

Patient use of probiotics in an obstetric population.

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Background

The human gastrointestinal tract is host to multiple microbes necessary for health, and alterations in their composition or activity has the potential to influence disease (1). This microbial activity can be manipulated by use of probiotics (2). The main actions of live probiotics include direct bactericidal activity, reduction of energy substrate availability in the gut, protection of the epithelial cell barrier, and alteration of the host inflammatory response (3).

Recent studies among healthy pregnant women demonstrate some possible benefits for women and their babies. A survey performed by Ramsay et al. in 2013 to determine the use of probiotics in Australasian women found 8% of respondents were pregnant and of those 23% took probiotics (4). However, current usage of probiotics in Australian pregnant women is unknown.

Objective

To describe probiotic usage in a pregnant population.

Methods

- Initially the study design involved an online survey with recruitment via social media, but response rate was low (13 responses over 3 months)
- Paper-based survey at Royal North Shore Hospital was conducted with inpatient postpartum women.
- The survey composed of 25 questions, with answers in tick-box format.
- Data was electronic captured using REDCap (Research Electronic Data Capture): a secure, web-based software platform and supported data capture for this survey and exported to SAS for Analysis.

Results

Socio-demographic characteristics

- 690 women agreed to participate in the survey with 577 returning the survey (83.6% response rate)
- The average age of respondents was 33 years with 62.6% of respondents falling in age bracket 20-34
- 76.3% holding a university degree or above.
- 43.0% of respondents were born in Australia
- 54.9% reported a household income of > 130,000 AUD

Probiotic Use

Of the 577 respondents, 574 included data on probiotic use,

- 189 (32.9%) reported having used probiotics anytime during this pregnancy.
- Yogurt was the most commonly consumed probiotic (Figure 1).
- 51% indicated they had taken a capsule based supplement.
- Probiotic use was more prevalent with increasing levels of education a similar pattern was seen with income.

Outcomes

Women who had used probiotics were less likely to have a caesarean section (35.5%) as opposed to those who reported not having used probiotics (44.8%).

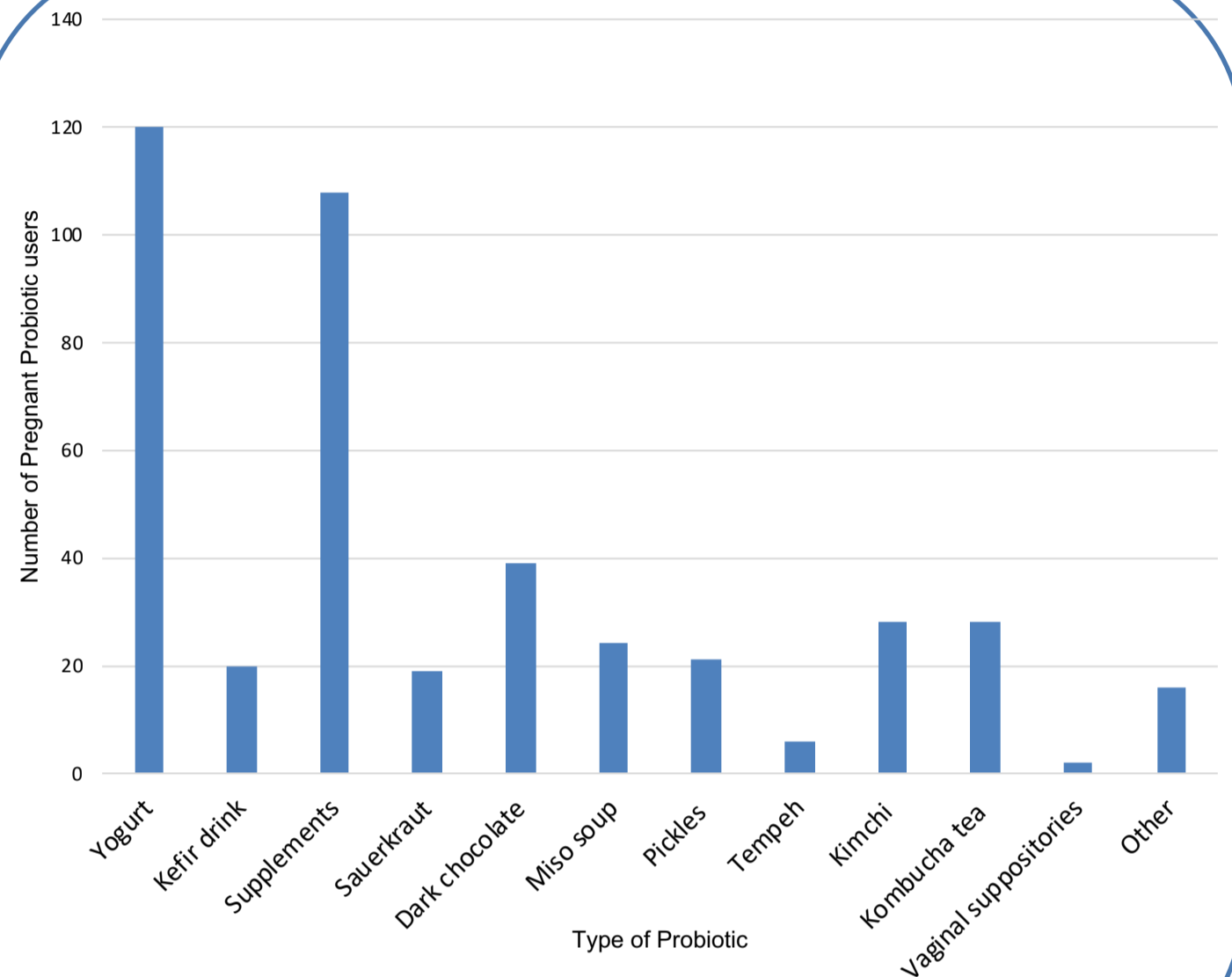


Figure 1, Type of probiotic used in an Australian pregnant population

Conclusion

- This study provides valuable information on the background use of probiotics in the obstetric population on Sydney's North Shore,
 - This population is an above average socio-economic group for Australia.
 - The data show an association between these demographics and probiotic use.
- The probiotic usage rate in our population is higher than in Ramsey population survey conducted 6 years ago.(4)
- Thus suggesting that probiotic use has increased in the pregnant population.

We also have shown that the group consuming probiotics are less likely to have a caesarean section, this may be an area that should be pursued in further research.

References

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