

## PRESS RELEASE

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### **Mapping the Risk Factors for Mother-Infant Bonding Disorder**

*University of Toyama researchers find three factors that predict mother-to-infant bonding difficulties in the absence of postnatal depression*

**Mother-to-infant bonding difficulties (MIBD) are commonly associated with postnatal depression. MIBD has been linked to developmental delays and child abuse. Researchers found that about half of MIBD cases in Japan involve mothers who did not experience postpartum depression. Difficulty holding a fussy baby, lack of happiness about pregnancy, and low social support predict an increased risk of MIBD. Clinicians observing these signs should intervene to ensure maternal and child well-being.**

A strong emotional bond between a mother and her child is vital during early infancy. However, some mothers experience indifference, aloofness, or anger when interacting with their infants, a phenomenon called mother-to-infant bonding difficulties (MIBD). MIBD has been linked to inappropriate child-rearing and developmental delays in children. Therefore, it becomes crucial for medical professionals to intervene and help mothers bond better with their infants.

Researchers have long known that postnatal depression is a strong predictor of MIBD. However, mothers without postnatal depression make up a very large proportion of mother-child pairs affected by MIBD. *“The prevalence of MIBD is reported to be 11%–12%, but to our knowledge, there are relatively few reports on the prevalence of MIBD without postnatal depression,”* says Ms. Hitomi Inano from the Department of Nursing Sciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Japan. *“It is highly likely that maternal bonding difficulties are involved in the steadily increasing incidence of child abuse and developmental disorders in recent years,”* she adds.

Ms. Inano led a study on MIBD in mothers without postnatal depression. This study was supported by Dr. Akiko Tsuchida, Dr. Hidekuni Inadera, and Professor Tomomi Hasegawa from the Faculty of Medicine at the University of Toyama, as well as Dr. Kenta Matsumura from the Aomori University of Health and Welfare. Using data from the Japan Environment and Children’s Study (JECS), the researchers studied the overall prevalence of MIBD and factors associated with increased MIBD risk. Their findings were made available online on June 3, 2026, in [Volume 29 of the journal Archives of Women’s Mental Health](#).

The research team found that MIBD was present in 11.6% of all mother-child pairs in the JECS dataset, which was consistent with previous studies. While MIBD prevalence was only 7.7% in mother-child pairs where the mother did not have postnatal depression, this group still accounted for nearly half of all cases of MIBD in the dataset. Next, the team looked at the

prevalence of the two components of MIBD, namely lack of affection (LA) and anger and rejection (AR). 38.2% of mothers gave at least one affirmative response to LA-related items, compared with 51.8% for AR-related items.

What aspects of pregnancy and postpartum increase the risk of MIBD? The team analyzed 30 variables across six dimensions: child factors, maternal physical factors, maternal lifestyle factors, maternal psychological factors, maternal social and economic factors, and healthcare or medical intervention factors. Of these, three variables showed the strongest associations with MIBD.

The strongest predictor was a mother reporting difficulty in holding her infant due to crying, fussiness, or back-arching at one month postpartum; these mothers were 3.45 times more likely to experience MIBD at one year postpartum. The second strongest predictor was a mother reporting any emotion other than happiness upon pregnancy confirmation—confusion, upset, or neutrality were associated with a 2.42-fold increase in MIBD risk. Conversely, mothers reporting high social support during their pregnancy had a 55% lower likelihood of experiencing MIBD.

Ms. Inano highlights the need for active monitoring and intervention. *“Mothers with bonding difficulties who screen negative for postnatal depression are unlikely to be identified by healthcare professionals and are therefore often overlooked as potential recipients of support,”* she says. Clinicians should strongly consider intervening if a mother reports difficulty in handling her baby when the baby is cranky or arching their back, even if the mother shows no signs of postnatal depression.

Ms. Inano hopes that these findings will lead to more mothers receiving timely support, thus ensuring their own well-being and the healthy development of their children.

