ABSTRACT BOOK

5TH INTERNATIONAL DEVELOPMENTAL PEDIATRICS ASSOCIATION (IDPA) CONGRESS 2023

OUR CHILDREN OUR FUTURE, FROM VULNERABILITY TO RESILIENCE

28 November 2023 - 1 December 2023
Johannesburg, South Africa

INTERNATIONAL DEVELOPMENTAL
PEDIATRICS ASSOCIATION CONGRESS
Indaba Hotel & Conference Centre, Fourways, Johannesburg
28 NOVEMBER TO 1 DECEMBER 2023
OUR CHILDREN OUR FUTURE, FROM VULNERABILITY TO RESILIENCE

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Abstract ID Number: 9

GROWTH AND NEURODEVELOPMENT OF CHILDREN EXPOSED TO MATERNAL HIV AND PLACENTAL INSUFFICIENCY IN A PERI-URBAN AREA OF SOUTH AFRICA

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OBJECTİVES

Children who are HIV-exposed-and-uninfected (CHEU) and those who are growth restricted in utero due to placental insufficiency are both regarded as high-risk populations, which can impact growth and neurodevelopment. Nevertheless, the growth and neurodevelopmental outcomes of CHEU who have also experienced growth restriction in-utero have not been researched. The study compared and determined the association between growth and neurodevelopmental outcomes of 18-month-old children with in-utero HIV exposure and abnormal umbilical artery resistance indices (UmA-RI), indicating placental insufficiency.

METHODS

In this cross-sectional study, we investigated 264 mother-child pairs, who were grouped into four subgroups based on HIV exposure and history of normal/abnormal UmA-RI, using available pregnancy and birth information. The World Health Organization standard procedures were used for anthropometric measurements and z-score calculations, and Bayley III to test child development.

RESULTS

CHEU with abnormal UmA-RI (n=14) had lower length-for-age z-scores (-1.40 ± 1.40 vs -0.04 ± 1.31; p=0.001) and weight-for-age z-scores (-0.60 ± 0.96 vs 0.04 ± 1.16; p=0.02) compared to children who are HIV-unexposed-and-uninfected (CHUU) with normal UmA-RI (n=181). Nearly a quarter (21.4%) of CHEU with abnormal UmA-RIs had a mild delay in cognitive development, 7.1% had a moderate delay in language and 7.1% had a moderate delay in motor development compared to CHUU with normal UmA-RI: 2.2%, 2.8% and 0.0%, respectively. Weight-for-age z-scores had a positive significant association with motor development: 0.10; p=0.027.

CONCLUSION

Exposure to both maternal HIV infection and placental insufficiency is linked with stunting, underweight and cognitive developmental delay. Underweight children are likely to have delayed motor development.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 11

PARENTS/CAREGIVERS PRACTICE ON RESPONSIVE CARE GIVING AND EARLY LEARNING OPPORTUNITY IN ADDIS ABABA, ETHIOPIA

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BACKGROUND

Over 200 million (43%) children under 5 years in low-and middle-income countries are unable to reach their full developmental potential because of poor health, inadequate nutrition, lack of early stimulation, and opportunities for early learning. Sub-Saharan Africa had the highest prevalence of children at risk of not reaching full developmental potential. In Ethiopia this problem is estimated to exist in 60 percent of under five children but community based information is limited.

OBJECTIVE

The objective is to assess parents'/caregivers' level of practice and associated factors on responsive care giving and early learning opportunity for children 6 months to 36 months.

METHODS

Quantitative cross-sectional study was done in Addis Ababa, Ethiopia. A total of 427 parents were included in the study and data was collected using a standardized questionnaire; Home observation for measurement of Environment infant toddler version (HOME-IT).

RESULTS

Most caregivers (93%) did not receive counseling on ways to stimulate brain development. Only 14.1% of the children were enrolled in daycare/ preschool. The HOME Score results showed that 79.9% of the parents had poor practice for responsive care giving & early opportunity for learning, while only 20.1% had a good practice. Mothers with higher education & parents of day care enrolled children were more likely to have better practice.

CONCLUSION

The practice of responsive caregiving and early learning opportunities for children 6 months to 36 months among parents/caregivers in Addis Ababa is poor. Immediate attention needs to be given to implement tailored interventions that promote optimal early childhood development.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 15

IS HOME ENVIRONMENT ASSOCIATED WITH CHILD GENERAL INTELLECTUAL ABILITIES IN MIDDLE CHILDHOOD IN HIGH-RISK SETTINGS? FINDINGS FROM PAKISTAN

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BACKGROUND

A strong body of evidence from low- and middle-income countries (LMIC) suggests that home environment is associated with early childhood development outcomes. However, studies from LMIC that have examined the similar role of home environment with later cognitive abilities during middle childhood are scarce.

OBJECTIVE

The objective of the study was to explore the association between different aspects of the home environment and intellectual abilities at 7-8 years in a rural, high-risk cohort in Pakistan.

METHODS

We employed a cross-sectional research design to examine 1172 children between 7-8 years and their families, utilizing the Home Observation for Measurement of Environment for Middle Childhood (HOME-MC) to evaluate various aspects of the home environment and the Fluid Reasoning Index (FRI) of the Wechsler Intelligence Scale for Children (WISC) 5th edition to gauge the intellectual abilities of the children. Multivariable regression analyses were used to examine the association between different indices of HOME-MC and FRI.

RESULTS

Learning materials and opportunities subscale ($\beta = 1.74$, 95% CI= 1.15, 2.33) had the strongest association with FRI score followed by Responsivity ($\beta = 1.73$, 95% CI=1.07, 2.38) and Family companionship ($\beta = 1.27$, 95% CI=.63, 1.90). The eight different indices of the home environment explained 22% of the total variation in FRI scores.

CONCLUSION

We conclude that concurrent learning opportunities, parental responsivity and family companionship at home are associated with intellectual abilities during middle childhood which is comparable to what has been found in early childhood years.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 55

THE ROLE OF 'MOTHER AND CHILD PROTECTION CARD' IN DEVELOPMENTAL SCREENING OF INDIAN CHILDREN UNDER 3 YEARS: A MIXED-METHOD STUDY

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OBJECTIVE

To determine the diagnostic accuracy of the MCP Card for developmental screening of children between 2 and 36 months and perform a qualitative analysis.

METHODS

A hospital-based, mixed-method (study of diagnostic accuracy and qualitative) study was conducted. Inclusion criterion was children between 2-36 months (across seven age groups). Those with disability, neurodevelopmental disorders, and mothers with <6th standard education were excluded. After being taught, each mother marked items in the red and green zones of the card as per her child's development. The trained researcher's evaluation (index tool) was followed by expert assessment (reference tool) that included clinical examination (hearing, vision, and neurodevelopment) and psychometric assessment (development and adaptive function). Each mother underwent an in-depth interview (IDI). Psychometric properties were computed based on proportion of children with 'fail' and 'delay' by both tools, respectively. IDI transcripts were analyzed thematically.

RESULTS

The study population included 213 children. Fifty-two (24.4%) were 'Fail' and 43 (20.2%) had 'Delay'. Overall sensitivity and specificity was 83.7% and 90.6%, respectively. Acceptable (sensitivity and specificity >70%) diagnostic accuracy was found in four age groups. Agreement between mother and researcher was excellent. Contextual (5), technical (24), and theoretical (9) issues were identified and modifications suggested.

CONCLUSION

Universal developmental screening is recommended at 9, 18, 24, and 36 months. Though the MCP Card possessed identified characteristics suitable for screening in LMIC countries, it lacked validation. We found it acceptable for developmental screening at 9, 18, and 36 months. The proposed modifications should improve diagnostic accuracy further.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 32

BRAIN VOLUMETRY IN CHILDREN IDENTIFIED WITH EARLY CHILDHOOD STUNTING

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OBJECTIVE
Twin risks of poverty and stunting affect development and potential of 250 million young children living in the low- and middle-income countries. There is limited data on the effects of early childhood stunting on brain structures. We evaluated childhood brain volumes at nine years of age between those stunted and not-stunted at two years in a community-based birth cohort in Vellore, south India.

METHODS
T1-weighted magnetic resonance imaging (MRI) images were acquired using a Siemens Skyra 3T MRI scanner, and brain volumes were quantified using FreeSurfer version 6. Amongst 251 children from the overall cohort, 182 children with a mean age of 9.54 (range: 9 – 11 years) were considered for further analysis. Multivariate general linear model was used to compare brain volumes adjusted for age, sex, and total intracranial volume.

RESULTS
Children stunted at two years had smaller total intracranial volume at nine years of age compared to those not-stunted (12,48,611 mm3 Vs 12,88,799 mm3 respectively; p= .003). They also had smaller bilateral cerebellar cortices and smaller posterior corpus callosum. There was no difference between both groups in the total cerebral grey matter, cerebral and cerebellar white matter, and subcortical structures.

CONCLUSION
Early childhood stunting is associated with lower childhood cerebellar cortical brain volumes which may influence information integration and motor coordination, as well as smaller posterior corpus callosum which could affect higher-order association brain regions. Future research should explore concurrent and predictive nutrition-brain associations in children.

TOPIC CATEGORY
2 Early Childhood Development

Abstract ID Number: 53

VALIDATION OF AUTISM SPECIFIC SCREENING TOOLS (MCHAT R/F, RBSK-ASQ, and TABC) IN 16 – 30 MONTH OLD INDIAN CHILDREN

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OBJECTIVE

To determine diagnostic accuracy of Modified Checklist for Autism in Toddlers, Revised/ Follow-up (MCHAT-R/F), Rashtriya Bal Swasthya Karyakram- Autism Specific Questionnaire (RBSK-ASQ) and Trivandrum Autism Behavioural Checklist (TABC) for screening children aged 16 - 30 months.

METHODS

A study of diagnostic accuracy was conducted at a tertiary level hospital. The index tools were translated into Hindi, piloted on 25 mothers and modified accordingly. A researcher was trained to administer, score and interpret them as per operational guidelines. Children between 16-30 months were enrolled after informed consent. Those with known disability/neuro-developmental disorders, severe medical illness, mothers who were unavailable or did not understand Hindi were excluded. The calculated sample size was 200.

After informed consent, the index tools and Developmental Profile (DP3) were administered to each enrolled participant by the researcher. The reference tool was comprehensive assessment by experts (clinical evaluation, reviewing videos, and applying DSM-5 diagnostic criteria) to arrive at Autism/ non-Autism. The study outcomes were parameters of diagnostic accuracy, validity, and reliability

RESULTS

Sensitivity and specificity of MCHAT-R/F were 95.2% and 94.4%, of RBSK-ASQ were 100% and 93.9%, and of TABC were 100% and 94.4%, respectively. Convergent validity was high (Spearman Correlation Coefficient 0.98). Test- retest and inter-rater reliability were excellent (Intra Class Correlation coefficient 1.00).

CONCLUSION

All three tools are widely used across India, but lack robust supportive research. By establishing optimal diagnostic accuracy we come closer to the goal of universal screening known to result in early detection, timely intervention and better outcomes.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 20

EXAMINING THE PREDICTIVE VALIDITY OF BAYLEY SCALES OF INFANT AND TODDLER DEVELOPMENT-III AT 2 YEARS FOR LATER GENERAL ABILITIES

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OBJECTIVE

The Bayley Scales of Infant and Toddler Development (BSID) is considered as gold standard to measure early childhood development outcomes in young children. However, evidence about its predictive validity is scarce.

METHODS

We used data from a rural cohort in Pakistan (N = 1298) to examined the predictive validity of the BSID-3rd edition on later tests of general abilities. The BSID III subscales (cognitive, language and motor) were administered at 2 years; general ability was assessed using the Verbal, Performance and Full-Scale score from the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) III at 4 years, and the Fluid Reasoning Index (FRI) from the Wechsler Intelligence Scale for Children (WISC) V at 8 years.

RESULTS

The combined BSID subscales explained 15% of the variation of the WPPSI III full scale, 16% of the Verbal scale, 7% of the Performance scale and 1% of the FRI.

CONCLUSION

BSID III scores at 24 months should be used with caution to predict future intellectual abilities.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 56

NUTRITIONAL, PSYCHOSOCIAL AND ENVIRONMENTAL DETERMINANTS OF NEURODEVELOPMENT AND CHILD MENTAL HEALTH (COINCIDE)

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OBJECTIVE

Over 250 million children experience developmental challenges due to adverse exposures. However, the individual and combined effects of determinants on neurodevelopment and child mental health remains largely unexplored. Objective of the COINCIDE study are (1) To assess the independent and combined effects of nutrition, psychosocial adversities and environmental determinants on neurodevelopment and mental health in children across diverse urban/rural and North/South Indian settings; (2) To describe how these determinants interact with social inequalities to influence child outcomes.

METHODS

Follow-up of two birth cohorts: SPRING (rural North India; N=600; Age=7-9 years) and MAASTHI (urban South India; N=1000; Age=3-8 years). Quantitative data on exposures and child outcomes will be collected using standardized questionnaires and digital tools. In a subset (N=500), we will investigate blood and urine samples for nutritional and pesticide biomarkers. Indoor air pollution will be monitored in 200 households across two seasons of summer and winter. Qualitative methods of in-depth interviews, focused group discussions, case studies and workshops will address Objective 2.

RESULTS

A pilot study was conducted to test the feasibility and validity of all study tools and establish standard operating procedures (SOPs) (N=65). From January to July 2023, data collection has been completed in 313 cohort participants.

CONCLUSION

The COINCIDE study tools and SOPs are acceptable to the community in both urban and rural Indian settings. This study will soon enable the exploration of the impact of psychosocial, environmental and nutritional determinants throughout early, middle and late childhood on child development and mental health.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 4

TRANSLATION AND CROSS-CULTURAL ADAPTATION OF ENGLISH VERSION OF KIDDY-KINDL TO FILIPINO LANGUAGE IN ASSESSING THE CHILDREN'S HEALTH-RELATED QUALITY OF LIFE

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OBJECTIVE

Children's health-related quality of life (CHRQoL) involves a child's aim, expectations, standards, or concerns regarding overall health and its domains. The Kiddy-KINDL questionnaire is a tool to measure CHRQoL from information directly derived from children. It has been translated to various languages, except Filipino. This study would provide Filipino healthcare professionals with another functional tool for pediatric evaluation. The objective of the study is to translate the English version of Kiddy-KINDL to Filipino and to determine its validity, test-retest reliability, and internal consistency of the Kiddy-KINDL in assessing the children's health-related quality of life (CHRQoL).

METHODS

The study involved 3 Phases: Translation, Pilot Testing, and Reliability Phase. The English version of Kiddy-KINDL was cross-culturally adapted and translated into Filipino through a forward and backward translation process. Face validity was performed with 40 participants during the pilot testing phase. Test-retest reliability testing was performed with a total of 116 pairs of children, ages four to six, and their guardian living in Metropolitan Manila.

RESULTS

In phases 1 and 2, there were a total of 5 versions before the final Filipino version was considered acceptable. In phase 3, the test-retest reliability score of each dimension ranged from 0.18 to 0.98. The total reliability scores were 0.77 and 0.98 for adults and children, respectively. The internal consistency score was found to be acceptable in both questionnaires.

CONCLUSION

The Filipino-translated Kiddy-KINDL has acceptable face validity results, test-retest reliability, and internal consistency scores.

TOPİC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 157

BUILDING AN INCLUSIVE EARLY CHILDHOOD DEVELOPMENT SYSTEM FOR YOUNG CHILDREN WITH DISABILITIES AND THEIR FAMILIES IN AFRICA

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OBJECTIVE

Despite most African states having ratified the international and regional human rights treaties that protect the rights of children and persons with disabilities, there has been variable progress in translating these into meaningful reforms for children with disabilities on the continent.

METHODS

A desk review commissioned by the Africa Early Childhood Network (AfECN) in 2022, analyzed the growing body of work related to legislative and policy provisions, and services/programmes for children with disabilities between birth and six years of age across Africa.

RESULTS

Global and regional commitments have improved the availability and quality of data on children with disabilities in the Africa region, as well as improved policy and legislation aligned with human rights instruments. Nearly half the countries have an ECD policy, however, do not always make mention or provisions for children with disabilities in these policies. There remains gross under-resourcing and underfunding for provisions for children with disabilities and their families, particularly during the early childhood period. Access to health, nutrition, and early learning support remains challenging and support for responsive care is still unavailable to most caregivers. Forty countries did not have a child protection policy or legislation, highlighting the inadequacy in this area across the region.

CONCLUSION

Stronger policy and programmatic alignment with international and regional treaties are required to realize the rights of children with disabilities in the region. Better quality data and information systems, and a more robust evidence base is required to develop context-specific and appropriate solutions.

TOPIC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 190

FELT NEEDS OF THE COMMUNITY FOR FAMILIES WITH SPECIAL NEEDS CHILDREN: OBSERVATIONS FROM RURAL INDIA

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OBJECTIVE

To identify the felt needs of community for children with special needs and their families.

METHODS

This was a qualitative study conducted using tools like observation, in-depth interviews in a district from central India. These tools were used across four geographical strata in which the entire district was divided based on distance of selected villages from district headquarters. Regarding the children whose caregivers were interviewed, attempt was made to purposively select them in a manner that we have representation from different socio-economic strata, gender, age group, type of child's need, status of their treatment as well as cultural backgrounds.

RESULTS

Based on our findings, we have grouped the felt needs as needs of the child, family, social needs and policy-making needs. The child's needs included educational and health needs. The needs of the family included child's needs, psychological support, inclusiveness, health literacy, needs for supporting treatment and caregiving needs. Whereas the higher-up policy making needs include the social needs along with inclusive, need-based policies, increasing reach, strengthening monitoring-evaluation and further research on needs of the community.

CONCLUSION

The needs of the child aren't limited to provision of treatment for their condition. We must hence attempt to manage them more holistically by identifying and assessing their as well as their family's needs. We recommend further research for identification of such needs. This will enable us to formulate a screening tool for assessing needs in families of children with special needs and provide them need-based services.

TOPIC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 177

CULTURAL ADAPTATION AND VALIDATION OF FAMILY OUTCOME SURVEY-REVISED FOR USE IN THE INDIAN CONTEXT

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OBJECTIVE

To culturally validate and adapt the Family Outcome Survey-Revised (FOS-R) for use in a child development center in urban India.

METHODS

The Applied Cultural Equivalence Framework (ACEF) was used to establish cultural validity (content and operational) of the FOS-R, a tool that measures caregiver outcomes resulting from intervention services and supports for children with disabilities and their caregivers. The tool was translated into Hindi, Marathi and back translated into English. Cognitive Interviews (CI) were conducted with caregivers to assess the cultural validity of the English, Hindi, and Marathi versions of the tool. A deductive coding approach was used to organize findings according to the first four criteria of the ACEF. Internal consistency was subsequently measured on the adapted version of the tool.

RESULTS

Nine caregivers participated in the CI for the English, Hindi, and Marathi versions of FOS-R. 6/9 caregivers had completed high school education or above. Caregivers participating in CIs for Marathi FOS-R had comparatively lower education levels. Operational and content-related modifications such as providing an explanation of the Likert scale and replacement of terms used in the tool with contextually appropriate options were made based on themes that emerged from the CIs. Most of the caregivers (90%, 91%, and 83% respectively) found the FOS-R relevant, comprehensive, and comprehensible.30 caregivers completed the adapted tool. Internal consistency (Cronbach alpha) was 0.92 overall (0.5 for Hindi, 0.9 for Marathi and English versions of the FOS-R respectively).

CONCLUSION

The FOS-R is valid and reliable for use in the Indian context.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 176

CAREGIVER OUTCOMES OF INTERVENTION SERVICES FOR CHILDREN WITH DISABILITIES IN A CHILD DEVELOPMENT CENTER IN URBAN INDIA

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BACKGROUND

Child development outcomes are often aligned to and influenced by caregiver outcomes. Therefore, measuring caregiver knowledge and skills in supporting their children’s needs allows early intervention service providers a means to understand what aspects are working and what needs to be improved.

OBJECTIVE

To utilize a culturally adapted version of the Family Outcome Survey (FOS-R) to measure the caregiver outcomes in children with disabilities between 0-18 years of age in an urban child development center in India.

METHODS

The FOS has 18 items grouped under six headings with Likert scores from 1-7, was modified after conducting cognitive interviews. It was completed by 424 of 1140 caregivers attending clinic between April 2021-March 2022. Demographic data was collected.

RESULTS

Overall mean score on the FOS was 3.8, SD=1.31. Subscale mean scores were highest for “Understanding Child’s Strengths, Abilities and Special needs” (M=4.3; SD=1.71) and “Helpfulness of Early Intervention” (M=4.3, SD=1.66), with least scores on “Knowing your Rights and Advocating for your Child” (M=3.1, SD=1.60). Subscale scores were higher with an increase in the age of the child, education and income levels of the caregiver and the duration for which the child was accessing services.

CONCLUSION

Results show parents see themselves as knowledgeable about their children’s skills and progress, while highlighting a need for service delivery systems to (a) equip caregivers with more information about rights (b) to support caregivers with lower education and income levels, younger children and those who had started accessing services less than a year.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 115

THE *SOUTH AFRICAN CHILD GAUGE*: GAUGING PROGRESS FOR CHILDREN – A PROCESS OF ENGAGED SCHOLARSHIP

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Children make up one third of South Africa’s population, yet all too often their needs are side-lined or rendered invisible in national debates. In this context, the South African Child Gauge plays a pivotal role in tracking progress towards the realisation of children’s rights and drawing on the latest evidence to ensure that children’s best interests are prioritised in policy and programming. This careful monitoring of progress, grounded in the science and children’s rights, is particularly pressing if we are to safeguard children in times of crisis such as the COVID-19 pandemic or current austerity cuts.

But the Child Gauge is not simply a product – it is a conscious process of engagement that cuts across sectors and disciplines in order to address the complex - and often wicked - challenges facing South Africa’s children. The book and accompanying posters, policy briefs and child- and youth-friendly materials help make research accessible to a wider audience, while a high-profile media campaign and series of policy engagements ensure that the findings gain traction with decision-makers in government and civil society.

Through this process of engaged scholarship, the Child Gauge harnesses the resources of the university to better understand and address the challenges faced by South Africa’s children; makes research evidence accessible to those in government who are responsible for the design and delivery of services; and supports the efforts of civil society to hold government accountable – helping to put the evidence and children at the centre of the conversation.

TOPIC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 196

EFFECT OF EXPERT MOTHERS-DELIVERED NURTURING CARE INTERVENTION IN NEONATAL CARE UNITS ON CAREGIVER-INFANT BONDING AND ATTACHMENT: A LONGITUDINAL STUDY

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OBJECTIVE

To assess the effect of the nurturing care intervention (NCI) provided in neonatal care units (NCU) by peer-counselors known as expert mothers on the caregiver-infant bonding and attachment in rural Rwanda.

METHODS

A longitudinal study included a cohort of newborns admitted in NCUs at three hospitals between September 2022 and February 2023. We implemented the NCI at Kirehe hospital with integration of Nurturing Care Framework principles into the expert-mothers' model for breastfeeding. Rwinkwavu and Butaro hospitals were control sites. Outcomes on caregiver-infant bonding and attachment were measured using maternal postnatal attachment scale (MPAS) and maternal infant responsiveness instrument (MIRI) at NCU admission, discharge and 6-month postpartum. We assessed intervention's effect on outcomes at NCU-discharge using linear-mixed-effects models for MPAS scores and linear regression analysis for the MIRI score-adjusting for possible confounding factors.

RESULTS

This study included 743 newborns [Intervention: 427 (57.5%) vs. 316 (42.5%) control]. Compared to the control group, the intervention group had 0.91 (95%CI: 0.20, 1.62) increase in the quality of attachment-related MPAS score and 0.44 (95%CI: 0.06, 0.81) increase in the pleasure of interaction-related MPAS score from NCU admission to discharge. No significant difference in the patterns of change in the overall MPAS score and absence of hostility-related MPAS score between groups. The MIRI score significantly increased on average by 1.40 (95%CI: 0.36, 2.44) in the intervention compared to the control group.

CONCLUSION

Our findings indicate an improved caregiver-infant bonding and attachment associated with the expert-mother-delivered nurturing care intervention in NCUs in low-resource settings.

TOPIC CATEGORY

1k Intervention/Others

Abstract ID Number: 163

EXPOSURE TO VIOLENCE AND MENTAL HEALTH OUTCOMES AMONG PRESCHOOLERS IN A SOUTH AFRICAN BIRTH COHORT

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OBJECTIVE
To understand the relationship between violence exposure and mental health among preschoolers in low and middle-income countries, experiencing a high burden of violence.

METHODS
Multiple regression analyses investigated associations between violence exposure and mental health in the Drakenstein Child Health Study (N=978), a South African birth cohort. Lifetime violence exposure was assessed at age 4.5 using the Child Exposure to Community Violence Checklist. Mental health was assessed at age 5 using the Child Behaviour Checklist.

