



# The IAIM National Evaluation

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The International Association of Infant Massage (IAIM) programme founded by Vimala McClure has been at the forefront of Infant Massage since the 1970's and alludes to many 'obvious benefits for baby and parent and the baby/parent relationship' (McClure, 2001). These benefits however come from the experience of parents and the observations of instructors over the past 40 years and have been accepted by many as an aid to increase more sensitive parental interactions (DH, 2009: 42). As such, the IAIM carried out a National Evaluation of the programme over an 18 month period in an attempt to document these anecdotal benefits in response to our pragmatic world. After many years and several pilot studies the IAIM National Evaluation was rolled out.

## How was it carried out?

### The Measure

A collaboration of over 50 years of expertise was collated to produce an instrument that would gather and record the experiences of parents who attended a 5 week IAIM Infant Massage Course, their perceptions of their baby, their perceptions of themselves and the relationship between them, both prior to and after the course.

A questionnaire was devised using an adaptation of the Likert Scale (1932).

Eleven set questions were asked of mothers including:

- Do you feel confident as a parent?
- Do you feel relaxed?
- Does your baby suffer from wind?
- Is your baby relaxed?
- Do you feel close to your baby?

Parents would answer the set questions by how much they felt the question was true for them or how true they felt it was in relation to their perception of baby. Answers ranged from Never to Always.

In order to offset the closed set questions parents were also given the opportunity to state how the course had made a difference, if any, to themselves, their baby, the relationship between them and baby and family life in general.

### Method

Two hundred and forty mother and baby dyads took part in a nationwide evaluation of the International Association of Infant Massage programme completing the pre and post questionnaires before and after their course. All participants were anonymous and the post questionnaires were completed blind. Babies' ages ranged from 4 to 36 weeks and were a mix of male and female.

### Results

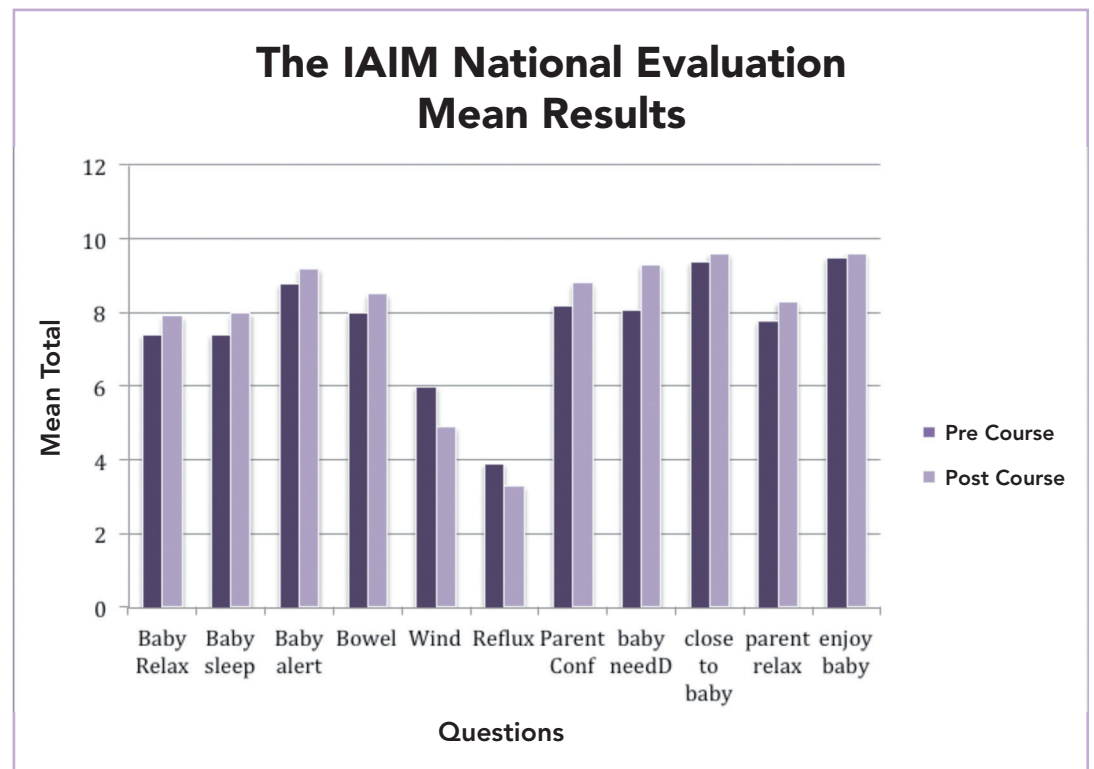
Due to some questionnaires missing data, a total of 221 completed questionnaires were collated and the data was computed using a software statistical programme (SPSS 19).

