Welcome to the sixth issue of Midwifery Research Review.

First up we take a look at the barriers and facilitators for vaginal breech births in Australia and discover that barriers such as lack of leadership, education and collaboration, and a real sense of fear amongst clinicians dominate. The challenge is to create a positive enabling environment putting the woman’s needs first in order to drive the education, collaboration and sharing needed to reduce clinician fear and build confidence and competence for such deliveries. Next we review a paper looking at the experience of Australian midwifery prescribers and learn that midwives being prescribers enhanced women’s access to medicines and the provider’s own role satisfaction. Also included in this review are studies looking at bypassing primary childbirth facilities in Afghanistan, the effect of maternal position at birth on perineal trauma, effects of central fetal monitoring on birth outcome, home-based postnatal care in Victoria, midwifery group practice in remote Australia, breastfeeding in a multi-ethnic Asian population, immigrant mothers, low birth weight and perinatal mortality, and the experience of testing HIV positive in pregnancy.

We hope you enjoy reading this review and look forward to your comments and feedback.

Kind Regards,
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Barriers and facilitators for vaginal breech births in Australia: Clinician’s experiences

Authors: Catling C et al.

Summary: An Australian descriptive exploratory study has examined nine clinician’s (five obstetricians and four midwives) experiences of caring for women during a vaginal breech birth. Thematic analysis of the interviews suggested two main themes; facilitation of, and barriers to, vaginal breech birth. It is suggested that to facilitate vaginal breech birth as an option, women need careful counselling and selection, and clinicians need to be educated, upskilled and supported to increase their confidence and abilities to enable them to approach vaginal breech birth in a calm, collaborative way.

Comment (MS): Breech birth is a topic that creates discussion and debate internationally with individuals often holding very fixed views as to whether the practice should be avoided or supported. Despite the criticisms of the infamous term breech trial, the most common response to detection of a baby in the breech position at term is to offer (with varying levels of persuasion/coercion) a planned caesarean section. This small qualitative Australian paper presents an interesting account of the factors that enable or disable clinicians in their attempt to support women who chose to decline the offer of a planned caesarean section and aim instead to birth their baby vaginally. The barriers identified included lack of leadership, education and collaboration, and a real sense of fear amongst clinicians that supporting breech birth was risky and would therefore create an increased risk of litigation. The facilitators to supporting women, not surprisingly, included leading by example and sharing skills in an attempt to upskill the workforce. This in itself would lead to the improved collaboration and team-based approach identified as enablers. Provision of education would enable clinicians to counsel women from an evidence base as opposed to the current risk adverse fear-based position of many clinicians. A strength of this paper is the inclusion of midwives and obstetricians who had supported women experiencing a breech birth within the last five years, demonstrating that this is not an issue confined to or defined by one discipline, and importantly providing evidence that practice can change if like-minded people come together to make it happen. Many readers of this paper will know who their local champions are, the clinicians who have the clinical skills and experience to support women who plan to aim for a vaginal breech birth. The challenge is to create the positive enabling environment described by the nine clinicians in this study. This would require us to put the woman’s needs first and let this drive the education, collaboration and sharing needed to reduce clinician fear and build confidence and competence, not just in their ability to support the planned breech birth, but also to ensure a calm, skilled, appropriate response to the unexpected breech birth ensuring that the ultimate goal of supporting safe birth is met for all women.


Abstract

Abbreviations used in this issue:

CFM = central fetal monitoring; MGP = Midwifery Group Practice; RCT = randomised controlled trial; WHO = World Health Organization.
Exploring midwifery prescribing in Australia

Authors: Small K et al.

Summary: An online survey of Australian midwives completing an educational programme for endorsement as prescriber (n = 131) examined their views of prescribing including the barriers and enablers to prescribing. Responses were provided by 68 (50%) midwives, of whom 12 (18%) had begun prescribing. The prescribers indicated that being prescribers enhanced women’s access to medicines and their own role satisfaction. Common barriers to initiation of prescribing were regulatory issues and processes, and the fact that there is no pathway in the public sector to support midwifery prescribing. Enabling factors identified were supportive relationships, education, and personal factors including motivation, knowledge and confidence.

