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'It must be right, I saw it on TV!': An observational study of third stage birth practices in popular television programmes

Gati Dawda[1], **Andrew D Weeks**[1] **and Susan Bewley**[2]

[1]Department of Women's and Children's Health, University of Liverpool, Liverpool, UK
[2]Department of Women and Children's Health, School of Life Course and Population Sciences, King's College London, London, UK
Corresponding author: Susan Bewley. Email: susan.bewley@kcl.ac.uk

Abstract

Objectives: To examine modern media depictions of the third stage of birth in a selection of UK television representations.
Design: Observational study of a sample of televised fictional and real births, audited against current National Institute of Health and Social Care Excellence (NICE) guidance.
Setting: UK television channels BBC (*Call The Midwife* and *This Is Going To Hurt*) and Channel 4 (*One Born Every Minute*).
Participants: 87 births from 48 episodes, sampled from the three shows.
Main outcome measures: The primary outcome was the number of births where the cord was clamped at more than 1 min after birth. Secondary outcomes included place and type of birth, measures of dignity and paternal involvement.
Results: Overall, the timing of cord clamping was clearly shown in 25/87 (29%) of births, of which only 4/25 (16%) occurred at more than 1 min in screen time. The place of birth and caesarean section (CS) rate changed according to the series perspective and era; graphic explicit images were shown, but these related to CS detail.
Conclusions: UK television shows have accurately depicted changes in place, culture and type of birth over the last century. They provide the public with a view of new rituals but an inaccurate picture of good quality care. Early cord clamping was shown in most births, even those set after 2014. No programme informed viewers about the safety aspects. When showing outdated practices, broadcasters have a public health duty to inform viewers that this is no longer recommended.

Keywords

Cord clamping, neonatal care, placental transfusion, observation, depictions of birth in art

Introduction

The third stage of labour is a critical time for both mother and newborn. Neonatal care during the first minutes of transition to ex-utero life is literally 'vital'. A rapid sequence of physiological events occur that establish adult-type cardiac circulation, the onset of respiration, and closure of the ductus venosus and arteriosus amongst other processes.[1,2] Efficient uterine contraction and placental expulsion avoid excessive blood loss. There are two ways to manage the third stage[3,4]: 'physiological', the placenta delivers naturally and the cord is clamped after it has stopped pulsating; and 'active', a uterotonic drug is administered once the baby's shoulder emerges, the cord is clamped 1–5 min later followed by controlled cord traction to deliver the placenta.[5] It has long been routine to recommend active management for all women to avoid postpartum haemorrhage especially if there are additional risks.[6]

In recent years, active management has been pared down to giving an oxytocic without the previously obligatory other components (immediate clamping and controlled traction),[7,8] raising the question why 'immediate' or 'early' (under one minute) cord clamping become the norm and why it continues to be used when proven harmful, especially for premature babies.[9] Since 2014, National Institute of Health and Social Care Excellence (NICE) guidelines have been clear that the cord should not be clamped immediately in active nor physiological third stage (recommendations 1.14.2, 1.14.14) and its timing should be recorded (1.14.17).[3,10] Since 2007, a respectful culture (1.1.12, 1.2.1) has been recommended, including for personal space (1.2.12), choice of birth companion(s) (1.2.4), encouragement of skin-to-skin contact and avoidance of separation (1.15.6–1.15.8).[3]

The general public's perspective of normal birth practices and cord intervention is largely derived from personal narrative, art and culture (Figure 1). With the arrival of mass television audiences, the depiction of birth in popular television programmes takes on an important public health role in defining normality and should be examined and audited as such.

Th study aim was to examine and compare modern media depictions of birth in a selection of UK television representations (fictional and reality) using current NICE standards.

Figure 1. Image of the newborn baby Jesus with umbilical cord. Photograph © Susan Bewley. Christ Child sculpture sculpted by Mike Chapman. There are few images of Jesus' birth or the baby with the cord stump shown. This sculpture, found at the entrance of St Martin's in the Field Church in Trafalgar Square London, shows the newborn Jesus with a intact cord unconnected to his mother. As the cord is turgid, it is either still intact and functioning, or has had a distal tie applied immediately but out of sight.

