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An exploratory study of young women's food choices and compliance with supplementation recommendations during pregnancy

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BACKGROUND

Nutrition is an important modifiable factor affecting foetal growth and pregnancy outcomes with considerable health implications for mothers and babies (Redmer et al 2004) including infant birth weight and survival (Lechtig 1975). Poor nutrition is of a greater concern in adolescent pregnancies as there are competing growth needs between the still developing mother and the demands of a growing baby (Scholl 1994). The only UK based study (Baker *et al* 2009) investigating the nutrient intakes of 500 pregnant young women and pregnancy outcome, demonstrated the low intakes of key nutrients, notably folate, iron and Vitamin D, as well as the poor nutrient status of women. This was associated with poorer pregnancy outcomes such as small for gestational age (SGA) birth. There is a dearth of research focusing on the adolescents' understanding of nutritional requirements during pregnancy and their attitudes towards the recommended supplementation. This research seeks to explore current knowledge and habits of young pregnant women in relation to dietary change and supplementation use during pregnancy. In addition, to explore the current information and support provided by their healthcare teams and through other support mechanisms.

AIMS

- To understand from young pregnant women and their healthcare teams what they know about diet during pregnancy, what changes they make, what the barriers and opportunities are to them taking the recommended supplements and if there is a different format for delivering these key nutrients that would appeal more than pills

KEY RESEARCH QUESTION: What are the issues that prevent young women from making healthier food choices and taking the recommended nutritional supplements during pregnancy?

OBJECTIVES

From young women and their healthcare teams to:

- Explore current knowledge and habits of young women in relation to diet and supplementation use during pregnancy
- Explore awareness of the benefits of and compliance with supplementation during pregnancy
- Identify the current information and support mechanisms available during pregnancy (in relation to diet/supplementation)
- Explore potential mechanisms for supporting behaviour change as a means of improving food choices and supplementation compliance during pregnancy

METHODOLOGY

Semi structured interviews were conducted in Doncaster, Manchester and London with 56 participants (Young Women, Midwives, Obstetricians, FNPs), including a range of ethnicities and stages of pregnancy (10 weeks gestation to ~8 months postnatal). Findings from these interviews were then verified nationally in online surveys for Health Professionals and Young Women, and findings compared to the interview data.

KEY FINDINGS

Nutrition although considered important, is often low on the list of priorities for young women and their health professionals, particularly when faced with more immediate concerns such as safer housing, smoking and alcohol or drug addiction. The habitual diet of young women, and their families, combined with a lack of knowledge, confidence and skills contribute to entrenched behaviours that are difficult to change. Conflicting messages contribute to the confusion that some young women experience and this is exacerbated when messages about diet and supplementation are not framed within the context of young women's lives.

Despite this, many young women reported positive changes to their food choices, even when their habitual diet is poor. Women and health professionals also reported simple strategies to overcome the most common barrier to taking vitamin supplements, which was simply forgetting to take them. The issue of supplementation format is complex; whilst some suggestions were made for alternatives to the pill format it is apparent that no-one format would be acceptable when faced with such variation in food preferences and poor understanding of why supplementation is needed. Most respondents did not seem to have major difficulties with the format of the supplementation which is in contrast with professionals' perceptions.

It is apparent that pregnancy is a time when many young women are prepared, willing and motivated to change, even if those changes are small, especially when they have tailored information and practical support to help them. This is an opportunity not to be missed as the potential benefit for mother and baby are lifelong, including improved pregnancy outcomes for mother and baby, and healthier habits into childhood and beyond.

Interview and survey data were analysed thematically and the main themes presented below were identified as important areas for consideration when developing future interventions.

Making the Connection: This theme indicates the importance of young women understanding the benefits and outcomes of improved nutrition during pregnancy; understanding that small changes can make a difference and having these changes reinforced by their health professionals and other support resources; building on the trust that is developed throughout pregnancy with their health professionals to ensure a holistic approach which focuses on the impact on baby.

Healthier Habits: To develop healthier habits throughout pregnancy young women need clear and consistent messages (particularly in relation to food safety and the 12 week window for folic acid) from their health professionals and other support resources; simple strategies such as reminders and prompts can be used to help women overcome the barriers to taking supplementation and

making simple dietary changes; confidence to make changes can be nurtured through opportunities to make the connection with other young women and develop practical skills for cooking/shopping



e.g. through group settings or via social media, video clips using young mother's experiences and online discussion forums.