RESULTS
Eighty-three percent of the children were exposed to some form of violence. We found positive associations between overall violence exposure and internalising and externalising behaviour problems (β per one unit change in overall score=0.55 [0.16, 0.94] and β=0.53 [0.23, 0.84], respectively), domestic victimisation (β per one unit change in subscore=1.28 [0.28, 2.27]; β=1.14 [0.37, 1.90]) and witnessing community violence (β=0.77 [0.15, 1.39]; β=0.68 [0.19, 1.18]). There was evidence for a positive association between polyvictimisation and externalizing (β per additional type of violence=1.02 [0.30, 1.73]) but not internalising (β=0.87 [-0.06, 1.80]) behaviour problems. There was no association between witnessing domestic violence (β=0.63 [-0.97, 2.24]; β=1.23 [-0.04, 2.50]) or community victimisation (β=0.72 [-1.52, 2.97; β=0.68 [-1.06, 2.41]) and mental health.

CONCLUSION
Findings highlight the risk for mental health problems in preschoolers living in violent contexts emphasizing the need for interventions tackling violence and addressing mental health in young children.

TOPIC CATEGORY
2 Early Childhood Development

Abstract ID Number: 10

FAMILIES AND CHILDREN WITH DISABLING CONDITIONS: LIFE DURING THE COVID-19 PANDEMIC IN SOUTH AFRICA

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OBJECTİVES

Children with disabilities required deliberate inclusion in response strategies during the COVID-19 pandemic, particularly in poor countries where challenges were likely to be accentuated. Our study aimed to understand the impact of the COVID-19 pandemic on families of children with disabling conditions in South Africa.

METHODS

Parents from an online parent network, initiated by Shonaquip Social Enterprise during the pandemic, were invited to participate in an online survey in October 2021. A quantitative analysis was conducted.

RESULTS

Sixty-eight (17%) of 400 parents in the network, completed the survey. Children aged 5-12 years represented 43% of the group. Eleven parents (16%) reported child health worsening. Parent concerns included practicalities of infection control measures for their children and concerns about caregivers falling ill. Six (9%) children contracted COVID-19 infection and two (3%) children demised. Few families received telephonic contact from health providers. Indirect effects of the pandemic included loss of income and food shortages in more than half of the families. Children previously in school, were not sent back (n = 22, 32%). Yet, parents reported the ability to still support other families, almost half reported extreme stress (n = 33, 49%), with five (7%) revealing a need for substances to cope. Most parents (n = 50, 74%) reported feeling that care for children with disabilities was not prioritized in South Africa.

CONCLUSION

Including the voices of parents highlight a range of challenges that demand greater awareness and advocacy, to improve service delivery for children with disabilities and their families post-pandemic.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 23

THE BENEFITS OF NURTURING CARE PARENTING INTERVENTIONS ON ECD: FINDINGS FROM A QUASI-EXPERIMENTAL STUDY IN A HUMANITARIAN SESTTING IN RWANDA

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OBJECTIVE

Though investing in Early Childhood Development (ECD) in humanitarian contexts has long-term benefits, implementation of interventions in such contexts is limited.

METHODS

The Care and Comfort for Children (3C) parenting project was conducted in Rwandan refugee camps and host communities. It aimed at equipping caregivers with essential skills in comprehensive childcare, emphasizing early stimulation, and responsive caregiving to enhance family resilience and improve ECD outcomes for children under five. A quasi-experimental study compared the impact of a high dose (HD) intervention (12 group sessions, four home visits), a low dose (LD) intervention (six group sessions, two home visits), with a control group receiving standard care. Child development outcomes were measured using Ages and Stages Questionnaires (ASQ), while parenting practices were assessed using the Multiple Indicator Cluster Survey questionnaire.

RESULTS

Data from 314 children and families in the HD group, 240 in the LD group, and 179 in the control group showed a significantly higher proportion of caregivers in the HD and LD groups engaging in four or more early learning activities compared to the control group ($p<.001$). Responsive feeding behaviors were also more prevalent in the HD and LD groups compared to the control group ($p=0.001$). However, there were no significant differences in child development outcomes or caregiver mental health scores among the study arms.

CONCLUSION

This study highlights that a low dose intervention can also improve nurturing care practices in humanitarian settings, which is crucial for enhancing children's resilience in challenging conditions.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 118

PREVALENCE OF CHILDHOOD MALTREATMENT AND ASSOCIATED FACTORS DURING COVID-19 PANDEMIC IN RURAL BANGLADESH

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OBJECTIVE

Covid-19 pandemic detrimentally impacted on the livelihood and mental wellbeing of LMICs' population. During 2020, stay-at-home orders were deployed all over the world to control the transmission of COVID. We aimed to determine the prevalence of child maltreatment at home and its association with maternal mental well-being during lockdown in Bangladesh.

METHODS

A phone-based survey was conducted between May-June 2020 with 2491 families residing in rural Bangladesh who participated in a randomized controlled trial just before the onset of pandemic. Data were collected on the income of the families during the lockdown, maltreatment (psychological and physical) with children, and maternal well-being comprising depressive symptoms, anxiety and intimate partner violence. We analysed data using independent student t-test and bivariate correlations.

RESULTS

Almost 93% (n=2324) families reported reduction of earnings during lock down. Families with reduced income reported significantly ($P<0.001$) higher child psychological and physical maltreatment, as well as maternal anxiety and depressive symptoms than those who (n=176) had no income reduction. Any type of psychological misconduct (scolding, shouting, threatening, etc.) were reported by 1930 (77.5%) mothers while at least one physical assault (slapping, hitting, pushing, beating, etc.) was reported by 1435 (58%) mothers. We also found significant associations of childhood maltreatment with maternal anxiety, depressive symptoms and intimate partner violence (p ranging from 0.035 to 0.001).

CONCLUSION

Early childhood maltreatment may cause children's poor psychological functioning in later years. Special attention is required for those maltreated children to heal their trauma and enhance their developmental potential and academic endeavors.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 126

UNMET NEEDS OF CHILDREN WITH INHERITED METABOLIC DISORDERS IN THE COVID-19 PANDEMIC

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OBJECTIVE

Crucial information is lacking on unmet needs of children with rare inherited metabolic disorders during the coronavirus disease 2019 pandemic from low- and middle-income countries. We aimed to identify the unmet needs of children with rare inherited metabolic disorders from Turkey.

METHODS

In a cross-sectional observational design, all children with rare inherited metabolic disorders aged 0-18 years followed at Ankara University School of Medicine Department of Pediatrics Pediatric Metabolism Division were recruited and interviewed via phone calls. The Expanded Guide for Monitoring Child Development enabled assessment of unmet needs and environmental context during coronavirus disease 2019 pandemic. Step-wise logistic regression analysis was used to determine independent factors associated with unmet needs.

RESULTS

The sample comprised 229 children (54.1% boys) with rare inherited metabolic disorders (36.7%diet-dependent disorders). Most common diagnoses were amino acid metabolism disorders (40.2%). Of all,29.3% of the mothers reported depression, 25.3% loss of job of family members during the pandemic. All children had unmet needs: at least 73.0% in health care,96.8% in education,78.3% in special services/rehabilitation. Having significant developmental delay and/or disability (odds ratio=2.31,95%CI:1.14-4.67) emerged as the only independent factor associated with unmet needs in health care.

CONCLUSION

Children with rare inherited metabolic disorders and their families in Turkey experience unmet needs in many domains during coronavirus disease 2019 pandemic. Urgent action is needed to address the unmet needs of children with rare inherited metabolic disorders, especially those who has significant developmental delays and/or disabilities for this pandemic and possible future crisis.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 149

EFFECTIVENESS OF HPL MODELS ON CAREGIVERS’ AND CHILDREN’S WELL-BEING

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OBJECTIVE

To examine the effectiveness of the Humanitarian Play Lab (HPL) Models (0-2 home-based, 2-4 home-based, and 2-6 centre-based) in improving caregivers’ and children’s well-being, the current study followed a pre-posttest design with 480 caregiver-child dyads.

METHODS

Parents’ Knowledge, Attitude and Practices (KAP) Questionnaire, Patient Health Questionnaire (PHQ-9), Ages and Stages Questionnaire (ASQ:3), and Ages and Stages Questionnaire: Social-emotional (ASQ:SE-2) were used to measure the outcomes.

RESULTS

Findings show that caregivers’ knowledge of ECD, self-care practices and well-being improved significantly ($p<.05$) from baseline to endline, with an effect size of 0.96, .01, and 0.9 for the 0-2 home-based model, respectively. Similarly, children’s overall development (cumulative score on communication, gross motor, fine motor, problem-solving, and personal social measured by ASQ:3) and well-being improved significantly with an effect size of 0.79 and 0.23 respectively. Likewise, 2-4 home-based caregivers’ knowledge of ECD and mental health, self- care practices and well-being improved after intervention with an effect size of 0.43, 0.37, and 0.20. In parallel to caregivers’ outcomes, children’s overall development and well-being improved significantly ($p<.001$) with an effect size of .230 and 0.67. For the 2-6 centre-based model, caregivers’ knowledge of ECD and mental health, self-care practices and well-being significantly improved ($p<.05$) with an effect size of 0.148, 0.967, and 0.178 respectively. And children’s overall development and well-being significantly improved with an effect size of 0.137 and 0.32.

CONCLUSION

From the findings, it can be concluded that the HPL model effectively improves caregivers’ and children’s well-being and promotes holistic development in children.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 199

IMPACT OF CLIMATE RELATED DISASTER ON MENTAL HEALTH OF ADOLESCENTS IN A RURAL COMMUNITY IN PAKISTAN

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OBJECTIVE

The present study aimed to explore the prevalence of mental health problems in a target population in a flood affected rural community in South Punjab. Moreover, it also aimed to determine the relationship of demographic characteristics, PTSD, depression and anxiety in adolescents affected from flood.

METHODS

Cross-sectional research design was used. Sample of 51 adolescents attending school, aged 12-18 years, who experienced flood (those who reported having floodwater in one or more livable rooms in their homes) was collected from 2 government primary schools of Bumbli, a rural village in district Rajanpur in South Punjab through convenient sampling. Children revised impact of event scale 13, patient health questionnaire and generalized anxiety disorder 7 were used to screen for PTSD, depression and anxiety respectively.

RESULTS

23.5% of flood-affected adolescents had post-traumatic stress disorder, 76.5% had depression and 69.6% had generalized anxiety disorder (GAD). Symptoms of depression were mild in 41.2%, moderate in 17.6%, moderately severe in 11.8% and severe in 5.9% of adolescents. GAD was mild in 31.4%, moderate in 31.4% and severe in 7.8%. Father’s education was significant positive predictor of post-traumatic symptoms of avoidance. Children who reported that they lost their pets scored low on avoidance. Problem in re-building house was significant predictor of PTSD and generalized anxiety in adolescents.

CONCLUSION

Adolescents affected from flood are at greatest risk of developing mental health problems. Community-based rehabilitation programs, education support, and disaster preparedness initiatives are needed to mitigate future risks.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 205

NEEDS OF CHILDREN WITH DEVELOPMENTAL DIFFICULTIES AND THEIR FAMILIES WHO EXPERIENCED TURKEY'S EARTHQUAKE: A LONGITUDINAL FOLLOW UP STUDY

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OBJECTIVE

Crises in low-and middle-income countries (LMICs) strain the development of children with developmental difficulties (DDs). We examined developmental needs of children with DDs based on the Nurturing Care Framework (NC) after the 2023 Earthquake, Turkey.

METHODS

Using a longitudinal follow-up design, we recruited children with DDs who were followed at Ankara University Developmental Pediatrics Division, had at least 2 visits in the last 3 years before the earthquake and lived in one of the 10 cities that were affected. Semi structured-NC-based interviews were conducted over the phone 3 and 6 months after the earthquake to assess the NC-based needs.

RESULTS

Of 68 eligible children, 4 (5.9%) died, 11 (16.2%) cannot be reached by phone. Families of 31 (45.6%) responded to the first, 53 (77.9%) responded to both phone interviews and comprised the sample (43.4% boys). Median age was 57.0 (IQR: 34.5-93.5) months. Most children (86.8%) had chronic health conditions (like cancer, cerebral palsy), 72.7% had developmental delay.

In the 3rd (of 31 children) and 6thmonth (of 53 children) interviews, 27 (87.1%) and 14 (26.4%) families expressed that their place of living was not safe; 26 (83.9%) and 9 (17.0%) that they were not able to supply adequate food for their child; 31 (100%) and 22 (41.5%) that their child had unmet health-care needs; 31 (100%) and 30 (50.6%) that their child had not enough opportunities for early learning, respectively.

CONCLUSION

Children with DDs that experienced the Turkey's earthquake has ongoing serious developmental needs based on NC which draws attention to the need for comprehensive interventions for crises in LMICs.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 159

ADAPTATION OF THE EXTENSION OF COMMUNITY HEALTHCARE OUTCOMES (ECHO) MODEL TO SUPPORT CHILDREN WITH NEURODEVELOPMENTAL DISABILITIES IN HUMANITARIAN SETTINGS

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OBJECTIVE

We present a systematic process for adapting the Extension Community Healthcare Outcomes (ECHO) model to ensure its impactful deployment in humanitarian settings to address the unique needs of supporting children with neurodevelopmental disabilities (CNDDs) in this context.

METHODS

We established a Community of Practice consisting of experts in CNDDs in humanitarian settings across clinical work, advocacy, teaching, and research. Through brainstorming activities and a literature review, we identified the ECHO model as ideal to support professionals in humanitarian settings. We developed a systematic process through key informants interviews and mapping to assess feasibility and identify specific contextual needs and constraints, followed by iterative refinements of the ECHO model guided by feedback from field practitioners.

RESULTS

The ECHO model engages individuals with specialized experience to serve as expert “hub” team members, who utilize didactics and case-based learning to share clinical guidelines and best practices to participants (“spokes”). We identified key informants strategically located in diverse humanitarian regions, including Occupied Palestine, who can assess the initial feasibility of adapting the ECHO model to these contexts, leverage their insights to identify potential community "spokes”, and progress toward the subsequent stages of the adaptation process.

CONCLUSION

Establishing a systematic process which centers on engaging key informants not only marks a promising step towards understanding the unique challenges of humanitarian contexts, but also paves the way for establishing a network of professionals serving CNDDs. Insights garnered will maximize the utility of ECHO in addressing the specific needs of vulnerable populations in humanitarian settings.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 34

CAREGIVER’S PERCEPTIONS OF AUTISM IN NEW DELHI, INDIA

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BACKGROUND

Research has suggested that parenting an autistic child or a child with neurodevelopmental disabilities may be more challenging than parenting a child meeting their developmental milestones, especially when there is a dearth of support services, such as in low- and middle-income countries (LMICs). Despite the majority of the world's children residing in LMICs, there are limited studies examining the understanding of developmental disorders and autism in these regions.

OBJECTIVE

We aim to investigate perceptions of autism and developmental disabilities in caregivers of children in an urban setting in New Delhi, India.

METHODS

Thirteen semi-structured interviews with caregivers of children were conducted in three groups: (1) caregivers with a child with a diagnosis of autism spectrum disorder (ASD); (2) caregivers with a child with a diagnosis of intellectual disability (ID); (3) and caregivers with children meeting their developmental milestones. Transcripts were analysed using framework analysis.

RESULTS

Themes identified included: the impact of cultural and contextual factors on the recognition, interpretation; reporting of autistic symptoms; impact of diagnosis; and family support.

CONCLUSION

Findings highlighted social isolation and stigma experienced by caregivers of children diagnosed with ASD, and the lack of support being received by wider family and communities. Results emphasise the need for increased awareness of autism in community settings, and improved diagnostic pathways for parents that include greater family support post-diagnosis.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 37

“WHEN I HOLD MY DAUGHTER, SHE QUIETS, NO NEED [FOR] CONVERSATION": A QUALITATIVE UNDERSTANDING OF RESPONSIVE CAREGIVING IN RURAL PAKISTAN

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OBJECTIVE

Responsive caregiving, or caregivers’ sensitivity and conditional responses to children's needs, is associated with positive child developmental outcomes. However, there is some debate on whether responsive caregiving is a universal construct. In this study, we explore how responsive caregiving is conceptualized among mothers of children less than 3-years-old in rural Pakistan.

METHODS

A phenomenological qualitative study was implemented using data were collected in Naushahro Feroze between July to October 2021 through participatory in-depth interviews with 20 mothers, stratified by the age of their youngest child. Data were analyzed using thematic content analysis.

RESULTS

Seven themes were identified. There was substantial variation in the types of responsive behaviors in which mothers described themselves engaging, and in the opinions mothers held on different parenting practices. Responding to children’s demands while the mother was otherwise preoccupied, using verbal responses to console children, and if mothers believed that children should be praised for their good behavior, lacked consensus among the mothers. Most mothers mentioned using some form of responsive parenting, breastfeeding for consolation, and spoke to the necessity of immediately consoling their crying child. However, many mothers also spoke of their use of physical punishment.

CONCLUSION

Our findings provide evidence that many mothers in this village regularly engage in responsive caregiving behaviors. We find a variety of expression and approach in responsive parenting behaviors that are commonly exhibited within one village in rural Pakistan. Our findings emphasize the need for a more nuanced approach for understanding caregiver behaviors in and across contexts.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 48

"IT AFFECTS EVERYTHING ABOUT ME": SLEEP PROBLEMS AMONG CHILDREN WITH CEREBRAL PALSY AND THEIR CAREGIVERS IN ILE-IFE: A MIXED-METHODS STUDY

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OBJECTIVE

Sleep problems are common in children with cerebral palsy (CP). However, the effect of sleep problems in children with CP (CWCP) on caregivers has not been well studied. We aimed to describe the sleep problems in CWCPs and their caregivers and explore the effect of their children's sleep on the caregivers' sleep.

METHODS

This cross-sectional, mixed-methods research was conducted at a tertiary hospital in Ile-Ife, Nigeria. The Sleep Disturbance Scale for Children (SDSC) and Pittsburg Sleep Quality Index were used for assessing sleep problems of the children and their caregivers respectively. We held three focused group discussions (FGD) involving eighteen caregivers using a pre-tested FGD guide. We analysed the quantitative data using Stata-15 software while qualitative data were transcribed and managed using ATLAS Software.

RESULTS

We studied 71 CWCP-Caregiver dyads and 69 age and sex-matched controls. There was a male preponderance for CWCP (M: F=1.09:1) and more female caregivers (89.5%). Sleep disturbances (SDSC> 40) occurred in 34% of CP children and poor sleep quality in 39% of caregivers. When compared with age and sex-matched typically-developing peers, there was a statistically significant higher sleep disturbance in CWCP ($p=0.009$). Sleep difficulties in the CWCP comprise sleep-wake transition disorders (45.0%), difficulty initiating sleep (43.3%), and sleep-breathing disorders (37.5%). Caregivers experienced short sleep duration. One mother said: "It affects my sleep, health and work. It affects everything about me."

CONCLUSION

Sleep problems in CWCP affect the well-being of their caregivers. Interventions targeted at both the children and their caregivers are needed.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 49

A SCOPING REVIEW OF CEREBRAL PALSY IN AFRICAN PAEDIATRIC POPULATIONS

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OBJECTIVE

To review the literature on the epidemiology, outcomes, mortality, interventions and barriers to accessing care among African children with cerebral palsy (CP) over a 20-year period.

METHODS

PubMed, SCOPUS and Web of Science databases were searched for original research on African children with CP aged <18 years published 2000-2021, with 1811 articles undergoing review against explicit criteria, and 94 articles finally selected.

RESULTS

The reported prevalence of CP was 2-3 per 1000 children. Almost half had risk factors in the perinatal period, but up to 26% had no identifiable risk factor. Spasticity was the most common clinical subtype. Up to two-thirds of children with CP had at least one co-morbidity, with epilepsy, intellectual disability and malnutrition most common. African children with CP demonstrate excess premature mortality up to 25 times that of the general population, predominantly from infections or their sequelae. Hospital-based and younger populations reported larger proportions of children with severe impairment. Multiple studies reported disproportionately low levels of access to care and education for African children compared to high-income regions. Children with CP showed functional improvements compared to controls for all evaluated interventions.

CONCLUSION

While the reported prevalence of CP in Africa is 2-3 per 1000 children, the true prevalence remains uncertain. African children with CP have a different risk profile, greater premature mortality and higher levels of impairment from co-morbidities compared to those in the global North. Several barriers prevent these children from accessing optimal care. Larger studies on interventions validated and effective in the African context are needed.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 73

DEVELOPMENTAL PROFILES OF INFANTS WITH HYPOXIC ISCHAEMIC ENCEPHALOPATHY AT A TERTIARY HOSPITAL IN SOUTH AFRICA

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OBJECTIVE

To determine the domain specific neurodevelopmental outcome at one year of age in infants with moderate to severe HIE in those who were managed with TH (cooled) compared to those who were not (non-cooled) over a 5 year period (2015-2020).

METHODS

A retrospective review of the infants with moderate to severe HIE, at the neonatal neurodevelopmental clinic who had Griffiths Mental Developmental Scales (GMDS) at around 1 year of age. The developmental domain specific outcomes were assessed for each Sarnat stage. Comparisons were made between cooled and non-cooled groups. Data was analyzed using Statistica (version 13).

RESULTS

184 (58.8) of 313 infants were male. The mean birth weight was 3124g (SD ±520). A total of 170 (54.3%) of 240 (76.7%) infants with Sarnat stage 2 and 3 received TH. 302 (96.8%) GMDS were assessed at a mean age of 12.4 (±1.3) months with a mean General quotient (GQ) of 98.8 ± 20.1. The GQ of subscale A;B;D and E were lower in Sarnat stage 3 compared to Sarnat stage 2 ($p<0.05$). No differences in subscale C ($p=0.34$). Cooled infants had higher GQs (100±17.5). No differences for CP ($p=2.6$), hearing impairment ($p=0.09$) and subcale C ($p=0.34$) were found.

CONCLUSION

Sarnat stage 3 was associated with poorer NDI. TH reduces NDI. Speech and language at one year is not a good outcome predictor. These infants need further assessments in future.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 86

THE QUALITY OF LIFE AMONG CHILDREN WITH EPILEPSY IN PEDIATRIC NEUROLOGY CLINIC AT A QUATERNARY TEACHING HOSPITAL-DURBAN, SOUTH AFRICA.

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BACKGROUND

Little is known about Health-related quality of life HRQOL of Children with epilepsy CWE who live in resource-limited settings, particularly in South Africa.

OBJECTIVE

To assess HRQOL of CWE and identify factors that correlate with HRQOL including demographic variables and epilepsy health related.

METHODS

A cross-sectional prospective qualitative study was undertaken at the paediatric neurology outpatient clinic at Inkosi Albert Luthuli Hospital (IALCH), a quaternary care teaching hospital in Durban, South Africa. Participants 2-12 years old were recruited during the period between December 2019 and February 2020. With no co-morbid syndromic disorder or other chronic diseases accompanied by English-speaking caregivers. We used the Pediatric quality of life inventory 4.0 (PedsQLTM 4.0) generic core parent-proxy questionnaire modified with separate sociodemographic and epilepsy data collection sheets.

RESULTS

120 were recruited. 54.2% had generalized epilepsy. The etiology of epilepsy was unknown in 40.8%. The most commonly used anti-seizure medication was sodium valproate (39.2%). The mean of total score of HRQOL ±SD (CV %) was 66.7±24.1 (36.1). School attendance p-value<0.001, financial aid for indigent families p 0.047, monotherapy $p<0.001$, absence of disability $p<0.001$ and absence of comorbidity $p<0.001$were strongly associated with good HRQOL total scores.

CONCLUSION

CWE attending IALCH in Durban, South Africa have compromised HRQOL scores. The variables correlate with better HRQOL scores were; school attendance, receiving financial aid for indigent families, monotherapy, absence of disabilities and comorbidities. We recommend a multicenter study that involves a larger number of CWE and employment of epilepsy specific PedsQLTM4.0 module translated to local languages.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 123

RETURNING INDIVIDUAL GENETIC RESULTS TO RESEARCH PARTICIPANTS: EXPERIENCES OF STIGMA IN SOUTH AFRICAN FAMILIES WITH NEURODEVELOPMENTAL DISORDERS

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OBJECTIVE

This study explored the experiences of stigma of NeuroDev research participants and how a positive genetic result influences these experiences. The NeuroDev study aims to explore the phenotypic and genetic landscape of neurodevelopmental disorders (NDDs) in Kenya and South Africa. Additionally, the role of genetic counsellors in addressing instances of stigma in NDDs and genomics research was looked at.

METHODS

The study drew on an interpretive phenomenological approach (IPA) as this approach views individuals as “experiential experts”. Participants included mothers, fathers or caregivers of children diagnosed with an NDD involved in the NeuroDev study and who have received a positive genetic test result. Semi-structured interviews with six participants were conducted. Data was then analysed using an IPA-tailored thematic analysis flow to identify recurrent themes or patterns in the data.

