

## **ICOMBO'S Post-Partum Mood Disorder (Depression) Study**

### **Post-Partum Mood Disorder (Depression) – PPMD - is:**

- A type of depression that can occur after childbirth
- Can range from “baby blues” to clinical depression or even to suicide/homicide/psychosis
- Often goes unrecognized or can be dismissed by family, friends, and health professionals
- Treated with counseling and/or medication
- Some PPMD sufferers require hospitalization
- Risk factors include: Personal or family history of depression and PPMD with a previous pregnancy

### **ICOMBO PPMD Study:**

- Follow-up to a study done by NOMOTC (now MOA) in 2003 but done on an international level
- English version of the survey was written by J. Susan Griffith MD with input from the ICOMBO Board
- Also translated into Czech and French
- Survey was done via Survey Monkey – Reached multiple birth families via MOA's and ICOMBO's website/Facebook pages
- Study ran from March 12 – August 1, 2014

### **PPMD Study Respondents:**

- 5207 respondents
  - 4274 completed the English version
  - 691 completed the French version
  - 242 completed the Czech version
  - 98.1% - birth mother
  - 0.83% - same-sex birth mother
  - 0.80% - biological father
  - 0.16% - same-sex mother but not birth mother
  - 0.07% - same-sex biological father
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### **Over 18 countries were represented in ICOMBO's PPMD Study:**

- United Kingdom – 31.8%
- United States – 19.9%
- France – 15.6%
- Australia – 13.5%
- Czech Republic – 4.6%
- New Zealand – 3.5%
- Canada – 3.4%
- Other – 2.4%
- Denmark – 1.8%
- Norway – 1.5%
- Finland – 1.0%
- South Africa – 0.4%
- Sweden – 0.4%
- Germany – 0.3%
- Japan – 0.1%
- Argentina – 0.02%
- Chile – 0.02%
- Singapore – 0.02%

### **Study Respondents and Their Multiples:**

- 94.1% - Twins
- 5.8% - Triplets
- 0.07% - Quads/Quints
- 0.97% - >1 set of multiples
- 60.6% - Dizygotic
- 34.0% - Male
- 33.5% - Female
- 32.4% - Male/Female
- 68.9% of the birth mothers were ages 26-35 when the multiples were born.
- 35.0% of the multiples were the result of fertility treatments – 60.4% had IVF and 31.6% took fertility drugs

### **More demographics on the multiples:**

- 42.9% were born between 36-38 weeks gestation
  - 26.5% were born between 33-35 weeks gestation; 15.0% were born at >38 weeks gestation
  - Only 15.6% were born at 32 weeks gestation or less
  - 49.1% of the infants spent time in the Neonatal Intensive Care Unit (NICU)
  - Only 18.1% of the newborns had medical problems
  - Most common medical problem was a lung problem that required being on a ventilator
  - Failure-to-thrive was also a very common medical problem.
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### **More demographics on the birth mothers:**

- 55.3% had complications during the multiple pregnancy
- Most common complications were premature labor, “other,” anemia and hypertension of pregnancy
- 66.3% had a Cesarean-section delivery
- 65.8% didn’t return to work the first year after the multiples were born
- 64.3% of the moms who returned to work during the first year went back to work six months or later after the births

### **RESULTS of the ICOMBO Study:**

- 31.5% of the respondents in this study had PPMD
- Largest percentage (33.8%) were diagnosed when the multiples were >6 months old; the rest were diagnosed at 4-6 months (21.1%), 6-12 weeks (21.8%) and <6 weeks (23.4%)
- Most of the parents with PPMD (57.0%) were diagnosed by their family doctor, followed by: Other health professional (22.0%), Obstetrician/Gynecologist (19.0%) and psychiatrist (14.6%)
- Most common treatment for PPMD was medication (76.3%) and many also received counseling (55.4%)
- 3.4% required hospitalization
- Most of the respondents (94.0%) were still able to care for their multiples. When asked how the PPMD affected their relationship with their multiples, the three factors most often mentioned were less/bonding attachment, less holding of the multiples and less playing/engaging with their multiples.
- When asked if the PPMD affected their children, about one-fourth thought that speech and language were less developed and that the multiples were more aggressive when playing with others and less loving and affectionate.
- When asked what contributed to the PPMD, the stress of caring for more than one baby was the answer given by most parents (81.8%), followed by: delivery complications (44.7%); financial problems (39.2%); marital problems (38.8%); and stress from having ill infants (23.0%).

