세미나자료 2021-10

2021 KICCE
온라인 국제 심포지엄

코로나19 대응 영유아 교육·보육 국제비교

미국, 독일, 한국

2021.12.3.(금) 10:30~12:30 A.M.

YouTube 송출

육아정책연구소
Korea Institute of Child Care and Education

2021 KICCE 온라인 국제 심포지엄
코로나19 대응 영유아 교육·보육 국제비교: 미국, 독일, 한국

일시 : 2021.12.3.(금) 10:30~12:30

사회 : **김나영** 부연구위원(육아정책연구소)

시간	세부일정	
10:30~10:35	인사말 및 연사소개	
	주제발표	
10:35~10:55	발표 1	Young Children's Home Learning Environments and Wellbeing during the COVID-19 Pandemic in USA **Kwanghee Jung 박사** (National Institute for Early Education Research, NIEER)
10:55-11:25	발표 2	Corona Kita Study Design, Pandemic in Germany, and First Results **Franz Neuberger 박사** (Deutschen Jugendinstituts, DJI)
11:25-11:45	발표 3	코로나19 대응 영유아 교육·보육 정책 국제비교: 미국, 독일, 한국 **조숙인 연구위원** (육아정책연구소)
	종합토론	
11:45-12:15	토 론	**정가윤 교수** (명지대 아동학과) **김지원 박사** (서울대 사범대학 협동과정) **김자연 부연구위원** (육아정책연구소)
12:15-12:25	질의응답	
12:25-12:30	폐회사	

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발표

Young Children's Home Learning Environments and Wellbeing during the COVID-19 Pandemic in USA

Kwanghee Jung 박사
(National Institute for Early Education Research, NIEER)

Young Children's Home Learning Environments and Wellbeing during the COVID-19 Pandemic in USA

Kwanghee Jung
National Institute for Early Education Research
Rutgers University

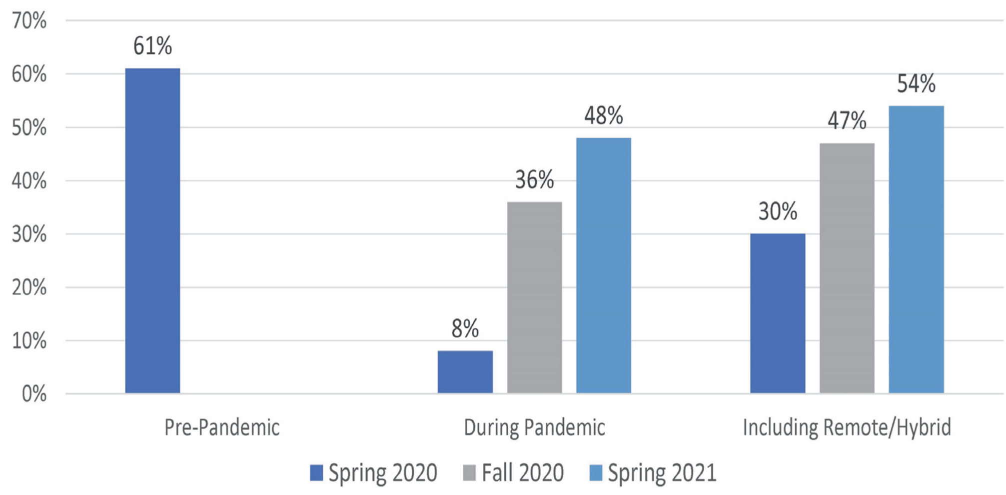
Three surveys: Spring and Fall, 2020 & Spring 2021

- Methodology
  - Online survey of parents, internet access provided
  - Weighted for response rates based on national population
- Spring 2020—May 22-June 5
  - 945 parents of children ages 3-5 not yet in kindergarten
- Fall 2020—December 11-21
  - 992 parents of children ages 3-5 not yet in kindergarten
- Spring 2021– May 21-June 6
  - 954 parents of children ages 3-5 not yet in kindergarten

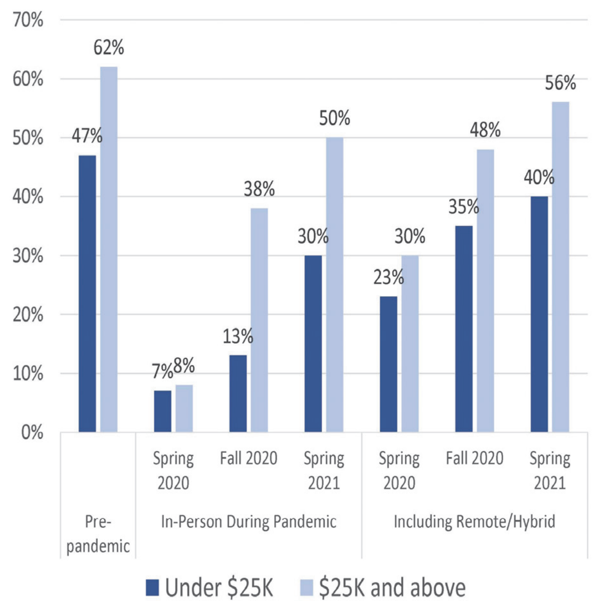
NIEER Preschool Learning Activity Survey Topics

- Early childhood care and education (ECE) program participation
- Program supports for remote learning when not in-person
- Parent engagement in remote learning
- Services for children with special needs
- Meals provision by programs
- Pandemic impacts on parents
- Parent and child home learning activities for all children
- Children’s social and emotional development (SDQ)

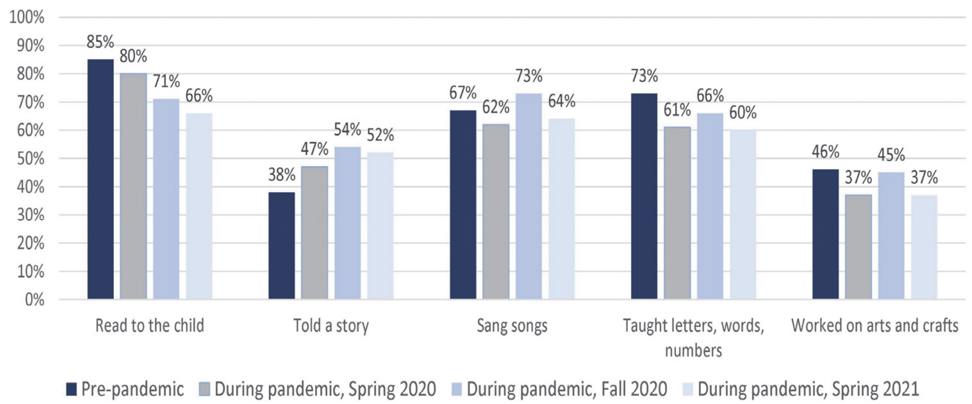
Preschool Participation Before and During the Pandemic