RESULTS

Findings show that participants experience stigma at varying levels. It was found that the nature of the condition, rationalisation of the cause and coping with the condition influence how patients perceive a genetic result and subsequent stigma experiences. Genetic results were shown to impact internalised stigma. Genetic counselling sessions enhanced participants' knowledge of NDDs, provided a human component to research and impacted internalised stigma.

CONCLUSION

Findings show that there are diverse experiences that impact the perceptions of a genetic result and stigma. While other forms of stigma were not greatly affected, this study provides evidence that a genetic result may impact internalised stigma. Additionally, it provides evidence that genetic counsellors play a crucial role in genomics research.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 139

IMPROVEMENT IN KNOWLEDGE AND SELF REPORTED EFFICACY SCORES THROUGH ONLINE ECHO-ADHD TRAINING MODEL IN INDIA – A PILOT STUDY

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OBJECTIVE

To assess the change in knowledge and self-efficacy in identification and management of ADHD and its comorbidities at baseline and end of a 6 month long case-based tele-mentoring model ECHO (Extension of Community Health Outcomes) ADHD conducted for physicians in India.

METHODS

Recruitment of participants was done through social media posts, mails that were sent to physicians who were likely to manage children with developmental disabilities within India. Pediatricians, developmental pediatricians, psychiatrists, neurologists were trained in diagnostic assessment and management of ADHD through 14 fortnightly virtual sessions comprising lectures and case-based discussions. Participants completed measures for assessing knowledge (KADDS-Knowledge of Attention Deficit Disorders Scale) and self-efficacy at baseline (pre-program) and endline (post completion of program). Descriptive and non-parametric statistical analysis assessed change in knowledge and self-efficacy at the end of program.

RESULTS

A total of 88 participants enrolled in the program. These were 42 pediatricians, 40 developmental pediatricians, 4 neurologists and 2 psychiatrists. Sixty-four percent (57/88) of participants completed baseline and endline evaluation and were included in the study. A significant improvement between baseline and endline was noted in knowledge about ADHD diagnosis and in self-efficacy. No significant improvement in knowledge about ADHD comorbidities and management was noted on KADDS. Case summaries, questions posed to the hub team and discussions indicated increased participant focus on learning to diagnose ADHD using evidence-based practices.

CONCLUSION

The ECHO ADHD is an effective model to improve knowledge and self-efficacy among participants in a low- and middle-income country (LMIC) setting.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 59

ASSESSMENT OF HOME-BASED NURTURING CARE PRACTICES IN INDIAN CHILDREN UNDER 3 YEARS OF AGE: A CROSS-SECTIONAL OBSERVATIONAL STUDY

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OBJECTIVE

To determine the profile of home-based Nurturing Care practices (HBNCP) in Indian children under three years (U3) of age.

METHODS

We conducted a hospital- based cross-sectional observational study from Jan' 21 to Jun' 22. Experts in child health developed four NC checklists (NCCL) in Hindi, suitable for U3 children. These comprised of items based on the NC components (good health, adequate nutrition, safety and security, opportunities for early learning, and responsive caregiving). Responses were categorized as acceptable or unacceptable as per standard age-dependent recommendations. We recruited under 3 years old children. Those who were acutely sick, or whose mothers were unavailable or non-Hindi speakers were excluded. The computed sample size was 252. The NCCL was administered to the participants after informed consent, and targeted counselling provided as warranted. Outcomes were proportion of acceptable HBNCP. Post-analysis, HBNCP was considered optimal if all components had >50% acceptable items.

RESULTS

Each group comprised of 63 children (n=252). Overall optimal HBNCP was observed in 46.4%; 46% (0 – 6 months), 57% (6-12 months), 42.8% (12 – 24 months) and 39.6% (24 – 36 months). Safety and security was the best HBNCP (93.6%). Early learning was poor across 0 – 24 months (61.9%).

CONCLUSION

Globally 43% children U5 do not attain their developmental potential due to multiple factors, including suboptimal NC. The first three years being a critical phase requires optimal HBNCP. The NCCL can be used to monitor HBNCP, provide longitudinal targeted promotive healthcare, and understand a community's HBNCP profile; ultimately translating into better developmental outcomes.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 63

IMPLEMENTING THE GLOBAL SCALES FOR EARLY DEVELOPMENT (GSED) PACKAGE FOR CHILDREN 0-3 YEARS IS FEASIBLE AND ACCEPTABLE ACROSS THREE COUNTRIES

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OBJECTIVE

World Health Organization created GSED to assess the development of children up to 36 months at population and programmatic levels. It completed a validation study in Bangladesh, Pakistan, and the United Republic of Tanzania.

To inform the validation study, a feasibility study was conducted in the above-mentioned countries to assess 1) study implementation processes, including translation, training, reliability testing, and the scheduling of the visits; and 2) comprehensibility, cultural relevance, and acceptability of the GSED measures and related GSED application (APP) for data collection.

METHODS

From each country, at least 32 child-caregiver dyads participated. Feedback on the feasibility of implementation processes was evaluated by eliciting information from in-country assessors and supervisors through focus group discussion (FGD) and from subject matter experts via technical meeting. Feedback on the comprehensibility and acceptability of the GSED measures was obtained through cognitive testing and exit interviews of caregivers and the FGD with assessors.

RESULTS

Meaningful feedback from caregivers and assessors prompted some items to be revised, reworded, reordered, and retranslated for local adaptations. Additionally, an expanded training module for standardized data collection was developed across sites. The most effective way of evaluating inter-rater reliability was concurrent scoring by local supervisors. Tablet-based GSED APP was deemed to be easy to use and culturally acceptable for data collection. However, a few materials in the GSED kit were unfamiliar to children.

CONCLUSION

The study provided valuable information in finalizing implementation procedures of the GSED validation study and revising the local translations and adaptations of the GSED package.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 65

GLOBAL SCALES FOR EARLY DEVELOPMENT PERFORMANCE WITH MODERATE TO LATE PRETERM INFANTS

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OBJECTIVE

Approximately 15 million infants are born preterm annually. The Global Scales for Early Development (GSED) were recently released for population-level and programmatic evaluation of child development in 0- to 3-year-olds, but their performance with infants born preterm has not been evaluated. This study preliminarily explored the relationship of moderate-to-late prematurity and GSED scores, and evaluated GSED responsiveness to differences by weeks of prematurity and child nutrition status.

METHODS

Cross-sectional data was collected with children 2 weeks to 40 months old in Bangladesh (n=1313), Pakistan (n=1542) and Tanzania (n=1289), including gestational age, age at assessment, weight- (WAZ) and height-for-age (HAZ) Z-scores and age-adjusted development-for-age Z-scores (DAZ) from the GSED. Linear regression models were used to predict DAZ based on gestational age at birth and age at assessment. Additional models examined interaction with stunting and wasting.

RESULTS

In moderate-to-late preterm children (n=455), DAZ scores were lower in those born earlier and increased with decreasing weeks' premature and with age ($t=-11.830$, $p<0.001$), suggesting GSED can detect differences by gestational age and age. Earlier-born infants caught up faster ($t=-3.758$, $p<0.001$) but did not reach the developmental level of term-born children by 36 months. Stunting and wasting influenced the relationship between GSED score and prematurity in distinct ways.

CONCLUSION

Findings indicate GSED functions similarly with children born moderate to late preterm as with term-born children. Differences by week of prematurity suggest increased gestational age-related granularity is needed when correcting developmental measures for prematurity, and have implications for the role of nutrition in preterm-born children.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 122

INTEGRATING SOCIAL MEDIA WITH COMMUNITY-BASED APPROACHES TO ENRICH NURTURING CARE INTERVENTIONS: LEARNING FROM ‘AARAMBH’ PROGRAM IN INDIA

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OBJECTIVE

To share the innovation and learnings from integrating social media with community-based approaches to enrich nurturing care interventions in India.

METHODS

The 'Aarambh' program, meaning 'the beginning,' empowers parents for nurturing care to promote responsive caregiving and early learning. Based on a successful pilot phase's positive impact on child growth and development, the Department of Women and Child Development decided to expand it across Maharashtra state utilizing system resources after 2021. The inception of social media aims to position it as a valuable resource for nurturing care among active users. The intended audience majorly includes parents and frontline functionaries (FLFs). Aarambh utilizes the WhatsApp community feature to deliver content effectively to all FLFs, supervisors, and officials across the state. A repository of videos (300+) has been created on YouTube. In addition, an independent website and profiles on Instagram and Facebook have been maintained. Strategies encompass sharing all the components of nurturing care with reasoning, stories of change, and sharing scientific information in simple native language alongside images and videos received from field.

RESULTS

More than 700 posts have been consistently disseminated through WhatsApp and directly exchanged with FLFs, surpassing 100,000. Aarambh boasts of accumulating over four million views on Instagram. Additionally, the YouTube channel has garnered an impressive, nearly 12,000 public watch hours. Social media has demonstrated effectiveness in behavior change communication and nurturing relationships.

CONCLUSION

Social media has been effective and acceptable in enhancing caregivers' ability to provide nurturing care, with a multiplier effect experienced on shared content.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 58

COGNITIVE STIMULATION AT HOME THROUGH INTERACTION AND PLAY DURING THE PANDEMIC: AN ASSESSMENT AMONG INFANTS AND TODDLERS IN THE PHILIPPINES

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OBJECTIVE

This cross-sectional descriptive study aims to assess cognitive stimulation through parental play and interaction among Filipino infants and toddlers during the pandemic.

METHODS

A total of 173 mothers were interviewed via online video platforms to answer questions on socio-demographic factors and the StimQ2 questionnaire to assess cognitive home stimulation. Multiple regression analysis was used to determine the association between the level of cognitive stimulation and the parent and child factors.

RESULTS

Filipino mothers from different regions of the Philippines participated. Majority of mothers regularly read books (74%), teach learning concepts (72-94%), and engage in verbal interactions while playing and interacting with their child (52-94%). Local examples of books, learning materials, games and toys were also given. StimQ2 Total Scores were more than half of the maximum total scores (Infants–24.9±7.6; Toddlers–28.2±8.3). Having higher maternal education ($p=0.033$), household type ($p=0.030$) and income ($p=0.049$), and being unemployed ($p=0.040$) are significantly associated with higher overall stimulation. As the child’s age increases, stimulation also increases ($p=0.001$) but a higher birth order is associated with lower scores ($p=0.007$).

CONCLUSION

This is the first time play and interaction among young children were assessed in the Philippines. Using the StimQ2, baseline characteristics and the level of cognitive stimulation during the pandemic were known. Maternal education and socioeconomic status, child age, and birth order are significantly associated with cognitive stimulation.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 80

INDIAN ACADEMY OF PEDIATRICS (IAP) ADAPTATION OF THE NURTURING CARE FRAMEWORK FOR EARLY CHILDHOOD DEVELOPMENT (NCF-ECD) - IAP NURTURE 2021-23

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OBJECTIVE

To train paediatricians to evaluate, and impart knowledge and skills to caregivers regarding Nurturing Care (NC) in office practice.

METHODS

An IAP study findings that pediatricians knowledge and service delivery of NC were sub-optimal resulted in the conceptualization of a NC directed training program (2021-23). Partnerships were formed with national and international stakeholders of child health and a funding agency.

Phase I: 74 experts in child health brainstormed over 3 days to develop evidence based training material. Training modules (Basic concepts, Companion for pediatricians, Companion for Parental Counseling), slides, etc. were prepared over the following months. Evaluation was organized into 11 well-child visits with color coded operational procedures using multi-modal strategies and personnel. Intervention was parental counseling according to gaps identified.

Phase II: Master trainers conducted 8 'Training of Trainer' workshops across India creating 359 trainers. Content delivery was by interactive lectures and hands-on workstations.

Phase III: The program rolled out in April 2022 keeping a target of 200 workshops. National, zonal and state administrative coordinators interacted with district IAP branches for smooth execution. The workshop modus operandus was retained besides inclusion of pre and post -test and feedback.

RESULTS

Till date, 158 workshops have been conducted and 5375 participants trained. An impact study on trainees started from April 2023.

CONCLUSION

The sheer magnitude (43%) of young children from LMIC not attaining their developmental potential calls for an integrated approach by public and private health sectors. To our knowledge, no similar pan-nation initiative by pediatricians has been conducted elsewhere.

TOPIC CATEGORY 1a Intervention/Early Intervention Program

Abstract ID Number: 158

RATE AND ASSOCIATES OF RECEIVING PRESCHOOL EDUCATION AMONG CHILDREN WITH DEVELOPMENTAL DIFFICULTIES FROM A MIDDLE-INCOME COUNTRY, TURKEY

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OBJECTIVE
While the World Health Organization (WHO) Nurturing Care Framework included early learning opportunities as a main component for optimal child development, important inequalities exist between high and low and middle-income countries (LMICs) regarding preschool education for children with developmental difficulties (DDs). We aimed to determine the rate and associates of preschool education for young children with DDs from a middle-income country, Turkey.

METHODS
Using a cross-sectional design, we recruited children aged 12-60 months who were admitted to Ankara University Developmental Pediatrics Division (AUDPD) for their first visit due to DDs period between January 1st2022-January 1st2023. We used the Expanded Guide for Monitoring Child Development and comprehensive developmental assessment for rate and associates of receiving preschool education among children with DDs.

RESULTS
Of 978 children 482 (49.3%) comprised the sample. Most were boys (64.9%), median age was 32 (min-max:13-67) months. Of these 130 (27.0%) children had chronic health conditions, 85 (17.6%) isolated language delay, 71 (14.7%) autism spectrum disorder, 61 (12.7%) global developmental delay, 68 (14.1%) were followed for preterm birth, and 67 (13.9%) for behavioral problems. Of all, 72 (14.9%) children received preschool education.

In the logistic regression model, being >36 months (OR=6.04, 95%CI=3.27-11.16) and having a working mother (OR=3.76, 95%CI=1.83-7.74) were independent factors associated with receiving preschool education.

CONCLUSION
The rate of preschool education among children with DDs is low in a middle-income country, Turkey. Urgent interventions are needed for equity in early learning opportunities for children with DDs in LMICs.

TOPIC CATEGORY
2 Early Childhood Development

Abstract ID Number: 62

THE ROLE OF THE FILIPINO PARENTS ON THEIR PRESCHOOLERS' SCREEN-BASED MEDIA USE DURING THE COVID-19 PANDEMIC

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OBJECTIVE

To determine the association of parental, home, and child factors—as well as parental knowledge, attitudes, and habits on screen-based media use—with preschooler's screentime during the pandemic lockdown (2020).

METHODS

It is a cross-sectional study employing purposive sampling. Filipino adult parents (n=328) with children ages 3 to 5 were recruited through snowballing. Relevant data were gathered through survey. Logistic regression analysis was applied to examine which of the aforementioned factors determine the probability that preschoolers' screentime will exceed one hour/day.

RESULTS

During the lockdown, most parents' (86%) and preschoolers' (82%) screentime exceeded one hour/day. Children with parents working on-site (0.134, $p<0.01$) or from households with more devices (0.596, $p<0.001$) are more likely to exceed one hour/day screentime. The screentime of children whose parents graduated college are less likely to exceed one hour (-0.115, $p<0.05$). Excessive preschoolers' screentime is more likely observed when parental screentime exceeds one hour/day (0.411, $p<0.001$).

CONCLUSION

Child, parental, and home factors were found with statistically significantly relationship with preschoolers' screentime. Parental screen-based media habits showed strong impact on preschoolers' screentime.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 66

'IN MY VIEW, COLLABORATION HAS ALREADY STARTED'. PARENTS OF CHILDREN WITH DISABILITIES INFLUENCING CHANGE IN MALAWI

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OBJECTIVE

Multisector study to understand the different influences on education, health, human rights and social welfare when making decisions about opportunities on children with disabilities attending early childhood centres in Malawi.

METHODS

We applied mix-methods approach – mapping of ECD services, focus group discussions with education, health and social welfare officers, child and adolescent sale of participation (CASP), DHS, NDST as well as in-depth case studies of 20 children and their families.

RESULTS

Mapping showed large gaps in the provision of ECD services for children with disabilities within targeted district. Little agreement on the identification tools by different sectors at district level, with various tools, mainly paper-based including children's health passports, being used by health workers, teachers and para-professionals. 90% of parents and the teachers valued the shared information which enabled them to: better understanding their child's needs, solve problems of stigma and discrimination in school and community, share ways to best support transition from home to school. 70% agreed that building on strong home-school partnerships and focusing on parent priorities was a key feature of good practice as it enabled teachers and caregivers to support the children to achieve the goals identified by parents.

CONCLUSION

Strong need for improved information sharing on identified children with disabilities. The setting up of a coordinated team could lead to better sharing of information and the delivery of support needed by the family in a targeted and systematic way. The need for simple and low-cost method to record and share information between sectors.

TOPIC CATEGORY

1d Intervention/Educational

Abstract ID Number: 132

STUDY OF IMMEDIATE EFFECT OF BRAIN GYM EXERCISES ON HANDWRITING OF CHILDREN BETWEEN 7YRS TO 12YRS OF AGE.

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OBJECTIVE

Poor handwriting is a central aspect of low academic excellence India. The importance of Brain Gym Exercise has been researched widely but not in context of immediate improvement in handwriting. Therefore, the objective of study is to understand the relationship between Brain Gym Exercise and handwriting of children between 7 to 12 years of age.

METHODS

This is an observational study. Children (N= 30) were randomly included with all intellectual abilities from different schools of Mumbai and they agreed for participation. Visual Motor perception - Bender Gestalt Test was individually administered. A set of 16 Brain Gym Exercise were introduced and handwriting was reassessed. Scoring of each marker was done as per visual analogue scale 1 to 10. Paired t test was used for analysis.

RESULTS

The overall effect of brain gym in all markers was 7 % of total improvement. Each marker was improved, however size of font improved significantly (17.2%) followed by legibility of words (12.2%) than spacing between the lines (3.2%) and pressure applied (4%). The paired t-tests of mean score of evaluation markers pre and post-Brain Gym showed a significant difference ($p<0.0001$), indicating a substantial enhancement in the evaluation markers and rejecting the null hypothesis.

CONCLUSION

The research offers convincing evidence that there is definite improvement in children’s handwriting post Brain Gym Exercise. It concludes that this will benefit children to improve handwriting and their overall school performance.

TOPIC CATEGORY

1d Intervention/Educational

Abstract ID Number: 214

OUTCOMES FROM A BEHAVIORAL INTERVENTION AND NEXT STEPS FOR FAMILIES WITH YOUNG CHILDREN WITH AUTISM IN WESTERN KENYA

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OBJECTIVE

The objective of this study was to evaluate the acceptability and effectiveness of a culturally-grounded, co-developed behavioral program for caregivers of children with autism in western Kenya.

METHODS

This mixed-methods, 10-session intervention with ten caregivers grounded in applied behavioral analysis principles occurred within the Academic Model Providing Access to Healthcare (AMPATH). Both quantitative and qualitative data collected at baseline, immediate-post, and three-month-post-program evaluated caregiver burden and child behavior. Quantitative data were analysed using paired sample t-tests and repeated measures ANOVA. Interviews evaluated the program's acceptability, feasibility, and perceived impact. Interviews were recorded and transcribed with a priori codes developed, followed by axial coding and triangulation to identify central concepts.

RESULTS

Significant improvements in caregiver distress (p=.10, Cohens d=.61), child behavior problems (p=.02, Cohens d=.99), and communication skills (p=.02, Cohens d=.97) after the intervention, with sustained improvements in child communication at 3-month follow up (p=.03, h2=.36) were reported. At baseline, caregivers reflected on challenging behaviors, including hyperactivity and toilet training, and what they hoped to gain from the intervention: coping and communication skills. Post-intervention, caregivers reported increased understanding of child communication methods, feelings of support, and more nurturing relationships. At three months, learned strategies, such as implementing routines and monitoring before, during, and after an event, were cited to be effective at managing their children's behaviors.

CONCLUSION

This group-based program was acceptable, feasible, and effective at improving communication, behavior, and relationships with children with autism. Future scale-up is ongoing to support autism service capacity-building efforts in western Kenya.

TOPIC CATEGORY

1c Intervention/Behavioral

Abstract ID Number: 215

THE IMPACT OF A NARRATIVE FILM INTERVENTION IN ADDRESSING STIGMA RELATED TO DISABILITY IN WESTERN KENYA

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OBJECTIVE

To explore the impact of a narrative film on beliefs and attitude towards individuals with disability (IWD) in Kenya.

METHODS

The film intervention was implemented in six locations within Uasin Gishu County. Focus- group discussions (FGDs) were conducted before, immediately after, and three months following the film to understand attitudes and experiences toward disability. Constant comparison and triangulation methods were used to identify emerging themes.

RESULTS

A total of 506 community members attended the film screening and 114 were randomly selected for FGDs. Etiology of disability was initially attributed to accidents, curse/witchcraft, birth event, or disease related. Many perceived IWD as overlooked, feared, hated, useless, and burdensome. Treatment of IWD was described as discriminatory, with hidden, neglected children subject to physical/verbal abuse. Post-film, perceptions of IWD evolved into them being blessings and valuable community members. Family, community, and government were perceived to have shared roles in bringing these children out, providing educational opportunities, and finding ways to support, protect, and love them. Many desired to increase awareness or education about disability, provide direct support (i.e., financial, medical, verbal, societal) to IWD, and encourage families. At three-month follow-up, participants maintained positive beliefs regarding IWD. Many enacted acts of change, including encouraging IWD and their caregivers, visiting homes, and providing direct support. Limited resources, uncertainty, and fear of being exploited were all challenges to implementing change in their communities.

CONCLUSION

This narrative film about stigma and discrimination surrounding disability aligned with beliefs of community members and improved their perceptions of IWD.

CATEGORY

1j Intervention/Inclusion in school and community

ABSTRACT ID 160

A MODEL OF DEVELOPMENTAL PEDIATRICS CLINICS AFTER THE 2023 TURKEY-SYRIA EARTHQUAKE

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OBJECTIVE

Disasters in low and middle-income countries (LMICs) mandate adaptation of developmental pediatrics clinical services. We describe a model program for supporting children and their families who were affected from the Turkey-Syria Earthquake developed and implemented at Ankara University Developmental Pediatrics Division (AUDPD).

METHODS

The AUDPD clinical services were adapted after the Turkey-Syria Earthquake on 6 February 2023 by two academicians for 4 months. This model included capacity building, supporting children in inpatient clinics, reaching out to the children with developmental difficulties who were followed up at the AUDPD and lived in one of the 10 cities that were affected by the earthquake.

RESULTS

In the first week of the earthquake, half-days were devoted for capacity building: 90 key references on children and disasters were read, summarized, and discussed. All 38 children who were referred to AU’s different subspecialities from the earthquake region, 21 (55.3%) were consulted and supported by AUDPD. Of these, 16 children (76.2%) were inpatient and received daily ongoing support from AUDPD with following developmental risk factors: 6 have lost of one parent (37.5%), 5 loss of both parents (31.3%), 7 amputations (43.8%). Additionally, 31 children who were followed up by the AUDPD in the last 3 years and lived in one of the 10 cities that were affected by the earthquake were phone called and supported via telehealth by their own clinicians in the first 3 months of the earthquake.

CONCLUSION

The AUDPD clinic earthquake model can help developmental pediatrics units in LMICs work during crises.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 197

PILOTING INTERVENTIONS FOR DISABILITY IN EARLY CHILDHOOD (IDEC) IN UGANDA

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OBJECTIVE

To establish a service delivery model for early identification of Children with Disabilities and Developmental Delays (CDDDs) aged 0-3 years and to link them to family-centred development interventions whilst promoting Social and Behavior Change Communication (SBCC) to reduce stigma and discrimination.

METHODS

The Intervention for Disability in Early Childhood (IDEC) is a three-tier evidence-based service delivery model involving (i) early screening for disabilities using Malawi Development Assessment Tool (MDAT) (ii) linking CDDDs to early family-centred community-based interventions and Early Childhood Development services; and (iii) referring children at high-risk for autism or cerebral palsy to health workers and educators trained in evidence-based interventions.

RESULTS

Between December 2021 and June 2023, 22,581 children in five districts were screened, of which 240 were referred to specialized services and 355 were enrolled into the community-based Caregiver Skills Training and/or the Early Motor Development Support Training. Results from the SBCC component revealed that 79% of respondents were ready to support children with disabilities compared to 58% at baseline.

CONCLUSION

More than double the targeted 10,000 children have been screened and almost 720 CDDDs targeted for early interventions have been linked to services, demonstrating that the model is feasible to implement at Primary Health Care level.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 207

THE UNICEF PROGRAMME FOR EARLY IDENTIFICATION, INCLUSION AND INTERVENTION FOR CHILDREN WITH DEVELOPMENTAL DELAY AND DISABILITY (EIII)

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OBJECTIVE

To develop a universal evidence-based programme which (i) identifies children with developmental delay and disabilities as early as possible; (ii) provides community-based family centred stimulation programmes for children aged 0 – 3 years with developmental delay and/or disabilities whilst promoting inclusion in mainstream Early Childhood Development activities and (iii) specific early interventions for children with visual and hearing impairments, children with motor impairments at risk for cerebral palsy, children with cognitive and behavioural difficulties at risk of developing autism spectrum disorder, and children with seizures.