### **Respondents who had PPMD:**

- 49.0% of those with older children also had PPMD after their birth
  - 41.4% of those with children younger than the multiples had PPMD after their birth
  - 40.5% had a personal history of depression
  - 50.3% had a family history of depression
  - 16.3% of spouses/partners had a personal history of depression
  - 30.1% of spouses/partners had a family history of depression
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## Comparisons between those with and without PPMD:

<u>Factor</u>	<u>Those with PPMD</u>	<u>Those without PPMD</u>
<b>Maternal age</b>		
<20	1.1%	0.6%
20-25	10.3%	7.0%
26-30	26.5%	30.3%
31-35	40.4%	39.4%
36-40	17.8%	18.7%
41-45	3.1%	3.5%
>45	0.8%	0.5%
<b>Multiples</b>		
Twins	94.1%	93.4%
Triplets	5.9%	6.6%
Quads/Quints	0.15%	0.03%
>1 set	1.0%	0.6%
<b>Marital Status</b>		
Married	87.7%	75.7%
Single	4.6%	3.7%
Living Common Law	6.6%	19.9%
Divorced	0.4%	0.5%
Separated	0.3%	0.6%
<b>Used Fertility Drugs</b>	33.9%	35.7%
<b>Mom had complications</b>	61.6%	51.8%
<b>Bed rest required</b>	40.8%	33.2%
<b>Type of delivery</b>		
C-section	70.0%	64.6%
Vaginal	26.6%	32.4%
<b>Gestation of multiples</b>		
<27 weeks	1.8%	1.1%
27-29 weeks	4.0%	3.3%
30-32 weeks	12.0%	10.3%
33-35 weeks	28.5%	25.4%
36-38 weeks	40.2%	44.4%
>38 weeks	13.5%	15.6%
<b>Multiples spent time in NICU</b>	53.4%	47.0%

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<b><u>Factor</u></b>	<b><u>Those with PPMD</u></b>	<b><u>Those without PPMD</u></b>
<b>Babies had medical problems</b>	22.2%	16.0%
<b>Time of return to work</b>		
<6 weeks	2.6%	3.0%
6-12 weeks	14.5%	11.8%
3-6 months	21.0%	19.3%
>6 months	61.9%	65.9%
<b>Reason to return to work</b>		
Wanted to return to work	42.8%	53.8%
Had to return to work	19.3%	14.8%
Needed the income	66.9%	63.2%
<b>Type of help at home</b>		
Spouse/partner	69.9%	74.8%
Hired help	21.6%	11.3%
<b>Member of a Parents of Multiples Club</b>		
	65.8%	67.1%

**Comparisons between countries:**

<b><u>Country</u></b>	<b><u>PPMD rate</u></b>	<b><u>Get Mat. Leave</u></b>	<b><u>M.L. Time</u></b>
Czech Republic	10.5%	99.6%	>1 year
Germany	15.4%	92.3%	>1 year
Denmark	20.0%	97.3%	9-12 months
Norway	20.0%	96.9%	9-12 months
Finland	26.3%	100%	9-12 months
France	30.0%	99.6%	>1 year
New Zealand	32.0%	98.0%	6-12 weeks
Sweden	33.3%	100%	>1 year
Australia	35.5%	94.0%	9-12 months
Canada	36.6%	99.1%	9-12 months
United Kingdom	36.6%	99.1%	9-12 months
United States	41.6%	80.0%	6-12 weeks
South Africa	46.7%	80.0%	4-6 months

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## **CONCLUSIONS:**

- 31.5% rate of PPMD in ICOMBO's study is higher than the rate listed by the Centers for Disease Control (CDC)
- CDC lists the prevalence rate currently as 8-19% for women and 4% for fathers/partners
- Many were diagnosed late – when their multiples were >6 months of age – and more than half were diagnosed by their family doctor.
- Our study points out some risk factors that may contribute to PPMD:
  - Younger mothers of multiples
  - Married mothers of multiples (due to marital problems perhaps?)
  - Maternal complications during pregnancy
  - C-section delivery
  - Babies born at an early gestation
  - Babies spending time in the NICU
  - Babies with medical problems
  - Moms going back to work when they don't want to go back
  - Moms going back to work too soon (Worse PPMD rates in countries with maternity leave policies that make women go back to work early – 6 months or less after the births)
  - Moms not getting help/support from spouse/partner; moms needing to hire help at home

## **Limitations of the study**

- We forgot to include questions about breastfeeding!
- Survey Monkey was difficult to use with the three language versions – Dr. Griffith had to painstakingly add them up and then compute the percentages because Survey Monkey views them as three separate studies. We may want to investigate Qualtrix or another program for future studies where we will have translations into several languages.

## **Thank You!**

- Many thanks to Multiples of America for letting ICOMBO use their Survey Monkey account.
- Many thanks to ICOMBO Director Tiffany Wimberley for putting the survey into Survey Monkey for us, and to MOA member Ann Hardesty for proofing this Power Point presentation.
- Many thanks to our French translators Marion Gevers and Emma Guyot and to our Czech translator Klara Vitkova Rulikova.
- Many thanks to the ICOMBO Board for their valuable input into the study.

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