Methods

Experimental design

An observational study of television birth was used, auditing against current NICE guidance, to answer two research questions: is there a difference in media depictions of birth between those set in 1957–67 and in the modern era? What are the media depictions of cord clamping (immediate new born care), viewing genitalia (personal space) and father's involvement (as usual companion) in the birth?

Patient consent

This study does not report any information about patients not already in the public domain.

Population

Three cohorts of births were taken from the most popular UK TV programmes for sampling. These were chosen as suitable to answer our research question dealing with the contemporary depiction of birth in the media, the different eras and genres widening the scope and generalisability of the public presentation of birthing practices.

(a) 'Call the midwife' (CTM, transmitted January 2012 to February 2022), represented fictional births 1957–67. It achieved a consolidated series average of 10.47 million viewers and has been commended for its close attention to historical detail, having been inspired by Jennifer Worth's memoirs, detailing stories of midwifery in East End London.[11] It provides the basis of comparison of past versus modern day birthing practices.
(b) 'One born every minute' (OBEM, transmitted February 2010 to May 2018). This reality show has achieved the highest ratings to date of any 'fixed rig' multicamera documentary series, attracting 3–5 million viewers.[12,13] Its success also led to multiple international versions being created.[14]
(c) 'This is going to hurt' (TIGTH, transmitted February 2022), was a fictional drama, loosely based on obstetrician Adam Kay's tragic-comic memoir[15] and was set in 2006. The episodes accumulated 4–6 million views each[16] and were widely discussed.[17]

Data collection

A data collection instrument based on predefined birth events was designed using an Excel spreadsheet, piloted and refined. All births in every episode of selected series were viewed, and observations made of the presence, nature and timing of events. The timing of cord clamping was determined using the time feature on the video playback. All authors independently reviewed 10% of births (n = 9) and then discussed them as a group, so as to develop standards and agree principles for data collection, thus ensuring interobserver consistency. The footage of uncertain cases was also reviewed together, and discrepancies resolved through replays and discussion.

Data items

Selected birth events were prespecified and clearly defined, enabling comparison with items within NICE guidelines. These included place of birth, type, proxy measures of personal space (views of female genitals and internal organs), timing of cord clamping (where shown), time of first breath or cry, early transfer of baby away from mother, details of immediate neonatal care including resuscitation, and the identity of the cord cutter.

Sources of bias

Although originating from memoirs, CTM and TIGTH are fictional accounts of birth. They may not represent

true, usual practice, except as 'normal' was perceived by the production company's expert advisors and programme makers. By contrast, the fixed rig nature of OBEM allows insight into actual practice within UK maternity units before and after the 2014 NICE guidance, although subject to possible editing for time constraint. This study cannot address selection bias in the choice of narratives shown. Nevertheless, all three programmes tell the public what they may expect to encounter during birth, thus providing a cultural narrative as to what is currently 'normal'.

Study size

Given this is the first study of this type, there were no prior data upon which to base a sample size calculation. A convenience sample was chosen that reflected our time and resource limitations: CTM, first and last season to represent change over a decade; OBEM, seasons 1, 5 and 10 to compare births, before, during and after NICE guidelines were issued; and all episodes of TIGTH.

Data analysis

The data analysis was descriptive, showing birth practices according to programme, birth setting and type. Outcomes were chosen to compare against a relevant selection of NICE guidance. The timing, sequencing, and type of resuscitation practices with regard to cord clamping, new-born breathing/crying and maternal separation were noted.

Outcomes

The primary outcome was the percentage of births where cord clamping occurred after 1 min. Secondary outcomes were: place and mode of delivery; companion (specifically whether the presumed father was present or cut the cord); personal space (the percentage of births where genitalia or graphic surgical details are seen used as a proxy for the subjective experience of respect); cord clamping or cutting shown (the latter presumed to take place after the former); establishment of breathing (and its relation to clamping).

Statistical analysis

Simple numeric data and frequencies were used; 95% confidence intervals were not calculated because small numbers might give a false impression of precision. There were no adjustments for confounders or subgroup analyses.

