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A multi-method evaluation of interprofessional education for healthcare professionals caring for women during and after pregnancy

Abstract

This multi-method evaluation assessed the perceived impact of interprofessional workshops targeting enhanced collaboration between healthcare professionals who care for women during and after pregnancy. Current policy recommends partnership working to improve care for women and babies, however, there is little interprofessional education in this area. Five one-day workshops were delivered to 18 healthcare professionals (47.4% of the 38 healthcare professionals registered). The workshop was evaluated through: questionnaires before and after the workshop measuring attitudes and willingness towards collaboration; observations of the workshops by a researcher and follow-up interviews 2 months' post-workshop to explore changes in practice. Workshops were attended by midwives, health visitors (trained nurses specialising in community care for children 0-5 years), dieticians, nurses, a general practitioner and a breastfeeding specialist. Attitudes and willingness to participate in interprofessional collaborative practice improved after the workshop. Observations made at the workshop included engaged participants who reported numerous barriers towards collaboration. Follow-up contact with 12 participants identified several examples of collaboration in practice resulting from workshop attendance. In summary, these findings suggest that the workshops influenced attendees to change their practice towards more collaborative working. Future work needs to confirm these results with more participants.

Key words: interprofessional education (IPE), pregnancy, evaluation, collaboration

Introduction

Interprofessional collaboration between healthcare professionals during and after pregnancy has been found to be rare in numerous countries and healthcare settings (Aquino, Olander, Needle, & Bryar, 2016). A recent review identified several challenges to collaboration, including uncertainty regarding job roles and responsibilities, not knowing who to contact or when (Aquino et al., 2016). Current policy recommendations in England highlight the need for interprofessional collaboration between healthcare professionals to provide continuity of care for women during and after pregnancy (National Maternity Review, 2016; Public Health England, 2013). In the UK these healthcare professionals are primarily midwives, health visitors (trained nurses specialising in community care for children 0-5 years) and general practitioners (GPs) in the case of a low risk pregnancy. Women themselves also recognise the importance of interprofessional collaboration, and want continuity of care (Barimani & Hylander, 2012). The training evaluated in this study aimed to enhance collaboration between midwives, health visitors, GPs and other healthcare professionals' women meet during and after pregnancy.

Background

A one day training workshop was developed and delivered by a multi-disciplinary team (midwifery, health visiting, and health psychology). Workshop content included a summary of current policy (Public Health England, 2013) and discussions regarding communication between healthcare professionals and their different roles. Group tasks were inspired by the theory of constraints (Goldratt & Cox, 1984), facilitating participants to discuss, network and reflect on their current practice. Three service users also advised on content and shared experiences which were used as case studies in the workshop. The final activity involved participants making three pledges of actions promoting collaborative working that they planned to implement in their practice after the workshop.

Methods

This multi-method evaluation used a convergent design, with quantitative data collected before and after the workshop, observations made during the workshops and follow-up interviews approximately 2 months after the workshop.

Data collection

The workshop was evaluated through questionnaires before and after the workshop, with observations of the workshop done by a trained researcher, and follow-up interviews approximately 2 months after the workshop.

Pre-post assessment. The 14-item *Attitudes towards Interprofessional Health Care Teams questionnaire* measures participants attitudes towards quality of care delivered by health care teams and the quality of teamwork needed to accomplish this (Heinemann, Schmitt, Farrell, & Brallier, 1999). For this evaluation, the term ‘patient’ was changed to ‘woman’ as pregnant and postpartum women are not referred to as patients with the original scoring staying the same (1 = strongly disagree to 5 = strongly agree). Higher scores indicate a more positive attitude towards delivering care through health care teams.

The 9-item *Interprofessional Socialization and Valuing Scale (ISVS)* measures participants’ willingness to participate in, and readiness for change towards, interprofessional collaborative practice (King, Orchard, Khalili, & Avery, 2016). Version 9a was used both before and after the workshop where scores range from 1 (not at all) to 7 (to a very great extent). Higher scores indicate more willingness towards and readiness for interprofessional collaborative practice.

Six additional items based on the workshop learning outcomes were developed. Three items assessed perceived knowledge and three items assessed perceived skill and were scored from 1 (strongly disagree) to 5 (strongly agree).