METHODS

UNICEF convened groups of international experts to complete Systematic Reviews on screening, early identification, and early interventions for several neurodevelopmental and sensory disorders. Recommendations from the systematic reviews and the expert groups were used identify the screening tools, the community-based programmes and the disability specific interventions. The model was adapted to three countries (Peru, Bulgaria and Uganda) where it is being implemented and evaluated.

RESULTS

Four systematic reviews were published and seven screening tools shortlisted. Two community-based programmes-the Caregiver Skills Training for children with social-behavioural and communication difficulties and the Early Motor Development programme for children with motor difficulties have been implemented at pilot sites in the three countries. Expert groups are currently developing specific early interventions for young children at high risk for autism and cerebral palsy.

CONCLUSION

The UNICEF EIII project provides an integrated system of services for early identification, inclusion and intervention of the most common neurodevelopmental disabilities which can be rolled out in low and middle income countries.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 198

EXPERIENCE IN FAMILY CONSULTATION PRACTICE OF THE RELATIONSHIP DEVELOPMENT INTERVENTION PROGRAM IN INDIA

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The Relationship Development Intervention is a proprietary treatment program that uses the concept of “dynamic intelligence” to improve the quality of life of autistic individuals and their families. This program addresses the universal deficits of autism which are difficulty in executive function (of which communication is a component), self-regulation, flexible thinking, and experience assimilation and aims at remediating them using a guided participation relationship with parents. Dynamic intelligence is a set of mental processes such as anticipating, evaluation, integration of experiences, and problem-solving skills.

This program has systematic training for parents to build blocks of social connection like referencing, emotion sharing, and coregulation. Thereafter consultants guide parents to engage their child in productive mental challenges in a supported manner and help them develop intrinsic motivation in the child. The concept of guided participation comes from the developmental theories of Vygotsky and Ragoff. Experiences are curated such that learning is authentic and applicable to challenging real-world experience and serve as an anchor to make new learning much more efficient and meaningful by being an extension, or expansion of prior learning. Engaged learning with a parent guide aims to pave the way for children to become empowered ‘owners’ of the learning process, becoming self-auditors and self-advocates for their learning and performance needs.

RDI training began in India in 2013 and currently has 10 certified consultants and several under training. The program reaches out to about 50 new families every year aiming at building a supportive and empowered parent community.

TOPIC CATEGORY
1i Intervention/Parent training

Abstract ID Number: 74

BRAIN POWERED GAMES: A GAMING APPLICATION FOR COGNITIVE TRAINING IN HIV AFFECTED CHILDREN IN UGANDA

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OBJECTIVE

To assess the feasibility and effectiveness of a gaming application for cognitive training (Brain Powered Games, BPG) on cognitive outcomes of HIV-affected school-age children living in Kampala, Uganda.

METHODS

126 HIV-exposed uninfected children (CHEU) and 60 children living with HIV+ (HIV+) in Kampala, Uganda ages 5-12 years were randomized to immediate intervention (12 weekly, 1-hour sessions of BPG in a clinic-based setting) or waitlist. BPG is a tablet-based app with a suite of 6 non-verbal, strategy-based games targeting working memory, executive functioning, planning and organization cognitive domains. We used the Kauffman Assessment Battery for Children (KABC-II) to assess short- and long-term memory, visual processing, and fluid reasoning domains at baseline and about 3 months after.

RESULTS

At baseline, HIV+ children were slightly older (mean =11.87 years) than CHEU (mean= 8.5 years), and had lower KABC-II sub-scale scores. All children randomized to BPG (59 CHEU and 30 HIV+) completed 12 sessions in about 3 months. Within arm differences between pre and post mean scores were significant in all KABC subscales global score, for both CHEU and HIV+. Scores were higher (e.g. better) at the 3 months assessment. Differences in post-training mean scores between BPG and waitlist conditions were only significant in the Learning subscale among CHEU (mean diff 8.89, p=0.001) and the MPI global composite score among HIV+ children (mean diff=7.12, p=0.02).

CONCLUSION

BPG is feasible as intervention in this context and shows promise as effective means to enhance cognitive domains in at-risk children after only 12 sessions.

TOPIC CATEGORY

1h Intervention/Use of adaptive equipment/gadgets/devices

Abstract ID Number: 181

ASSOCIATION OF NUTRITIONAL STATUS AND CHILD DEVELOPMENT IN INFLUENZA PATIENTS

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OBJECTIVE

Children affected by infectious diseases may be at risk of poorer developmental milestones, while undernutrition in itself is a risk factor for poor development. We aimed to explore if the association of influenza symptoms with child development varied by children’s nutritional status.

METHODS

We conducted a cross-sectional study at 12 and 24 months in urban children who presented with influenza symptoms of fever, cough, chest indrawing, and diarrhea. We assessed children’s cognitive, language, and motor development using Bayley Scales of Infant and Toddler Development-III and measured their nutritional status using the WHO Child Growth Standards. Children were divided into two groups: normal or mildly undernourished (weight-for-age z-score > -2, better nourished) and moderately or severely undernourished (weight-for-age z-score £ -2, undernourished). A multivariable linear regression model adjusting for 12-months score, mother's education, height-for-age z-score, asset index was used for analyses.

RESULTS

Of 385 children, 278 (72.21%) were better nourished while 107 (27.79%) were undernourished. Fever duration was significantly associated with lower motor composite scores (β-coefficient: -1.79, 95% CI: -3.47, -0.10, p-value: 0.038) in all children. Diarrhea duration significantly affected malnourished children’s language composite scores (β-coefficient: -4.733, 95% CI: -8.126, -1.34, p-value: 0.011) and motor compositive scores (β-coefficient: -4.937, 95% CI: -9.93, -0.001, p-value: 0.049).

CONCLUSION

In this study, language and motor development of undernourished children was significantly hindered after an episode of diarrhea. Psychosocial stimulation interventions focusing on language and motor development of children following such illnesses may be designed to prevent diarrhea effects in malnutrition.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 219

CHANGE IN PRACTICE PARAMETERS THROUGH ONLINE ECHO-ADHD TRAINING MODEL IN INDIA - A PILOT STUDY

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OBJECTIVE

To assess the change in practice parameters for diagnosis and management of ADHD at baseline and endline of a 6-month long case-based tele-mentoring model ECHO (Extension of Community Health Outcomes) ADHD conducted for physicians in India.

METHODS

Recruitment of participants was done through social media posts, mails sent to physicians likely to manage children with developmental disabilities within India. Pediatricians, developmental pediatricians, psychiatrists, neurologists were trained in diagnosis and management of ADHD through 14 fortnightly virtual sessions comprising lectures and case-based discussions. Participants completed questionnaires for assessing change in practice parameters at baseline (pre-program) and endline (post-program). Descriptive and non-parametric statistical analysis assessed change in practice parameters at the end of program.

RESULTS

A total of 88 participants enrolled in the program. There were 42 pediatricians, 40 developmental pediatricians, 4 neurologists and 2 psychiatrists. Sixty-four percent (57/88) completed baseline and endline evaluation and were included in the study. A significant increase was noted at endline in the number of participants who reported that they diagnose ADHD by themselves and use history and parent, teacher rating scales based on DSM 5 criteria for diagnosis. A significant increase was noted in the number of participants who reported that they manage ADHD by themselves and include medications, classroom modifications, coordination with school, sharing information and parental involvement for home strategies in their management plan.

CONCLUSION

ECHO ADHD is an effective model to influence a positive change in practice parameters based on evidence-based practices among participants in a low-and middle-income country setting.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 144

EFFECTIVENESS OF PARENT GUIDED, INTEGRATED THERAPY MODEL FOR CHILDREN WITH COMMUNICATION DISORDERS IN LMIC.

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OBJECTIVE

Effectiveness of integrated therapy model for children with communication disorders with parents being delivery partners.

METHODS

Cohort of 25 children was selected in the age group of 2-7 years with diagnosis of communication disorders. Scope assessment tool was used to ascertain functional age in domains of receptive language, expressive language, play, social skills imitation and cognition.

An integrated therapy program based on developmental goals covering areas of functional communication, language, play, social skills & cognition was made. Physical on-site sessions were conducted on a weekly or biweekly basis and parents were simultaneously trained during the sessions by a team of developmental pediatrician and special educator. An activity list to be done at home was provided to all families enrolled. Video recordings of activities being done at home by parents were reviewed biweekly and based on feedback a corrective action was instituted. At the end of 3 months progress was evaluated by a repeat scope profile.

RESULTS

Pre & post intervention age levels in domains of receptive language, Expressive language, Play & self-engaging skills, Social Skills and cognitive skills were compared using a paired t test. The p value of each domain was <0.05 making results statistically significant.

CONCLUSION

Individual therapy sessions of speech, ABA, DIR are costly & limited availability is there in LMIC. Integrated therapy based on developmental principles and involving parents as delivery partners can be a good tool for providing interventions. Regular monitoring of these programs is equally important for corrective action without delay & provide continued guidance to families.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 187

INDIGO: CREATION OF A TOOL FOR IDENTIFICATION OF NEURODEVELOPMENTAL DISABILITIES IN CHILDREN AGED 0-3 YEARS (MALAWI, PAKISTAN AND UGANDA)

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OBJECTIVE

We aimed to develop, pilot and field test a simplified tool based on the Malawi Developmental Assessment Tool (MDAT) with items across ICF-CY (International Classification of Functioning and Disability) to identify children (0-3 years) with moderate to severe disabilities across Malawi, Pakistan and Uganda.

METHODS

We followed two-stages; 1) expert assessors coded all items on MDAT to ICF-CY, and 2) then coded 1453 items from 19 developmental screening/monitoring tools identified in a systematic review. We created a new tool with MDAT or other additional items across ICF-CY. We sampled 480 children across 3 countries (160 per country)-120 children “at risk”, 240 children with a known disability and 120 children in a community sample across 4 age bands from 0-36 months. Full Gold Standard assessments were conducted by neurodevelopmental paediatricians with the support; Hammersmith Infant Neurological Exam (HINE), RITA-T autism observational tool, vision (PEEK-A-BOO) and formal hearing assessment prior to final diagnosis.

RESULTS

We identified clusters of MDAT items with excellent diagnostic utility (>0.8 (probability of a correct diagnosis)) for identifying those with a moderate to severe disability. We identified some extra “play” or “socioemotional” items which showed good-excellent discriminative validity from other tools which have been included in a short new adapted version of the MDAT now named INDIGO.

CONCLUSION

We have developed a first version of a short tool to identify children with disabilities from 0-3 years in resource-limited settings which could be refined through further scaled up diagnostic accuracy studies.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 145

TELEHEALTH FOR PAEDIATRIC PHYSIOTHERAPY SERVICES AT A TERTIARY ACADEMIC HOSPITAL DURING AND AFTER COVID-19: PERCEPTIONS OF CAREGIVERS AND CLINICIANS

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OBJECTIVE

Telehealth was first implemented at CHBAH to reduce contact sessions during COVID-19. Literature states that telehealth is a cost- effective means of providing therapy services in low socio-economic settings. It empowers caregivers, improves access, and bolsters compliance. Barriers include families' perspectives and challenges with technology. Clinicians report challenges with privacy, and a lack of skills. The prospective mixed method study ascertains the experiences of caregivers and clinicians with telehealth, informing the feasibility of using telehealth long-term in servicing the pediatric population at CHBAH.

METHODS

Pediatric patients with neurodevelopmental conditions were recruited from the CHBAH outpatient physiotherapy department to participate in telehealth sessions. 40 caregivers and 23 physiotherapists responded to questionnaires.

RESULTS

86% of caregivers felt their child benefitted, while 71% reported "enjoying" the sessions. Comments included: "I learnt how to handle my child better"; "I noticed my child's progress". Clinicians reported learning to "speak simply"; "picking up on caregivers' cues". They expressed the need for dedicated devices, connectivity and training.

CONCLUSION

Telehealth challenges our "known practice". It refines clinical skills and encourages trust in caregivers. Caregivers were not concerned regarding equipment or confidence for home therapy; they are adaptable and innovative and indicate an overall satisfaction with telehealth. Despite challenges, therapists confirmed that telehealth is a cost-effective adjunct to in-person therapy sessions with the added advantage of promoting family centered therapy. Ongoing collaboration and advocacy are needed to provide support and resources to clients and clinicians to allow this hybrid model to become ingrained at all levels of care.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 212

ADAPTATION OF THE INTERNATIONAL GUIDE FOR MONITORING CHILD DEVELOPMENT (GMCD) IN RURAL INDIGENOUS COMMUNITIES OF GUATEMALA

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OBJECTIVE

Community Health Workers (CHWs) in low and middle-income countries may be the only resource families have to support their child's health and development. Rural indigenous communities have specific cultural and language barriers, and the distrust families have of healthcare providers. In Guatemala 60% of the population has an indigenous heritage, 40% speak one of 20 indigenous languages and illiteracy is 75% in the indigenous population. The international Guide for Monitoring Child Development intervention (GMCD) may have potential to address these barriers by supporting understanding, trust and partnership between CHWs and families, with genuine interest, respect and compassion as its essential pillars. This Model Program shares lessons learned in the implementation of the GMCD by CHWs in rural indigenous communities in Guatemala.

METHODS

The cultural adaptation of the GMCD included translation to indigenous languages, piloting during home visits, creation of culturally adapted materials followed by training of trainers (ToT) and CHWs. Because visual and contextualized material is effective in improving understanding of ideas and induce behavior change, we created the GMCD Flipchart with photographs of local families doing activities.

RESULTS

Six local trainers were trained with the adapted GMCD ToT Program and used the materials to train 15 CHWs of 7 local organizations, currently implementing the GMCD. Other non-governmental organizations and the Ministry of Health will be involved in the implementation.

CONCLUSION

The culturally adapted version of the GMCD for indigenous rural populations has potential to be implemented by CHWs to monitor and support development during early childhood.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 220 - Removed

Abstract ID Number: 76

EARLY-LIFE GROWTH IS ASSOCIATED WITH SCHOOL AGE COGNITIVE FUNCTION IN THE SHINE COHORT USING THE SAHARAN TOOLBOX

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OBJECTIVE

The SHINE 2x2 factorial trial randomized households in rural Zimbabwe to improved household water, sanitation and hygiene, and/or improved infant feeding, with an outcome of child length-for-age at age 18 months. Long-term follow-up at 7 years assessed relationships between 18-month growth and school-age body composition, cognitive and physical function.

METHODS

The SAHARAN toolbox measured cognitive function using eight subtests from the Kaufman Assessment Battery for Children to provide the mental processing index (MPI) as a primary outcome. A school-achievement test measured literacy and numeracy. The Plus-EF tablet-based tool evaluated executive function. Fine motor skills were measured by a finger tapping task. Socioemotional function was measured by the caregiver strength and difficulties questionnaire. Anthropometry, body composition and physical function were assessed. Outcomes were analysed using generalized estimating equations with an exchangeable working correlation structure to account for clustering. Adjusted models included baseline environmental, maternal and nurturing factors.

RESULTS

Results for 990 rural Zimbabwean children (507 female) aged 7 years were analyzed. Increased head circumference at age 18 months was associated with all direct measures of child cognitive function at school-age in adjusted models: MPI (adjusted difference: 2 marks [95% CI: 1, 3], $p<0.001$), literacy/numeracy, executive function and fine motor coordination. Stunting at 18 months was associated with reduced MPI, literacy/numeracy and reduced school-age lean mass, strength and fitness.

CONCLUSION

Head circumference and linear growth by age 18 months were associated with later cognitive function at age 7 years. Early-life growth trajectories predict school-age vulnerabilities suitable for intervention.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 124

INTRAVENTRICULAR HAEMORRHAGE AMONGST OMWaNA TRIAL NEONATES IN UGANDA; PREVALENCE, RISK AND ROLE OF EARLY KANGAROO MOTHER CARE

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BACKGROUND

Preterm birth and intrauterine growth restriction are associated with an increased risk of intraventricular haemorrhage (IVH) with important potential impacts on long-term neurodevelopmental outcome. Kangaroo Mother Care (KMC), initiated immediately after birth, recommended by WHO for high-risk neonates.

OBJECTIVE

To examine IVH prevalence and severity on early cranial ultrasound imaging, including associations with perinatal factors and KMC, and amongst the OMWaNA trial cohorts in Uganda.

METHODS

Recruited neonates, 700-2000g, randomised 1:1 to receive early KMC or standard care. Cranial ultrasound scans were performed (day 1,7, 28) and reported by independent experts masked to clinical data and trial arm. IVH presence and severity were categorised as low-grade (I/II) or high-grade (III/IV). Data on antenatal, intrapartum, and neonatal risk factors were collected.

RESULTS

Diagnostic quality imaging was available for 731 neonates. Of these, 51.6% (377) were female, mean gestational age (GA) was 32.1 weeks (SD 2.2 [range 26-40]), and mean birthweight 1521g (SD 278g, [800-2000g]). IVH prevalence was 24.1% (95% confidence interval 21.0- 27.3%, n=176); only 5 (2.8%) were high-grade. Odds of IVH increased with earlier GA (OR 1.12 (1.03-1.22)), lower birthweight (OR 2.46 (1.37-4.41)), for outborn infants (OR 1.64 (1.13-2.38)), and with neonatal resuscitation (OR 1.83 (1.05-3.20)). Caesarean section was protective (OR 0.56 (0.32-0.97)). No measurable difference between trial arms was seen (p=0.565).

CONCLUSION

In this Ugandan population with limited access to intensive care, IVH was most common amongst the smallest and most preterm infants, with potentially important implications for longer-term neurodevelopmental outcomes. Early KMC did not confer protection.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 125

NEUROCOGNITIVE AND LANGUAGE OUTCOMES OF PRESCHOOL CHILDREN WHO ARE HIV-EXPOSED UNINFECTED: AN ANALYSIS OF A SOUTH AFRICAN COHORT

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OBJECTIVE

There are approximately 16 million children who are HIV-exposed and uninfected (CHEU) worldwide. Studies suggest that CHEU are at risk for developmental impairment in infancy; however, research examining important pre-school years is lacking. This study investigated associations between HIV exposure and neurocognitive outcomes and aimed to determine risk factors for neurocognitive development in CHEU at 3-4 years.

METHODS

The Drakenstein Child Health Study is a South African population-based birth cohort. Neurocognitive outcomes were assessed in children at 3.5 years including general cognitive function, language, and memory using the Kaufmann Assessment Battery for Children (KABC-II). Data were analysed using multivariable logistic and linear regression, including testing for effect modification; risk factor analyses were performed.

RESULTS

A total of 497 children were included (97 CHEU; 400 HIV-unexposed uninfected [CHUU]). Overall, CHEU had lower expressive language scores compared to CHUU on adjusted analyses (effect size: -0.23 [95% CI -0.45, -0.01]). There were no group differences in general cognitive or memory function ($p>0.05$). Low birthweight was associated with poorer cognitive scores in CHEU (-4.28 [95% CI -8.00, -0.56]). Further, on sex-stratified analyses, male CHEU were found to have higher odds of cognitive impairment (aOR 2.28 [95% CI 1.06, 4.87]).

CONCLUSION

The findings suggest that *in utero* HIV exposure is associated with poorer language development across the preschool years, highlighting the importance of targeting early interventions. Further, the results suggest low birthweight as a key risk factor for adverse cognitive outcomes in CHEU. The greater risk of cognitive impairment in male CHEU requires investigation.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 128

COMPARISON OF PHONOLOGICAL PROCESSING SKILLS AMONG SINHALA SPEAKING TYPICAL READERS AND READERS WITH DYSLEXIA IN SRI LANKA

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OBJECTIVE

Phonological processing skills are considered as one of the key skills required for the development of reading in alphabetic languages. Sinhala is an alpha-syllabic language with a transparent but a visually complex orthography. While there are universal features of development of reading, common to all languages, it is also possible to have language specific characteristics. Therefore, this study was conducted on Sri Lankan Sinhala speaking students with the aim of identifying the differences in phonological processing skills among children with typical reading and dyslexia.

METHODS

We compared the performances of typical readers (n= 57) and children with dyslexia (n=79) aged 6.01 to 6.99 years for the expressive phonology, phonological short-term memory, phonemic isolation, segmenting, blending and rapid automatized naming.

RESULTS

Results indicated that the children with a diagnosis of dyslexia performed significantly lower for all the phonological tasks tested ($p < 0.05$) except phonological short-term memory (PSTM) ($p=0.16$) and rapid automatized naming ($p= 0.91$).

CONCLUSION

Phonological skills contributed significantly to the development of reading, in Sinhala speaking children. It was evident that syllabic awareness played an equally significant role demonstrating how the alpha syllabic nature influences early reading acquisition skills in children who learnt akshara based languages. Yet, PSTM an essential phonological skill described in alphabetic languages was non- significant for the development of reading skills in Sinhala.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 143

TO STUDY THE PREVALENCE OF LEARNING PROBLEMS IN CHILDREN WITH EPILEPSY

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OBJECTIVE

To study the prevalence of learning problems in children with epilepsy and co-relate the occurrence of the learning problems in epilepsy and co-relate the occurrence of the learning problems in epilepsy with factors such as anti-epileptic drugs, duration of epilepsy, dosage of drugs, age and gender, primary diagnosis and socio-economic status.

METHODS

All children with epilepsy between the age of 6-15 years were included in the study. Details of child's epilepsy such as the age of onset, type of seizure, duration and dosage of antiepileptics were noted. Intelligence quotient (IQ) was tested using Seguin form board test. Strength and difficulty questionnaire filled by parents was used for screening of behavioral and emotional problems.

RESULTS

Out of the total 90 children screened, five children were noted to have poor school attendance and 39 children had deteriorating school performance defined by fall in grades. These 44 children (48.80%) were considered as children with learning problems. There was a higher incidence of learning problems in adolescent males, children on longer duration of anti-epileptic's and having poor seizure control. All children who were initiated on clobazam had a significant correlation with learning problems. A statistically significant number of children who had poor seizure control and sleep problems were found to have learning problems.

CONCLUSION

Children with epilepsy have a higher incidence of learning problems. Adolescent males, children with poor seizure control, sleep problems, longer duration of anti-epileptic's and on clobazam should be considered at higher risk for learning problems.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 164

THE PROFILE OF PAEDIATRIC CEREBRAL PALSY AT A TERTIARY INSTITUTION IN THE WESTERN CAPE PROVINCE OF SOUTH AFRICA

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OBJECTIVE

To investigate the documented causes and morbidities in children with CP, accessing health services at a central hospital in the Western Cape, South Africa over a 10-year period

METHODS

This is a descriptive cross sectional cohort study of 613 children (between 1 and 13 years of age) living with CP, seen in specialized pediatric developmental and neurology clinics between 2010-20. Children were described as per Surveillance of Cerebral Palsy in Europe (SCPE), clinical classification. The Gross Motor Function Classification System was used to determine the motor severity and data on CP risk factors, aetiologies and associated comorbidities were also documented.

RESULTS

Of the 613 children, 60.4% were male. Over a third (38.0%) of the cohort had severe CP, Gross Motor Function Classification System IV and V. Potential perinatal/neonatal causes were documented in 57.7% of which more than two-thirds (71.2%) were attributed to perinatal asphyxia, followed by preterm birth (28.8%), congenital cytomegalovirus infection (5.2%) and kernicterus (2.5%). Documented postnatal events included intracranial infections, such as tuberculous meningitis (3.6%), bacterial meningitis (3.6%). One-hundred and seventeen children with CP due to perinatal asphyxia (46.4%) received therapeutic hypothermia as opposed to 53.6% who received only standard interventions for birth asphyxia. Documented perinatal asphyxia was significantly associated with the most severe CP (GMFCS V; $p< 0.001$).

CONCLUSION

The high proportion of potentially preventable causes of CP suggests that strategies for implementation of prevention as well as early intervention programs in South Africa are urgently needed.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 109

RISK FACTORS FOR SCHOOL READINESS: FINDINGS FROM THE BASELINE DATA OF AN ONGOING MULTICOUNTRY CLUSTER RANDOMIZED CONTROLLED TRIAL

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OBJECTIVE

Understanding risks to school readiness is crucial to help smooth transition to school. We aimed to investigate risk-related factors associated with school readiness in Bangladesh, Nepal, and Tanzania.

METHODS

We used the baseline data of an ongoing cluster randomized controlled trial in Bangladesh between December 2022 and March 2023. We applied Bangla versions of Measurements for Early Learning and Quality of Outcomes (MELQO), Weschler Preschool and Primary Scale of Intelligence-Fourth Edition, Washington Group/UNICEF Child Functioning Module, and Hopkins Symptom Checklist-25. Bivariate correlations of sociodemographic characteristics with school-readiness outcomes and multiple regression analysis controlling for confounders were conducted.

