant women at the national level consuming IFA for 90 days or more during their pregnancy (UNICEF, 2010).

The high prevalence of iron-deficiency anaemia among women in India has been attributed to the poor absorption of iron (3–4% only) in the phytate and fibre-rich, predominantly vegetarian diet, and chronic blood loss due to malaria and hookworm infestations (National Nutrition Monitoring Bureau, 2002; Toteja and Singh, 2004). Indian women also have a sustained low intake of iron (Ramachandran, 2007). Data from the National Nutrition Monitoring Board surveys conducted in nine states during 2004–2005 found that women's iron intake is around half of the recommended daily allowance (National Nutrition Monitoring Bureau, 2006).

Furthermore, more than a third of reproductive-age women in India are undernourished, with a Body Mass Index (BMI) less than 18.5 (IIPS and Macro International, 2007). The problem of anaemia starts early in Indian women; prevalence in adolescent girls is 56% (IIPS and Macro International, 2007). With the lack of intake of nutritional supplements, exposure to infections and early marriage, most Indian women enter pregnancy with an already depleted iron condition increasing their risk of anaemia. Despite problems of poor coverage and low compliance, oral iron therapy is also not effective in the correction of moderate or severe anaemia in Indian pregnant women because of the short timeframe available for remediation during pregnancy and the poor absorption of iron in the Indian diet (Indian Council of Medical Research Task Force Study, 1992; Ministry of Women and Child Development, 2007).

If anaemia is to be tackled effectively, then apart from governmental programmes supplying IFA supplements, a strong push to generate anaemia-reduction behaviours at the individual, family and household levels is also necessary. Behaviour change programmes require a better understanding of audiences' perceptions of the severity and seriousness of anaemia, and the barriers and triggers that respectively impede and motivate people to adopt healthy behaviours. Very few studies have documented Indian women's perceptions and attitudes towards this condition. A technical working paper published by Bentley and Parekh (1998) used various qualitative techniques to examine perceptions of anaemia and health-seeking practices of pregnant women from four Indian states of Haryana, Gujarat, Tamil Nadu and Karnataka. They found that women often used local terms to describe clinical symptoms or the sequelae of anaemia. Women were generally aware of the link between inadequate diet, short birth-interval and anaemia. They were also aware of the availability and recommendations to consume IFA during pregnancy, but did not adhere to it because of side-effects and lack of understanding of its benefits to their own health. The authors recommended the development of specific messages for women that explain how IFA supplements can alleviate symptoms of anaemia. Galloway et al. (2002) studied women's anaemia-related perceptions in eight developing countries, including India, and reported that women had low levels of knowledge about anaemia and did not consider it to be a priority health concern that required action.

This qualitative study conducted in the city of Mumbai examined anaemia-related perceptions and practices of pregnant women, especially from low-income communities, with the aim of generating insights to design appropriate health education and communication interventions.

Methods

Study setting

This study was conducted with pregnant women attending three maternity hospitals in Northern Mumbai under the jurisdiction of the Department of Public Health of the Municipal Corporation of Greater Mumbai (MCGM). Previous studies have found that 61% of women from low-income communities in Mumbai used public health care services for antenatal care and childbirth (More et al., 2009); these maternity hospitals are the first point of care for pregnant women. Each maternity hospital is led by the Chief Medical Officer, and managed by resident doctors, nurses and nutritional counsellors. In case of complications, pregnant women are sent to a general or a specialised hospital depending upon the requirements (The Bombay Community Public Trust, 2012).

Sampling

Permissions and consent for this study were obtained at three different levels. First, the research study was explained in detail to the Chief Medical Officer in-charge of administration, and permission to conduct interviews on the premises was obtained before starting the actual interviews. At the second level, the actual providers, which included resident doctors and nutritional counsellors of the three maternity hospitals, were explained about the objective of the study and their permissions and consent taken. Due to the large volume of patients, pregnant women visiting antenatal clinics at the selected maternity hospitals have a typical waiting period of 30 minutes to an hour before they get to meet the doctor for their routine antenatal check-up.

At the final stage, two trained female investigators conveniently approached women who were seated in the waiting area of the hospitals with a printed informed consent form. The informed consent form was read out verbatim by the interviewer in either Hindi or Marathi depending upon the language that was used by the woman. Most women who use these health facilities understand Hindi or Marathi. The words and language used in the form were simple and understandable to participants. The consent form included a brief description of the project, purpose of research, expected results and how the findings would help health educators. The specific procedure of how the interview or group discussion would be conducted was explained, and potential time taken for each interview or discussion was mentioned. The participant was told how confidentiality would be maintained. The voluntary nature of participation was clearly explained by telling the participant she was free to withdraw from the research at any time without giving a reason; clear information was provided that the participant had the right to refuse participation (or to ask for cancellation from the study) if she felt uncomfortable, and that this will not affect any other aspect of the patient's care-seeking process. The name of a contact person for further questions was also provided. The participants were informed that they would not receive any compensation. After reading the complete form slowly and clearly, the interviewer asked the participant if she had understood the objectives and process; only when the respondent gave verbal consent, the researcher signed the form and proceeded with the interview questions. This procedure was followed in both the focus group discussions and in-depth interviews.

Women who agreed to participate were interviewed in a small side-room provided by the hospital authorities. Both the investigators were female and were fluent in English, Hindi and Marathi, and experienced in conducting interviews with female respondents from