Comment (KB): This is the first paper describing the experience of Australian midwifery prescribers since the introduction of the enabling legislation. The paper provides useful insight into the factors that affect implementation of the knowledge and skills gained through successful completion of the Nursing and Midwifery Board of Australia (NMBA) accredited midwifery prescribing education programs in practice. The paper highlights the fact that relatively few of the midwives who successfully complete the accredited midwifery prescribing programs have actually managed to include prescribing in their practice. Despite the low numbers, those midwives who were prescribing believed it improved the care they gave to women and they reported an increased sense of job satisfaction. It is also encouraging to see the development of strong inter-professional relationships and offers of support associated with this expansion of their role. An increasing number of midwives are undertaking the Australian Nursing & Midwifery Accreditation Council (ANMAC) accredited prescribing courses so it is useful to identify the factors that currently prevent midwives from including prescribing in their practice. Respondents in this research welcomed the presence of strong education programs but the authors suggest we should be looking to include this content in undergraduate programs, as is the case in New Zealand so all midwives graduate with the ability and authority to prescribe. Additionally the structures and processes involved in endorsing midwives prescribing authority on completion of the accredited programs need to be streamlined to prevent the delays these respondents reported. A significant number of respondents were in employed practice and wanted to use their knowledge and skills in order to maintain their knowledge and provide holistic care for women. Current legislation enables nurses employed in public hospitals to prescribe and a recommendation of the paper is that this should be available to endorsed midwives too. To conclude, this paper provides early insight into an emerging area of midwifery practice and quite rightly identifies that this is an area that should generate research into the barriers and enablers to this opportunity to improve the care women receive.

Reference: Women Birth 2016;Mar 7 [Epub ahead of print]

Bypassing primary care facilities for childbirth: Findings from a multilevel analysis of skilled birth attendance determinants in Afghanistan

Authors: Tappis H et al.

Summary: A survey of 6879 households in nine north-central Afghan provinces in 2010 was linked to routine facility data to determine associations between health facility characteristics and individual/household factors with the likelihood of skilled birth attendance. Women who had ≥1 antenatal visit with a skilled provider were 5.6-fold more likely to receive skilled birth attendance than those who did not. Literate women had 84% higher odds of skilled birth attendance than those without literacy skills, and these odds were 79% higher in the upper two quintiles of wealth than in the poorest quintile. There was a 36% gap between women receiving skilled antenatal care and skilled birth care and almost 60% of women whose most recent birth was attended by a skilled attendant bypassed the nearest primary care facility for a more distant facility. Distance and transport barriers were reported as the most common reasons for home birth.

Comment (MS): This paper reports on a multi-region household survey designed to examine the factors that contribute to women’s access to and use of skilled birth attendants in Afghanistan. Afghanistan has made improvements in recent years to the provision of health facilities and skilled birth attendants, which have made some impact on the high underlying maternal mortality/morbidity rates within the country. The authors highlight that disparities are still present though, and aim within this paper to provide data to inform the up scaling of basic health package provision across the country. It was clear from the results that the presence of health facilities was not in and of itself a factor influencing access, rather what the facility offered to the woman. Reasons given for not attending the nearest facility and choosing to attend a facility further from home included fear of violence or abuse within the facility, or doubts about the quality of care. Women birthing at home lacked understanding of the benefits of accessing skilled attendants for birth care. There are many underlying factors that contribute to these outcomes and that should be considered when planning scaling up access to maternity care. Women in this study lacked self-determination, it is reported that only a third of women were able to choose where they gave birth. In more than half of all cases it was the women’s husband who chose where she gave birth and the mother-in-law and other community members were highly influential in determining the choice of birthplace in a large number of cases. The lack of access to education and resultant high rates of illiteracy amongst women reported within the demographics are the norm for the country regardless of status and wealth and will have an ongoing impact on women’s health literacy and knowledge around the benefits of accessing skilled care in pregnancy and birthing. It is of interest to note that women who received at least one pregnancy care visit from a skilled attendant were more likely to access skilled attendance at birth. Access to care was more common amongst women in the higher wealth and literacy brackets. When planning to upscale access to maternity care it is clear that wider societal factors must be considered too. Where women are able to access care from a skilled birth attendant, feel safe and can establish a relationship with the carer, outcomes will improve at every level.