Descriptive analysis of the data indicated an increase of the mean for 9 of the variables and a decrease of the mean for 2 of the variables, demonstrating a positive post course response for all 11 variables.

## The Results

Is your baby relaxed?	0.5	Do you feel confident as a parent?	0.6
Does your baby sleep well?	0.6	Do you recognize your baby's needs and desires?	1.2
Is your baby Alert?	0.4	Do you feel close to your baby?	0.2
Are your baby's bowel movements regular?	0.5	Do you feel relaxed?	0.5
Does your baby suffer with wind?	-1.1	Do you enjoy being with baby?	0.1
Does your baby suffer with reflux?	-0.3		

### Bar Chart of Results



As the results indicate, mothers attending the IAIM infant massage course rated their babies as sleeping better after the course with a 0.6 increase in the mean. These findings support research carried out by Field, Hernandez-Reif, Diego et al; (2004).

In their salivary Cortisol tests of responses to multisensory interventions, which included touch, auditory and visual stimulation, White-Traut, et al; (2009) found that infant stress was reduced. As the IAIM infant massage programme embraces and promotes a multisensory approach in its' courses it is with little wonder that babies were rated as more relaxed after the course with a 0.5 increase in the mean. It is worth citing at this point that babies in the same study (White-Traut, et al; 2009) who received tactile-only stimulation had the largest increase of cortisol levels therefore babies stress reactivity was increased.

Infant massage is often associated with the rest and relaxation state but it is just as important for baby to be active and alert at appropriate times for growth and development, infant massage is about bringing balance to baby's states. As such, Field, et al; (2006) and Scafadi, et al; (1993) report their pre-term babies to be more alert after infant massage. Babies in our evaluation were also reported to be more alert in their active alert states post course, with a small increase in the mean.

Babies' bowel movements were rated as more regular after the infant massage course with a 0.5 increase in the mean. Symptoms of both wind and reflux were reported to reduce after the massage course, irrespective of the age of baby. With wind reported at a reduced rate of 1.1 and reflux reduced by 0.3 in the mean. Greater gastric motility is also reported by Diego, Field, & Hernandez-Reif, (2005) as a benefit to pre-term infants.

Post course responses of mothers rated their confidence with baby at a 0.6 increase in the mean, supporting the findings of Field, et al; (2006) who found similar reports from the mothers who massaged their pre-term infants. An increase in the levels of how relaxed mothers felt after the course also supports the reduced cortisol levels found in mothers after infant massage in the research of Field, et al; (1998), although cortisol levels were not measured in this evaluation, we could assume that increased relaxed feelings would be a possible predictor for lower cortisol levels.

Although maternal feelings alone do not serve to express the intricacy of attachment, they are considered to be probable indicators of its presence (Shin & Kim, 2007). From the increased rating of the mother's responses to the questions regarding how well they recognize babies need and desires and how close they feel to baby and how much they enjoy being with baby, we are able to extrapolate an improvement of mother-infant interactions. Notwithstanding demand characteristics, in that mothers rated these questions highly pre-course with means such as 9.4 and 9.5 there was still an improvement reported. These findings reflect the work of Goldstein-Ferber, et al; (2005) who found that mothers who massaged their pre-term infants reported an improvement in their interactions with baby. As attachment theory is based on an assessment of the response to baby's physical and emotional needs (Mills-Koonce, et al; 2007) then it may be inferred, even if tentatively that these findings support the existing evidence that infant massage strengthens the attachment between mother and baby (Gurol & Polat, 2012).