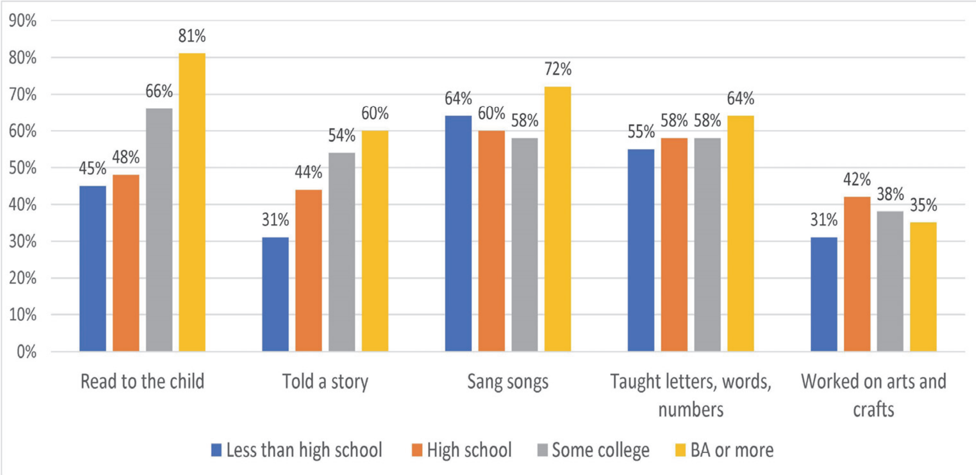
Children in Poverty Lost Most In-Person Pre-K



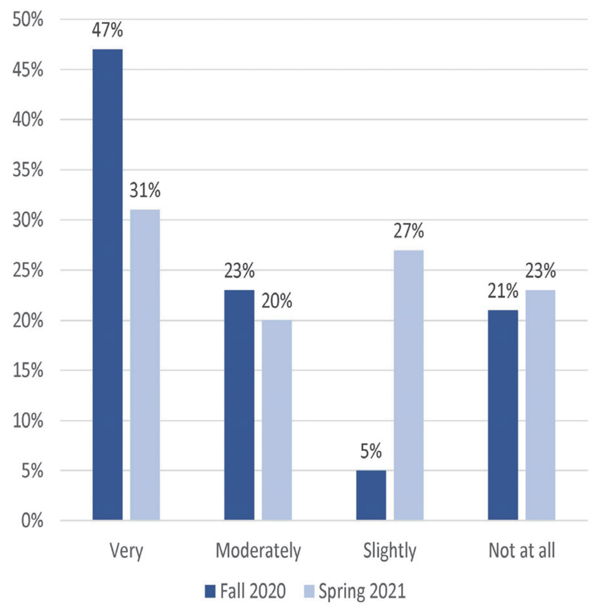
Parent Activities for Early Learning: Pre-Pandemic 2019, Spring 2020, Fall 2020, and Spring 2021



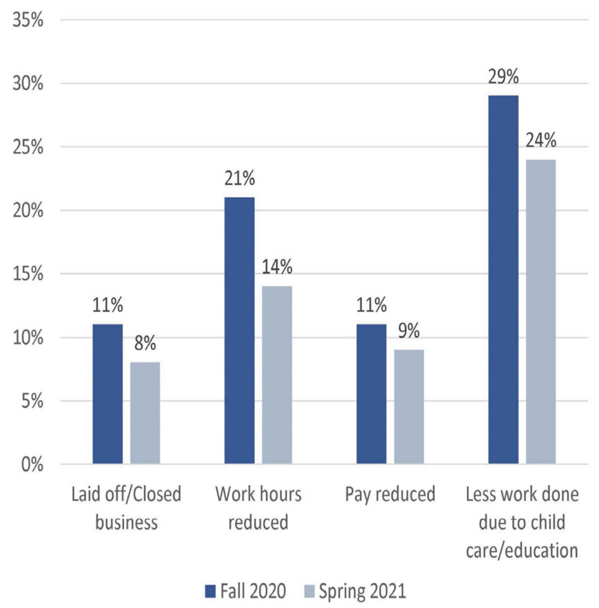
Parent Activities for Early Learning By Parent Education Level, Spring 2021



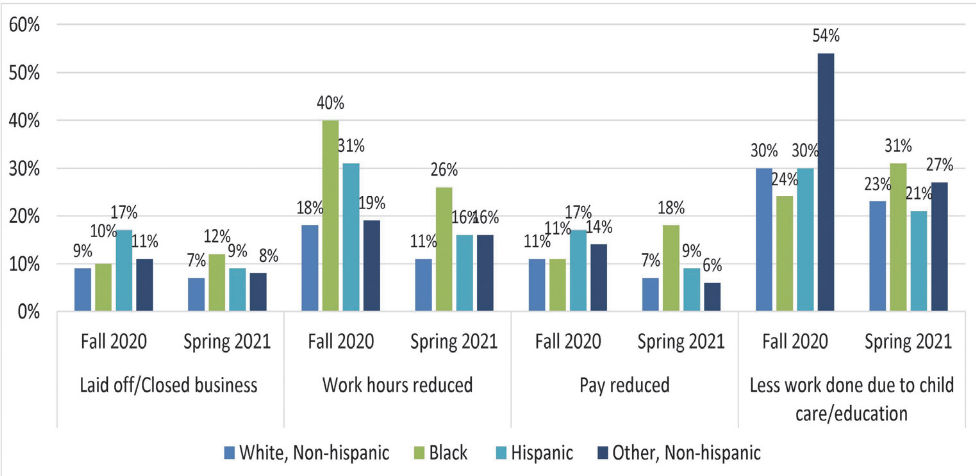
Most Parents Overwhelmed By Supporting Remote/Hybrid Preschool