Reference: J Midwifery Womens Health 2016;61(2):185-95

The effect of maternal position at birth on perineal trauma: A systematic review

Authors: Lodge F and Haith-Cooper M

Summary: This systematic review was undertaken to determine the effect of maternal position at birth, including waterbirth, on perineal trauma. Across seven studies identified, waterbirth increased perineal trauma compared to land birth, while kneeling and all-fours positions provided greatest perineal protection. Sitting, squatting and use of a birth stool were found to have the highest incidence and degree of perineal trauma, with rates as high as 85.7% for primiparous women. Compared to land birth in general, the review found an increase in the incidence of perineal trauma in waterbirth, which contradicts previous research, which has previously found no difference in perineal trauma rates between land and waterbirth. The additional findings from this particular systematic review will provide and support midwives when they are discussing which positions women should consider adopting for birth, thereby increasing their chances of achieving an intact perineum. However, it is also important to acknowledge that other variables, which can and do influence the incidence and degree of perineal trauma, were not considered in the review.

Comment (KB): There is undisputed evidence available concluding that perineal trauma is associated with both short- and long-term maternal morbidity. This recent systematic review was conducted to examine whether different maternal positions at birth can affect the incidence and degree of perineal trauma. A total of seven studies met the inclusion criteria and were included in the review. The review included one RCT and six cohort studies. Results from the systematic review suggest that different maternal positions at birth do affect the degree and incidence of perineal trauma. One of the seven studies compared waterbirth vs land birth positions, finding that waterbirth is in fact protective of perineal trauma when comparing it to using a birth stool and/or squatting positions. However, it is less protective than a woman adopting an all fours or kneeling position. The greatest incidence of intact perineum was found in women who birthed in the all fours position, with the kneeling position found to be the second most favourable. Whereas sitting, squatting and using a birth stool were found to have the highest incidence and degree of perineal trauma, with rates as being as high as 85.7% for primiparous women. Compared to land birth in general, the review found an increase in the incidence of perineal trauma in waterbirth, which contradicts previous research, which has previously found no difference in perineal trauma rates between land and waterbirth. The additional findings from this particular systematic review will provide and support midwives when they are discussing which positions women should consider adopting for birth, thereby increasing their chances of achieving an intact perineum. However, it is also important to acknowledge that other variables, which can and do influence the incidence and degree of perineal trauma, were not considered in the review.


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RESEARCH REVIEW
Birth outcomes, intervention frequency, and the disappearing midwife – potential hazards of central fetal monitoring: A single center review

Authors: Brown J et al.

Summary: A retrospective, single-centre cohort study (n = 2855) used data collected for 6 months before and 6 months after the unexpected failure of a central fetal monitoring (CFM) system at a tertiary unit. Perinatal outcomes (primary endpoint) did not differ between the centrally monitored and unmonitored cohorts. Unadjusted analysis indicated that the presence of CFM resulted in a lower incidence of vaginal births (55.4% vs 60.3%) and higher caesarean rate (25.1% vs 22.0%; p = 0.026), along with higher rates of epidural gain relief (53.0% vs 49.2%; p = 0.04) and fetal blood sampling (11.8% vs 9.4%; p = 0.03). However these differences were abolished when adjusted for prostaglandin induction. Staff (56.0% of midwives, 54.0% of obstetricians) reported spending more time with women during laboring when CFM was unavailable.

Comment (MS): This paper presents a fascinating insight into the wider implications of introducing centralised CFM. As many units are planning to introduce these centralised systems in their quest for “improved safety”, it is interesting to see that the belief that it improves outcomes is unfounded. It is of concern though that the presence of centralised monitoring does seem to reduce the amount of the time the midwife actually spends with the woman. This paper provides interesting reading to anyone considering implementing CFM and the results should be considered carefully along with the impact the introduction of CFM may have on the woman and her need to be continuously supported in labour. It would also be interesting to undertake a follow up study to understand the reasons why some women were not present in the room with the woman when unit staff actually resources this and examine whether model of care makes a difference.

Reference: Birth 2016;43(2):100-7

Abstract

The structure and organisation of home-based postnatal care in public hospitals in Victoria, Australia: A cross-sectional survey

Authors: Forster DA et al.