Observation of workshop. A trained researcher observed each workshop, using an observation coding sheet based on an adapted input-process-outcome model previously used in a study of multidisciplinary meetings (Raine et al., 2014). This coding sheet included sections on the workshop environment, examples and features of collaborative practice, levels of participation and mediators of collaborative processes and outcomes.

Follow-up assessment. After the workshop participants completed a satisfaction survey regarding the workshop's relevance to practice and participants' educational needs. After the workshop participants were contacted by phone (after three attempts an email was sent) to explore any changes to their practice after the workshop. Two email attempts were made, two weeks apart for each participant. A final email was sent to all outstanding participants one week before evaluation closed. Whilst the aim was to collect the follow-up assessment three months after the workshop to give participants time to act on their pledges, the time frame enforced by the funders made this impossible in some cases. The follow-up assessment was collected seven weeks after the workshop on average (range 3-11 weeks).

Data analysis

The questionnaire data was analysed using within-subjects T-tests to assess the change from before to after the workshop. The field notes from the workshop observations and follow-up interviews were analysed thematically, following the steps of Braun and Clarke (2006).

Ethical considerations

This evaluation received ethical approval from the Research Ethics Committee at City, University of London (MCH/PR/Staff/16-17/05).

Results

Participants

Five workshops were organised on different weekdays. Eighteen of the 38 registered healthcare professionals attended a workshop (47.4%). Reasons for non-attendance included illness and having to prioritise other work commitments. Seventeen of the 18 workshop participants (94%) were women and participants' years of experience ranged from four months to 28 years (mean 7.8 years). Attendees included seven midwives, five health visitors (of which three had dual registration with midwifery), two dietitians, two nurses, one GP and one breastfeeding specialist.

Pre-post assessment

Participants' attitudes towards interprofessional healthcare teams improved after the workshop (Table 1 for all data related to pre-post assessment). Participants' willingness to participate in interprofessional collaborative practice also improved as assessed by the ISVS. Improvements were also seen in perceived awareness of current policies and ability to explain what can be improved in their local area to better facilitate interprofessional working. Furthermore, participants' perceived ability to develop networks with other healthcare professionals improved.

[INSERT TABLE 1 ABOUT HERE]

Observation of workshop

One researcher attended and observed all five workshops. Consistent observations included; engaged participants who shared examples from their own practice and of current barriers. Staff

shortages, limited time, fragmentation of services, and difficulties to share information were consistently stated as barriers to successful collaborative working. For example, electronic or paper-based systems were not accessible by other professions or not seen as reliable. Several participants reported that disjointed patient information sharing was irritating or distressing for women. Attendees appeared engaged and proactive about improving interprofessional working, with some exchanging email addresses after the workshop.

Follow-up assessment

Findings from the satisfaction survey (N=16; 89%) showed that participants thought the workshop was relevant to their professional practice, met educational needs and encouraged interprofessional working. Examples of how their practice would change included starting to explain healthcare professional roles to women and their families and reviewing current practice to make it more collaborative. Finally, participants were asked how the training could be improved. The most frequent suggestions from the participants were more attendees and more practical advice regarding how to work collaboratively.

For the follow-up assessment, 12 participants (66.7%) provided data (eight participants via phone interview and four via email) approximately 7 weeks after the workshop. Interviews were between 7 and 29 minutes long. All but one of the contacted participants reported acting on their pledges. Examples of changes to practice can be found in Table 2. Participants reported satisfaction with the workshop, enjoyed being able to spend dedicated time with professionals from different geographical areas, being able to share examples of good practice, and discuss case-studies. A more practical focus regarding how to initiate and maintain interprofessional working was suggested as an improvement. Participants preferred a one-day workshop to two half-day workshops.

INSERT TABLE 2 ABOUT HERE

Discussion

This study suggests that the workshop had an impact on collaborative working. The post-workshop questionnaire findings show immediate improvements in attitudes, willingness, knowledge and skills to collaborate. The follow-up data indicate that the participants are striving to implement changes in their local practice. Considering that maternity services and primary care are often physically and organisationally separate (Aquino et al., 2016), it is unlikely that these changes would have happened without the workshop.