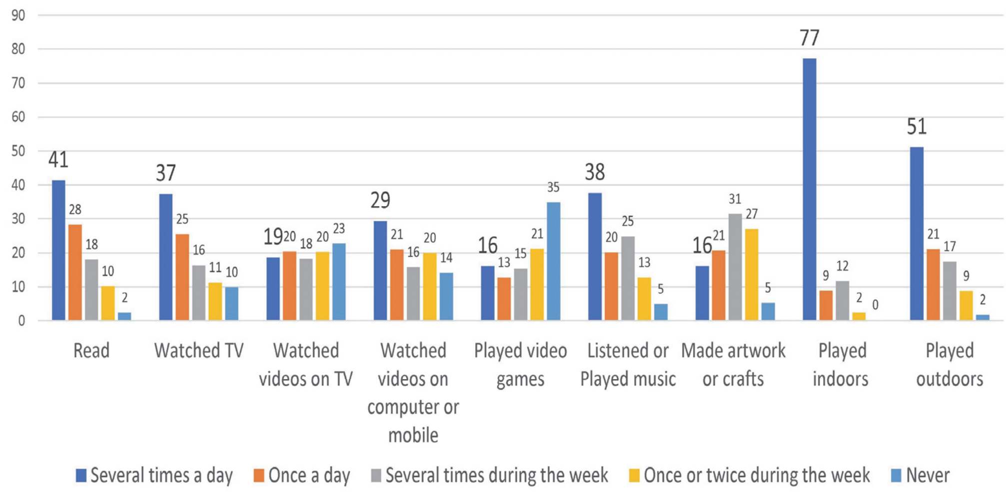
Pandemic Problems Reported by Working Parents



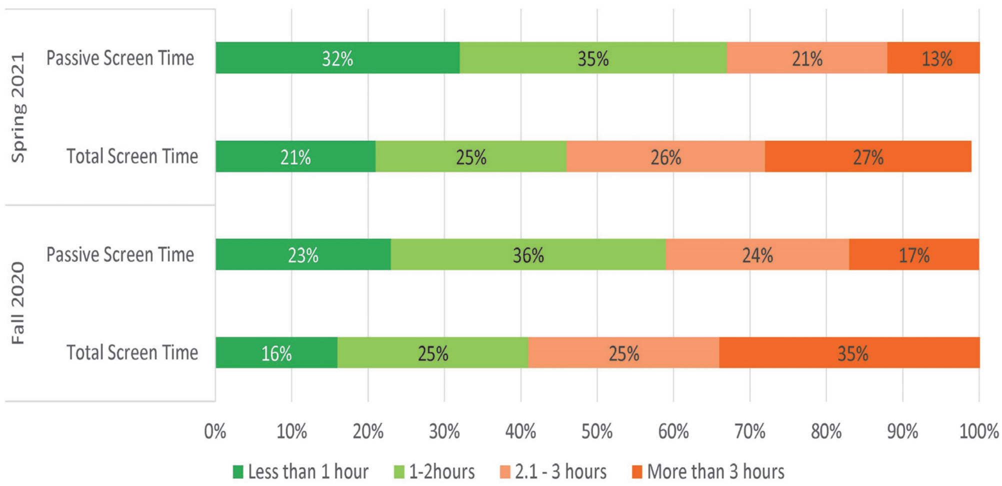
Problems of Working Parents Differ by Race/Ethnicity



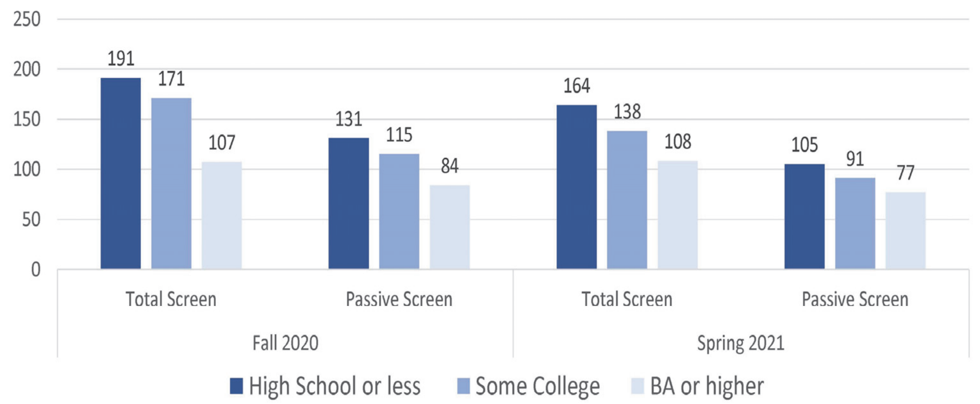
Child's Activities: Frequency in the Last Week (Spring 2021)



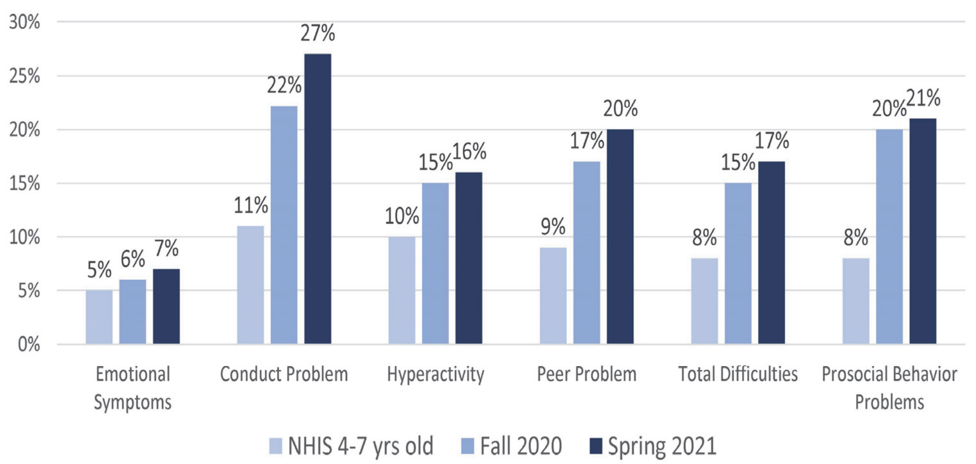
Screen Time Compared to AAP Recommendation



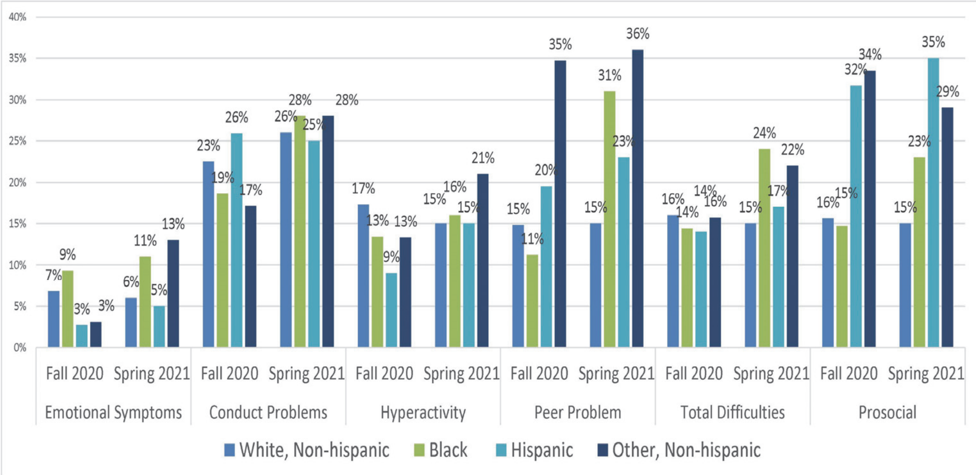
Minutes of Screen Time Per Day by Parent Education