Issues of Access: This theme considers physical access to supplements and overcoming the barriers to making small behavioural changes; obtaining supplements directly from their health professionals would emphasise their importance especially when combined with information about the benefits to baby and simple strategies to prompt use; accessibility of advice and information relies on using young women's experiences and utilising new communication networks e.g. online and mobile technology; new resource formats should be seen as an adjunct to healthcare services, not a substitute; health professionals should feel confident in referring young women to these resources as a means of extending the care they already provide.

KEY RECOMMENDATIONS FOR PRACTICE

- **Consistency of messages** from health professionals and other agencies about supplementation during pregnancy - what to take, when and why.
- **Improving access to Healthy Start vitamins** especially at "first contact" with health professionals, thus maximising opportunities for reinforcing the benefits of supplementation and discussing barriers to use. Access to vitamins for women as soon as they need them, as any delay may imply they are less important and may reduce motivation and compliance.
- **Sources of information and support should be tailored to young women's needs** and be accessible in a range of different formats; these should complement existing models of healthcare and HCPs should feel confident in using and referring them to young women.
- **Tommy's seen as a trusted "brand"** by health professionals and young women; there are opportunities for tailoring the many existing sources of pregnancy information and support

to make them more relevant to young women's needs. For example, adapting existing NHS 'Pregnancy information service' to provide age relevant information for young parents.

- **Tommy's Young Women's guide to pregnancy is a trusted resource;** content could be made available in a wider range of formats, increasing accessibility to young women through shorter tailored messages and using new forms of media and communication.
- **Identifying existing support services** such as charities like Kids Company, Connexions and YMCA training and looking for potential partnerships with other local or national organisations could provide the opportunity for practical skills development such as cooking.
- **Young women's specific needs during pregnancy and the universal access to vitamins needs to be raised as priority** areas for the new Clinical Commissioning Groups and the Health and Well-being boards in line with the Public Health Outcomes framework.

KEY RECOMMENDATIONS FOR RESEARCH

- **Strengthening the evidence base for supplementation** in nutritionally vulnerable groups such as young women; the folic acid until 12 weeks message is clear but what is the evidence of benefit for continuing beyond 12 weeks in these groups, also clarity is needed on the use of multi-vitamin supplements, vitamin D and other pregnancy supplements that are available.
- **Interventions to explore the impact of access and information on compliance** could investigate whether health professionals directly supplying vitamins alongside tailored information and support, accessible through a range of formats could complement existing care pathways and improve nutritional status of young women.
- **A review of health professionals training and post qualification** CPD needs regarding nutrition and supplementation for health professionals to support consistency of messages and tailoring of recommendation for vulnerable groups where applicable.
- **Exploring awareness among the general population of the links between diet and pregnancy;** there is some suggestion from the findings of this research that knowledge prior to pregnancy prompts earlier use of pregnancy supplements. Evaluating education in schools on the science, food technology, and PSHE curriculum and knowledge of school nurses, and the potential for promotion more widely using a social marketing approach.

REFERENCES

- Baker PN, Wheeler SJ, Sanders TA, Thomas JE, Hutchinson CJ, Clarke K, Berry JL, Jones RL, Seed PT, Poston L (2009) **A prospective study of micronutrient status in adolescent pregnancy.** *American Journal of Clinical Nutrition*, 89 (4): 114-24.
- Lechtig A, Habicht JP, Delgado H, Klein RE, Yarbrough C, Martorell R. **Influence of maternal nutrition on birth weight.** *Am J Clin Nutr* 1975; 28: 1223–1233
- Redmer DA, Wallace JM and Reynolds LP. **Effect of nutrient intake on fetal and placental growth and vascular development.** *Domestic animal endocrinology*. 27(2004)199-217.
- Scholl, T. O., Hediger, M. L., Schall, J. I., Khoo, C. S., & Fischer, R. L. (1994). **Maternal growth during pregnancy and the competition for nutrients.** *The American journal of clinical nutrition*, 60(2), 183-188.