

HANDS-ON OR HANDS-OFF THE PERINEUM: A SURVEY OF CARE OF THE PERINEUM IN LABOUR (HOOPS)

Hypothesis / aims of study

The incidence of obstetric anal sphincter injury (OASI) has increased in recent years despite of no significant variations in the prevalence of known risk factors including primiparity, instrumental deliveries and fetal macrosomia. On the other hand, it seems that the practice of supporting the perineum during fetal head crowning ("hands-on") might have changed towards a "hands-off" approach. The latter could be a contributing factor for OASI (1-2). In England, NICE and the RCM recommend either technique. However, it is unknown whether the "hands-off" technique has been widely adopted and could be contributing to the increasing incidence of OASI.

This study aims to determine current midwifery practice in England for the management of the perineum during the second stage of labour.

Study design, materials and methods

This was an observational postal questionnaire study. A random sample of 50 maternity units in England was asked to distribute the anonymous questionnaires to 20 midwives per unit. To reduce selection bias each Head of Midwifery was instructed to distribute the questionnaires to consecutive midwives turning up for duties on a pre-specified date and continue with consecutive shifts until all the questionnaires had been distributed. Non-responders were sent a reminder a month later and followed up by telephone 2 weeks after if required.

The primary outcome was whether midwives use "hands-on" or "hands-off". The secondary outcomes included change to "hands on", and use of episiotomy in women at risk of OASI.

Statistical analysis was done using SPSS version 15. The primary analysis was a descriptive summary of the preferred practice of "hands on" or "hands off", and the use of episiotomy together with variations in practice in different clinical circumstances as defined in the follow up questions to the question on preferred practice. For preferred practice the results are presented as a proportion (expressed as a percentage) together with 95% confidence interval. Comparisons between subgroups were made using an exact form of the chi-squared test, on contingency tables. Results are reported according to the STROBE statement.

Results

607 questionnaires were returned; 299 (49.3%, 95% CI 45.2-53.3 %) midwives prefer the "hands-off" method (Table 1). Less experienced midwives (<5 years in practice) were more likely to prefer the "hands-off" technique (72% vs. 41.4%, $p < 0.001$) (Table 2); and were less likely to have performed an episiotomy in the preceding 4 weeks (even in women with known risk factors for OASI such as fetal macrosomia, prolonged second stage and previous OASI) than those in practice for >5 years (17.6% vs. 22.9%).

A higher proportion of midwives in the "hands-off" group would never do an episiotomy (37.1% vs. 24.4%, $p = 0.001$) for indications other than fetal distress.

Numbers on the tables do not always add exactly because small numbers of missing answers have been excluded.

Interpretation of results

This is the first study looking at current practice of care of the perineum during the active second stage of labour in England. Although there are no previous data on the frequency of use of the "hands off" technique, it seems reasonable to assume that this technique was little used in the past since most obstetric and midwifery textbooks described and taught "hands on" the perineum. The results of this survey suggest that "hands off" is a common practice and lend support to the potential risks of the "hands off" technique as seen in other studies (1-2).

Although there are many factors during labour and delivery influencing final outcome with regards to pelvic floor damage, the "hands-off" technique could be a contributing factor.

We hypothesise that the high prevalence of the "hands-off" technique, and possibly the reduction in the episiotomy rate, might be contributing to the increased incidence of OASI. It is now important to test this hypothesis by well designed randomised controlled trials. The findings might help in the prevention of OASI.

Concluding message

We conclude that the "hands off" the perineum technique is prevalent in the management of the late second stage of labour. We hypothesise that this, and possibly the reduction in the episiotomy rate, might be contributing to the increased incidence of OASI.

Table 1. Frequencies table

		Count (%) <i>n</i> = 607
Preferred method of management of the perineum	Prefer "hands on"	295 (48.6)
	Prefer "hands off"	299 (49.3)
	Missing answer	13 (2.1)

Experience in midwifery practice	< 5 years of experience 5+ years of experience Missing answer	170 (28.0) 434 (71.5) 3 (0.5)
Training in performing and repairing episiotomies	Taught to perform episiotomy Not taught to perform episiotomy Missing answer	577 (95.1) 28 (4.6) 2 (0.3)
	Taught to repair episiotomy Not taught to repair episiotomy Missing answer	552 (90.9) 54 (8.9) 1 (0.2)
Training in diagnosing OASI	Trained in diagnosing OASI Not trained in diagnosing OASI Missing answer	544 (89.6) 60 (9.9) 3 (0.5)

Table 2. Preferred method of management of the perineum vs. experience cross tabulation

Experience	Preferred method of management of the perineum	
	“Hands on”	“Hands off”
< 5 years in practice (n= 168)	47 (28%)	121 (72%)
5+ years in practice (n= 423)	248 (58.6%)	175 (41.4%)

*Fisher's exact test, p<0.001

References

1. Laine K, Gissler M, Pirhonen J. Changing incidence of anal sphincter tears in four Nordic countries through the last decades. *European Journal of Obstetrics & Gynaecology and Reproductive Biology* 2009; 146:71-5
2. Pirhonen J, Grenman S, Haadem K, Gudmundsson S, Lindqvist P, Siihola S, Erkkola R, Marsal K. Frequency of anal sphincter rupture at delivery in Sweden and Finland – result of difference in manual help to the baby's head. *Acta Obstetrica et Gynecologica Scandinavica* 1998; 77:974-7

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Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	Approval for the study was sought and obtained from the Plymouth Hospitals NHS Trust R&D department, who deemed it exempt from Ethics Committee approval.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No