Public and patient involvement

Patients and the public were involved in the development of NICE guidelines and Quality Standards. Those involved with OBEM gave informed consent for their births to be filmed and broadcast. None were involved in the design or conduct of this study.

Ethical considerations

This work uses exclusively publicly available data. Research Ethics approval was therefore not required. It is possible that poor practices with medicolegal implications may be identified.

Results

Out of 87 births observed, the act of cord clamping (or later cutting) was shown in 32% CTM, 24% OBEM, 50% TIGTH (overall 25/87, 29% of births). Full results are shown in Table 1.

The primary outcome of clamping after one minute was seen in 4/25 births (16%), of which 3/18 (17%) were set in modern times (OBEM and TIGTH). Where sequencing could be ascertained, only a quarter of babies (6/23, 26%) breathed or cried before clamping occurred.

In OBEM, cord clamping complied with NICE guidelines in 3/13 (23%). The numbers of birth observed were not significantly different before (32/55; 58%) and after 2014 (23/55; 42%). Even considering foreshortened editing, clamping was seen to occur early and before the baby's first breath/cry in 4/14 (29%) cases of reality show births.

Secondary outcomes were: out of hospital birth 86% CTM (home and freestanding GP unit), 0% OBEM, 0% TIGTH (although OBEM appeared to have an alongside midwifery unit, it was difficult to distinguish); vaginal vs caesarean section (CS) rates were 100% vs 0% CTM, 76% vs 24% OBEM, 40% vs 60% TIGTH; there was no explicit view of the vulva in any of the three shows by contrast with incisions at CS in both TIGTH and OBEM which showed graphic details of the abdominal layers and contents; father as companion 1% CTM, 93% OBEM, 40% TIGTH; father cutting the cord 0% CTM, 64% OBEM, 0% TIGTH; early separation of the baby from mother 14% CTM, 16% OBEM, 70% TIGTH.

Discussion

Summary of results

This examination of births from three major UK television series depicts major changes over time in place of birth, mode, and companions. The third stage act and timing of cord clamping was shown less frequently than the baby's first breath/cry and the physical separation from its mother. Cord cutting was increasingly performed by the father. NICE guidelines regarding the care of the infant during the third stage of labour do not seem to be

Table 1. Characteristics and outcomes of popular television depictions of third stage birth practices.

Characteristics of the births	CTM	OBEM	TIGTH	Total
Number of episodes examined (of total broadcast)	15 (of 95)	26 (of 112)	7 (of 7)	48 (of 214)
Number of births observed	22	55	10	87
Establishment of first breath or cry observed, n (%)	17 (77%)	53 (96%)	9 (90%)	79/87 (91%)
Cord clamping (or cutting) shown (% of births)	7 (32%)	13 (24%)	5 (50%)	25/87 (26%)
Time of first cry, mean (range) in seconds	22 (0 to 151)	17 (0 to143)	15 (–2^ to 93)	18 (–2 to 151)
Time of cord clamping, mean (range) in seconds	25 (8 to 82)	50 (7 to 85)	12 (7 to 16)	29 (7 to 85)
Primary outcome (NICE derived standard)				
Number (%) of cases where cord clamping occurred after 1 min	1/7 (14%)	3/13 (23%)	0/5 (0%)	4/25 (16%)
Secondary outcomes				
Place of birth: Hospital	3 (14%)	55 (100%)	10* (100%)	68 (78%)
Out of hospital	#19 (86%)	0 (0%)	0 (0%)	19 (22%)
Mode of birth: Vaginal (inc instrumental) n/N (%)	22 (100%)	42 (76%)	4 (40%)	68 (78%)
Caesarean section (CS) delivery n/N (%)	0 (0%)	13 (24%)	6* (60%)	19 (22%)
Dignity: Vulva viewed	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Graphic internal view of abdomen at CS	0 (0%)	9 (16%)	6 (60%)	15 (17%)
Companion present	1 (5%)	51 (93%)	4 (40%)	56 (64%)
Establishment of breathing in relation to clamping: n (%) of cases where clamping took place before 1st breath/cry	1/5 (20%)	4/14 (29%)	1/4 (25%)	6/23 (26%)
Number (%) of cords cut by (presumed) father	0 (0%)	7 (64%)	0 (0%)	7 (30%)
Early separation of baby from mother: Yes	3 (14%)	9 (16%)	7 (70%)	19 (22%)
No	19 (86%)	46 (84%)	3 (30%)	68 (78%)

