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Materiality of evidence-based policy making for child and adolescent psychiatry in Japan

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Abstract: The Japanese government established the Children and Family Agency in April 2023 and is trying to promote evidence-based policymaking (EBPM). However, the current state of child and adolescent psychiatry in Japan demonstrated some difficulties. School refusal and suicide problems are increasing after the coronavirus disease-2019 (COVID-19) pandemic. These issues need to be addressed, thereby warranting various policies to be developed and implemented. Increasing the number of inpatient medical institutions and establishing a community-based data accumulation system that enables data and knowledge sharing among professionals is essential to improve child and adolescent psychiatric care. Furthermore, EBPM is needed to effectively develop a policy, and specialized experts are necessary to organize data and critically review evidence.

***Keywords*:** child, mental health, EBPM, policymaking

Introduction

The Japanese government is trying to promote evidence-based policymaking (EBPM). The Cabinet Office defined EBPM as the practice of basing policy planning on evidence, with clear policy objectives, rather than relying on *ad hoc* episodes (Cabinet Office) (*1*). EBPM has several issues, such as organizing data into analyzable formats and avoiding a half-hearted approach to policy formation. This study emphasizes the importance of systematically reviewing information and sharing tools based on information for children's mental health. It also indicates a dialogue between medical professionals, such as child and adolescent psychiatrists, psychologists, and social workers, policymakers, policy formation experts, economists, and educators. Such a discussion would ensure that evidence is rigorously analyzed, translated, and successfully shared.

EBPM emphasizes the importance of transitioning from the "equality for everyone" approach to the "resource allocation based on needs" approach. This transition is essential to address the growing disparity in education among Japanese children. Overall, this study provides a detailed examination of the various issues related to child poverty and childcare policies in Japan. It highlights the need to use EBPM to develop informed decisions, as well as the importance of systematically reviewing and sharing information, the challenges in child and adolescent psychiatry, and the need to transition from the "equality for everyone" approach to the "resource allocation based on needs" approach.

Some studies discuss EBPM for children's mental health. The American child welfare system identifies this area and discusses the use of decision-analytic models to advance child welfare policy and practice (*2*). Canadian child mental health policy researchers hope to use the best available research evidence to develop policy to address important public issues (*3*). Children are recognized to be more vulnerable to abuse and neglect and are, thus, more likely to experience negative health and mental health outcomes. Therefore, this study discusses the EBPMs that prevent child maltreatment and reduce negative mental health outcomes for young people who are victims (*4*).

Serious issues in children's mental health in Japan

The current state of children's mental health in Japan has some issues. For example, school refusal and suicide problems are increasing after the coronavirus disease-2019 (COVID-19) pandemic. In FY2021, the number of elementary and junior high school children who did not attend school increased for the ninth year to 240,000, the highest number ever. The Ministry of Education, Culture, Sports, Science and Technology emphasizes that the environmental changes and various restrictions on school life caused by COVID-19 have affected friendships and other relationships, thereby motivating students to attend school becomes difficult.

Serious issues in Japanese society included suicide in

512 children under 18 years of age in 2022. Of the 512 children, 352 were high school students (up 38 from the previous year), accounting for 70% of the total, and up 39 from 473 in 2009. Additionally, 143 children were junior high school students (decreased by five children) and 17 were elementary school students (increased by six children). The previous record reported 499 children who committed suicide in 2008, including 339 high school, 146 junior high school, and 14 elementary school students. Suicides among children have been increasing in recent years while the birth rate is decreasing (*5*). The number of child suicides has increased in recent years and the problem is becoming more serious.

Neurodevelopmental disorders are increasing rapidly, with autism diagnoses rising from 1 in 5,000 in 1975 to 1 in 59 in 2018 (*6*). Meanwhile, attention deficit hyperactivity disorder (ADHD) is the most prevalent childhood psychiatric disorder in children under 18 years of age, with a rate of 5.29% (*7*). The "Administrative Evaluation of Support for Persons with Developmental Disabilities – Monitoring" of the Ministry of Internal Affairs and Communications recommended that in specialized medical institutions, the waiting list for the initial consultation for children suspected of having a developmental disability is getting longer. For example, more than half of the medical institutions (14/27 hospitals) had a waiting time of > 3 months, with the longest waiting time being approximately 10 months in terms of waiting time for an initial consultation, and > 50 patients in approximately 40% of the medical institutions (12/27 hospitals) are waiting for an initial consultation, with the maximum waiting time being 316 patients. Japan's Ministry of Internal Affairs and Communications has issued recommendations to medical institutions for improvement.

Some diseases have increased with the COVID-19 Pandemic. Studies reported increased restriction and anxiety about eating behavior in individuals with anorexia nervosa under the spread of COVID-19 (*8*). Many patients presented with medical instability following restrictive diets and required acute hospitalization to correct malnutrition but often had difficulty finding a hospital that has a child and adolescent psychiatric unit.