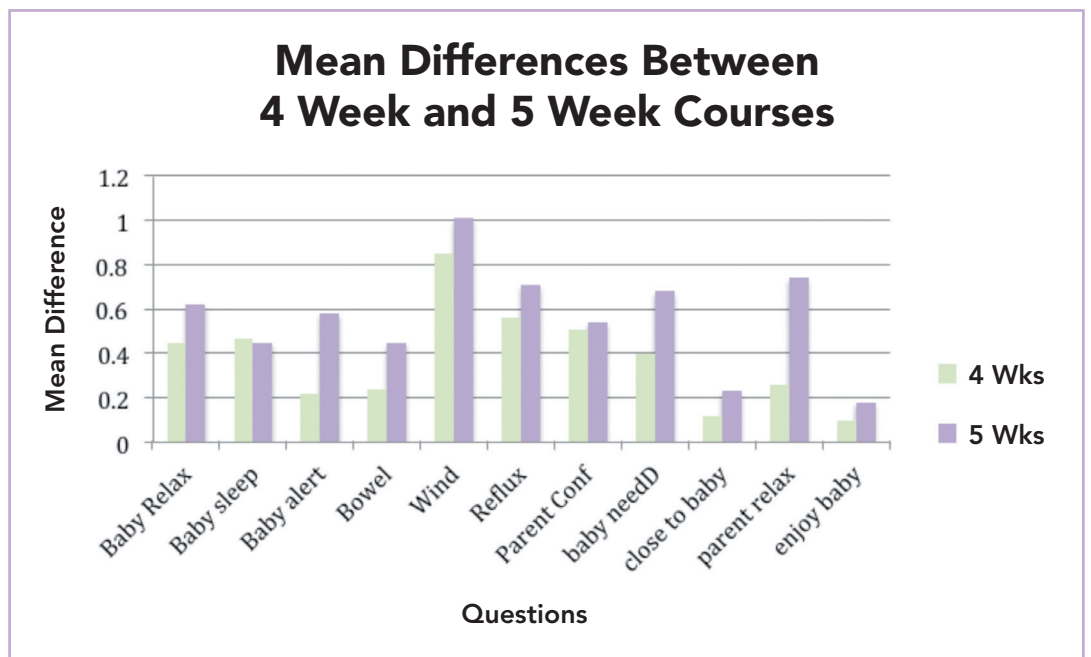
## Research Informing Practice

Aside from the positive responses of the variables another notable factor worth mentioning is the impact on the measured benefits due to the variability in the length of course.

Further analysis of the data revealed differences in the mean of many variables of the 85 mother and baby dyads that participated in a 4 week course as opposed to the 56 dyads that completed the recommended 5 week course (not including missing data and 3 week attendance). Baby is reported to be more relaxed, more alert, have improved bowel movements and less reflux; mothers report that they feel more confident, recognize baby's needs and desires better, feel closer to baby, are more relaxed and enjoy baby more than they do following a four week course.

These differences must be acknowledged and addressed as it is evident that dependent upon the duration of the course, there is a detrimental impact on many recorded benefits. These findings may be significant for future research when considering the beneficial duration of a programme for mother and baby dyads considered to be in the clinical 'high risk' category.

As can be seen in the graph below, the differences are small but are still apparent and the small sample must be taken into account when considering these results.