Key: CTM, Call the midwife; OBEM, One born every minute; TIGTH, This is going to hurt; ^ cry heard during crowning, before delivery of the head of first triplet; # including 8 home births, 8 GP freestanding unit births and 3 in Nonnatus House (midwives'/nuns' residence); * including one perimortem CS in the Emergency Department.

followed in the modern era. Viewers are likely to be left with the impression that the umbilical cord is (and maybe should be) cut soon after birth.

Strengths and weaknesses

To our knowledge, this is the first published audit of cord management practice in UK television programmes. The ability to scroll through recordings means that intervals could be accurately ascertained and submitted to scientific rigour of inter-observer error and validation. The shows covered different eras and genres of UK births thus providing wide scope and generalisability of the public presentation of birthing practices. Limitations include the use of editing and artistic licence to compress or elongate time periods and to remove detail to produce an entertaining product. This editing was evident in some fixed rig footage from OBEM so accurate timing on the shows' linear time scale cannot be ensured. For example, in one clip a midwife mentioned "leave the cord for a couple of minutes," but the birth-to-cutting interval shown was under 60 s. Even if actual timings were foreshortened by creative editing, video sequence analysis of events showed that cord clamping was

commonly performed before breathing onset. These are important observations as they frame and drive public perception of normality. Although the vast majority of the TV shows were aired after publication of the 2014 NICE guidance, none made any attempt to inform or warn the audience that early cord clamping is no longer recommended in practice. Thus naive viewers are left with the impression that this is normal practice.

Comparison with current and previous literature

There is a lack of quantitative research about cord clamping on television. Previous research on media representations of childbirth corroborates our findings in terms of the influences these have on a woman's experience, shaping the way birth is viewed.[17] In particular, research surrounding OBEM agrees that midwives and obstetricians may be encouraged to make 'risky' decisions as they are seen as 'routine', instead of promoting optionality with the women giving birth.[18]

The chronological shift of birthing practices and use of intervention and technology compare favourably with birth literature, for example, the change in hospital births from 0% (CTM set in the 1960s) to 100% (OBEM and TIGTH set in the twenty-first century). Whilst this is partly due to the different emphasis of the shows, it also reflects changes in UK home births; rates of women having their first child at home of 30–35% in the 1960s decreased to 0.8% in 2017.[19] Similar trends were seen with mode of delivery, where our sample reflected the upward trend of CSs in the UK from 3% in 1950 to 23% in the early 2000's.[20]

Considering most births are vaginal, and the shift to having lay companions, it is interesting to note the continuing taboo on showing female genitalia and birth compared to graphic pictures of operations. This raises questions as to whether and why television normalises surgical birth. This postulation is further supported by a US survey in which 1573 women who had hospital birth said they saw childbirth being represented more through television shows than in 'childbirth education classes'.[21] The modern cultural norm of fathers' attendance spread rapidly 1980–2000, with "a ritual climax of the cutting of the cord" that physically separates the mother from her baby, thought "to indicate the extent to which technological input in the birth process has also enhanced human relations".[22]

Implications for patients, clinicians and policy makers

Women should be able to make informed decisions about their labour (including third stage management), and antenatal information provision is an important component. National surveys suggest pregnant women receive much of their knowledge of birth from television depictions of birth.[21] These shows therefore are an important public health intervention and should be checked to ensure their accuracy and producers' accountability. This research perhaps suggests a need for television shows to be more informative and less graphic in the perception of birth: they may encourage women to make less informed childbirth choices and reinforce unhelpful taboos as well as normalising new rituals. The exclusion of cord clamping scenes from most births (even though it is an integral birth intervention) removes an aspect of information for mothers. Parents and practitioners need to be made aware of the unindicated and harmful effects of early cord clamping.