Social and Emotional Problems Increased



Social/Emotional Problems Mostly Similar by Race/Ethnicity, Fall 2020 and Spring 2021



Many Questions to Ask

- Past research has shown a positive relationship between preschool participation and home learning activities.
  - Is this still the case during the pandemic?
  - Does it hold if participation is remote (in the home)?
- Is screen time inversely related to active play, hands on learning activities, parent-child reading, or outdoor time?
- To what extent are parent stressors from the pandemic related to home learning experiences?
- How is child stress related to parent stressors, child activities in the home, and preschool participation in-person and remote?

Thank You!

주제
발표

Corona Kita Study Design, Pandemic in Germany, and First Results

Franz Neuberger 박사
(Deutschen Jugendinstituts, DJI)

Corona-
KiTa-Studie

Corona Kita Study Design, Pandemic in Germany, and first results

The Design of the German Corona Kita Study
Brief overview of the course of the pandemic
Determinants for SARS-CoV-2 infections in day care centres in Germany

Franz Neuberger[1]

[1] German Youth Institute (DJI), Nockherstr. 2, 81541 Munich, Germany

Gefördert durch:

Deutsches Jugendinstitut

ROBERT KOCH INSTITUT

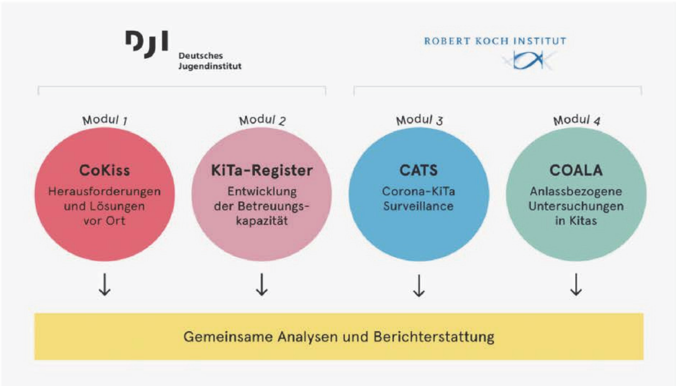
Bundesministerium für Familie, Senioren, Frauen und Jugend

Bundesministerium für Gesundheit

The Corona Kita Study

Corona-
KiTa-Studie

- Collaboration of the German Youth Insitute „Deutsches Jugendinstitut“; DJI) and the Robert Koch Institute (the national public health institute; RKI) to monitor the situation of preschool children during the pandemic, starting in Spring 2020
- Study has 4 Modules:



DJI Modules of the Corona Kita Study

Corona-KiTa-Studie

- CoKiss (Corona KiTa Surveys)
  - Different surveys focussing on on everyday life in day care centres and families, asking day care managers, parents and staff in detail
  - What organisational, educational and hygienic challenges do they face and what solutions have been developed?
  - How do families and institutions work together?
- Survey among 3000 day care centre managers at 2 time points (since September 2020)
- In 600 of these facilities, in-depth interviews with staff and parents took place
- 14000 parents where asked online about their childcare situation, work-life balance and hygiene and protection measures in the family
- Asks both parents using day care centres and parents who care for their children at home

DJI Modules of the Corona Kita Study

Corona-KiTa-Studie

- Kita-Register (Day care centre registry)
  - How does the day-to-day operation look like in the day care centres?
  - What care capacities can the facilities offer?
  - To what extent are protective and hygiene measures being implemented?
  - How is the incidence of COVID-19 infection developing at facility level?
- Weekly online survey for (all) day care centre managers
- Collects current informations on utilisation of the facilities, number of infections, corona-related staff absences, mood in the facilities
- Provides data for our dashboard `https://corona-kita-studie.de/ergebnisse#dashboard` (in German only!)

RKI Modules of the Corona Kita Study

Corona-KiTa-Studie

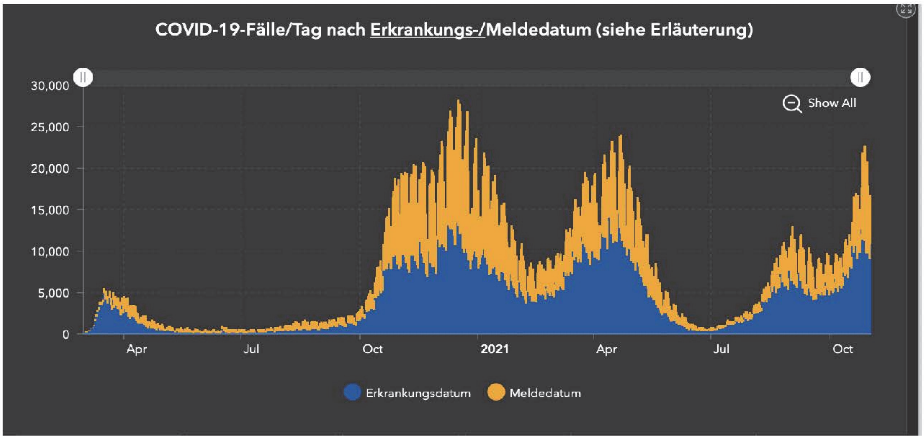
- CATS (Corona KiTa Surveillance)
  - How often do children of kindergarten age contract COVID-19?
  - How susceptible are they to the virus?
  - How severe is the course of the disease?
- Utilizes data reported by the health authorities
- Collects weekly data on acute respiratory illnesses (ARE)
- linked with a sample of laboratories submitting data on SARS-CoV-2 testing
- Provides an exchange platform for clinical and epidemiological studies on COVID-19 among children in Germany (KiCos) `https://b2share.eudat.eu/communities/KiCoS`

RKI Modules of the Corona Kita Study

Corona-KiTa-Studie

- COALA: Occasion-related examinations in day-care centres
  - What role do day-care children play in the transmission of the coronavirus?
  - What symptoms do infected children have and over what period of time?
- in-deepth analysis of a sample of covid-outbreaks in 30 day care centers
- A team from the RKI interviews the facility managers and visits the participating families at home
- Takes salvia (to detect current infections) and blood samples (anti-body measurement), reconstruction of infection chains