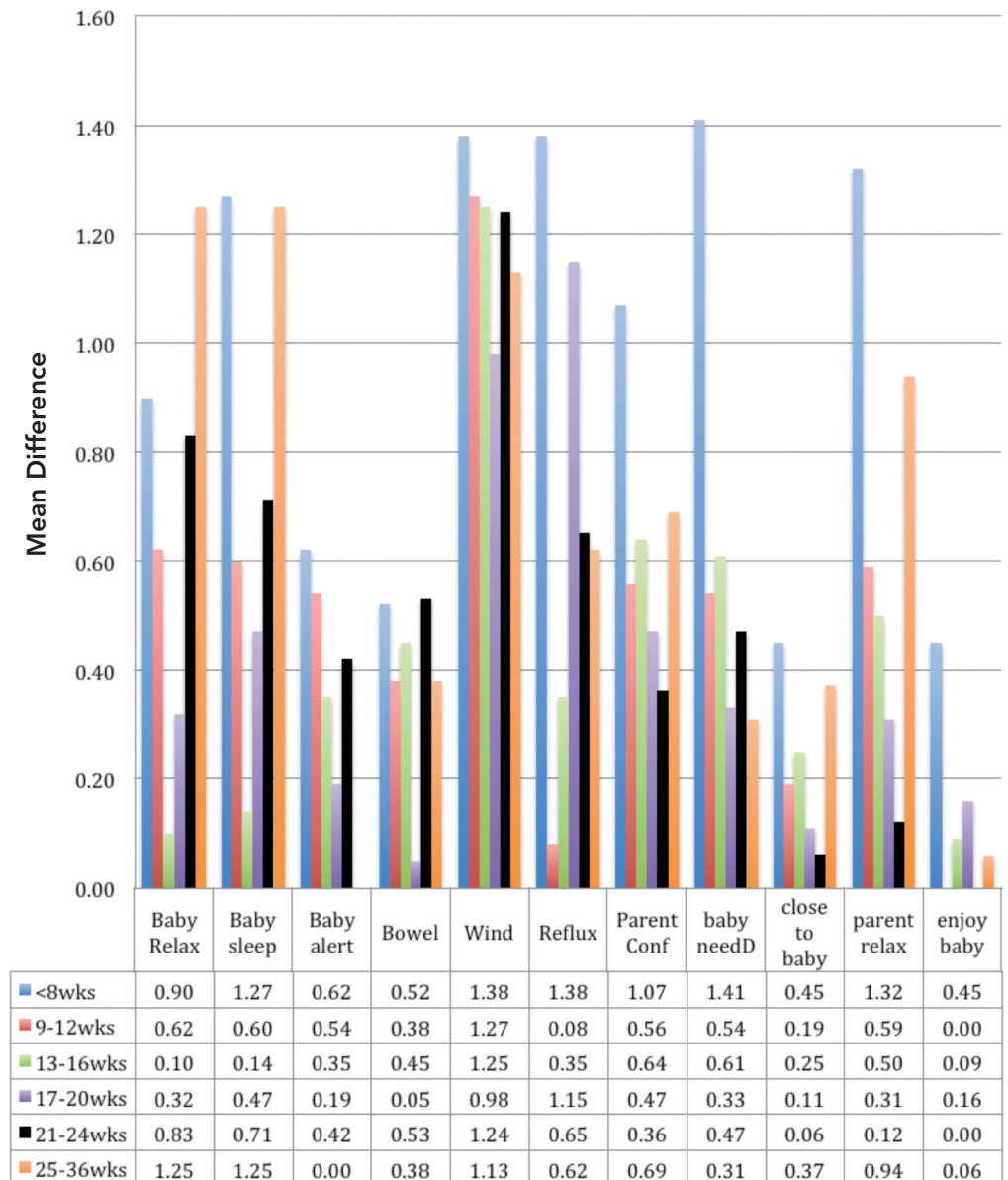
## Does Age Matter?

An investigation of the possibility of an optimum age for babies first attending the IAIM course was then conducted. As the graph below indicates the greatest differences post course were found in the <8 weeks range and the 25 - 36 weeks with the range from 9 - 24 weeks having the least margin of variance post course.

There may be several conjectured explanations we could discuss for these findings but what is immediately transparent is that these benefits occur across all age ranges. However, the

younger baby is when massage begins, the more longevity the benefits will have. If a baby is suffering from wind and reflux and this can be reduced within the first 8 weeks why wait until baby is within the 25 - 36 week range? Or if baby doesn't sleep well and confidence is lacking in the mother why not see positive results sooner? Therefore, suffice to say these findings suggest the earlier baby is massaged the more enduring are the benefits to both mother and baby, with the caveat of late onset of these problems.

### Pre and Post Mean Differences for Variation of Babies Ages



## Qualitative Analysis of Mothers comments

Interpretative Phenomenological Analysis (IPA) was conducted on the comments made by mothers' based on the qualitative methods of Willig (2001). Texts were repeatedly read whilst making wide-ranging, unfocused notes, reflecting initial thought and observations regarding the data. Themes characterising each section of the text were then identified, labelled and recorded. Themes identified were then thought about in relation to one another in a cyclical manner, forming clusters of concepts, sharing meanings or references, eg. 'close to baby', 'time with baby', 'understand baby better'. The process was completed when all comments were analysed and an integrated list of themes had developed, generating a list of master themes which I felt captured the quality of the mothers' shared experience of infant massage and informed us of something of the essence of their experience when selected.

As parents were given the opportunity to express their opinions in answer to the question:

*How has the infant massage course made a difference to you, your baby and family life in general?*

It is of no surprise that three of the master themes to emerge from my analytic engagement with the comments were:

- Benefits to mother
- Benefits to baby
- Benefits to others

No negative comments were made and the fourth theme to emerge was parents views of:

- The course

The master themes and their manifestations (constituent themes) are presented with excerpts from the mothers' comments. The themes are discussed regarding their inter-relationships and with reference to existing research where appropriate.