Summary: This Australian online survey examined views of public maternity providers in Victoria on the structure and organisation of public-hospital home-based postnatal care. Responses were received from 67% (677/77) of providers which included rural (70%; n = 47), regional (15%; n = 10) and metropolitan (15%; n = 10) providers. Most of the respondents (96%, 64/67) provided home-based postnatal care. For primiparous women there was a median of two visits and for multiparous and metropolitan (15%; n = 10) providers. Most of the respondents (96%, 64/67) provided home-based postnatal care. 87% used midwives as the main providers of home-based postnatal care, although some services utilised other staff as well as or instead of midwives, including child health care. 80% of respondents reported that some attempt was made to provide continuity of care during the postnatal home visiting, however, it is unclear from the paper what constitutes continuity of care. One-quarter of respondents suggested the their current level of staffing was inadequate, suggesting staffing constraints ultimately affected the quality of the care provided in postnatal home care service. Due to the growing international trend of promoting an early hospital discharge for all women, postnatal care in the home is becoming a very important aspect of maternity care provision. Yet, there is limited evidence guiding this practice or evaluating the long-term outcomes of such a change in practice and care. The results from this study confirm the necessity for hospitals to restructure their current services, to assess the benefits and introduce continuity of care models, where maternity care can be provided by a known midwife not only during the postnatal period, but also during the antenatal period, labour and birth.

Comment (KB): The necessity for evidence-based high-quality home-based postnatal care is an essential requirement, as early postnatal discharge is now a common occurrence in many hospitals both at a national and international level. This cross-sectional review of early postnatal discharge conducted in 2009 found no difference in infant or maternal readmissions rates and no difference in breastfeeding rates for women who were discharged early compared with women who received ‘standard’ care. However, as yet there is no research available which has considered the long-term effects on infant and maternal morbidity of this practice. The purpose of this study from Victoria, Australia was to explore the structure and organisation of the current public hospital home-based postnatal care being provided to women who are discharged home. Seventy-seven public hospitals were invited to participate in the study, with sixty-seven hospitals participating. The paper explored the following: Organisation of work, staff education and safety measures; clinical care provision and observations and documentation. Nearly all of the respondents (97%) reported providing some form of home-based postnatal service. Although two rural hospitals with less than 500 births reported providing no home-based postnatal visiting service, 63% of the respondents reported staffing their home visiting service with midwives who also work across various areas of maternity care. 87% used midwives as the main providers of home-based postnatal care, although some services utilised other staff as well as or instead of midwives, including child health nurses, registered nurses, and enrolled nurses who provided care under the direction of a registered nurse or midwife. Overall, 80% of respondents reported that some attempt was made to provide continuity of care during the postnatal home visiting, however, it is unclear from the paper what constitutes continuity of care. Over one-quarter of respondents suggested the their current level of staffing was inadequate, suggesting staffing constraints ultimately affected the quality of the care provided in postnatal home care service. Due to the growing international trend of promoting an early hospital discharge for all women, postnatal care in the home is becoming a very important aspect of maternity care provision. Yet, there is limited evidence guiding this practice or evaluating the long-term outcomes of such a change in practice and care. The results from this study confirm the necessity for hospitals to restructure their current services, to assess the benefits and introduce continuity of care models, where maternity care can be provided by a known midwife not only during the postnatal period, but also during the antenatal period, labour and birth.


Determinants of breastfeeding practices and success in a multi-ethnic Asian population

Authors: Pang WW et al.

Summary: This prospective study examined the prevalence, duration, and mode of breastfeeding (direct or expressed) among 1030 mothers of three Asian ethnic groups in Singapore. The prevalence of any breastfeeding 6 months postpartum was 46% for Chinese mothers, 22% for Malay mothers, and 41% for Indian mothers (full breastfeeding 11%, 2%, and 5%, respectively). More Chinese mothers used expressed breast milk versus the other ethnic groups. Positive associations with duration of any- and full-breastfeeding were observed with breastfeeding a few hours after birth, a higher maternal age and greater educational attainment. Negative associations were observed for irregular breastfeeding frequency and being shown how to breastfeed. After adjustment for maternal education, duration of breastfeeding did not differ across the ethnic groups, but ethnicity was still a predictor of breastfeeding mode.