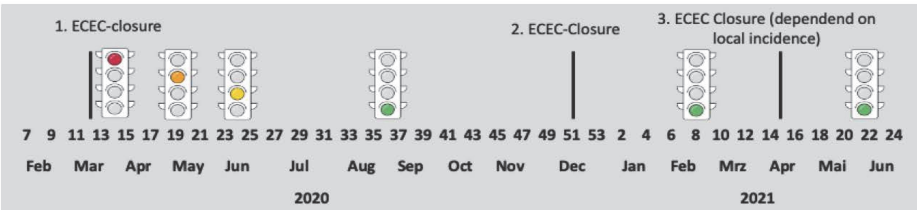
Brief overview over pandemic in Germany



x

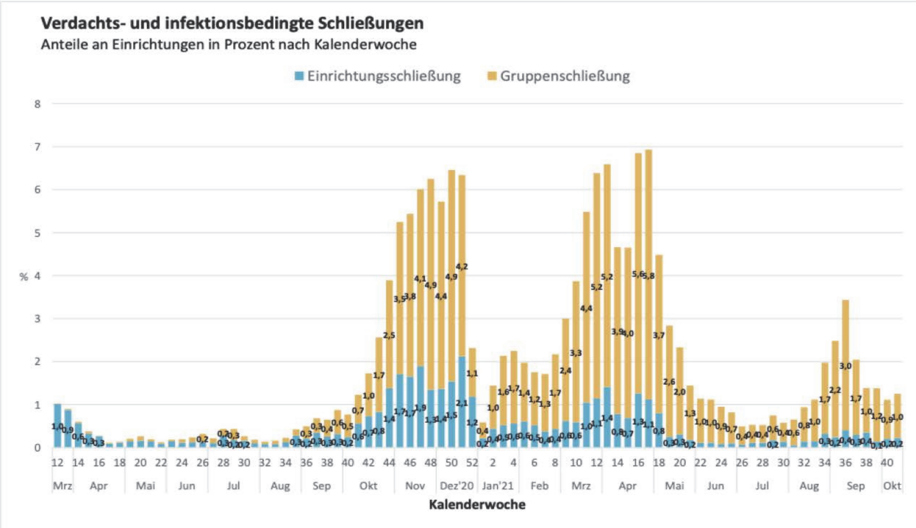
Source: RKI Dashboard `https://experience.arcgis.com/experience/478220a4c454480e823b17327b2bf1d4`

Government closure plan for day care centres due to pandemic



Closures in day care centres due to local covid-19 cases

Corona-KiTa-Studie



Source: Data from day care centre registry

Detailed look: Analyses with day care centre registry data

Corona-KiTa-Studie

- What are the social, structural, and hygiene determinants for infection among children and staff in the second and third wave of the pandemic?
- Day care centre registry: Weekly online survey among day care centre managers, voluntary participation
- Data collection from week 36/2020, 6000 day care centre managers weekly on average (of approx. 55.000 centres in Germany), ongoing (more than 300000 cases/weeks)
- Goal: Germany-wide surveillance of events in day care centres
- Topics: Capacity utilisation, hygiene measures, cases of Covid-19 infection (confirmed by test, reported by the manager), etc.

How many Corona infections were there in day care centres?

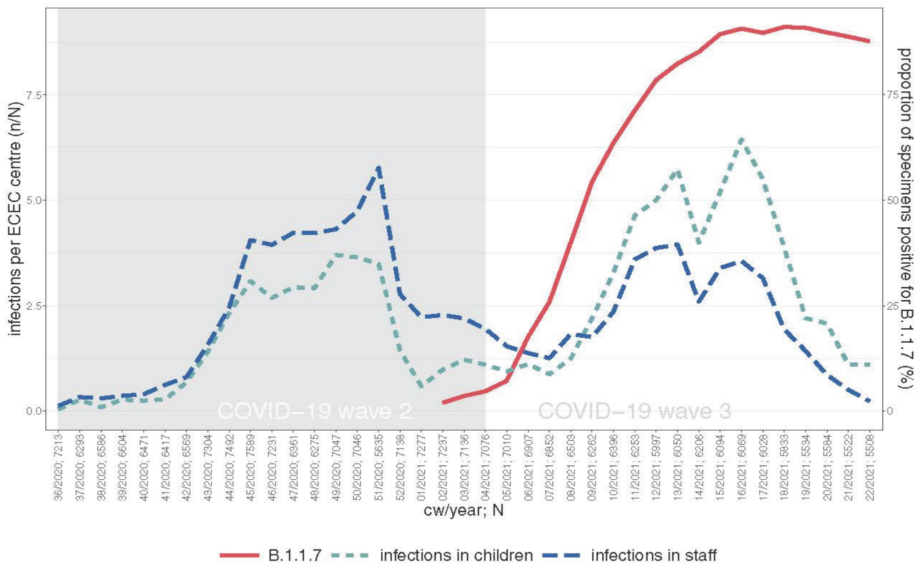
Corona-KiTa-Studie

- In the observation period (2nd/3rd wave) September 2020 (week 36/2020) to the end of May 2021 (week 22/2021), N=8601 centres reported:
  - 5939 confirmed COVID-19 infections in children
  - 5904 confirmed COVID-19 infections in staff
  - approx. 28 % of the centres reported at least one case in children
  - approx. 30 % reported at least one case in staff
  - Outbreaks involving children affected on average approx. 2.4 children (max. 30)
  - Outbreaks among staff affected an average of approx. 2.3 (max. 12)
- How does this look over time?

11/1

Infections (n)/day care centres (N)

Corona-KiTa-Studie



12/1

Covid-19 Infections in day care centres

Corona-KiTa-Studie

- Can we identify causes of infections in day care centres?
  - What effects do hygiene measures have, e.g. ventilation or fixed staff allocation to groups?
  - What effects do social factors have, e.g. proportion of socially disadvantaged children (SES)?
  - Are there differences between infections in children and in staff?
  - Are there differences between the 2nd and 3rd wave?
  - Do different variants play a role? (Covid wild form vs. B117/Alpha)
  - Panel data models for infections in children/staff and in wave 2/3, i.e. 4 models
- All results from paper/preprint on `http://medRxiv.org`, Neuberger et al. (2021)