### Benefits to Mother

There emerged consistent comments regarding how the women felt they had grown in confidence as mothers. How they would now...

"feel confident of techniques to use when baby is agitated"

How it...

"made me more confident to handle baby"

That they felt "reassured" in part, due to the introduction of others in similar circumstances through "meeting other mums" and being able to "discuss topics with each other" a characteristic nurtured and encouraged within the IAIM course. "I now have skills for life."

What emerged was the sense that the course had left the women with a real sense of capability and self-assurance where their babies were concerned. These comments reflect the findings of Griffin (2000) where this research cites the benefits to mothers of the infant massage programmes in respect of increased knowledge and confidence.

Another constituent theme where mothers felt they had benefited was that infant massage "helped develop a bed-time routine" this also incorporated "a bath time routine" which meant that as one mother commented "the house is a bit quieter".

From the comments regarding the development of routines evolved a sense of calm. These comments were often followed by how much more relaxed the mothers were as they found the massage was "relaxing for me as well" many comments echoed how much more relaxed not only babies were but mothers also. In her work with post-natally depressed mothers Feijo, et al; (2006) speaks of the how infant massage reduced the mothers levels of anxiety, we would be forgiven for interpreting this as mothers being more relaxed. One of the questions on her 'Infant Massage Questionnaire' did refer to being relaxed but unfortunately the paper does not incorporate the results.

### Bonding

"take time to focus on baby each day, spending quality time, baby seems more communicative with me"

"even more happier together"

"I feel closer to my baby than before"

"consolidate bond with baby"

"also helped me bond with my older children, who I also massage now"

"different way to communicate with her (baby)"

### Socialisation

"helped to be around other babies and parents"

"my mood was low before"

"I wouldn't have met them (other mums) otherwise"

"it helped me get out and about"

## Benefits to Baby

Many of the benefits already discussed were re-affirmed by parents' comments.

### Digestion

"helped my baby's tummy"

"wind is better (pain) stops immediately after massage"

"helped with wind, bowels are more regular"

"really helped my child's bowel movements"

### Bonding

"enjoys the extra interaction, he is more alert"

### Sleep

"helped with sleep and colic"

"I've found my baby sleeps a lot better"

There were many of the same comments regarding sleep.

### Relaxation

"Baby ready for bed fully relaxed"

"(baby) relaxed too"

"much calmer (baby)"

## Benefits to Others

### Dads

"husband had not bonded with twins, now spends 5 minutes each day massaging their backs"

"Dad enjoys massaging baby's feet when he comes home from work"

"helps family time as dad comes to sit and massage her (baby)"

"gauge a different connection than before with dad and baby"

"he (dad) doesn't feel left out now"

"I can share with dad and mum too"

Although no data from fathers was collated in the study (considering the missing data), research concerning father care giving has been shown to be associated with social functioning (Amato & Rivera, 1999), cognitive development (Yogman, Kindlon, & Earls, 1995), and emotional regulation and control (Gottman, Katz, & Hooven, 1997). As such, infant massage can be proffered as a positive vehicle of introduction to the father's role as a caregiver and is greatly encouraged by the IAIM with many Instructors proactively promoting 'dad's' classes.

## Siblings

There appears to be very little research regarding sibling bonding. It would be a leap too far to make inferences regarding the research that does exist, but several comments were made regarding the involvement of a sibling during massage whether it be that "big sister wants to get in on massaging baby" or that "big brother now wants his massage time too". Although benefits cannot be inferred other than those of 'common sense' no harm can be inferred either.

## Course

"fabulous course"

"really enjoyed it (course) and baby too"

"excellent course, thank you"

"will be using techniques for years to come, thank you!"