RESULTS

We recruited a sample of 549 caregiver-child dyads (57.2% boys). Children's Mean±SD age was 5.1±0.21 years. MELQO scores were positively correlated with parents' education and child anthropometry; and negatively with gender and residence. Multiple linear regression analysis showed that low IQ (β=1.47, 95%CI=1.29,1.65, P<0.001), stunting (β =1.67, 95%CI=0.50,2.86, P=0.005), number of books and toys at home (β =0.44, 95%CI=0.04 to 0.85 , P= 0.031), male gender (β=-3.2, 95%CI=-5.56,-0.85, P=0.008), functional disability (β=-6.17, 95%CI=-11.27,-1.07, P=0.018) and maternal education (β=1.29, 95%CI=0.12,2.47, P=0.030) were associated with school readiness outcomes. After controlling for clustering, hierarchical linear regression analysis indicated that children's IQ (β=1.47, 95%CI=0.45,2.49, P=0.035) and stunting (β=1.66, 95%CI=0.10,3.2, P=0.047) significantly predicted school readiness in Bangladeshi children.

CONCLUSION

The findings highlight the importance of designing a parent-focused school readiness programme considering the above risk factors that would help in a smooth school transition for preschoolers.

TOPIC CATEGORY

1d Intervention/Educational

Abstract ID Number: 117

THE EFFECT OF COVID-19 PANDEMIC EXPOSURE ON CHILDREN'S DEVELOPMENT, BEHAVIOUR AND NUTRITIONAL STATUS AT 20 MONTHS IN RURAL BANGLADESH

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OBJECTIVE

To assess the impact of the COVID-19 pandemic on Bangladeshi children's cognitive, language, motor, and social-emotional development and growth.

METHODS

We used repeated cross-sectional surveys of 20-month-old children in 50 villages using similar inclusion criteria and field protocols. The first survey targeted children (n=1,344) who had participated in a pre-pandemic iron supplementation trial where iron did not have any effect on the children's developmental outcomes or growth. The second survey targeted newly enrolled children, exposed to the pandemic from late gestation through infancy (n=526). Children's development and behaviour were assessed using Bayley Scales of Infant and Toddler Development and Wolke's behaviour ratings. Anthropometry, home stimulation, maternal depression and socioeconomic data were collected.

RESULTS

The Exposed sample had deficits in cognitive [Effect size=-0.45 (95%CI=-0.63, -0.27)], language [-0.18 (-0.34, -0.02)] and motor [-0.55 (-0.73, -0.37)] scores, compared to the non-exposed, they were less responsive to the examiner [-0.29 (-0.48, -0.11)], less happy [-0.37 (-0.55, -0.19)], less vocal [-0.57 (-0.73, -0.4)] and less cooperative [-0.42 (-0.6, - 0.24)]. Anthropometric measurements were similar. Exposed children with less educated mothers showed larger developmental and behavioural deficits than children with better educated mothers. These deficits are likely to be sustained without intervention. Exposed mothers with primary education only had increased depression.

CONCLUSION

All exposed children showed developmental and behavioural deficits, but deficits were greater in those with poorly educated mothers, increasing inequity. It is suggested that during and after similar crises, early childhood programmes prioritize high-risk groups to avoid gaps to increase.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 97

EFFECTS OF INCOME SUPPORT PROGRAMME FOR THE POOREST(ISPP) ON MATERNAL KNOWLEDGE AND PRACTICES FOR CHILD DEVELOPMENT IN RURAL BANGLADESH

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OBJECTIVE

Early childhood is critically important because it forms the foundation for future development. We aimed to assess the impact of a conditional cash transfer (CCT) and psychosocial stimulation (PS) programme on maternal knowledge of child-rearing practices, the frequency of nutritious food given to children, quality of home stimulation, and maternal depressive symptoms.

METHODS

Using a prospective impact evaluation design, we randomly selected 2215 mothers from the ISPP programme, living in 20 sub-districts of Bangladesh, where 13 sub-districts received CCT+PS and 7 were listed as controls. One group of beneficiaries and the control group were tested at baseline and endline, while another group of beneficiaries who received longer duration of intervention did not have a baseline assessment. We administered knowledge, attitude and practice (KAP), food frequency, and family care indicators (FCI) questionnaires to measure knowledge of child-rearing, nutritious food intake, quality of home stimulation, and maternal depression. KAP was divided into subcategories of stimulation, language, nutritional, moral and gender practices.

RESULTS

Paired t-test revealed that the intervention group scored significantly higher in all the outcomes except KAP-nutritional knowledge and maternal depressive symptoms. Mixed model regression analysis showed similar results. A longer duration of intervention yielded significantly better outcomes for stimulation activities (B=1.62, 95%CI=2.2, 1.04, $p<0.001$) and moral practices of KAP (B=0.31, 95%CI=0.46, 0.17, $p<0.001$).

CONCLUSION

Conditional cash transfer and stimulation improved maternal knowledge and practices for child development. The longer the intervention, the better the outcomes. An important next step will be to consider scaling with this intervention.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 174

FEASIBILITY OF ASSESSING CHILDREN'S COGNITIVE AND LANGUAGE DEVELOPMENT OUTCOMES AMONG FORCIBLY DISPLACEMED MYANMAR NATIONALS IN COX'S BAZAR

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OBJECTIVE

We aimed to investigate the feasibility of use of cognitive and language tools in a resource limited setting and its association with stimulation at home, parent-child interaction, child nutrition and socio-demographic variables.

METHODS

A pilot survey conducted on the Forcibly Displaced Myanmar Nationals (FDMN) at Ukhiya, Cox's Bazar. Child cognitive and receptive language development were assessed using the Bayley Scales of Infant and Toddler development fourth edition (Bayley-4) at household level. Maternal interview included Family Care Indicator (FCI) items to measure stimulating environment (books, toys) and childcare at home along with Socio-demographic information.

RESULTS

A total of 303 mother-child dyads were evaluated (mothers' mean±SD age 20.6±11.9). Around 49% of mothers reported literacy in Burmese language and 53% had a male child. Bayley-4 assessment was challenging at household and required some cultural adaptations. We found Bayley-4 cognitive ($r=0.43$) and receptive ($r=0.35$) z-scores were significantly and positively associated with total FCI-score, cognitive ($r=0.95$) and receptive ($r=0.93$) with children's age, cognitive ($r=0.45$) and receptive ($r=0.43$) with child nutrition and cognitive ($r=0.25$) and receptive ($r=0.23$) with mothers' age ($P<0.001$). There were also significant group differences in Bayley scores by low (≤12.5cm) vs. normal (>12.5cm) mid-upper arm circumference ($p<0.001$) of children but not between girls and boys or literate and illiterate mothers.

CONCLUSION

In a resource limited setting of Rohingya FDMN camps, it is feasible and meaningful to conduct Bayley-4. The developmental z-scores showed moderate to strong correlation with child-care Domains, child-age and maternal age and significant nutritional group differences.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 104

HAMMERSMITH NEONATAL NEUROLOGICAL EXAMINATION OF HEALTHY TERM INFANTS AT AGES 6 AND 10 WEEKS IN TSHWANE DISTRICT, SOUTH AFRICA

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OBJECTIVE

BACKGROUND

The neurodevelopmental progress of infants below three months is globally not well described. The 6 weeks postnatal age is an important milestone for observing changes occurring in the central nervous system. Research lacks normative values and optimality scores for healthy infants at 6 and 10 weeks. Neurodevelopmental characteristics of infants in these age groups are omitted from the South African (SA) Road to Health Booklet, the status not routinely monitored, and data not documented.

METHODS

A prospective longitudinal study was performed on 35 healthy term-born, infants from low-risk pregnancies at 6- and 10 weeks’ postnatal age in the Tshwane District. The status of infants’ neurodevelopment in six domains were recorded using the Hammersmith Neonatal Neurological Examination (HNNE). Optimality scores were derived from the raw scores of 34 items, using the 5th and 10th centiles as cut-off points.

RESULTS

Optimal score distributions and total examination optimality score ranges for all 34 items were illustrated at 6- and 10- weeks respectively. The direction of changes in limb tone, active head control, and advanced visual behaviour were also illustrated and projected in this cohort between 6 and 10 weeks.

CONCLUSION

The first results of ongoing research and evolving data, provided respective optimality score ranges of healthy term-born infants at 6- and 10 weeks in a developing country. Studying bigger cohorts in SA may result in data collection leading to a greater understanding, continuous monitoring, and effective management of infants and as such contribute to Sustainable Development in SA.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 155

MOVING TO ONLINE PLATFORMS FOR BETTER SERVICE AND OUTCOME IN AUTISM

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OBJECTIVE

The Centre provides appropriate intervention based on New Horizons social behavior and communication (NHSBC) sequence for children with autism spectrum disorder. The COVID-19 pandemic and subsequent lockdown threatened continuation of care. This could have adversely impacted on their physical, psychological and emotional wellbeing.

To describe the model of NHCDC-devised virtual program that ensured the implementation of the intervention and continued access.

METHODS

The parents were trained through a coaching program (E-nable) to offer children opportunities for interaction, engagement and learning social behavior and non-verbal and verbal communication. A Developmental Pediatrician interacted with the parent (duration: 30 minutes) to (a) understand the child's performance and progress across domains through parental description and watching child's performance; (b) assess the need for corrective action and (c) set appropriate goals for the forthcoming period.

RESULTS

Enrolled 150 children during the pandemic period. It was possible to continue to provide access and care: 144 (96%) adhered to the program for over 3 months] and improvement in developmental trajectories [136 (90.6%)], and better functional outcomes [140 (93.3%)] were observed]. It is now implemented in children residing in far-off places. Uninterrupted internet connection was a crucial requirement noted.

CONCLUSION

The virtual program was able to prevent disruption of care during the pandemic. It is now implemented to ensure access to expert care for children residing in places in the country with limited availability of expertise to manage children with ASD and also globally.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 150

FEASIBILITY OF USING LOW-FIELD MRI TO COLLECT QUALITY PAEDIATRIC NEUROIMAGING DATA AT SCALE IN A LOW-INCOME CONTEXT

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OBJECTIVE

Magnetic Resonance Imaging (MRI) provides valuable insight into brain development. However, neuroimaging research in sub-Saharan Africa is lacking due to its high infrastructural and operational costs. Advances in low-cost, portable MRI technology are reshaping brain research and expanding research possibilities beyond traditional setups. This is of particular relevance in low-income contexts where, incidentally, children are at the greatest risk of neurodevelopmental delay. This study aims to demonstrate the feasibility of using low-field MRI to routinely collect pediatric neuroimaging data at scale in a low-income context.

METHODS

We attempted T2-weighted structural brain scans with 303 infants during non-sedated sleep using a 64mT Hyperfine Swoop^{TM} at 1-2 timepoints during the first postnatal year as part of the Khula Study in South Africa.

RESULTS

We attempted to scan 233 infants (aged 2-5 months; M = 3.25, SD = 0.9) at their first postnatal visit and were successful with 154 (66.1%) infants. We were more successful during the second visit (infants aged 5-12 months; M = 8.5, SD = 1.61), with 191 successful scans out of 233 attempts (82%). Of the 162 infants we attempted to scan at both time points, we were successful in 97 (59.9%) cases. Unsuccessful scans were primarily due to the infant waking up during scan preparation or acquisition.

CONCLUSION

These findings demonstrate that it is feasible to collect longitudinal neuroimaging data at scale in the first year of life using low-field neuroimaging technology. This suggests that low-field neuroimaging can be utilized in diverse settings thus enabling inclusive research.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 166

WOMEN'S EMPOWERMENT AND RESPONSIVE CAREGIVING IN RURAL PAKISTAN: A MIXED METHODS STUDY

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OBJECTIVE

While there is a robust body of literature indicating the link between female empowerment and children's development in low- and middle-income countries, it is less clear how empowerment might inform the quality of early nurturing care. Responsive caregiving is a key component of nurturing care, which supports children's development. This study aims to better understand the relationship between female empowerment and responsive caregiving.

METHODS

This mixed methods study comprised data from 200 mother-child dyads in Naushahero Feroze, Sindh, Pakistan. Families were randomly sampled and stratified by child age (0-3 years old), gender and number of siblings. Quantitative questionnaires included maternal autonomy, responsive care interactions, and mental health. Qualitative data helped elucidate identified quantitative associations.

RESULTS

Maternal financial autonomy (0.036, 95% CI: 0.002, 0.70, $p > .039$) and maternal age (0.008, 95% CI: 0.032, 0.12, $p > .001$) were positively correlated with maternal responsiveness. Food insecurity (-0.039, 95%% CI: -0.071, -0.006, $p > .019$) and family pressure to become pregnant (-0.28, 95% CI: -0.58, 0.003 $p > .076$) were negatively correlated with maternal responsiveness. Qualitative findings showed female empowerment was often described as either perpetuating or disrupting rigid gender norms. The construct was often perceived as selfishness by the community. In this regard, women generally had less autonomy over their fertility, and preserving birth spacing was the most common motivation for contraception uptake.

CONCLUSION

Maternal responsiveness is associated with financial and bodily autonomy. Fostering women's empowerment could help improve early nurturing care practices in this setting.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 167

ADAPTATION OF THE GUIDE FOR MONITORING CHILD DEVELOPMENT USING THE FRAMEWORK FOR REPORTING ADAPTATIONS AND MODIFICATIONS TO EVIDENCE-BASED IMPLEMENTATION STRATEGIES

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OBJECTIVE

Describe adaptation of the GMCD using FRAME-IS for an effectiveness-implementation trial of the GMCD with rural CHW cohorts in India and Guatemala.

METHODS

We used the FRAME-IS approach to document the task-shifting process of adapting an early child development intervention (GMCD) to CHWs in rural Guatemala and India. FRAME-IS includes documentation of steps of modification (including GOAL, WHAT was modified, NATURE of the modification). Adaptations included materials tailored for home visits and local contexts; job aids optimized for CHWs with limited access to technology; and modified curriculum for CHWs with limited exposure to ECD.

RESULTS

GOAL: The adaptation was to optimize use by CHWs implementing the GMCD in rural homes. WHAT: The GMCD training was expanded to 6 days, with adapted content on child brain development, developmental milestones, maternal mental health, and risk factors. NATURE: Materials and tools were translated to local languages (Marathi, Maya Kaqchikel, Maya K'iche') and supervised practice sessions with caregivers were added to build CHW skill development. Visual aids were tailored to reflect the local environment, including photos and videos illustrating local caregiving settings, toys and environmental elements like nature and domestic animals. The team also created a job aid called the GMCD Flipchart, which helps the CHW provide individualized developmental support to caregivers based on the child's level of functioning.

CONCLUSION

We successfully adapted GMCD for our local contexts. The use of the FRAME-IS framework to document intervention adaptations could improve communication of lessons learned among practitioners working in disparate global contexts.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 101

SIX-YEAR FOLLOW-UP OF CHILDREN WHO PARTICIPATED IN A STUDY OF PSYCHOSOCIAL STIMULATION INTERVENTION-SUSTAINED BENEFITS ON BEHAVIOR AND HOME STIMULATION

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OBJECTIVE

It is widely accepted that investment in early childhood has potential to address poverty, inequality and malnutrition. A cluster randomized controlled trial of psychosocial stimulation was conducted approximately 6-years ago, where children's development and behavior were significantly improved. We aimed to re-examine those children and assess if the earlier effects were sustained.

METHODS

Out of 1194 children in the original study, 1107 (93%) participated in the follow-up study. We administered Wechsler Intelligence Scale for Children fifth edition, pre-school self-regulation assessment, Conner's parent behaviour rating scale, early grade reading (EGRA)-and mathematics (EGMA) assessments, anthropometry, Socioeconomic status, middle childhood version of home observation for measurement of environment (HOME) and maternal depression questionnaires to obtain IQ, behavior, school achievement, nutritional status, socio-economic status, quality of home stimulation, and maternal depressive symptoms respectively.

RESULTS

Children's Mean±SD age was 8.7±0.5 years. On unadjusted analysis, IQ, behavior and HOME scores were significantly higher in the intervened group compared to the control. After adjusting for age, sex, baseline maternal depression that was different between tested groups, districts, clustering, and inverse probability, intervention group had higher IQ (B=2.0, 95%CI=3.9,0.15, p=0.035), received more stimulation at home (B=2.0, 95%CI=2.9,1.1, $p<0.001$) and had lower maternal ratings of their negative behavior (B=-1.28, 95%CI=0.15,2.4, p=0.027). EGRA scores approached significance (B=5.7, 95%CI=11.6,-0.24, p=0.060).

CONCLUSION

A medium-term follow-up shows sustained benefits on IQ, behavior and home stimulation environment. Similar programmes may be implemented in Bangladesh and other developing countries.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 106

MATERNAL BENEFITS OF PARENTING PROGRAMME THROUGH HOME VISITS OF COMMUNITY HEALTH WORKERS USING SOCIAL SAFETY-NET PLATFORM IN URBAN BANGLADESH

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OBJECTIVE

Maternal depression is prevalent in most developing countries and affects children’s growth and development. The objective of this study was to measure the effect of early childhood development (ECD)-focused parenting and nutrition education delivered through home visits by community health workers (CHWs) using an unconditional cash transfer programme on depression and well-being of the mothers in deprived settings of urban Bangladesh as secondary outcomes.

METHODS

Mothers with children aged 6–16 months participated in a cluster randomized controlled trial (allocation 1:1; intervention: comparison) in Rangpur City, Bangladesh. The intervention group received ECD-focused parenting and nutrition education through home visits delivered every fortnightly by CHWs for one year. Validated Bangla version of self-rated questionnaire and the World Health Organization Quality of Life Brief Version were used to measure depressive symptoms and quality of life of the caregivers respectively. Intention to treat analysis was followed.

RESULTS

In total, 599 caregivers were enrolled. Their mean (SD) age was 25.57 (4.76). Half of the mothers experienced household violence in the last one month. There was no difference in background and outcomes information by groups at enrollment except the mothers in the intervention group experienced higher violence. The intervention reduced depression: B-coefficient=-1.30, 95% Confidence Interval=-2.33 to -0.27, P-value=0.016 and improved quality of life: B=3.40, 95% CI=1.75 to 5.06, p<0.001.

CONCLUSION

The ECD-focused parenting and nutrition education through home visits by CHWs can reduce maternal depression and improve quality of life in the deprived setting of urban areas using social safety net platform.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 171

STAKEHOLDER PERSPECTIVES ON THE FEASIBILITY OF A CAREGIVER-LED TRAINING PROGRAMME FOR CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY IN RURAL MALAWI

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OBJECTIVE

Critical shortages of therapists in Low-Middle-Income Countries (LMICs) like Malawi, limit access to adequate practical training of parents and caregivers of children with disabilities like Cerebral Palsy (CP). Involvement of “expert caregivers” as training facilitators has been identified as a potential solution. Yet, the implementation of this strategy has been scarcely studied.

This study explored perspectives of stakeholders regarding the feasibility of implementing a caregiver-led training programme for caregivers of children with CP as part of formative work.

METHODS

An exploratory qualitative study was conducted in January 2023 in Malawi. Focus group discussions and in-depth interviews were conducted with selected caregivers, therapists and community-based organisation representatives. Audio recordings were transcribed verbatim and managed using NVivo software, version 12. The data were analysed using both inductive and deductive techniques.

RESULTS

The proposed caregiver-led training programme was deemed acceptable and a demand for it was expressed owing to the perceived relative advantages and relevance to caregiver needs in this setting. Participants also perceived the programme to be practical and had confidence in their ability to deliver the intervention using locally available resources. Participants identified three key areas that would require modification for the programme to be well adapted to their context.

CONCLUSION

Therefore, the initial stakeholder engagement demonstrated positive perspectives from all stakeholders involved. Potential areas for adaptation were highlighted which have been useful in strengthening the subsequent implementation of the programme in the selected rural setting in Malawi. Stakeholder involvement ensures appropriate tailoring of evidence-based programmes to enhance effective implementation.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 135

EFFECTIVENESS OF ART-BASED POST TRAUMATIC INTERVENTION PROGRAM

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OBJECTIVE

It is known that intervention programs are effective to allow the expression of emotional states such as fear, insecurity, separation and sadness after traumatic experiences with school-age children. The aim of this research is to carry out a preliminary study that evaluates the effectiveness of an art-based intervention program for children who applied to a private clinic after the 6 February Kahramanmaraş-centered earthquake.

METHODS

The art-based intervention program was carried out with five mothers and six children aged 6-9 for a total of five weeks, with a group structured for 1.5 hours each session. Before and after the program, the physical comfort of the children and their mothers (somatic experience) was evaluated by individual interviews, and the symptoms of post-traumatic stress disorder were evaluated with the Turkish version of the "Revised Child Event Impact Scale (CRIES-8)". Ethics committee permission was obtained before the intervention program, and informed consent form was given to parents and children.

RESULTS

At the end of the program, the results were obtained by comparing the pre and post evaluations with appropriate statistics. A significant difference was found between the pre and post measures according to the body comfort (somatic experience) evaluation of the children and their mothers. In terms of post-traumatic stress disorder symptoms, a significant difference was found between the pre and post total scores of the CRIES-8.

CONCLUSION

In conclusion, it is thought that the current study points out the importance of group works with children and sustainable programs with proven effectiveness.

TOPIC CATEGORY

1e Intervention/Psychological

Abstract ID Number: 185

CASCADE TRAINING OF THE WHO CAREGIVER SKILLS TRAINING (CST) PROGRAM: IMPLEMENTATION FACILITATORS AND BARRIERS IN CANADA AND EGYPT

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OBJECTIVE

This research examines the feasibility of utilizing cascade training for the WHO Caregiver Skills Training (CST) program across diverse sites, namely Egypt and Canada.

METHODS

CST is an intervention for children aged 2-9 years old suspected or diagnosed with a neurodevelopmental disorder including autism. The model was designed for delivery by non-specialists (facilitators) supported by regional specialists (Master Trainers). We used surveys and focus groups in two countries (Egypt and Canada) currently undergoing large scale implementation of CST. We compared barriers and facilitators to CST implementation, sustainability, and scale up from the perspective of the master trainers and facilitators in each site (n=17 Egypt, n=17 Canada).

RESULTS

Common and distinct facilitators and barriers to implementation were identified in Canada and Egypt. Facilitators included the successful adaptation of the program's content considering families’ needs, cultural sensitivities, and preferences of their respective countries. In contrast, establishing and monitoring fidelity was a challenge noted in both countries.

CONCLUSION

Our results in Egypt and Canada suggest that cascade training approaches hold great potential for implementation and scale up of the CST program in diverse settings. Careful consideration of local cultural factors, ongoing support for trainers, and monitoring of fidelity to core principles remain crucial to ensure program sustainability.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 203

IMPLEMENTATION AND IMPACT OF A PEER-LED TRAINING PROGRAMME FOR PARENTS OF CHILDREN WITH CEREBRAL PALSY

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OBJECTIVE

To design, implement and evaluate a community-based intervention for parents of children with cerebral palsy (CP) living in rural resource-constrained settings which (i) provided information about CP using words and language parents could easily follow; (ii) reduced maternal feelings of guilt, isolation and hopelessness; (iii) prepared families for a lifetime of caring and (iv) addressed the gaps arising from the scarce availability of rehabilitation services.

METHODS

Therapists from Malamulele Onward, a South African non-profit organization, co-designed and refined the Carer-2-Carer Training Programme (C2CTP) with rural parents of children with CP over two years. Then, during a three week intensive training, primary caregivers (predominantly mothers) were trained as Parent Facilitators to run seven workshops for parents of children with CP in their communities and conduct home visits. Following the training, Parent Facilitators were mentored through onsite visits.

RESULTS

Qualitative evaluation of the C2CTP has demonstrated its value in assisting caregivers in understanding and caring for their children whilst transforming a sense of hopelessness, isolation and guilt into confidence, pride and acceptance. Caregivers learnt practical skills which assisted in daily care activities, decreased their burden of care and increased their sense of competence. Caregivers reported greater acceptance and support from neighbours and their extended families. The C2CTP is currently active in South Africa, Lesotho, Malawi and Uganda.

CONCLUSION

A peer-led program utilizing highly trained lay-parents offers a beacon of hope in addressing stigma around CP, caregivers' need for information and skills, and the inequities in rehabilitation services in resource-constrained settings.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 129

A LOGIC MODEL OF A PARENTS TRAINING PROGRAM ON PARALLEL INTERACTION WITH CHILDREN HAVING AUTISM SPECTRUM DISORDER

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OBJECTIVE

This study uses a logic model to create and administer a parent training program targeted at improving social communication and social interaction of children with autism spectrum disorder (ASD). The goals of this study are twofold: to use a logic model to create a parent training programme centred on parallel interaction with ASD children, and to assess the program's effectiveness and parent satisfaction in limited-resource countries like Bangladesh and India.