The reason for recognizing children with such diverse issues is that development of mental illness begins in adolescence (*9*). However, the medical field of child and adolescent psychiatry in Japan faces a shortage of child and adolescent psychiatrists which necessitates multi-professional support. One child psychiatrist at the Japanese Council of Child and Adolescent Mental Health Institutions treated an average of 132 outpatients (maximum 360 outpatients) and five inpatients (maximum 19 inpatients), spending ≥ 60 min for the initial visit and 30-60 min for the follow-up visit. Additionally, 80% of child psychiatrists worked in maternal and child health, welfare, education, justice, and training (*10*). This significantly exceeded the consultation time of a regular psychiatrist in Japan, thereby causing depopulation of child psychiatry in terms of overwork and cost-effectiveness. Additionally, more inpatient hospital beds were needed to provide comprehensive treatment for psychiatric difficulties beyond developmental problems, such as depression, suicide, and eating disorders.

Japanese social costs for children's well-being

Japan established the Children and Family Agency in April 2023. This study discusses research and policy issues related to child mental health. A study by the Nippon Foundation reported the social loss caused by child poverty amounting to 42.9 trillion yen (*11*). The economic loss suffered by society, even in a single school year of a current 15-year-old, reaches approximately 2.9 trillion yen if child poverty is left unchecked, which increases the government's financial burden by 1.1 trillion yen. Child poverty is becoming increasingly critical in Japan. Looking at the child poverty rates of seven major countries (2012), Japan's child poverty rate stands at 16.3%, following the United States at 20.8% and Italy at 17.2%.

The Nomura Research Institute estimated Japan's economic losses related to developmental disabilities to amount to approximately 2.3 trillion yen, including 1.3 trillion yen for autism spectrum disorder (ASD) and 1.0 trillion yen for ADHD. Economic loss in this case includes direct costs, such as medical expenses and social service costs, as well as indirect costs, such as losses due to low income and non-employment (*12*).

Abused children can suffer lifelong physical and mental health problems (*13,14*). The Ministry of Health, Labor and Welfare is taking a seamless and comprehensive approach to prevent child abuse, from preventing the occurrence of abuse to early detection and early response, as well as protection and support for the independence of abused children (*15*). The social cost of child abuse is 1.6 trillion yen annually, of which 0.1 trillion yen is direct costs (money paid by the government as a budget such as operating expenses of support organizations) and 1.5 trillion yen is indirect costs (money expected to be lost due to abuse) (*16*). Various policies will need to be developed and implemented to address these issues.

Insufficient evidence for EBPM of child and adolescent psychiatry in Japan

The Child and Adolescent Mental Health Registry of the National Center for Global Health and Medicine (NCGM) collects clinical activity in child psychiatry. A few cohort studies focused on general child populations but collected information in a limited geographical area, and the data collected were not consistent. Thirty-eight hospitals of

the Japanese Council of Child and Adolescent Mental Institution have statistics on the number of people by age group of first outpatient visits and diagnoses (n = 13,059) and new admissions (n = 2,955) in FY2021 (*17*). Neurodevelopmental disorders, such as ASD and ADHD, accounted for half of the total in the outpatient setting. Schizophrenia was less common in contrast to adults. Abuse accounted for 12% of these cases while truancy accounted for 30%. Neurodevelopmental disorders in residential treatment accounted for half the cases, with an increasing proportion of life-threatening eating disorders. Of these, abuse accounted for 27%, and truancy accounted for 49%. The average length of stay in residential treatment was 126.1 days.

Therefore, evidence for practicing EBPM in children's mental health in Japan is lacking. Training specialists and having a system to support people with developmental disabilities in the community who want to be seen is essential to address the problem of their waiting lists. Expanding specialized hospitals that can provide inpatient treatment is also essential, as problems other than developmental disabilities, such as suicide, depression, and anorexia, also need to be addressed. Evidence on how much and in what areas the limited number of child psychiatric facilities should be established to address these issues is lacking. Adverse childhood experiences have a significant impact on children's lives. A continuous support system, including maternal and child health care to adolescent mental health care, must be established.

The need for the children's mental health registry system to support EBPM

The Japanese child and adolescent psychiatric field should conduct real-world surveys to gather evidence of children's mental health and need to construct a statistical maintenance system. Thus, developing an implementation system that does not increase the burden of real-world clinical practice and the necessity of bridging treatment of mental disorders with maternal and child health and child welfare fields are important (*3,4,18*). Additionally, the need for a statistical system and promotion of its use should ensure ease of access, protection of personal data, promotion of its use in health, social care, and education, and budgetary incentives. Smart statistical operations are systems that are directly connected to electronic medical records, such as J-DREAMS by NCGM and publication of information and open data for statistical systems (*19*).

Nudge plan for EBPM of child and adolescent psychiatry

The Children and Family Agency will provide services for all children and families. These policies could include mental health services for children and their families, such as those with developmental disorders, depression, suicide, and eating disorders. However, challenges remain, such as lack of a specific budget for professional development, which could hinder the agency's effectiveness and children's mental and physical health.