Clinicians must demonstrate good practice. Early cord clamping reduces newborn blood volume. Delaying this process has benefits at term[23]: timing of cord clamping has far-reaching consequences even in normal healthy births, with children up to 4 years old showing differential neurological development, especially boys. Although unindicated, clamping the neonatal end of a functioning cord must precede cutting. It facilitates separation of the newborn from its mother, particularly to be taken to the neonatologist's specialist equipment when apparently unwell. Yet the notion that this now deeply embedded practice may itself have detrimental effects on babies is lost by its 'invisibility'. The understandable emphasis of television shows on first breaths/cries and the new paternal cord-cutting ritual is misplaced, distracting from harmful traditional third stage practices. The power of these programmes to influence behaviour and clinical practice can have far reaching beneficial and harmful consequences. They should be seen for what they are – important public health interventions that need to be audited as such.

Following the production of major national guidelines, policy makers must ensure they are followed up both with effective dissemination and compliance monitoring. We have been unable to find any audits of UK cord clamping practice for term infants in the decade since consultation on 2014 NICE Intrapartum care guidelines, despite being a NICE Quality Standard (QS), and unlike audits in the premature.[24] The CQC should consider requesting NICE QS150 data from health care providers as a possible measure of good quality evidence-based care. One US survey suggests clinicians in practice for over ten years are the least convinced about evidence, and that black babies seem more at risk of too early clamping.[25] There is no mention of cord clamping in an NHS improvement strategy to prevent avoidable admissions of term babies.[26] The UK Healthcare Safety Inspection Branch did not highlight early cord clamping practices as potentially problematic when analysing investigations of sudden unexpected postnatal collapse cases.[27] Despite violations

of NICE guidance (timing of cord clamping was ≤1 min in 5/12 cases: HSIB personal communication 21 October 2020), no comment was made about initial investigations missing a 'failed standard of care', yet conclusions about responsibility were drawn. The full implications and consequence of a culture of continuing early cord clamping, against guidance, on the newborn population and in future litigation has not been fully assessed by plaintiffs' lawyers or medico-legal experts (personal communication, Suzanne White, Leigh Day and Partners). The NHS Litigation Authority might consider whether negligence cases will be less defensible if cord clamping was not justified, let alone not documented.

Implications for research

Popular television shows are an excellent way to gain insight into UK birth practices. They suggest cord clamping is unimportant and NICE guidance is not being followed. These data highlight the need for national collection of data regarding third stage practices in healthy term babies in all maternity units. It is urgent to use implementation science to close the gap. A toolkit for implementing change has been provided by recent BAPM guidelines for "optimal cord management" in premature babies.[28]

Maternity research and analysis of childhood outcomes are hampered by the lack of accurate documentation of events during transition from fetal-to-neonatal circulation in the first minutes of newborn life. This is particularly fraught by having multiple different and incompatible computer systems, with timing of cord clamping only recently added to the National Neonatal Research Database.[29] Thus, "heterogeneity in data recording and issues with completeness in maternity datasets mean at this current time that we cannot audit routine practice of ['delayed' cord clamping] across the UK" (personal communication, President of RCOG 13 July 2020). Previous, current and future research findings are all undermined by ignorance of the interruption of placental transfusion in causal pathways.

As rituals hold enormous power, it requires great resistance to overcome a norm that is unfounded on the basis of available evidence. The portrayal of unjustifiable, routine behaviours such as early cord clamping and maternal separation enables and normalises practices that fall within maltreatment, disrespect or even obstetric violence during childbirth. The medical profession should assist television programme makers in their public health duty. We believe 'warnings' would be given regarding programmes demonstrating harmful baby sleeping positions known to cause sudden infant death syndrome or 'cot death'. Similarly, the general public deserve proper information about early unindicated interventions, and urgent reassurance that NICE guidance is being followed in their health services so that routine early cord clamping is "[placed] firmly in the category of (obsolete) rites".[22]

Competing interests

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Contributorship: SB/AW conceived the study, all authors brought it to gestation (planned, conducted and reported the work) and attended the birth (approved the final draft).

ORCID iD

Gati Dawda https://orcid.org/0000-0003-4262-2476

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