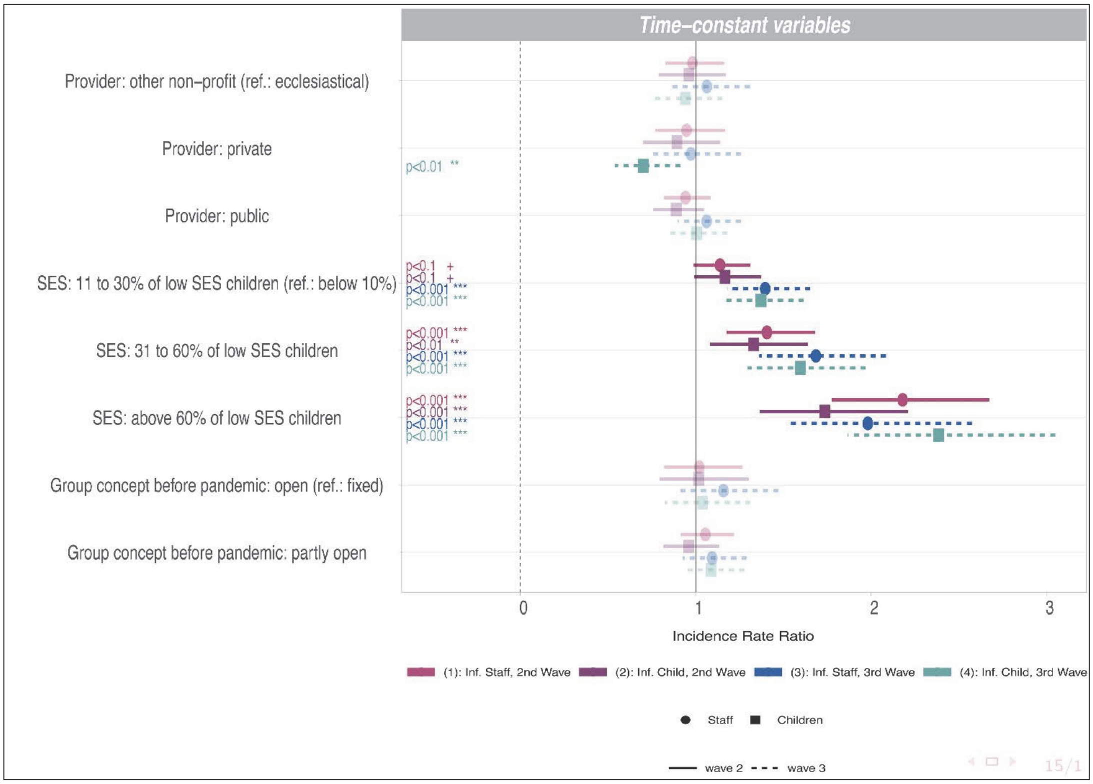
Model

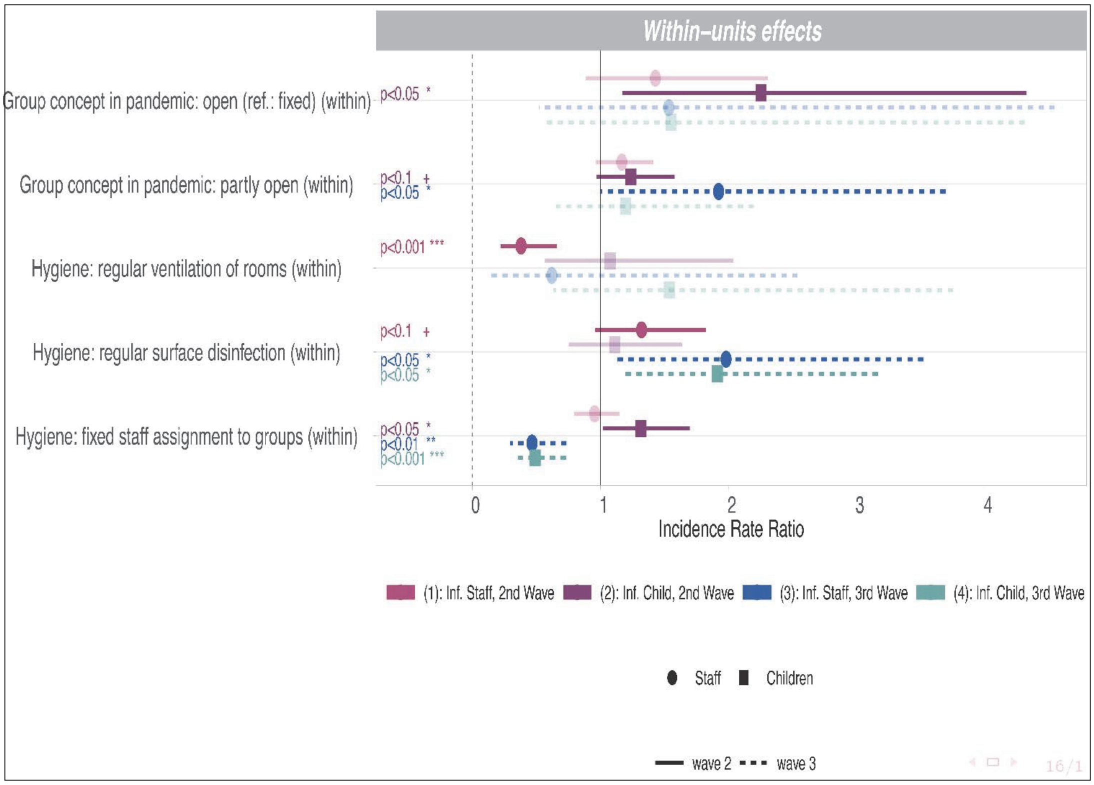
Corona-KiTa-Studie

- Random-effect within-between panel poisson model for count data (Bell et al., 2019; Bell and Jones, 2015)
- What is the expected value of infections under certain time-varying and time-constant conditions?

$$\log\left(\frac{E(y_{i,t+1})}{A}\right) = \alpha + \beta_{1within}(x_{it} - \bar{x}_i) + \beta_{2between}\bar{x}_i + \beta_3 z_i + \upsilon_{1t} + \upsilon_{i1}$$

- $E(y_{i,t+1})$ Expected value of infections in centres i in week $t+1$
- Offset A: Covid-19 7-day incidence per 100.000 per district (401 districts, regional exposure)
- $\beta_3 z_i$: Time-constant factors, e.g. provider, proportion of socially disadvantaged children (low SES)
- $\beta_{1within}(x_{it} - \bar{x}_i)$: Change within a centre, e.g. change of group concept, introduction of hygiene measure
- $\beta_{2between}\bar{x}_i$: Comparison between groups, e.g. overall comparison open vs. closed concept
- $\upsilon_{1t} + \upsilon_{i1}$: time and unit fixed effects