A key finding is that less than half of the participants who registered attended the workshop, suggesting the workshops may not be feasible in their current form. A specific focus such as collaboration to improve safeguarding or support women with mental health issues, may have been easier for healthcare professionals to prioritise than simply working collaboratively. The workshops were organised eight weeks in advance, however more time may be needed to release participants to attend training. Further, more clarity may be needed regarding who should attend the workshop. GPs, health visitors, midwives and practice nurses were the target population but other healthcare professionals were also welcome to attend. All these professions were represented in the workshops, but reasons and time-points for when collaboration is necessary is likely to differ. For example, a practice nurse and a midwife may have less reason to work collaboratively due to when they meet women during and after pregnancy compared to a midwife and a health visitor.

Finally, the barriers towards collaborative working reported by the attendees are often reported in other healthcare settings (e.g. Aquino et al, 2016). Interprofessional workshops are rare within maternity services (Aquino et al., 2016; Davies, Fletcher, & Reeves, 2016), and a recent Cochrane

review on interprofessional working included no studies focusing on the same healthcare professionals as the current workshops (Reeves, Pelone, Harrison, Goldman, & Zwarenstein, 2017). Therefore, this evaluation adds to the current literature, although more research is needed. Future research needs to clarify what healthcare professional group to target, include more participants and assess long-term impact.

A few study limitations need to be considered. Firstly, despite many professionals registering for the workshop, only 18 attended. Future work needs to include more participants to confirm the current findings. Secondly, considering the high baseline scores it is likely that the participants who chose to attend the workshop were already interested in partnership working. This was corroborated by the workshop observations and the follow-up interviews, hence participants may not represent the healthcare professional population at large. Finally, one third of participants did not respond to our invitation for a follow-up interview. It is possible that these participants had a less positive view of the workshops than the participants who participated in an interview or provided information via email.

In summary, these interprofessional workshops positively impacted participants' attitudes, willingness, knowledge and skills regarding collaboration and several examples of collaborative working was identified after the workshop. Future work needs to confirm these results with more participants.

Declaration of interest

The authors declare no conflicts of interest. The authors alone are responsible for the writing and content of this article.

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References

- Aquino, M. R. J. V., Olander, E. K., Needle, J. J., & Bryar, R. M. (2016). Midwives' and health visitors' collaborative relationships: A systematic review of qualitative and quantitative studies. *International Journal of Nursing Studies* 62, 193-206.
- Barimani, M., & Hylander, I. (2012). Joint action between child health care nurses and midwives leads to continuity of care for expectant and new mothers. *International Journal of Qualitative Studies on Health and Well-being*, 7(1), 18183. doi: 10.3402/qhw.v7i0.18183
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Davies, N., Fletcher, S., & Reeves, S. (2016). Interprofessional education in maternity services: Is there evidence to support policy? *Journal of Interprofessional Care*, 30(6), 812-815. doi: 10.1080/13561820.2016.1217833
- Goldratt, E. M., & Cox, J. (1984). *The goal: A process of ongoing improvement*. Great Barrington, MA: North River Press.
- Heinemann, G. D., Schmitt, M. H., Farrell, M. P., & Brallier, S. A. (1999). Development of an attitudes toward health care teams scale. *Evaluation & the Health Professions*, 22(1), 123-142.
- King, G., Orchard, C., Khalili, H., & Avery, L. (2016). Refinement of the Interprofessional Socialization and Valuing Scale (ISVS-21) and Development of 9-Item Equivalent Versions. *Journal of Continuing Education in the Health Professions*, 36(3), 171-177.
- National Maternity Review. (2016). Better births: Improving outcomes of maternity services in England. A Five Year Forward View for maternity care. Retrieved from <https://www.england.nhs.uk/wp-content/uploads/2016/02/national-maternity-review-report.pdf>
- Public Health England. (2013). Health visiting and midwifery partnership – pregnancy and early weeks. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465344/2903819_PHE_Midwifery_accessible.pdf
- Raine, R., Wallace, I., Nic a'Bháird, C., Xanthopoulou, P., Lanceley, A., Clarke, A., . . . Ferlie, E. (2014). Improving the effectiveness of multidisciplinary team meetings for patients with chronic diseases: a prospective observational study. *Health Services and Delivery Research*, 2(37), 1-172.

Reeves, S., Pelone, F., Harrison, R., Goldman, J., & Zwarenstein, M. (2017). Interprofessional collaboration to improve professional practice and healthcare outcomes. *Cochrane Database of Systematic Reviews*(6). doi: 10.1002/14651858.CD000072.pub3