METHODS

The logic model was used as a conceptual framework to develop the program and was carried out in three steps(a) Context analysis (b) Outline the objective of the program (c) Determine the outcome of the program. The resulting program of five online group sessions spread out over a month was delivered to 100 parents. Parent-reported changes in child’s social communication and interaction were assessed before and after intervention using standardized tool. Assessment of parents’ satisfaction with the intervention was assessed through parent satisfaction survey.

RESULTS

The analysis shows statistically significant changes in child behaviour before and after intervention, confirming the program's efficacy. Majority of the parents expressed satisfaction and confidence in utilizing the learning through the intervention they received.

CONCLUSION

This study pioneers the use of a logic model as a tool for creating, implementing and assessing a training program. The findings highlight parallel interaction as an effective method for improving social communication and interaction between parents and children with ASD.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 107

COST-EFFECTIVENESS ANALYSIS OF TWO INTEGRATED EARLY CHILDHOOD DEVELOPMENT PROGRAMMES INTO BANGLADESHI PRIMARY HEALTH-CARE SERVICES

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OBJECTIVE

This study presents results of cost and cost-effectiveness analysis of two parenting interventions (group-based and pairs) integrated into primary health care centers in rural Bangladesh.

METHODS

A within-trial cost-effectiveness analysis was conducted from the provider perspective. Incremental cost effectiveness ratios were estimated for all primary child development outcomes and presented in terms of cost per standard deviation improvements in the outcomes. A series of cost scenario analyses were conducted to assess the effect of changing cost assumptions on the cost and cost-effectiveness results. All results are presented in 2022 USD.

RESULTS

Total provider costs were US$ 67,529 for the group-based intervention and US$ 117,726 for the pair intervention. Estimated cost per child covered by the interventions was US$156 for the group intervention and US$133 for the pair intervention. An additional US$100 expenditure on the group intervention is estimated to lead to a 0.55 SD improvement in cognition, 0.44 SD in language development and 0.33 SD in motor development. For the pair intervention, the corresponding estimates are improvements of 0.98 SD, 0.83 SD, and 0.90 SD, respectively. Under potential scale up scenarios, intervention cost can reduce substantially resulting in cost per child of US$43 and US$46 for group and pair interventions, respectively.

CONCLUSION

Cost-efficiency and cost-effectiveness results for both interventions are comparable with the results from limited similar interventions in low- and middle-income countries. Implementation costs of the interventions will be substantially lower at scale due to economies of scale and full integration to the public health system.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 184

PARENTAL NEEDS AND PERCEPTIONS REGARDING A PARENTING EDUCATION INTERVENTION DELIVERED TO THEM WHILE IN THE NICU

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OBJECTIVE
To explore parental needs and perceptions regarding a parenting education intervention delivered to them while in the NICU.

METHODS
Three focus group discussions were conducted with parents of preterm infants admitted to the neonatal intensive care unit of a referral hospital in the North West Province. Inclusion criteria: Parents of infant(s) is inborn, singleton or multiples, gestational age below 37 weeks gestation, and expected to remain in the NICU for at least 7 days and still admitted to hospital. Parents were 18 years or older, signed written informed consent, understand and speak English or the local regional language (Tshwana or Afrikaans). They discussed the question: What are/were your needs regarding parenting education while your baby is admitted in the NICU?

RESULTS
Mothers share needs for information being shared with them in a caring manner, that they are included in care, instead of just being there to provide breastmilk. They required information on illness, development and care giving.

CONCLUSION
Education needs should not be seen in isolation, but mothers also require respect and feeling cared for.

TOPIC CATEGORY
1i Intervention/Parent training

Abstract ID Number: 151

DISCLOSURE OF DIAGNOSIS IN ADOLESCENTS WITH AUTISM: PERCEPTION OF CAREGIVERS IN MUMBAI, INDIA

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OBJECTIVE

Autistic self-advocates propose that learning early on about diagnosis is associated with heightened well-being. However in many LMICs like India, Autism continues to be highly stigmatized which is internalized by many caregivers who often prefer to keep their child's Autism hidden. This is the first study to understand Indian caregivers' perceptions about disclosing the diagnosis of autism to their children, influencing factors and the actual process.

METHODS

We conducted a qualitative study with caregivers of autistic adolescents (10-19 years) in an Urban center. After obtaining an informed consent, semi-structured interviews were conducted to gather data related to stance, process, and support available. Data was collected till saturation was reached and analyzed using principles of thematic analysis.

RESULTS

Of 22 interviews conducted, 15 caregivers hadn't considered disclosing the diagnosis to their child. Qualitative themes revealed several sociocultural factors that influenced caregivers' decision to not disclose. The prevalent themes were parental perception of limited understanding of their child and risk of further social exclusion by their peers. Of the 6 who had disclosed, the most common benefit perceived was autistic individuals advocating for themselves and accessing support. Caregivers discussed ways they would potentially disclose such as highlighting strengths, speaking about autistic features as differences rather than disorder/disability.

CONCLUSION

We found majority caregivers had not disclosed the diagnosis to their child and caregiver perceptions reflected concerns that are socially and contextually valid highlighting the need to adopt a twin-track approach of supporting disclosure while building awareness and reducing stigma in society.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 134

IMPROVING THE QUALITY OF SERVICES TO SUPPORT EARLY CHILDHOOD DEVELOPMENT IN A DITIGALLY SUPPORTED NATIONAL COMMUNITY HEALTH PROGRAM IN ZANZIBAR

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OBJECTIVE

Jamii ni Afya (JNA) is a digitally supported community health volunteer (CHV) program in Zanzibar supporting health and early childhood development (ECD). JNA utilizes a digital platform to strengthen CHV decision support, care delivery, workforce supervision, program evaluation, and monitoring of population health. Household surveys at baseline (2019) and midline (2021) showed no significant differences in home environment or ECD outcomes as measured by the Caregiver Report of Early Childhood Development. A qualitative evaluation completed in 2020-2021 revealed gaps in the quality of parent coaching of optimal ECD practices. In May 2022, JNA implemented a quality improvement (QI) initiative targeting the quality of ECD services.

METHODS

A learning collaborative was formed to gather input from stakeholders, CHVs and clients to identify key priorities for improving ECD services. JNA employed QI methodology to conduct small scale tests of changes in Plan Do Study Act (PDSA) cycles with qualitative and quantitative outcome measures. Teams in different regions trialed PDSA cycles of different improvement activities, aiming to identifying a change package for national scale up.

RESULTS

Successful trials included 1) Technical changes to the digital platform to streamline decision support, integrate multimedia, and facilitate earlier enrollment 2) Enhanced practical training for CHVS in active coaching 3) Targeting messaging to fathers 4) Improved protocols for screening, referral and messaging on inclusivity for children with developmental disability.

CONCLUSION

QI METHODS can identify priority strategies for improving ECD services. Next steps include finalizing a change package, implementing at national scale, and measuring impact.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 133

JAMII NI AFYA: DIGIALLY SUPPORTED EARLY CHILDHOOD HEALTH AND DEVELOPMENTAL SERVICES FOR WOMEN AND CHILDREN IN ZANZIBAR.

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OBJECTIVE

In 2019, a household survey in Zanzibar revealed gaps in optimal home environments (only 25 % of mothers and 3 % of fathers engaged in 4 or more play activities over 3 days; 86 % of families reported use of physically or psychologically harsh discipline) and in early childhood development (ECD) assessed using the Caregiver Report of Early Childhood Developmental Index. The Zanzibar MOH and D-tree International launched Jamii ni Afya (JNA), a community health program utilizing a digital platform providing services to mothers and children under five.

METHODS

JNA designed services integrating components of the nurturing care framework (NCF) with community health volunteers (CHVs) screening for health, nutrition and safety needs and coaching on optimal nutrition, responsive parenting and early learning. The Care for Child Development protocol was adapted, digitized and augmented by a play and communication guide and enhanced guidance for developmental delays and risks to optimal development.

RESULTS

By 2023, the JNA program trained 2300 CHVs in providing integrated services in all 385 shehias in all 11 districts of Zanzibar, enrolling 276,000 children. The digital platform embedded in a smart phone facilitated clinical decision support, workforce supervision, and data collection for program and population health monitoring. Additional components included birth registration and client satisfaction feedback.

CONCLUSION

A digital platform can facilitate community health programs in providing services integrating health, nutrition, and ECD. Next steps include measuring impact, improving the quality, and leveraging the digital platform for research and learning.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 193

THE NEURODEV PROJECT: PHENOTYPIC AND GENETIC CHARACTERISATION OF NEURODEVELOPMENTAL DISORDERS IN KENYA AND SOUTH AFRICA

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OBJECTIVE

Genetic association studies have made significant contributions to our understanding of the aetiology of neurodevelopmental disorders (NDDs). However, the vast majority of these studies have focused on populations of European ancestry, and only some include individuals from the African continent. The NeuroDev project aims to address this diversity gap through detailed phenotypic and genetic characterisation of children with NDDs from Kenya and South Africa.

METHODS

Here, we present results from NeuroDev's first year of data collection, including phenotype data from 206 cases and clinical genetic analysis of 99 parent-child trios.

RESULTS

The majority of the cases met the criteria for global developmental delay/intellectual disability (GDD/ID, 80.3%). Approximately half of the children with GDD/ID also met the criteria for autism, and 14.6% met the criteria for autism alone. Analysis of exome sequencing data identified a pathogenic or likely pathogenic variant in 13 (17%) of the 75 cases from South Africa and 9 (38%) of the 24 cases from Kenya, as well as seven total cases with suspicious variants of uncertain significance (VUS) in emerging disease genes that were matched through the MatchMaker Exchange. In addition to rare variant findings, we present preliminary common variant analyses, including ancestral heterogeneity in our samples.

CONCLUSION

The NeuroDev project will, in full, create a public resource for medical genetics research that includes thousands of individuals from varied ethnolinguistic and genetic backgrounds; genome-wide common variant data; exome sequencing data; detailed cognitive, behavioural, and medical profiling data; cell lines; and case photographs.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 195

REFERRAL PATHWAYS OF CHILDREN DIAGNOSED WITH AUTISM SPECTRUM DISORDER IN BLOEMFONTEIN

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OBJECTIVE

The aim of this study was to investigate the referral pathways of newly diagnosed children with ASD, to determine the average age of diagnosis, as well as the time delay from first concern to final diagnosis.

METHODS

We did a prospective descriptive cross-sectional study. All newly diagnosed children, who fulfilled DSM V diagnostic criteria, during a six-month time period (1 June 2020 to 30 November 2020) were included. The study was done in a tertiary academic setting as well as the private practice of a developmental pediatrician.

RESULTS

Thirty-nine participants (males n=35; females n=4) were included in the study. Almost half (46,8%) came from the academic setting. The median age at first concern was 18 months. First consultation with a professional was at a median age of 24 months with pediatricians, nurses and speech therapists consulted most frequently. The median age of diagnosis was 44.7 months. The median time from first professional concern to diagnosis was 17 months and from first concern to diagnosis 22.9 months. The majority needed significant support. Co-morbidities were identified in most of the children. No statistical differences between the patients seen in private and those in the State sector.

CONCLUSION

Although our median age of diagnosis is comparable to global data there is still a significant delay in the time of first concern to subsequent final diagnosis. The co-morbidities were similar to that described in the literature, but a few children were presented with a specific language disorder where their language was copied from screen exposure.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 182

CLINICAL INVESTIGATIONS IN CHILDREN WITH DEVELOPMENTAL DISORDERS: A DESCRIPTIVE STUDY ON A LMIC COHORT

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OBJECTIVE

Limited data is available regarding clinical investigations performed on children with neurodevelopmental disorders (NDD) in South Africa (SA). This study aimed to describe a cohort with NDD in SA and the investigations done.

METHODS

A retrospective descriptive study of cases in *Neurodev project* (Aug 2018-Jun 2023). Data regarding the cohort's diagnosis and clinical investigations was extracted and standard statistical tests were used for the analysis.

RESULTS

964 cases (75% male) aged 2-17 years were included. DSM-V diagnosis included global developmental delay (50%), intellectual disability (14%), autism spectrum disorder (60%) and attention deficit hyperactivity disorder (16%).

57 % had two or more investigations. Thyroid testing was done in 23% and only 9.6% had a metabolic screen. 22% had previous genetic testing. Neuroimaging was performed in 26% with radiological abnormalities detected in a third. 13% had electroencephalography and 63 % had audiology screening. No investigations were recorded in 19% of cases.

CONCLUSION

Investigations to identify treatable conditions, for example audiology and thyroid screening are underutilized, even in a tertiary hospital setting. Under investigation with regards to neuroimaging and biochemical investigations, may be due to clinicians using investigations in a targeted manner based on a thorough clinical assessment and to a lesser extent underutilization as might be expected in lower resourced LMIC. In terms of targeted genetic testing, resources remain the biggest challenge and improving access will be helpful to identify primary genetic conditions and diagnosis specific treatment.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 8

ACCESS TO TRAINING IN DEVELOPMENTAL PEDIATRICS IN ARGENTINA

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BACKGROUND

In Argentina there are very few developmental paediatricians; furthermore, access to training is scarce. Formal training is emerging yet there is no recognition of the subspecialty.

OBJECTIVE

To describe training programs in Developmental Paediatrics in Argentina.

METHODS

Seventeen paediatricians who received training in developmental paediatrics and four clinicians started to meet monthly in 2012. Members defined goals, scope of action and activities to be done within the association, including the creation of tools and strategies for high-quality training. The association received requests from pediatricians asking for training in the field. A steering committee formed by developmental pediatricians met monthly to discuss the cultural adaptation of current training programs stated by the Accreditation Council for Graduate Medical Education from the United States and the Royal College of Physicians and Surgeons of Canada. After a 2-year period of regular meetings, they developed a training program. The scientific section of the local association reviewed and approved the program.

RESULTS

A 3-year full-time, broad-based fellowship training in developmental paediatrics was established in 3 hospitals within the country. Trainees met weekly for common teaching sessions and research-related discussions. At present there are 5 fellows in training in an on-going program.

CONCLUSION

There is a need of training in developmental pediatrics. A next goal will be to establish a common exam within the trainees and get recognition of the subspecialty by the national society of paediatrics and government health agencies. Financial support seems to be an important factor to consider.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 93

"WE THOUGHT ASSESSMENT WOULD INCLUDE MEDICINES": EN-SMILING QUALITATIVE STUDY OF ROUTINE NEURODEVELOPMENTAL ASSESSMENTS FOR CHILDREN IN BANGLADESH, NEPAL AND TANZANIA

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OBJECTIVE

Screening for developmental delays is important for the early identification and management of such delays. We aimed to assess the acceptability and feasibility of routine developmental screening by the caregivers of both children with and without developmental delay and examine the barriers and enablers to routine assessments from the perspective of the various constituents/providers.

METHODS

"Every Newborn-Simplified Measurement Integrating Longitudinal Neurodevelopment & Growth" (EN-SMILING) was a multi-country (Bangladesh, Nepal and Tanzania) cohort study following up 2,326 newborns, half of whom had a newborn intervention. This study used phenomenology methodology, with six focus group discussions of >6 caregivers per site; four in-depth interviews (IDIs) per site with mothers of children with developmental delay; and 26 IDIs with staff responsible for delivering ECD assessments and tracking participants. Data were analysed thematically using NVivo12.

RESULTS

Enablers were caregivers' perceived value of the service, increasing their understanding of their children's development, and confidence to change parenting practices. Many caregivers of children with developmental delays expressed the perceived value of the service more than those whose children had no identified developmental delays. Barriers included multiple visits, travel time, and lack of value for preventive ECD services by wider family and community members.

CONCLUSION

Routine assessment services must consider one-stop integrated care, targeted services and referral care for children with developmental delay, support for their families, community and public engagement regarding the value-add of routine ECD services, and addressing stigma regarding delay and disability.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 114

SCREENING TODDLERS FOR AUTISM SPECTRUM DISORDER AT 18-24 MONTHS OF AGE

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BACKGROUND

The American Academy of Pediatrics and Indian Academy of Pediatrics recommend that all children should be screened by a standardized autism screening tool at 18-24 months of age.

OBJECTIVE

To screen toddlers for autism spectrum disorders at 18 to 24 months of age using M-CHAT-R and M-CHAR-R/F screening checklist to study the prevalence of autism and to study correlation with various maternal and perinatal factors.

METHODS

A prospective cross-sectional study was conducted enrolling 190 toddlers aged 18 to 24 months of age to screen for autism spectrum disorders using M-CHAT-R and M-CHAT-R/F checklist. On the basis of scoring, they were categorized into low, medium and high risk for autism. Their association with various demographic, nutritional, maternal and perinatal factors was studied.

RESULTS

Of the 190 enrolled children, 12 children (6.31%) were screened as high risk, 3 children (1.57%) as medium risk and rest 92.1% were screened as low risk for autism. Co-relation was done with various demographic, nutritional, maternal and perinatal factors. Amongst the maternal factors studied, a significant positive correlation was observed between preeclampsia and high risk for autism (p value: <0.007). None of the perinatal factor was found to be statistically signficant. M-CHAT-R/F was found to have sensitivity, specificity, positive and negative predictive values of 100%, 40%, 95.11% and 100% respectively.

CONCLUSION

M-CHAT-R/F was found to be a reliable and simple tool for screening of toddlers and early detection of at risk toddlers paves way for evaluation and initiation of appropriate intervention strategies.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 127

INTEGRATED EARLY INTERVENTION THROUGH PRIMARY HEALTHCARE SYSTEM INCREASES MATERNAL CHILD REARING KNOWLEDGE AND PRACTICE IN RURAL BANGLADESH

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OBJECTIVE

Early years are reported as the period of windows of opportunities and scaling early childhood care and development (ECCD) interventions are highly recommended especially in LMICs. We aimed to measure caregivers' parenting knowledge and quality of home stimulation of an ECCD intervention through primary health care services.

METHODS

We conducted a cluster randomized controlled trial in rural Bangladesh using primary health care system where government health workers were trained through a cascade model and delivered the intervention. A subsample of children was randomly selected and measured for cognitive, language and motor development using Bayley-III test. Mothers were interviewed to assess their knowledge and practices of child care and development and quality of home stimulation using a previously validated knowledge questionnaire and the Family Care Indicators (FCI) questionnaire respectively. We used multi-level mixed model analysis controlling for clustering and adjusted for child age, sex, parental education, tester and relevant baseline scores.

RESULTS

Children exposed to the intervention had significantly more play materials at home [B=0.598, 95%CI=(0.813,0.383), $p<0.001$] and mothers who attended the ECCD sessions in the community clinics had significantly improved knowledge on child care and development compared to the control mothers [B=2.178, 95%CI=(3.58, 0.777), p=0.002]. We did not find any significant difference on developmental outcomes between groups.

CONCLUSION

Integrating ECCD programme in the health system is effective for behavior change in terms of quality of parenting practices that is likely to help promote children's development in later years. The impact needs to be emphasized by policymakers for scale-up.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 169

“ASKING THE RIGHT (IMPLEMENTATION SCIENCE) RESEARCH QUESTIONS”: LEARNINGS FROM THE INTERNATIONAL IMPLEMENTATION TRIAL OF THE GUIDE FOR MONITORING CHILD DEVELOPMENT

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OBJECTIVE

Implementation science (IS) focuses on strategies used to implement evidence-based practices, rather than intervention effectiveness only. Here we share learnings from the IS informed Guide for Monitoring Child Development (GMCD) implementation trial conducted in rural India and Guatemala.

METHODS

We assessed the current research priority along the spectrum of translation research, selected the IS theory, identified the implementation strategy, elaborated on questions to examine implementation strategy context, defined the implementation outcomes, conducted local context adaptations, and focused on monitoring intervention implementation.

RESULTS

The GMCD study opted for a hybrid type-I implementation trial as there was limited effectiveness evidence and indirect evidence supportive of potential effectiveness. We used all three overarching approaches of IS to describe the process, explain influences, and evaluate outcomes. The trial used ‘building a learning collaborative’, ‘local needs assessment and consensus discussions’, ‘conducting dynamic ongoing training and promoting adaptability’ as key implementation strategies. The trial identified existing Community Health Workers (CHWs) for GMCD intervention delivery and developed systems for assessment of fidelity to the intervention coupled with feedback and support to the trainers and CHWs. The implementation outcomes comprised reach, acceptability, adoption, fidelity, cost and maintenance. The GMCD was adapted to suit the local cultural context and the Consolidated Framework for Implementation Research was used to examine contextual factors influencing implementation.

CONCLUSION

It is possible to apply the IS knowledge to facilitate the integration of evidence-based practices into challenging systems for monitoring child development and supporting the caregivers to bridge the evidence-practice gap.

TOPIC CATEGORY 1A INTERVENTION/EARLY INTERVENTION PROGRAM

Abstract ID Number: 22

IMPLEMENTATION AND PROCESS EVALUATION OF THE CEREBRAL PALSY AND DEVELOPMENTAL DISABILITIES EARLY SCREENING AND TREATMENT (CDEST) PROJECT IN ILE-IFE, NIGERA

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OBJECTIVE

To evaluate the feasibility and acceptability of early identification of Developmental Disabilities (DDs) by training community health nurses (CHNs) in immunization clinics. Secondly, to evaluate referral rates and pathways to an early intervention clinic for children identified with DDs.

METHODS

We conducted this mixed-methods study in three primary healthcare centres in Ile-Ife, Nigeria. We conducted 20 key informant interviews with CHNs, doctors and parents (pre-implementation) to understand the feasibility and acceptability of our newly proposed developmental screening (DS). We audio-recorded, transcribed and translated these verbatim. We then adapted the training, screening tool and referral pathway and trained 45 nurses. Following implementation, we conducted a process evaluation collecting data on pre and post-training knowledge. Data were managed using the Stata 15 and NVivo software.

RESULTS

At pre-implementation, we identified barriers to integrating DS into routine services: organizational structural deficits (training and leadership), limited organizational resources (time constraints, lack of tools, language barriers, overcrowding) and parental factors (stigma and understanding of DDs). At implementation, we created a simpler screening tool - the-MDAT-sign tool with prompts and wall posters. DS using the MDAT sign tool commenced in January 2022 with a 40% increase in total referrals. There was a statistically significant increase in the mean knowledge of the nurse's pre and post-training ($t=-6.190$, $p=<0.001$).

CONCLUSION

Through understanding pre-implementation needs, we adapted a programme for busy immunization clinics in Nigeria and improved rates of referral. Future directions include the implementation of this training at other facilities and the expansion of family-centred early intervention clinics.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 110

SCALING UP OF AN INTEGRATED EARLY CHILDHOOD DEVELOPMENT PROGRAMME FOR BANGLADESHI CHILDREN: ENABLERS AND BARRIERS OF QUALITY IMPLEMENTATION

Afroza Hilaly, Syeda Fardina Mehrin, Sheikh Jamal Hossain, Nur-e- Salveen, Masuma Kawsir, Md Asaduz zaman, Jena Derakhshani Hamadani
International Centre for Dairrhoeal Diseases Research (icddr,b), Dhaka, Bangladesh

OBJECTIVE

In recent years integrating early childhood development (ECD) programmes into government health services is a key strategy for nationwide scale-up. We aimed to identify the enablers and barriers of our current integrated ECD programme for children under 3 years in Bangladesh.

METHODS

The programme is running in >600 Community Clinics (CCs) in 4 districts with approximately 1700 frontline health workers (HW) delivering parenting sessions to >9000 malnourished children aged 6-36 months and their caregivers and 397 supervisors/trainers under government health services. The health and family planning inspectors who are the immediate supervisors of the HWs train them and monitor the sessions. A questionnaire was developed to collect information from the HWs, inspectors and caregivers regarding the feasibility and barriers of this implementation.

RESULTS

The main enablers were acceptability of the programme by the HWs, their supervisors and higher authorities, successful use of the curriculum and motivation and enthusiasm of the government trainers to deliver the training effectively. Key challenges were accountability of HWs to conduct the sessions and their perception as an extra workload, lack of motivation of supervisors to supervise the programme, low interest of the caregivers because no supplementation or incentive were provided for the children, lack of community awareness, preparation of play materials and timely supply of the logistics at CCs.

CONCLUSION

Despite such challenges, the programme can be integrated with health services, though, a strong monitoring system with supportive supervision. Additionally, digitalization of the reporting system needs to be ensured.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 153

INTEGRATING EARLY DEVELOPMENT MONITORING AND SUPPORT WITH ROUTINE CARE SERVICES FOR CHILDREN SERVED UNDER A GOVERNMENT PROGRAM IN RURAL INDIA

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[1]Mahatma Gandhi Institute of Medical Sciences, Wardha, India. [2]Ummeed Child Development Center, Mumbai, India

OBJECTIVE

To assess feasibility, acceptability, and adoption of a developmental monitoring and support program incorporated into routine services including home-visits, growth monitoring, complementary nutrition, immunization, and preschool education for children under the government Integrated Child Development Services (ICDS) program.