Comment (KB): Regardless of the known benefits of breastfeeding, in many countries rates of breastfeeding continue to be well below the WHO recommendations. Many countries in Asia also reported low breastfeeding rates at 6 months gestation and this particular study conducted in Singapore involving three of the main ethnic groups, Chinese, Malay and Indian mothers, attempted to explore the initiation, duration, exclusivity and mode of breastfeeding. In this multi-ethnic Asian population, the prevalence and exclusivity of breastfeeding rates over the first 6 months differed among the three different groups. Only a small percentage of breastfeeding mothers predominantly breastfed their infants (2.5-5.3%) between 1 and 6 months postpartum. Initiation breastfeeding rates for all three groups were high (92% for Chinese, 97% for Malay and 98% for Indian mothers). However, at 6 months postpartum the prevalence rates had decreased to 46%, 22% and 41%, respectively, and to 25%, 16% and 25% by 12 months. Full breastfeeding at 12 months was rare, with the rates dropping to 11%, 2% and 5%, respectively. An interesting finding from this particular study was that the preferred mode of breastfeeding for Chinese mothers differed according to the sex of the baby. At 3 months, a higher proportion of girls were directly breastfed (39.4% vs 24.5%). Factors associated with early cessation of full breastfeeding included early breastfeeding experiences and maternal factors. Similar to feeding findings reported elsewhere, younger and less educated mothers ceased breastfeeding sooner than older and higher educated mothers. The findings from this study reinforce the importance of maternal education in explaining some of the differences in the length of full breastfeeding among ethnic groups.

Reference: Birth 2016;43(1):60-77

Narrowing the Gap: Describing women’s outcomes in midwifery group practice in remote Australia

Authors: Lack BM et al.

Summary: This retrospective descriptive study used data from two electronic databases to descriptively analyse maternal and newborn outcomes for women accessing midwifery continuity of care in a remote region of the Northern Territory of Australia where a Midwifery Group Practice (MGP) was established in 2009. During a 4-year period, 763 women (46% of birth cohort) gave birth with midwives in this MGP model, including 236 (31%) high-risk pregnancies and 97 (13%) maternal deaths and a lower rate of perinatal mortality than generally observed across the Northern Territory. In comparison to population-based data, the preterm birth (6%) rates and numbers of low birth weight babies (5%) were lower in the continuity of care cohort.

Comment (MS): This paper should be read and acted on by every maternity service provider in Australia. Reducing the health disparities present within First Nations People should be a priority within every health service and this paper provides an example of how implementing evidence into practice can be done in a cost-effective way to achieve improved health outcomes across a sustained period of time. The authors rightly point out that the retrospective data reported on could be underestimating the benefits that could be achieved by providing all women in remote communities with continuity of care from a known midwife, but even the limited results available are impressive. This paper deserves a lot of the barriers cited to the provision of continuity of care as a model. They report that provision of an MGP service in a remote community is possible in a cost-effective way. The MGP changed the inclusion criteria to include women of “all risk” into the model very early into operationalising the service to meet the community’s needs, and demonstrated that this can be done safely where good systems and processes are in place. It would be good to see more in-depth research on this model to include the women’s views on the service, and consider the midwives perspective to identify what support and resource midwives need to work in these models of care. These factors together would begin to provide the background information that would be needed to expand the service as suggested by the authors and would offer other service providers valuable insight to inform implementation plans of MGP for all risk women within other rural and remote communities across Australia.

Reference: Women Birth 2016;Mar 31 [Epub ahead of print]
The Role of Sleep in Happy, Healthy Baby Development

Sleep has important cognitive, social, emotional and behavioral benefits

Sleep plays an important role in baby’s brain maturation, learning and memory, helping to retain existing memories and create new ones. Sleep also helps improve baby’s social skills, including the ability to form relationships and relate to others. Babies who sleep better have been shown to be more approachable and adaptable. Improving babies sleep has been shown to improve maternal mood.

Sleep problems are universal

Sleep problems are common, especially in the first three years. Difficulty falling asleep and night wakings were found to be the most common sleep problems during infancy.

There are a number of treatment strategies for bedtime behavior problems and night wakings in children, including behavioral management techniques, parent education, and medication. Studies have shown that use of behavioral (non-pharmacological) therapies for sleep problems are highly effective during infancy and toddlerhood.

Simple strategies to help parents at Bedtime

Recommended routines include a warm bath, a soothing massage, and quiet activities to wind down, such as a lullaby, or reading a book. In a clinical study, a 3-step bedtime routine was proven to help baby fall asleep faster and sleep longer.