Establishing an information network across various systems related to children, as mentioned earlier, is essential to overcome these challenges. This network will facilitate sharing of data and knowledge among professionals in different fields such as maternal and child health, education, medical care, welfare, and justice. Furthermore, providing adequate training for professionals is crucial to ensure that they can provide evidence-based care.

Establishment of the Children and Family Agency is a crucial step toward addressing increasing issues related to child poverty and mental health in Japan. However, addressing the challenges in child and adolescent psychiatry, establishing an information network, and providing adequate training for professionals is necessary to ensure its success. Department of Child and Adolescent Psychiatry Kohnodai Hospital, NCGM, at the Council for Measures for Children in Need of Protection, are committed to building and implementing a network of regional cooperation that promotes collaboration between specialized organizations, such as medical care, education, welfare, maternal and child health care, justice, and corrections, in Ichikawa City. This network aims to develop a system in which no one organization is the only center of the community using Guidelines for the Establishment and Operation of a Response and Collaboration System for Problem Behaviors in Children and Adolescents with Mental disorders. NCGM believes that maternal and child health and education facilities can serve as a regional safety net for vulnerable children.

Department of Child and Adolescent Psychiatry Kohnodai Hospital, NCGM are planning three nudge steps (activities, output, and outcome) for EBPM of child and adolescent psychiatry (Figure 1).

Step 1. Making system for EBPM of children's mental health – "Activities" pertains to the following three aspects:

i) Training and quality improvement for professionals focusing on children's mental health in model regions;

ii) Collecting medical information from existing psychiatric care for children and adolescents (*e.g.,* if there is registry data for children's mental health that already exists, it should be utilized); and

iii) Gathering data on medical care, welfare, education, and maternal and child health at the municipal level (*e.g.*, through the Council for Measures for Children in Need of Protection).

Step 2. Making data of EBPM – "Output" covers these three main points:

i) Merging various data, such as medical care, welfare, education, and maternal and child health;

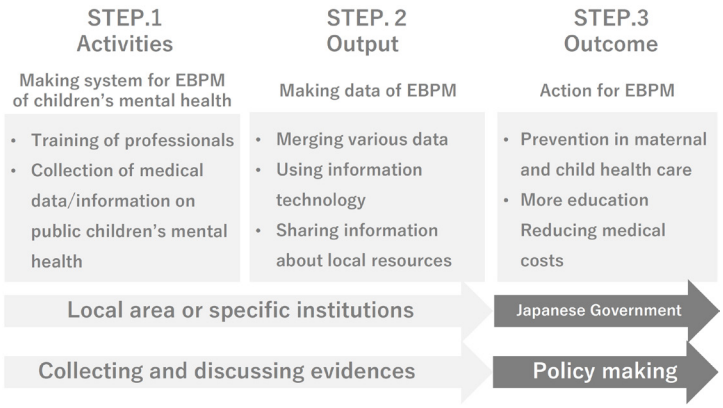

Figure 1. Nudge plan for EBPM of children's mental health in Japan. EBPM, evidence-based policymaking.

ii) Using tools, such as information technology, and linking electronic medical records. Sharing information about local resources, including counseling services; and

iii) Creating connections between different systems, such as associating maternal and child health with compulsory education.

Step 3. Action for EBPM – "Outcome" aims the following four main points:

i) Preventing maternal isolation in maternal and child health care and early intervention in the community;

ii) More educational opportunities;

iii) Reducing medical costs for children with mental problems such as neurodevelopmental disorders; and

iv) Making new policies to promote children's well-being.

Conclusion

Child and adolescent psychiatry plays a crucial role in promoting healthy emotional development in children by collaborating with local specialized institutions, such as education, welfare, maternal and child health, and the judiciary. However, specialized child and adolescent psychiatrists are significantly short, which makes it challenging to address psychiatric issues beyond developmental problems, such as depression, suicide, and eating disorders, in Japan. Increasing the number of medical institutions that have training programs for medical residents and specific psychiatric wards for child and adolescent psychiatry is essential to overcome this issue. Moreover, EBPM is crucial for effective policy formation. Organizing data into analyzable formats, critically reviewing and translating evidence using specialized experts, and establishing an information network to share data and knowledge among professionals in various fields related to children are necessary to achieve this goal. Establishing a community-based data accumulation system is essential for future projects to improve children's mental health. This system will facilitate the sharing of data and knowledge among professionals in different fields, such as maternal and child health, education, medical care, welfare, and justice, and enable evidence-based care.

In conclusion, increasing the number of inpatient medical institutions and establishing a community-based data accumulation system that enables data and knowledge sharing among professionals is essential to improve child and adolescent psychiatric care. Furthermore, EBPM is needed to effectively develop a policy, and specialized experts are necessary to organize data and critically review evidence.

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