Time–constant variables
Provider: other non–profit (ref.: ecclesiastical)
Provider: private
p<0.01 **
Provider: public
SES: 11 to 30% of low SES children (ref.: below 10%)
p<0.1 +
p<0.1 +
p<0.001 ***
p<0.001 ***
SES: 31 to 60% of low SES children
p<0.001 ***
p<0.01 **
p<0.001 ***
p<0.001 ***
SES: above 60% of low SES children
p<0.001 ***
p<0.001 ***
p<0.001 ***
p<0.001 ***
Group concept before pandemic: open (ref.: fixed)
Group concept before pandemic: partly open
0
1
2
3
Incidence Rate Ratio
(1): Inf. Staff, 2nd Wave
(2): Inf. Child, 2nd Wave
(3): Inf. Staff, 3rd Wave
(4): Inf. Child, 3rd Wave
Staff
Children
wave 2
wave 3


Within–units effects
Group concept in pandemic: open (ref.: fixed) (within)
p<0.05 *
Group concept in pandemic: partly open (within)
p<0.1 +
p<0.05 *
Hygiene: regular ventilation of rooms (within)
p<0.001 ***
Hygiene: regular surface disinfection (within)
p<0.1 +
p<0.05 *
p<0.05 *
Hygiene: fixed staff assignment to groups (within)
p<0.05 *
p<0.01 **
p<0.001 ***
0
1
2
3
4
Incidence Rate Ratio
(1): Inf. Staff, 2nd Wave
(2): Inf. Child, 2nd Wave
(3): Inf. Staff, 3rd Wave
(4): Inf. Child, 3rd Wave
Staff
Children
wave 2
wave 3

Results

Corona-KiTa-Studie

- SES: The lower the SES of children, the more infections, stronger in 3rd wave (Alpha/B117?)
- Low SES children and parents have a increasingly larger shortfall in care time/development opportunities
- Within effects: Significant effects of contact reduction (group concept and fixed staff allocation).
- Ventilation has a positive effect in wave 2
- Surface disinfection rather questionable (anticipation effects?, covid primarily transmissible through aerosols)
- Recommendation:
  - Special support is needed in centres with many children with low SES (e.g. vaccination prioritization)
  - Contact reduction measurably reduces infections, but need a lot of staff for implementation

Corona-KiTa-Studie

Thank you for your attention!

Bell, A., Fairbrother, M., and Jones, K. (2019). Fixed and random effects models: making an informed choice. *Quality and Quantity*, 53(2):1051–1074.

Bell, A. and Jones, K. (2015). Explaining Fixed Effects: Random Effects Modeling of Time-Series Cross-Sectional and Panel Data. *Political Science Research and Methods*, 3(01):133–153.

Neuberger, F., Grgic, M., Diefenbacher, S., Spensberger, F., Lehfeld, A.-S., Buchholz, U., Haas, W., Kalicki, B., and Kuger, S. (2021). COVID-19 infections in day care centres in Germany: Social and organizational determinants of infections in children and staff in the second and third wave of the pandemic. *medRxiv*.

주제
발표

코로나19 대응 영유아 교육·보육 정책 국제비교 : 미국, 독일, 한국

조숙인 연구위원
(육아정책연구소)

2021 KICCE Online International Symposium

Cross-National Comparison of Early Childhood Education and Care Policies in Response to COVID-19 Across USA, Germany and Korea

2021. 12. 3.

Sook In Cho

육아정책연구소
Korea Institute of Child Care and Education

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* All contents are from "Cho, S. I., Kim, N. Y., Kim, J. H., & Kim, Y. M. (in press). Cross-National Comparison of Early Childhood Education and Care Policies in Response to COVID-19 Across USA, Germany and Korea. Korea Institute of Child Care and Education."

육아정책연구소
Korea Institute of Child Care and Education

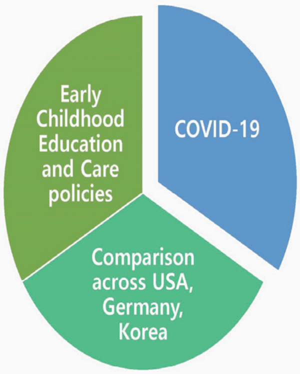
01 Introduction

01

Purpose

Purpose of the study

- To compare the ECEC policies of the United States, Germany, and South Korea in response to COVID-19 in order to explore similarities and differences
- To discuss future ECEC policies in preparation for possible prolongation of the COVID-19 pandemic and the post-COVID-19 era.



01

Method 1: Document Analysis

- Manual search for governments' articles, reports, documents, and data from early 2020 to August, 2021
- USA (4 states: California, New York, Michigan, Texas), Germany (4 states: Bayern, Berlin, Nordrhein-Westfalen, Sachsen-Anhalt), Korea

#	Area	Example
1	**Operation of ECEC institutions/programs**	Closing and reopening, priority use, management of staffs and children, vaccine support for staffs
2	**Training support for teachers**	Training support for distance education, professional development
3	**Learning support for young children**	Support for children's distance learning, supplying home learning materials, changes to educational contents
4	**Financial support for ECEC institutions**	Provision of subsidies for institutional operations

01

Method 2: Expert Survey

- Total 40 experts from 3 countries including field experts (Directors of ECEC institutions), academic experts (Univ. professors, researchers on ECEC), policy experts (Officials of government agencies involved with ECEC)

	USA	Germany	Korea	ALL
Total	13	7	20	40
Regions	California, New York, Michigan, Texas	Bayern, Berlin, Nordrhein-Westfalen	Seoul, Gyeonggi, Daegu, Incheon	-

- Online survey, Open-ended questions

Effectiveness	Challenges	Suggestions for improvement
• Effectiveness of local government's ECEC policies	• Difficulties in implementing local government's ECEC policies	• Areas in which local government policies can be further improved and made more effective with respect to the ECEC policy in response to COVID-19

02

Document Analysis: 3 Countries' ECEC Policies in Response to COVID-19

02

Operation of ECEC Institutions

1. Guidelines

2. Emergency Child Care

- Every region in the three countries provided emergency child care when institutions were closed.

	USA	Germany	Korea
Eligibility	Children of essential workers	Children of essential workers	Open to every child
Note*		Bayern, Berlin, Nordrhein-Westfalen → gradually expanded for children from dual-income and single-parent family	High attendance rate

02

Operation of ECEC Institutions

3. Vaccination of ECEC teachers and staffs

- All 3 countries - First eligible for vaccination

	USA	Germany	Korea
Starting point	March 2021	March 2021	July 2021
Note*	NY provided separate guidelines for vaccinated and non-vaccinated staffs	Berlin provided separate guidelines for vaccinated and non-vaccinated staffs	Highest immunization rates: 99%

4. Mask wearing

- US and Germany: Only mandatory at the height of COVID-19; recommended in other cases
- Korea: Mandatory at all times, strictest rules

02

Operation of ECEC Institutions

5. COVID-19 tests

- Germany
  - ECEC teachers and staffs undergo Covid-19 testing twice a week
  - Use Covid-19 self-test kit @ institutions and home
  - Lolli-pop test for children (https://p.dw.com/p/3uckE)

6. Regular meetings

- USA – California
- Germany – Federal level COVID-19 Committee meetings

02

Training Support for Teachers (Professional Development)

- **3 countries**
  - Provided materials or guidelines for online learning
  - Support for teachers' mental health, stress management and healing
- **Germany**
  - "Digital Education Initiative" (Initiative Digitale Bildung)

02

Learning Support for Young Children

- **3 countries**
  - Provided learning materials to children
  - E.g., play packs, information on available online materials, activities suggested for kids at home
  - Available resources were limited compared to those of children in other age groups.