A routine that includes multisensory stimulation through a warm bath followed by massage is a simple behavioral intervention for improved quality and quantity of sleep in babies. Better sleep outcomes are associated with a consistent bedtime routine. The earlier the routine is started, the better the results.

Routines help babies learn

The developing brain thrives on routines. Studies show daily routines in general lead to predictable and less stressful environments for young children and are related to greater parenting sense of competence and improved daytime behaviors. Why experts recommend a consistent before bed routine

The sleep-wake cycle is regulated by light and dark and these rhythms take time to develop, resulting in the irregular sleep schedules of newborns. The rhythms begin to develop at about six weeks, and by three to six months most infants have a regular sleep-wake cycle.

Before bed routines help make sleep times and wake times different and distinguishable, supporting the child’s ability to self-regulate their sleep states. A consistent bedtime routine gives baby the opportunity to fall asleep in a relaxed, calm and secure state and get better sleep overall. The more frequent the routine, the better the sleep outcomes.

10. Sleep problems are universal. Studies have shown that use of behavioral (non-pharmacological) therapies for sleep problems are highly effective during infancy and toddlerhood.
Comment (MS): There are many studies that have confirmed that immigrant women have worsening perinatal health outcomes when compared to native women. This large population-based study in Belgium included all the singleton births in Belgium between 1998 and 2010; all live births and fetal deaths after 22 weeks of gestation or a birth weight >500 grams must be registered and were included in the data collection. The data collection was conducted by Statistics Belgium and was exempt by law from requiring ethical approval. The results from this population study show that in terms of perinatal morality, all immigrant women had a significantly higher risk, with the exception of naturalised mothers from Turkey, Eastern Europe and the EU compared to Belgian mothers. In terms of low birth weight, except for mothers from Sub-Saharan African and EU27 countries, all other nationalities were protected from low birth weight when compared to Belgians. Adjusting for maternal age and parity did not change the results. Adjusting for maternal education significantly reduced the mortality risks for all nationality groups, although Sub-Saharan African women remained more at risk than Belgians. Results suggest that the association between migration, socioeconomic status and birth outcomes are not uniform. The findings after adjustment for socioeconomic status show that immigrant groups are protected against low birth weight and perinatal mortality among women with low socioeconomic status, but not among those with high socioeconomic status. Immigrant mothers adopting Belgian nationality do not have an excess risk of perinatal mortality and maintain their protection against low birth weight. A key finding of this particular large population study was that being an immigrant is more protective against low birth weight and perinatal mortality for women with a lower socioeconomic status than for women with higher socioeconomic status, confirming previous North American studies where native-born mothers with a low education had a higher likelihood of adverse birth outcomes than foreign mothers with a similar education. Despite some limitations, which are acknowledged by the authors of this paper, this study has given us a better understanding of how socioeconomic factors can interact with the association between perinatal outcomes and immigration in Belgium. Further studies are required to measure longitudinal measurements on migration.

Reference: BMC Pregnancy Childbirth 2016;16(1):75
Abstract

Midwifery Research Review — Independent commentary by Associate Professor Mary Sidebotham & Dr Kathleen Baird

Associate Professor Mary Sidebotham is a registered midwife and is currently employed by Griffith University as the Program Director of Primary Care degree programs. She is a visiting Associate Professor at the Gold Coast University Hospital Queensland and a member of the research ethics committee. Mary is the Midwifery Editor of the Nurse Education in Practice Journal. She contributes to maintaining professional standards through her work as a midwifery educational program assessor for the Australian Midwifery Accreditation Council, an approved panel member for the NMBBA and as an assessor for the Queensland Civil and Administrative Tribunal.

Dr Kathleen Baird is a Midwifery Lecturer within the School of Nursing and Midwifery at Griffith University, Queensland, and is the Director of Nursing and Midwifery Education, Women’s and Newborn Services, Gold Coast University Hospital. She is also joint director of the newly formed Centre for Women’s and Newborn Research, Gold Coast University Hospital and Menzies Health Institute Queensland. Kathleen is an educational program assessor for the Australian Midwifery Accreditation Council, and holds an appointment as a Senior Research Fellow with the University of the West of England.

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