METHODS

The programme was implemented in 15 villages of one ICDS sector. Twenty-five Anganwadi workers (AWWs), frontline functionaries of ICDS were trained in monitoring and supporting child development with 16-days training package including the Guide for Monitoring child Development (GMCD) and WHO/UNICEF CCD package. AWWs were expected to monitor each child's development at least once using the GMCD. GMCD uses open-ended questions to gather child development information based on which AWWs were able to make decisions about the development of children in seven domains: expressive and receptive language, gross and fine movement, relating, play and self-help. The study team monitored the intervention for 9 months. Acceptability and feasibility were measured using focus group discussions with AWWs and in-depth interviews with caregivers. Adoption was measured using the number of AWWs who implemented the intervention.

RESULTS

The intervention was perceived as essential and accomplishable, but feasibility was affected by overlapping duties of AWWs, increased duration of home visits and necessity of intensive post-training support. All AWWs implemented the GMCD (adoption rate 100%) with 725/840 (implementation rate 86.3%) children; out of which 103 (14.2%) were found to have developmental concerns.

CONCLUSION

GMCD was acceptable and feasible suggesting that integration of development monitoring with routine services helped identify children needing early intervention.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

POSTER PRESENTATIONS

In order of the Abstract ID Number

Abstract ID Number: 7 - Removed

Abstract ID Number: 12

PARENTAL ATTITUDES AND EXPECTATIONS IN RAISING A CHILD WITH AUTISM SPECTRUM DISORDER IN INDIA

Swati Narayan, Gita Srikanth
WeCAN, Chennai, India

OBJECTIVE

The current study aims to understand the attitude of parents of 28 children with Autism Spectrum Disorder in India.

METHODS

This study was conducted in Chennai, an urban metropolitan setting in South India, and most of the respondents were middle and upper middle-class parents. In a country like India with a vast number of languages, cultures, socio-economic disparities, and varying education levels, the challenge lies in finding a standardized understanding of Autism, and an optimal intervention package. Social norms and expectations play a significant role in shaping parental acceptance of ASD and their choice of intervention.

RESULTS

Findings show that parents of children with ASD have the same expectations of their child as they do of their typically developing children, giving a leverage of a few years. There was also a mismatch between what was vocalized as being the ideal outcomes for their child and the steps taken to achieve them.

CONCLUSION

This descriptive study illustrates the urgent need to provide parents with a uniform understanding of the condition, the availability of scientific intervention services and additionally, the need for a uniform policy on processes and educational and therapeutic intervention that will meet the needs of the child and that of the family.

TOPIC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 13

CHALLENGES IN TRANSITIONING TO ADULTHOOD FOR INDIVIDUALS WITH AUTISM SPECTRUM DISORDER IN INDIA

Gita Srikanth, Swati Narayan
WeCAN, Chennai, India

OBJECTIVE

An increasing number of individuals with ASD are entering adulthood in India. There is growing concern among parents of these individuals, about their employability, future living arrangement, financial independence and safety, particularly as the caregivers grow older.

METHODS

This descriptive study also points to the need for psychoeducation and focused intervention for better adult outcomes and the ongoing need for trained personnel who are specialized in working with adults, apart from residential options for all socioeconomic sections of the affected population

RESULTS

Majority of these individuals struggle with communication and social isolation, according to parent narratives. The participating adults continued to live with their families, having limited social interface and faced a lack of employment opportunities at the time of the study.

CONCLUSION

The study also indicates a need for shift in parental attitudes towards long term planning for the child early into the intervention years. Adult outcomes for this population affected by ASD continues to remain largely undocumented. The study highlights the importance of counselling and psychoeducation for families with younger children with autism. This will enable them to shift the focus of intervention towards the core deficits of autism, keeping in mind the long term goal of an independent and meaningful life. Increased focus on skills equipping them towards an independent living and appropriate supported living measures are the need of the hour and would ensure greater progress for these affected individuals and their families.

TOPIC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 14

PROMOTING EARLY BRAIN DEVELOPMENT IN ALL CHILDREN THROUGH COMMUNITY PARTICIPATION: A REACH-OUT PROGRAM

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BACKGROUND
Early childhood development (ECD) is of paramount importance with far-reaching implication. Globally the focus is now on ECD, to enable all young children to achieve their full developmental potential. With 43% of children still at risk to do so, majority from South-East Asia and Africa, it calls for immediate action. The deliverables for nurturing care (NC) are simple and affordable but require a robust delivery system with multi-stakeholder involvement to reach every care-giver, the ultimate implementing agent. Developing an effective ECD-NC delivery system is a perplexing primary healthcare issue, novel for each country and community.

OBJECTIVE
To devise a cost-effective and sustainable program, through the mediation of trained field level workers (FLW) to promote ECD-NC in remote, rural India by motivating and empowering mothers to implement nurturing care.

METHODS
For a rural community with estimated 8000 children within 0-6 years, 8 local girls were trained on ECD and NC delivery techniques, who, in turn, conducted intensive and sustained awareness programs in a participatory mode with mothers, in the form of weekly mother-child group meetings. Simultaneously 800+ mothers participated in the 5 month program.
Results: The participatory intervention program brought in significant change in knowledge, attitude and practice of parents as well as children.

CONCLUSION
Promotion of maternal education and empowerment of primary care-givers at grass-root level through trained FLWs can effectively promote ECD. Regular, sustained home-based group activities is a simple, cost-effective way to reach large populations simultaneously and bring in a tangible change.

TOPIC CATEGORY
2 Early Childhood Development

Abstract ID Number: 16

PARENTAL ENGAGEMENT IN PLAY PRACTICES WITH YOUNG CHILDREN DURING HOSPITALIZATION: A CROSS-SECTIONAL SURVEY FROM PAKISTAN

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OBJECTIVE

The purpose of the study was to inform the needs assessment of a psychosocial intervention for parents of hospitalized children in an acute care ward of a private hospital in Pakistan. The objective were to explore the level of parental engagement with play activities and to examine the association between parental practices with child and family factors.

METHODS

A cross-sectional survey with 458 parents of hospitalized children was conducted. Parents were interviewed by trained research assistants to assess child's age and disease group, perceived status of child health, maternal knowledge of developmental milestones and education status, and maternal and paternal caregiving practices (play and stimulation activities they recently engaged in with their child in the past 3 days), using a structured questionnaire.

RESULTS

Overall, about a third of the parents had not engaged in any play activity with their children in the past three days. Factors significantly associated with lower maternal engagement included child age (X2(4, N=449) =18.59, p=0.001), child health status (X2(4, N=449) =16.7, p=0.000), disease group (X2(4, N=449) =12.06, p=0.017), and maternal education level (X2(1, N=449) =6.7, p=0.009). Child gender was not significantly associated with maternal engagement practices. None of the above factors were found to be significant regarding paternal engagement.

CONCLUSION

Parental engagement during hospitalization was low and that mothers of younger infants with poorer health status were less likely to be engaged.

TOPIC CATEGORY

1b Intervention/Medical

Abstract ID Number: 17

EFFECTS OF A PSYCHOSOCIAL INTERVENTION ON THE MENTAL STATUS OF HOSPITALIZED CHILDREN WITH CONGENITAL HEART DISEASE IN PAKISTAN:

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OBJECTIVE

The objective of this study was to assess whether a psychosocial intervention during hospitalization can improve the mental status of young children with congenital heart disease (CHD).

METHODS

The current study was a one group pre-post design for children aged 3 months to 6 years. The psychosocial intervention comprised developmentally appropriate play and stimulation activities delivered by the caregivers on the bedside. The caregivers were coached by psychology trainees to engage with the child through play. The Mental Status Examination Scale (MSE-S), specifically developed for this study, a structured observational measure that assessed domains like speech, thought perception, insight, judgment, mood, and interaction was the primary outcome measure. Paired samples T test was used to examine differences before and after intervention.

RESULTS

98 CHD children who were hospitalized were given the intervention. Some children received more than 1 session, hence in total 169 sessions were delivered. A significant difference was observed in the mental status before (M=38.91, SD=10,19) and after (M=33.03, SD=10.48) the intervention (t(168)=13.59, p=0.000). The effect was greatest when intervention was delivered by the trainees themselves (Mean Difference=9.45, SD=6.35, t(10)=4.94, p=0.001) followed by mother (Mean Difference=5.81, SD=5.55, t(115)=11.27, p=0.000) and father (Mean Difference= 5.25, SD=6.01, t (31)= 4.94, p=0.000).

CONCLUSION

Psychosocial interventions when delivered directly by psychology trainees or through parents can help in improving the mental status of children with CHD during hospitalization.

TOPIC CATEGORY

1b Intervention/Medical

Abstract ID Number: 18

THE KHULA KAHLE PROJECT, A PARENTING PROGRAM EMPOWERING CAREGIVERS OF CHILDREN TO PROMOTE EARLY CHILDHOOD DEVELOPMENT IN SOUTH AFRICA

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OBJECTIVE

A quality improvement project was implemented to break barriers of a burdened paediatric outpatients department in a low resource setting. We aimed to promote holistic early childhood development (ECD) by empowering parenting practices alongside the problem- based approach to consultation.

METHODS

The Khula Kahle project, an isiZulu term meaning ‘to grow well’, encompassed a series of health promotion and risk prevention talks delivered to caregivers in an outpatient department at St Mary’s Hospital, Kwa–Zulu Natal, South Africa between February and December 2013. Parenting brochures with key messages were created in English and IsiZulu to compliment this.

RESULTS

This parenting program yielded 140 culturally sensitive child health talks by nine departments, encouraging parental concerns and practises to be addressed. International Management of Childhood Illness (IMCI) principles were incorporated into 15 topics that highlighted a preventable risk to ECD, framed by nurturing care practises. Although the brochure was a common exposure for all parents, the impact of this program on child development was not evaluated as parents were randomly assigned to different talks. However, the role of a lead facilitators was a factor that impacted sustainability positively. Building this capacity into the service boosted staff morale, and synergy within our working environment.

CONCLUSION

Parenting practices can be empowered in low-and-middle income settings within the public health system. Quality improvement projects can opportunistically focus on risks to early childhood development alongside acute care. Sustainability demands buy- in from local teams, lead facilitators to drive sustainability and finances to scale up.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 19 - Removed

Abstract ID Number: 21- Removed

Abstract ID Number: 24

GO BABY GO – PARENTING MODEL TO PROMOTE NURTURING CARE FOR CHILDREN UNDER SIX- EVIDNECE FROM TWENTY COUNTRIES

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OBJECTIVE

Go Baby Go (GBG) is an evidence-based parenting programmes to promote nurturing care in young children. However, cumulative evidence from the GBG implementation in multiple contexts/countries to inform scale-up is scarce.

METHODS

The Go Baby Go (GBG) model, designed for children 0-3 years informed by nurturing care and has been implemented since 2015. Key elements include age-appropriate interventions, targeting vulnerable families, a context-specific curriculum aligned with nurturing care, and calibrated dosage of group sessions and home visits. It can be stand-alone or integrated with health and nutrition programs. The workforce receives competency-based training, supervision, and feedback for implementation of interventions. We reviewed the published evidence for impact and implementation evaluation.

RESULTS

GBG was implemented in over 20 World Vision offices in Asia, Africa, Latin America, Middle-East Easter-Europe. In seventeen cases GBG was integrated within health/nutrition programmes, while as a stand-alone in the rest. Impact evaluation was available from seven studies indicating positive outcomes for child development and/or caregiving practices. In Palestine, GBG children exhibited improved developmental outcomes; and caregivers reported greater attachment. In Sudan, malnourished children in refugee settings exposed to GBG had higher weight gain and shorter length-of-stay when compared to control. In Sri Lanka and Rwanda, caregivers showed higher responsive parenting practices compared to the group without GBG. Implementation data revealed appropriateness, acceptability and relevant for caregivers/parents across different settings and cultures.

CONCLUSION

Meta-synthesis of impact and implementation evaluation across four regions can inform the refinement of the GBG model for scale-up.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 25 - Removed

Abstract ID Number: 26 - Removed

Abstract ID Number: 27

ELECTRONIC SCREEN MEDIA USAGE IN YOUNG CHILDREN IN TERTIARY HOSPITAL

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INTRODUCTION

In Thailand, 98.6% of infants were exposed to at least one kind of electronic screen media with an average age of onset 1.43 month. Data in media usage of Thai children in provincial tertiary hospital remains limited.

OBJECTIVE

To describe electronic media usage behavior in children and determine factors that might be associated with electronic screen media usage in children.

METHODS

From February to September 2019 a cross-sectional descriptive study was conducted and collected data from parental questionnaires in children aged 2 months to 4 years at well baby clinic at Sunpasitthiprasong hospital.

RESULTS

A total of 248 were enrolled. Electronic media usage in children was 86.7% (n=215), with television 90.7%, mobile 81.86%, tablet 26.51% and computer 22.33%, respectively. They started using electronic media before the age of 1 year and used $\leq$ 1 hour per day for each device. Parental age, education, income and electronic screen media usage were not associated with electronic screen media usage in children.

CONCLUSION

Electronic screen media usage in children aged 2 months to 4 years at the provincial tertiary hospital was 86.7%, with television, mobile, tablet and computer, respectively. The data may guide the pediatrician to advice appropriate electronic screen media usage in children and advice proper parenting.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 28 - removed

Abstract ID Number: 29

- Removed

Abstract ID Number: 30 - Removed

Abstract ID Number: 31

PROBLEMS OF SLEEP DISORDERS IN CHILDREN WITH PARALYTIC SYNDROMES. THE FIRST STAGE OF RESEARCH

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BACKGORUND

Children with paralytic syndromes have sleep disorders of different pathogenesis, but specialists do not pay enough attention to this problem.

OBJECTIVE

To conduct a survey of parents to identify possible sleep disorders of children with paralytic syndromes.

METHODS

An original questionnaire for parents with 7 domains (98 questions) was created. A survey of 20 children with paralytic syndromes was conducted: GMFCS III level – 4 (20%), IV level – 8 (40%), V level – 8 (40%).

RESULTS

The survey revealed: mood swings in children during the day 17 (85%); sleep with open mouth 15 (75%); excessive salivation 15 (75%); gastroesophageal reflux 13 (65%); dry mouth when falling asleep 13 (65%); enuresis 9 (45%); problems with falling asleep 9 (45%); frequent awakenings at night 9 (45%); involuntary movements during sleep 6 (30%); snoring 4 (20%); excessive daytime sleepiness 3 (15%). The parents of one child reported severe nocturnal apnea. 7 (35%) children received anticonvulsant therapy.

CONCLUSION

The first stage of the research, a questionnaire survey of parents of children with paralytic syndromes revealed a wide range of factors of sleep disorders. The authors draw attention to the need to correct these violations to improve the quality of life of families. The second stage of the study will be screening somnography in children with paralytic syndromes to determine the impact of individual factors or their combinations on sleep quality. Research perspectives should include in-depth diagnosis of sleep disorders in children and developing recommendations for their prevention.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 33

MAZI UMNTANAKHO: A DIGITAL TOOL FOR SOCIAL EMOTIONAL DEVELOPMENT AND MENTAL HEALTH OF YOUNG CHILDREN

Catherine E Draper [1], Caylee J Cook[1], Elizabeth A Ankrah[2], Jesus A Beltran[2], Franceli L Cibrian[3], Jazette Johnson[2], Hanna N Mofid[2], Kimberley D Lakes[4], Gillian R Hayes[2]
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OBJECTIVE

The aim of Mazi Umntanakho was to co-design and pilot a digital tool for community-based workers that could assess the social emotional development and mental health of young children (3-5 years) in vulnerable South African (SA) settings. This tool would provide feedback on assessment results and contextually relevant resources for caregivers of young children.

METHODS

A multi-disciplinary team with local and technical expertise was established, and community-based organisations (CBOs) working in early childhood development in Western Cape and KwaZulu-Natal provinces were engaged as partners for the project. The co-design process entailed: 1) focus groups to understand CBO priorities and context, and present initial tool ideas; 2) development of tool prototype; 3) focus groups to obtain feedback on prototype; 4) finalising of tool for piloting; 5) training of CBOs; 6) piloting of the tool; 7) pilot follow-up; and 8) evaluation.

RESULTS

CBOs regarded the social emotional development and mental health of young children as important topics to address in their communities. However, they highlighted the stigmatisation of challenges in these developmental areas, as well as the serious lack of accessible services for children with developmental or mental health challenges. The proposed assessments of these developmental outcomes were acceptable to the CBOs, and they agreed that WhatsApp was the best digital platform for the tool given the resource challenges in their context.

CONCLUSION

Mazi Umntanakho responds to the need to build capacity amongst caregivers and community-based workers to promote social emotional development and mental health of young children in vulnerable settings.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 35

ATTENTION CONTROL IN CHILDREN WITH AND WITHOUT A DIAGNOSIS OF AUTISM SPECTRUM DISORDER: RESULTS FROM A COMMUNITY-BASED PROJECT IN INDIA

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BACKGROUND

Visual attention develops across childhood; alterations in its development have been suggested in Autism Spectrum Disorder (ASD). The antisaccade task has been used to measure attention control using eye-tracking technology, offering an advantage due to its availability of low-cost, portable devices, and providing objective cognitive markers. However, most studies have focused on lab-based research in high-income countries- we need to expand research to investigate abilities in children beyond these limited settings.

OBJECTIVE

To assess attention control and learning using eye-tracking in pre-school children with and without an ASD diagnosis in a community setting in India.

METHODS

Eye-tracking was conducted with three groups of children in New Delhi (n=104; age 3-5 years): children meeting their developmental milestones (NT), with a diagnosis of ASD, and a diagnosis of Intellectual Disability (ID). Attention control and learning eye-tracking markers were calculated offline. Generalized Estimating Equation (GEE) analysed data.

RESULTS

Clinical groups (ASD, ID) demonstrated reduced learning compared to the NT group across initial blocks of the task. However, across the whole task, the ASD and ID group continued to learn at an increased rate than that of the NT group.

CONCLUSION

This study investigated the development of attention control and demonstrated the feasibility of obtaining objective markers using eye-tracking technology in pre-school children in a community LMIC setting. Results suggest that clinical groups may have a reduced rate of attentional learning in the shorter term, but the learning process continues for a longer time than in children meeting their developmental milestones.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 36

CLINICAL PRACTICE GUIDELINES ON SCREENING FOR CONGENITAL AND DEVELOPMENTAL DISORDERS

Kathryn Baltazar-Braganza[1,2], Mary Ann Abacan[3], Ian Theodore Cabaluna[3], Isabella Ocampo[3]

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Congenital and developmental disorders should be detected early to avoid complications such as disability and death. The steering committee, comprised of clinical geneticists, developmental pediatricians, and experts on family and community medicine and ambulatory pediatrics, set the objective and formulated clinical questions in consultation with stakeholders. There was a total of 15 priority questions that covered various disorders including some inborn errors of metabolism, critical congenital heart disease, developmental delay, learning disabilities, and autism. Evidence review experts reviewed clinical practice guidelines, appraised and summarized the evidence, and made draft recommendations. These were presented to the consensus panel comprised of multisectoral representatives. Prior to publication, an external review process was undertaken. This clinical practice guideline systematically synthesizes evidence to address screening for congenital and developmental disorders among apparently healthy neonates and children. The CPG provides twenty recommendations on fifteen prioritized questions in the screening for certain congenital and developmental disorders. Among the recommendations, the following are related to developmental disorders: (1) Among asymptomatic, apparently healthy children whose mothers were anemic, there is insufficient evidence to recommend the screening of developmental delay (low certainty of evidence). (2) Among asymptomatic, apparently healthy children, we recommend screening of autism spectrum disorder between the ages 18 to 24 months using the M-CHAT R/F (strong recommendation, moderate certainty of evidence). (3) Among asymptomatic, apparently healthy children, there is insufficient evidence to recommend for or against the screening of specific learning disorders (reading disability) in the primary health care setting (very low certainty of evidence).

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 38

EFFECTS OF VITAMIN D SUPPLEMENTATION ON SYMPTOMATOLOGY OF CHILDREN WITH AUTISM SPECTRUM DISORDER USING THE ABERRANT BEHAVIOR CHECKLIST: A META-ANALYSIS

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University of Santo Tomas Hospital, Manila, Philippines

OBJECTIVE

The overall intent of this study is to determine the efficacy of vitamin D supplementation on symptom improvement of children with autism spectrum disorder.

METHODS

This study conducted a literature search and review according to the search strategy. Results were analyzed by two investigators independently and all studies eligible for inclusion were obtained. Using the Revised Cochrane risk-of-bias tool for randomized trials, full-text studies were independently evaluated for risk of bias. The Review Manager 5.4.1 software of Cochrane Collaboration was used for the meta-analysis. Data type and outcome variable were continuous. In comparing the two groups, the statistical method is inverse variance, while the mean difference was calculated for the results. Results were reported with a level of significance at 95% confidence interval. Analysis method on whether fixed effects or random effects was utilized, heterogeneity test was done via I^2 and chi square test.

RESULTS

Results showed that I^2 and chi square tests for all ABC subscales (irritability, social withdrawal, stereotypic behsavior, hyperactivity, and inappropriate speech) imply that heterogeneity does not exist, hence fixed effects model was preferred. P value ranging from 0.11 to 0.74 indicates that pooled mean differences were not significant. Forest plot also suggests that there were no significant differences from study groups. However, pooled mean differences still implies that mean ABC subscales of experimental group is lower than control.

CONCLUSION

Generally, among subscales of available outcome assessment tools, the different Vitamin D treatment groups had improved and higher scores than those in the placebo group.

TOPIC CATEGORY

1b Intervention/Medical

Abstract ID Number: 41

POWER THROUGH PARTICIPATION: PUTTING CAREGIVERS OF CHILDREN WITH AUTISM SPECTRUM DISORDER IN THE DRIVER'S SEAT OF INTERVENTION

Natalie Davis, Tiffany Fairbairn
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OBJECTIVE

To initiate a parent workshop in collaboration with the caregivers to create a space for support networks; to provide information on ASD and improve understanding of the impact on communication, behaviour, social interaction, and the sensory system and to reignite the caregivers confidence and implement the knowledge and skills that they gain from the workshop within the home environment, on a daily basis.

METHODS

A caregiver questionnaire was established by the MDT with the focus on the wants and needs of caregivers of children diagnosed with ASD. The feedback was used to create a holistic and flexible parent workshop.

RESULTS

Parents reported that there are many benefits to meeting other families on a similar journey, through the workshop and that it facilitated acceptance of their child’s diagnosis. Parents’ understanding of ASD, development and the importance of early intervention is supported through the program. Therapists acknowledged an increase in caregiver confidence, taking ownership of goals and an improved generalisation to the home setting after the workshop. The ASD parent workshop has improved the ‘buy-in’ of parents attending therapy at CHBAH, with the clinic maintaining an attendance rate of over 80% for face-to-face sessions.

CONCLUSION

This initiation allowed us to create holistic early childhood intervention services together, with families at the forefront of the team.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 43

EARLY LEARNINGS FROM IMPLEMENTATION OF A SCALABLE PROGRAM INCORPORATING ECD INTERVENTIONS (ASPIRE), TELANGANA, INDIA

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Sangath, Delhi, India

OBJECTIVE

India has the largest number of under five children at risk of not reaching their developmental potential emphasizing the urgency to deliver contextually adapted early childhood development (ECD) programs at scale. ASPIRE aims to develop and implement a digital intervention on responsive parenting for the first 1000 days of life. It is a universal intervention consisting of videos used by Anganwadi Teachers (AWTs) for counselling caregivers, primarily in group settings.

METHODS

Implementation science methods are being used to learn from the experience of 30 AWTs delivering the intervention since February 2022. As part of this a checklist was developed for detailed in-person observation of intervention delivery. The checklist consisting of 45 observation items is also used to give feedback to AWTs.

RESULTS

63% of the 221 sessions observed were one-to-group with majority (38%) sessions lasting 16-20 minutes. These were largely attended by mothers; participation of fathers (13%) and grandparents (15%) remained low. In 95% sessions AWTs were able use the relevant age-specific videos. Peer led discussions were encouraged in 63% and concerns of caregivers discussed in 72% sessions; however open-ended questions were asked in only 22% and demonstrations on parent-child interactions were done by AWTs in 20% sessions.

CONCLUSION

AWTs are able to use the videos in their counselling sessions however their communication style remains instructive and less demonstrative. Strategies are also required to engage other family members in such sessions. Integration of this intervention has shown significant acceptance among AWTs and communities and will provide learning for scaleup.

TOPIC CATEGORY
1a Intervention/Early Intervention Program

Abstract ID Number: 44

STRATEGIES TO IMPROVE RETENTION IN TRIALS OR COMPLEX INTERVENTIONS: EXPERIENCES FROM THE COMPASS TRIAL, INDIA

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OBJECTIVE

Longitudinal follow-up for trial evaluation over extended durations present challenges with participant engagement. The COVID19 pandemic has effected additional complexity to this and necessitates developing strategies to ensure optimal participant retention. COMPASS, an autism trial in India, has developed and successfully tested approaches that can be contextually adapted and applied in field research to minimise attrition.