"been massaging since birth but now know how to do it properly"

"course very relaxing.... learning a life skill"

"fantastic (facilitator), made you feel relaxed and was a very good listener"

"definitely recommend"

"it was great fun"

"good to have a professional there"

"really enjoyed massage course...facilitator was warm and kind"

"course was very well run"

"loved the course"

"so pleased I signed up for this course"

"facilitator was calm and relaxed, made course more enjoyable"

"lovely course"

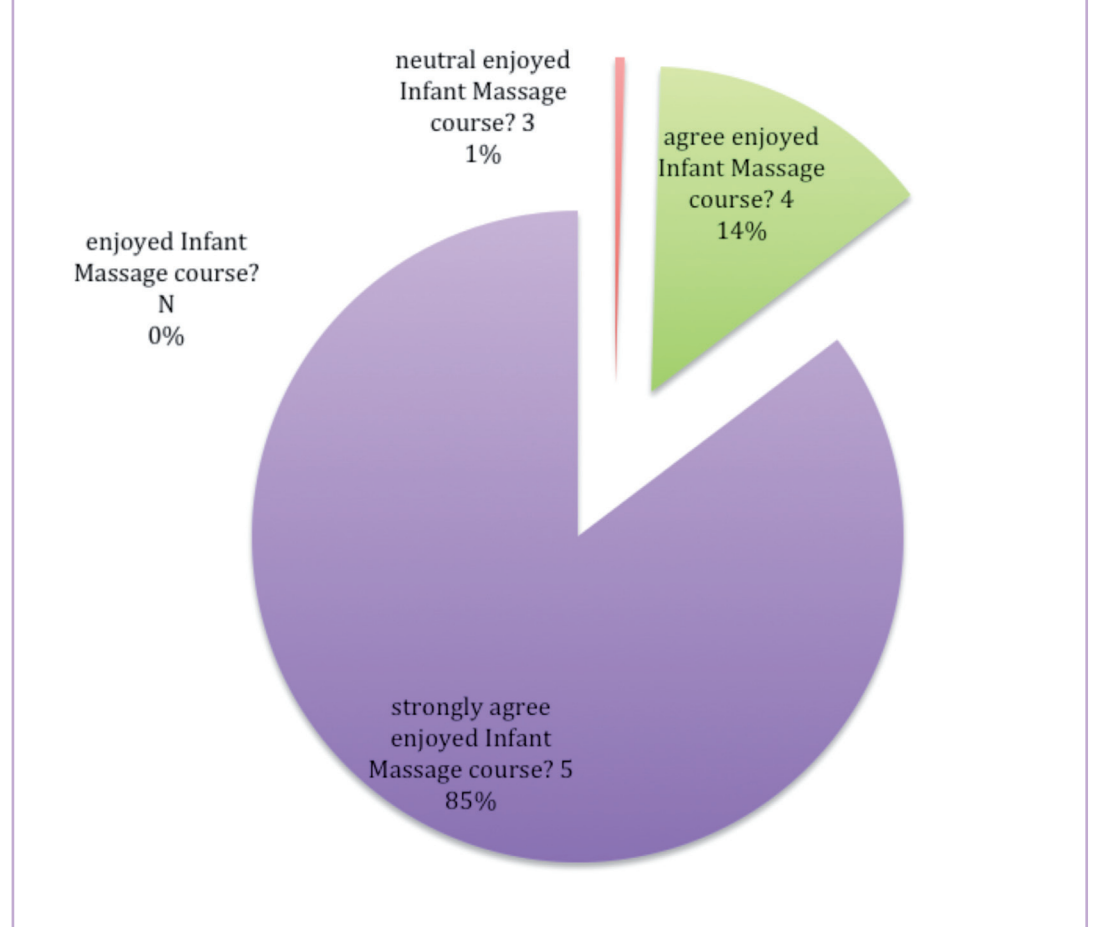
"complete lifeline"

"teacher had a lovely manner - I will really miss her"

Many of these comments were repeated several times.

It was evident from the comments regarding the course and the facilitators that parents genuinely enjoyed the course. This confirms the quantitative results as can be seen in the 'Parents Enjoyment' chart on page 7. 99% of parents enjoyed the infant massage Course with no negative responses.

## Parents Enjoyment of the IAIM Course



### Limitations

It is worth noting that the amount of massage carried out between classes was not measured and, as such, remains an unknown factor in the variance of the post course results for all questions.

This is an evaluation of the IAIM Programme and the views of its parents and is not research, as there are no controls in the design. As such, the measure employed in this evaluation was not as scientifically rigorous as would be expected for research purposes, explaining why thorough statistical analysis has not been conducted at this point.

None of the babies taking part in the evaluation were considered pre-term and this must be taken into consideration where reference has been made to existing research. There is currently a dearth of research regarding full-term, healthy babies in the field of infant massage.

Despite the limitations however, the findings of this evaluation validate and extend current research on the benefits of performing infant massage with the focus on mothers and full-term babies, and warrant further research and exploration.



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