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学位論文内容の要旨

Objective

Social isolation has been identified as a risk factor for morbidity and mortality for a number of diseases. Therefore, preventing social isolation is one of the key challenges that public health faces. Social isolation can occur in any age group; however, child-rearing isolation of mothers with infants is a pressing issue in Japan. In fact, it is addressed as a major issue in three maternal and child health policies in Japan: countermeasures against adverse effects of the relationship between parents and children, child abuse, and birth rate decline.

The lack of social support has been shown to be associated with maternal stress and depression and not adopting safe practices for the prevention of childhood injury. Moreover, child-rearing isolation represents a risk factor for child abuse, which has a deleterious impact on children's development. In Japan, socially isolated mothers with 6-month-old infants spent JPY 4,186 (Japanese yen; around USD 35) more per month on child-rearing costs compared to non-isolated mothers, which suggested parenting costs are higher due to lack of social support for mothers. Therefore, from a public health perspective, understanding the current situation regarding child-rearing isolation and its related factors is critical. H

however, to date, few studies in Japan have examined child-rearing isolation nationwide. This study aimed to identify the prevalence of child-rearing isolation and the related sociodemographic factors among mothers in Japan using data from the Final Survey of Healthy Parents and Children²¹.

Methods

Participants: Mothers of young children attending their health checkups. Participants were residents of 472 municipalities that had been identified as targets of the Final Survey of Healthy Parents and Children²¹ and were also the parents of children scheduled for child health checkups during the survey period. Municipalities were divided into quartiles by population, and participants were randomly selected from each group. In total, 89,404 print questionnaires were mailed to the identified number of participants in each municipality. Surveys were collected from 75,622 parents whose children were receiving health checkups during the survey period: 3-4-month checkup, $n = 20,729$; 18-month checkup, $n = 27,922$; 3-year checkup, $n = 26,971$ (response rate = 84.6%).

Statistical Analysis: Multivariate logistic regression models assessed the association between child-rearing isolation and socio-demographic variables. Data from 69,337 women were analyzed. Further, for sensitivity analysis, we accounted for missing data with the multiple imputation by chained equations (MICE).

Results

Mothers who experienced child-rearing isolation comprised 0.2% of all participants. Mothers who were 35- to 39-years-old at childbirth (OR = 1.6, CI[1.0, 2.4], $p = .036$), unemployed (OR = 1.7, CI[1.3, 2.4], $p = .001$), experienced financial difficulty (OR = 1.8, CI[1.3, 2.5], $p < .001$), had husbands with limited participation in child-rearing (OR = 5.7, CI[4.2, 7.9], $p < .001$), lived in special wards in Tokyo Metropolis (OR = 4.2, CI[2.2, 8.3], $p < .001$), had child abuse concerns (OR = 2.1, CI [1.5, 2.9], $p < .001$), and had no time to relax with their child (OR = 4.5, CI [3.1-6.7], $p < .001$) exhibited higher odds ratio for child-rearing isolation, compared to those who did not. There were statistically significant differences in most variables between those who were and those who were not included in this analysis. However, in the sensitivity analysis, there were small differences between the results of the analysis of the complete data and those of the MICE. (imputed data sample size 75,622).

Discussion

Findings showed that spousal support and community support may play an important role in preventing mothers with infants from becoming isolated in child care. While spousal support is the most important source of support for mothers, it can be inferred that if the source of support is limited to the spouse, mothers can easily become isolated when they cannot rely on their spouse. It is important to create a supportive environment in the community in order to prevent mothers of infants who are likely to leave their families due to marriage and childbirth from becoming isolated from their blood and work relationships. The results of this study also

suggest that community characteristics and place of residence are factors associated with child care isolation among mothers with infants. In cities that are considered to be at high risk of childcare isolation, community support for childcare, such as encouragement from local people and creating an environment where mothers can easily participate in community activities, will be more important. We hope that the results of this study will contribute to future maternal and child health care activities in municipalities.

Conclusions

We examined the characteristics of mothers reporting child-rearing isolation and the associated factors using data from a large-scale, nationwide survey in Japan. Child-rearing isolation was found to be associated with advanced age at childbirth, unemployment, financial difficulties, lack of husband's participation in child-rearing, anxiety about child-rearing: concerns about abusing own child, no time to relax with child, and living in Tokyo's special wards.

論文審査結果の要旨

本学位論文は、乳幼児を持つ母親の育児の孤立化に関連する要因を解析した研究である。社会からの孤立はさまざまな疾患のリスクファクターに挙げられており、これを回避する政策を策定することは公衆衛生の喫緊の課題である。特に、育児の孤立化は幼児虐待につながる可能性が指摘されているものの、孤立化する要因を調べた大規模研究がこれまでほぼ存在しなかったため、育児の孤立化を回避する政策を策定することは困難であった。

本研究では、「健やか親子 21」最終評価の全国調査データの2次利用により、472市町村に在住する69,337名という大規模集団から160名の育児の孤立化群を特定し、孤立化につながるさまざまな要因を、 χ^2 検定、ロジスティック回帰分析などを用いて明らかにした。研究データは、3・4ヶ月検診、1歳6か月児検診、3歳児検診時に母親を対象としたアンケート調査で収集したデータが基になっている。

育児の孤立化は全体の0.2%の集団で見られ、出産時に35～39歳であること（オッズ比1.6）、無職であること（オッズ比1.7）、収入が低いこと（オッズ比1.8）、夫の育児参加が限定的であること（オッズ比5.7）、東京都23区に在住していること（オッズ比4.2）、幼児虐待の不安があること（オッズ比2.1）、子どもとリラックスする時間がないこと（オッズ比4.5）、が危険因子として同定された。さらに、欠損データの解析から、母群から除かれた群がさらにリスクを抱えていることが推察されたが、その影響は小さいものであると考えられた。以上のことから、都市生活を送っていて、育児に夫の協力が得られず、育児に不安を抱えている母親に育児の孤立化が起きやすいことが示された。

本研究は育児の孤立化に関連する要因を、交絡因子を調整した上で明らかにした初めての的大規模研究であり、今後の政策決定のための道筋を数値で示した点で意義が高く、博士（医科学）の学位に値する。