02

Funding for Institutions

- **USA**
  - All 4 states financially supported ECEC institutions well.
  - GEER Fund, Coronavirus Aid, Relief and Economic Security (CARES)
- **Germany**
  - Gute-KiTa-Gesetz (Good Daycare Act)
  - Provided air purifiers, Covid-19 self-test kits

03

Expert Survey: Effectiveness, Challenges and Suggestions

03

Effectiveness (Positive aspects)

Commonalities

- Systematic and active adjustments of policies to ensure safety in ECEC operations
- Inclusion of teachers among the 1st groups eligible for vaccinations
- Clear and consistent guidelines from the government
- Provision of emergency child care
- Provision of home-based distance learning
- Financial support for institutions with financial difficulties

Differences

USA	Germany	Korea
• Active in funding institutions • Support for vulnerable families	• Closing schools early in the outbreak • Support for families by reimbursing their education costs	• Provision of various services • Switch of professional development to distance learning

03

Challenges (Negative aspects)

Commonalities

- Frequent revision of guidelines in tandem with developments in the COVID-19 pandemic
- Inconsistency in guidelines between governmental ministries (or between the federal, state, and local governments)
- Confusion related to the criteria for those eligible for emergency child care (including the definition of essential workers)
- Insufficient financial support for the operation of institutions
- Teachers' and children's difficulties in adapting to online learning and professional development programs due to the lack of individual and family competence
- Delays in implementing required in-person professional development programs for teachers
- Excessive workloads for teachers involved in the handling of joint online and in-person classes
- Limited content offerings in professional development programs
- Lack of services to support families with preschoolers
- Difficulties in defining the scope and eligibility criteria of support

03

Challenges (Negative aspects)

Differences		
USA	**Germany**	**Korea**
• Teachers' refusal of vaccination/wearing a mask • Workforce shortage • Confusion in the application of COVID-19 quarantine guidelines	• Teachers' refusal of vaccination/wearing a mask • Different levels of operational subsidies to public and private institutions	• Increased risk of COVID-19 infection and workforce shortages • Limited special activities

03

Suggestions for Improvement

Commonalities
• Provision of equitable financial support in consideration of the type of institution and regional characteristics • Expanded funding for institutions overall • Scale-up of the emergency care workforce • Preparation of clear guidelines for each social distancing stage • Enhanced quality for online and in-person professional development programs • Establishment of a digital environment for education • Expansion of services and systems to support families with young children

03 Effectiveness, Challenges and Support for Improvement

03

Suggestions for Improvement

Differences		
USA	**Germany**	**Korea**
• Provision of different medical services or labor costs to encourage more to get vaccinated • Increase of the enrollment and attendance rates of young children	• Establishment of education support system at the state government level • Granting authority to institutions for isolation measures to ensure stable responses to COVID-19	• Making a screening system • Provision of guidelines on follow-up management • Reduction in the per-class number of children (teacher-child ratio) and hours of care • Elimination of repeated programs for professional development • Enhancing both program content (e.g., remote education) and the quality of instructors

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Policy Implications

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Current Status

- **Shift to a 'Gradual return to normal' in November 2021**
  - Prerequisites: High vaccination rate, low fatality/mortality rate, commercialization of treatment, etc.
  - Since a gradual recovery system was launched before the dissemination of treatments, continuous efforts by individuals are required.
- **A gradual return to normal life in ECEC institutions: Conservative approaches required**
  - Reason 1: Infants and young children under the age of 0-5 cannot be vaccinated.
  - Reason 2: Infants under the age of 2 are not allowed to wear a mask.
  - Attention required to the restoration of full-scale in-person classes given an environment vulnerable to infection

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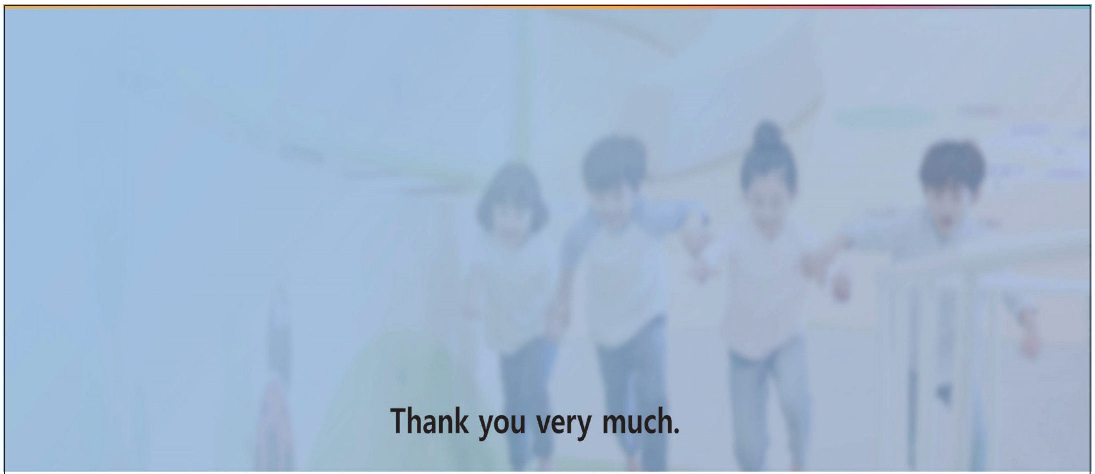
Basic Direction: Two-pronged approach

Basic direction for the gradual return to normal life in ECEC institutions

Prevention	Education/Care
• Review and improvement of countermeasures in the event of confirmed cases within the institution during a gradual return to normal • Testing of teachers and staff, parents, and children for COVID-19 prevention • Strict compliance with quarantine guidelines within the institution	• In-person education: Reinforcement of outdoor activities • Distance learning: Use of interactive communication media and provision of emergency care curriculum • Support for social and emotional development (mental health care) of preschoolers



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