## Reference

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## About University of Toyama

Established in 1949, the University of Toyama is a national university located in Toyama prefecture. The University of Toyama is dedicated to upholding a global standard of education and research, integrating the humanities, social sciences, natural sciences and life sciences. Over 9,000 undergraduate and postgraduate students study at the university’s three

campuses. The university houses 9 faculties and 18 research institutes, and has over 140 student exchange and research collaborations with universities around the world. *Times Higher Education* ranks the University of Toyama in the top 600 universities in Asia.

Website: <https://www.u-toyama.ac.jp/en/>

### **About Hitomi Inano from the University of Toyama**

Ms. Hitomi Inano is a doctoral candidate at the Department of Nursing Sciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Japan. In addition, she is a key member of the Toyama Regional Center for the Japan Environment and Children's Study (JECS), which is also housed at the University of Toyama. Her research focuses on maternal and child health, and she has six research publications to her credit. In addition to her research, Ms. Inano has extensive experience as a maternity nurse and midwife.

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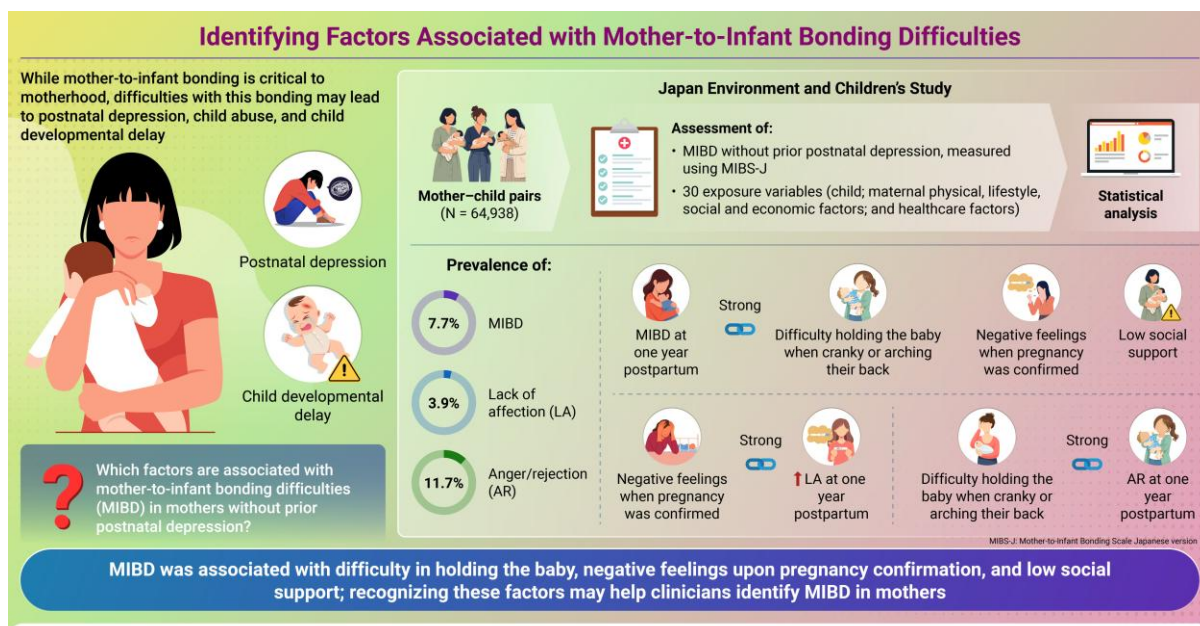
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### **Image**



Factors associated with mother-to-infant bonding difficulties without prior postnatal depression at 1 and 6 months after childbirth: the Japan Environment and Children's Study (JECS)  
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**Title:** Identifying Factors Associated with Mother-to-Infant Bonding Difficulties

**Caption:** About half of all cases of mother-to-infant bonding difficulties (MIBD) occur among mothers who do not experience postnatal depression. Difficulty holding a fussing baby, lack of positive emotions about pregnancy, and low social support during pregnancy and postpartum are strong predictors of MIBD. MIBD has been linked to developmental delays and child abuse.

**Credit:** Ms. Hitomi Inano from the University of Toyama

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