METHODS

Participants hesitant to reengage for evaluations 9-15 months post randomization are contacted to schedule home visits at mutually convenient times. These visits aim to address concerns of families about trial participation, reiterating its benefits. Detailed participant specific case analysis is completed before home visits and team members are trained on empathetic listening and collective problem solving. Most visits are done in evening or weekends when key family decision-makers are available for consultation.

RESULTS

Visits have been completed for 35 participants of which 94% have reengaged with the trial. Major reasons for hesitation to participate were complex family schedules, randomisation to the control group and time commitment required to complete assessments array. Also, majority families felt comfortable to discuss experiences and share barriers; although these were at times beyond the project’s scope.

CONCLUSION

This participant specific engagement strategy builds trust and encourages families to continue in the trial. Complex trials need to plan for this in advance and build specific communication skill sets within team members so that participant attrition can be minimised especially for families of children with neurodevelopmental disorders who may require additional support to engage for extended periods.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 45

LOW-COST HOME-BASED INTERVENTION FOR AUTISTIC CHILDREN AWAITING TREATMENT IN THE PUBLIC HEALTH SYSTEM: 12-WEEK PROGRAM

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OBJECTIVE

Sometimes, after evaluation, child with development disorders, need to wait months, or even years, between the diagnosis and accessing appropriate treatment. Allied to the search for resolutive public policies, especially in low-income countries, auxiliary therapeutic strategies can contribute to children and their families. In this sense, the present project aimed at the creation and experimental implementation of a twelve-week therapeutic program, with activities to be implemented at home, by caregivers, in children diagnosed with autism spectrum disorder and whom are waiting for the therapeutic treatment in the public health system.

METHODS

A twelve-week therapeutic program was created with varied daily activities lasting fifteen minutes, to be implemented at home by caregivers of autistic children. In addition to the activities, kits were assembled with the necessary instruments, prioritizing common low-cost materials to be donated to families. Children are being evaluated by health professionals, before and after the application of the program. The whole kit cost less than ten dolares.

RESULTS

Ten children aged between 2 and 4 years, were included and one family gave up the following evalutions, but the other nine reported significant changes in child behavior throughout the program, which were sensibly perceived by the professionals involved in the study.

CONCLUSION

Parental guidance for home therapies may be a viable alternative for improving some functional and behavioral indicators in autistic children who are waiting for formal treatment in the public health system.

TOPIC CATEGORY

1c Intervention/Behavioral

Abstract ID Number: 46

MODEL ARENA OF DEVELOPMENT: MULTIPROFESSIONAL EVALUATION SIMULTANEOSUSLY OF CHILD WITH SUSPECTED DEVELOPMENT DELAY

Ricardo Sukiennik, Francisco Scornavacca, Leticia Pacheco Ribas, Renato Santos *Coelho, Monica Broilo, Filipe Geyer, Eliza Marques Mentz, Caren Luciane Bernardi*
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OBJECTIVE

Families of children with suspected developmental disorders need early care, accurate diagnosis and appropriate treatments. For this, it is fundamental to adopt a service dynamic involving different specialties in the field of health, aiming at training qualified health professionals. In this sense, the main objective of this study is to enable students and faculty to build interdisciplinary technical knowledge from the interaction in the care of families from a multidisciplinary model of simultaneous care.

METHODS

The actions involved in this project cover the direct multiprofessional and interdisciplinary care for the children and their families with simultaneous listening by the multiprofessional team, composed of a Developmental Pediatrician, Neurologist, Speech Therapist, Occupational Therapist, Nutritionist, Physiotherapist and possibly other professionals. During the same consultation, all professionals question the family and assess the child at the same time. After a discussion between the team and the students, the family receives feedback about their diagnostic and treatment impressions. All services are performed in the public health system.

RESULTS

Since the beginning of the project, more than twelve children have been assisted, receiving diagnostic impressions and recommendation to appropriate therapies. Both the team and the families reported the perception of complete and robust care and demonstrated confidence and satisfaction with the simultaneous care model. Students mentioned a unique learning opportunity in field practice.

CONCLUSION

This service model implemented is reinforced for all those involved, as it promotes a more complete, fast, cheapier and resolute service, training professionals prepared for social demands, especially in low-income countries.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 47 - Removed

Abstract ID Number: 50

COMPARISON OF A COMMUNITY CHILD DEVELOPMENT CHECKLIST TO THE INFANT NEUROLOGICAL INTERNATIONAL BATTERY (INFANIB) IN MONITORING KANGAROO MOTHER CARE INFANTS

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OBJECTIVE

The study aimed to compare the results of the Early Childhood Care and Development Checklist (ECCD), a tool used by rural health midwives and other community workers in the Philippines, with the INFANIB, an internationally-used clinical tool for monitoring the development of preterm infants in hospitals.

METHODS

The researchers conducted a cross-sectional analytical study involving 54 preterm Kangaroo Mother Care (KMC) Enrollees aged 0 to 18 months at the Northern Mindanao Medical Center – Well baby Clinic.

RESULTS

The results showed that two out of the 54 patients assessed using the ECCD checklist were identified as having risk for developmental delay, resulting in a prevalence rate of 3.7%. The same patients who failed the ECCD checklist also failed the INFANIB screening. Thus, the ECCD checklist is comparable with INFANIB having a sensitivity, specificity, Positive Predictive Value, and Negative Predictive Value of 100%. A significant difference between the completion times of ECCD and INFANIB was noted. ECCD has a longer completion time with a mean of 5 minutes 18 seconds compared to INFANIB with a mean of 1 minute 57 seconds.

CONCLUSION

Despite the difference in completion times, the study showed that ECCD checklist is comparable to INFANIB in identifying preterm infants at risk for developmental delay having a high sensitivity, specificity, Positive Predictive Value, and Negative Predictive Value. By using ECCD in a community setting, community workers can proactively refer preterm children at risk for delay for early intervention and management.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 51

CHILD DEVELOPMENT RESEARCH-PRACTICE PARTNERSHIP – EXAMPLE OF PARENTING THE FUTURE IN RURAL CHINA

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Early relational health contributes to infant/toddler development, overall child and family wellbeing. Children living in poverty often suffer from stress, deficient early stimulation and learning leaving them on a path of developmental delay.

Parenting the Future (PTF) is a center-based/home-visiting project for at-risk children 0–3, primary caregivers in rural counties in China, guides caregivers in developing skills/behaviors to foster children's attachment and healthy development, enhances children's outcome and school readiness.

A parent/caregiver learns and adopts simple, effective actions/skills that improve children's responsiveness, development, interactions, fosters nurturing/responsive parenting skills and "practice-learning" training in child development.

PTF is a county government-led public–private partnership with research/technical input from academia/Hupan Modou Foundation. It is unique and distinctive in that M&E/quality control is integral to project design, iterative implementation. Timely data obtained from researchers' ongoing M&E and impact studies show that combining home visits and center groups is effective and cost-efficient in rural counties.

A longitudinal evaluation provided basis for replication and scale up. The PTF project was first piloted and evaluated in four randomized controlled trials (RCTs) beginning in 2013. By 2019, follow up (using WPPSI-IV and SDQ) of children now 4-6 years of age, showed sustained and significant improvements in cognitive, language, socio-emotional development. Moreover, parents who participated in the program had lower prevalence of depression as compared to non-participant caregivers.

CONCLUSION

The results of the longitudinal evaluation exemplifies importance of research-practice partnership to strengthen early child development.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 52

CURRENT LANDSCAPE OF DIGITAL COGNITIVE ASSESSMENT TOOLS FOR CHILDREN IN LOW RESOURCE SETTINGS

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OBJECTIVE

Cognitive development in early childhood predicts mental health across the life-course. Scalable measures are essential for early identification of children in low resource settings who are faltering in their development and facilitate timely interventions. This review describes the landscape of digital cognitive assessment tools for children in low resource settings.

METHODS

Tablet-based cognitive assessment tools were identified by performing a literature search for publications from January 2000 to September 2021 and through interviews with international experts. Search terms included “cognition”, “executive function,” “pediatrics,” “tablet-based assessments,” and “children.” Inclusion criteria required that the assessment had to measure cognition in children under 18 years of age and have been administered on tablet computers in low-resourced settings.

RESULTS

Sixteen tools were identified, most of which were developed in high-income settings in English, before being translated into other languages and tested in low-resource settings. Most tools contain tests that evaluate specific domains of cognition, often focusing on memory, attention, visual-spatial, and inhibition tasks. Important considerations identified when using tablet-based tools in low-resourced settings to measure cognition in childhood include (a) ease of using the technology; (b) validity in varying cultural contexts; (c) ease of adaptability for different settings; (d) overcoming workforce challenges; and (e) accessibility.

CONCLUSION

Tablet-based assessments are an emerging and promising method of assessing cognition in young children. Further awareness and dissemination of validated tablet-based assessments will be beneficial to researchers and clinicians in low-resourced settings.

TOPIC CATEGORY

6 Use of technology in diagnosis

Abstract ID Number: 54 - Removed

Abstract ID Number: 57

NEURODEVELOPMENTAL OUTCOMES AT AGE 6 MONTHS IN HIGH-RISK TERM NEONATES ADMITTED INTO 2 SPECIALIST HOSPITALS IN ABAKALIKI, NIGERIA

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OBJECTIVE

This study determined the neurodevelopmental outcomes at six months in high-risk newborns managed at the neonatal units of the Federal Teaching and Mile Four Hospitals, Abakaliki, the prevalence of and the risk factors for neurodevelopmental delay at age six months.

METHODS

It was a prospective cohort study of 75 high-risk newborns and 75 apparently healthy newborns from the newborn units and the immunisation clinics, respectively, of two specialist hospitals in Abakaliki. Developmental assessments using the Ages and Stages Questionnaire were performed at 10 weeks, 14 weeks and six months.

RESULTS

The prevalence of developmental delay in the high-risk newborns at 10 weeks, 14 weeks and six months were 82.7%, 76.0% and 52.0% respectively. Among the apparently healthy controls, 40.0%, 32.0% and 5.3% showed features of developmental delay at 10 weeks, 14 weeks and six months respectively ($p<0.001$). The most frequently affected domain of development among the high-risk group at six months was the cognitive skill domain.

Out-of-hospital delivery, severe perinatal asphyxia, neonatal sepsis, presence of development delay at 10 and 14 weeks were found to be risk factors for delayed development at six months. On logistic regression analysis, delivery outside the hospital and presence of developmental delay at 10 weeks remained predictors of poor neurodevelopmental outcomes at six months.

CONCLUSION

Delivery of all babies by skilled health workers, follow up developmental assessments for high-risk newborns and the institution of routine developmental assessment as a component of routine infant welfare services will significantly reduce the burden of developmental disability globally.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 60

CAREGIVER SATISFACTION WITH THE USE OF TELEMEDICINE IN THE NEURODEVELOPMENTAL EVALUATION OF CHILDRENAT THE PHILIPPINE CHILDREN’S MEDICAL CENTER

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OBJECTIVE

This study aims to assess caregiver satisfaction with the use of telemedicine in the evaluation of children referred for neurodevelopmental evaluation at the Neurodevelopmental Pediatrics Clinic.

METHODS

A prospective cross-sectional study was conducted on caregivers of pediatric patients aged 3 months to 18 years and 11 months old for neurodevelopmental evaluation. A questionnaire to determine the demographic and clinical data and Parent/Caregiver-Reported Satisfaction Form were administered via email, Facebook messenger or phone call.

RESULTS

Seventy-three caregivers completed the questionnaire. Most (95.9%) were mothers, 47.9% were college graduates with one parent working and 43% have an income of 10,000-20,000. Almost half (47.9%) of the children they care for were ages 3-months to 2-year 11-months, predominantly males, with 35.6% diagnosed with Autism Spectrum Disorder, and 69.9% were new patients. Caregivers were very highly satisfied with telemedicine in all domains (technical functioning, comfort and perceived privacy, access to care and overall satisfaction) as it obtained a mean of 4.51 and median of 5.00. There was no significant difference in the responses based on the age of the child and type of visit.

CONCLUSION

Caregivers showed very high level of satisfaction with the use of telemedicine in the neurodevelopmental evaluation of children and holds a significant promise for its use both within the context of the pandemic and beyond.

TOPIC CATEGORY
3 Neurodevelopmental disabilities

Abstract ID Number: 61

ASSESSING THE ACCEPTABILITY AND FEASIBILITY OF THE SCALABLE TRANSDIAGNOSTIC EARLY ASSESSMENT OF MENTAL HEALTH (STREAM) IN INDIA AND MALAWI

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BACKGROUND

The STREAM consortium has developed a mobile platform for use by non-specialist workers (NSWs) to assess neurocognitive development in children aged 0-6 years in low-resource settings. The STREAM platform is a combination of three existing tools; the Malawi Developmental Assessment Tool (MDAT), Screening Tool for Autism Risk using Technology (START), and Developmental Assessment on an E-Platform (DEEP). The STREAM platform seeks to provide an easy-to-use, low-cost, and culturally appropriate alternative to existing developmental assessment tools.

OBJECTIVE

To assess the acceptability and feasibility of the STREAM app in community settings in Malawi and India.

METHODS

The study will recruit 4000 participants (2000 in each site). 3700 children will be recruited from local community centers (community sample). 300 children who are at high risk of, or diagnosed with, neurodevelopmental disorders will be selected from clinical centers including hospitals (enriched sample). All children will be assessed using the STREAM platform.

RESULTS

As of 10th July, we have assessed 2596 children (1283 females) from the community sample and 86 children (32 females) from the enriched sample. Most children were able to complete all tasks. On average 87% of the enrolled participants were satisfied with the assessment, with very few having concerns about the procedure.

CONCLUSION

The STREAM platform seems to be an acceptable and feasible way to assess children’s neurocognitive development in Malawi and India by NSWs. By 2024, this study will provide normative data on key neurocognitive domains and explore the impact of risk factors on development.

TOPIC CATEGORY

6 Use of technology in diagnosis

Abstract ID Number: 64

COMPARATİVE ANALYSIS OF INITIAL NEURO-DEVELOPMENTAL AND BEHAVIORAL PRESENTATION OF CHILDREN ATTENDING AN URBAN DEVELOPMENT CLINIC IN INDIA

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OBJECTIVE

Children with neuro-developmental and behavioral problems come with various issues presenting in assorted combinations, making every child unique. We need to stratify the features to diagnose and plan a management program. In this observational study we have analyzed the pattern of clinical presentations in children attending our clinic over the last one year.

METHODS

This was a retrospective observational analytical study, based on patient data sheets for 162 children. The demographic and clinical profile, as available on initial presentation were tabulated and the data analyzed using Microsoft Excel 2016.

RESULTS

Majority of children (63%) presented with poor communication and speech problems. 48.8% fell within the autism spectrum, while 22.8% had speech delay with/ without communication skills but lacking other features of ASD. A lot of overlap of clinical findings were noted. Children with ASD presented mostly within 2-4 years of age. 20.05% cases of ASD had comorbidities, including seizures (4), gross motor delay, intellectual disability (3), fine motor impairment, migraine, and right sided hemiparesis. Other system involvement included myopathy, ITP, VSD and post-Covid illness. Other problems detected were ADHD, behavioral problems, GDD/ID, cerebral palsy, Downs syndrome, DEE and Neurodegenerative disorders with developmental delays.

CONCLUSION

Neuro-developmental disorders present with a constellation of symptoms in bizarre combinations with lot of overlap, which can make a clear-cut diagnosis difficult. It is most important to understand the child from his/her standpoint and analyze the problems, not just to label a diagnosis but to plan a program to address the identified traits.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 67 - Removed

Abstract ID Number: 69

THE (EAR)LY DOORWAY TO THE BRAIN: LISTENING AND SPOKEN LANGUAGE DEVELOPMENT

Barbra Killet (presenting), Sarah Lange
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OBJECTIVE

- Reinforce the importance of early hearing detection and intervention.
- Explore communication mode options for deaf children.
- Define neural development of hearing, speech and language.

METHODS

- Evaluate the listening and spoken language (LSL) program at Carel du Toit (CdT).
- Share international First Voice Sound Outcomes report.

RESULTS

Neural pathways of audition, developing pre-birth- 3 yrs, determine the success of a child's listening and spoken language ability. Speech and language development relies on hearing directed and incidental speech. Children with hearing loss, of any degree, are at risk for speech and language delays. The effects of hearing loss are not limited to speech- literacy, learning and social skills are at risk. The later the diagnosis of hearing loss, the worse the outcome for speech and language. Newborn hearing screening has radically changed the landscape for deaf infants. Early detection leads to early diagnosis and early intervention which results in best possible outcomes for the deaf and hard of hearing. The LSL approach involves caregiver empowerment and training.

CONCLUSION

Pediatric audiology and spoken language are the focus of the CdT Centre. It comprises of an early intervention wing, a mainstream school for children late diagnosed or with additional needs and a Trust who financially support the work of the program. International partnerships with First Voice have driven change at CdT. The annual sound outcomes report provides evidence based outcomes on which to base the LSL program. The CdT centre strives for excellence in fitting hearing technology, LSL early intervention and parent guidance.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 70

CLINICAL DATA AND FUNCTIONAL CLASSIFICATION FROM A SUBSET OF CHILDREN WITH CONGENITAL ZIKA SYNDROME- A CROSS SECTIONAL STUDY

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BACKGROUND

Zika virus is an infectious agent associated with severe consequences in infants exposed to the virus during the gestational period. Eight years after the epidemic in Brazil, families of infants born with congenital Zika syndrome continue to struggle with daily challenges concerning their overall health.

OBJECTIVE

This study aims to describe the clinical and functional presentation in a subset of children with congenital Zika infection.

METHODS

A cross-sectional study was conducted on a consecutive series of children with congenital Zika syndrome, who have been followed in a referral multicentric rehabilitation network in Brazil for the last eight years.

RESULTS

Sixty children were included in this study. The mean age at admission was ± 4 months, with 29 (48.30%) males and 51 (51.70%) females. All the participants have a clinical diagnosis of cerebral palsy. Functional classification revealed a predominance of children classified at level V in terms of the Gross Motor Function Classification System (86.68%), Manual Ability Classification System (85.00%), Communication Functional Classification System (68.32%), Eating and Drinking Ability Classification System (40.01%), and level IV for the Visual Function Classification System (38.33%). Clinical comorbidities include epilepsy in 54 (90.00%) children, dysphagia in 41 children (68.33%), and 23 classified with malnourishment (38.3%); 19 (31.67%) of these children are being tube-fed.

CONCLUSION

Congenital Zika syndrome is associated with severe functional impairments and clinical comorbidities, resulting in a direct and substantial negative impact on child development, overall health, and quality of life.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 71

DEVELOPMENTAL OUTCOMES IN A COHORT OF INFANTS BORN WITH CONGENITAL ZIKA SYNDROME

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BACKGROUND

Early child development is a progressive biopsychosocial stage of life that impacts nations' social, educational, and health outcomes. A few years after the Zika epidemic, families of children born with congenital Zika syndrome (CZS) continue to face uncertainties when it comes to the development of their children and lack of adequate resources.

OBJECTIVE

This study aims to analyze the developmental trajectory of a subset of children born with congenital Zika syndrome (CZS) in their first 24 months of life.

METHODS

A prospective cohort study was conducted on infants born with CZS. The participants were assessed with the Bayley III Scales at 12 and 24 months of age.

RESULTS

Thirty-five infants born with CZS were evaluated for their development at 12 and 24 months of age. At 12 months the mean composite scores on the Bayley cognitive, communication and motor scores were respectively 57.71 (SD 7.11), 57.94 (SD 14.34) and 49.26 (7.20). At 24 months, composite scores were respectively 57.43 (SD 7.11), 53.60 (SD 12.29) and 48.83 (7.76).

CONCLUSION

Zika virus congenital infection is a significant risk factor for functional impairments in all developmental domains. It directly and substantially affects early child development, leading to negative impacts. There remains a substantial demand for healthcare systems and community-based programs to provide long-term supportive care for children with CZS and their families.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 72

EVALUATION OF THE PARTICULARS OF SCREEN TIME AND DIGITAL TECHNOLOGY USE: INFANTS AND TODDLERS

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OBJECTIVE

The purpose of the study was to evaluate the most common causes and circumstances of excessive exposure of babies and toddlers to technology.

METHODS

The survey was carried out between 2018 and 2019. The study group consisted of 138 children aged 18-36 months. The base sub-group included 72 children under the age of 36 months with suspected delay in speech development and/or social interaction problems, and 66 children of a similar age (comparison group) constituted "children with tipical development". The following instruments were used in the study: Developmental Assessment of Young Children, Second Edition, DAYC, Pediatric Evaluation of Disability Inventory, PEDI-CAT, M-CHAT, Preschool Language Scales, Fifth Edition, PLS™-5. The obtained data w subjected to analysis, including the application of the SPSS statistical program.

RESULTS

It was found that 77.8% of the children, who presented signs of communication disorder, social interaction and behavioral disorders at the time of the application, spent more than 3 hours a day in front of the screens; around 3 hours – 13.9%, around 2 hours – 1.4%, around 1 hour – 5.6% and under 30 min – 1.4%. In the comparison group, only 10.6% of the children were left in front of the screens for about 3 hours a day; around 3 hours – 4.5%, around 2 hours – 19.6%, around 1 hour – 39.4% and under 30 min – 27.2%.

CONCLUSION

Excessive exposure of children to technology contributes to the development of communication disorders, social interaction and behavior disorders

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 75

INCLUSIVE PLAY: A PROJECT REPORTING ON THE BENEFITS OF EARLY LEARNING FOR ALL CHILDREN

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OBJECTIVE

Inclusive play and learning are essential for all children, including those with disabilities, in alignment with Education White Paper 6. To implement this policy effectively, communities, teachers, and parents must understand the importance of inclusion in early childhood development learning activities. This presentation outlines an inclusive play program at ECD centers, aimed at raising awareness among practitioners about the significance of play and learning for all children.

METHODS

A hybrid model was applied where the theoretical training was facilitated remotely and practical sessions happened at ECD centers, including children with disabilities. This provided practitioners the opportunity to apply their knowledge gained. The program presentation is informed by the SSE’s impact framework based on Bloom’s taxonomy of learning, focusing on knowledge and application.

RESULTS

The project provided inclusive play theoretical and practical training at 11 ECD centers benefitting 38 participants. The program has effectively shifted limiting beliefs about the possibility of play and learning for children with disabilities, motivating teachers to include all children in activities, showcasing that this practice model could effectively facilitate inclusive play for all children.

CONCLUSION

To implement policy, all children must have the opportunity to be included in play and learning opportunities. Key lessons can be drawn from this programme to facilitate inclusion for all children. Shifting limiting perceptions about play and learning is a foundational component of inclusive education and could assist in building confidence to work with children with specific/multiple impairments.

TOPIC CATEGORY
1a Intervention/Early Intervention Program

Abstract ID Number: 77

AWARENESS, PRACTICES AND CHALLENGES OF PAEDIATRICIANS IN PROVIDING 'NURTURING CARE FOR EARLY CHILDHOOD DEVELOPMENT' TO INDIAN CHILDREN: A MIXED-METHOD STUDY

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OBJECTIVE To determine the knowledge, attitudes, and practices (KAP) of Indian pediatricians in providing Nurturing Care (NC) directed healthcare to children.

METHODS A mixed-method study was conducted by the Indian Academy of Pediatrics over 18 months. An anonymized Google survey form was developed by experts for the quantitative phase and disseminated via social platforms. It comprised of multiple choice questions testing knowledge (8), attitudes (4), and practices (8) regarding NC. Only pediatricians practicing in India were included (sample size 196 per zone). Incomplete forms were excluded. Appropriate responses ≥ 75% were good, 50 – 74% satisfactory, and < 50% unsatisfactory. The outcome measure was proportion of acceptable (satisfactory and good) responses. The qualitative phase consisted of one focus group discussion and ≥ 3 in-depth interviews conducted virtually per zone, till saturation was attained. Analysis included generation of codes and themes.

RESULTS We reviewed 996 forms. Acceptable knowledge, attitudes and practice was observed in 25% (factors influencing ECD and safety), 100% (pediatrician influence, parental involvement, feasibility and barriers) and 37.5% (growth monitoring, dietary and parental counselling), respectively. Qualitative analysis revealed poor knowledge, and maximal practice in vaccination and nutritional counseling. Time restraints was the greatest barrier. Feasibility of incorporating NC in practice was affirmed by 701 (70.4%), negated by 16 (1.6%), while 248 (24.9%) were unsure.

CONCLUSION The knowledge and practice of NC is sub-optimal in Indian pediatricians, though there is universal positivity towards inclusion in practice. There is a strong felt need for their capacity building by an evidence-based training program.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 78 - Removed

Abstract ID Number: 79

AN EXPLORATION OF OCCUPATIONAL THERAPY PRACTICES FOR CHILDREN WITH CEREBRAL PALSY ACCESSING PUBLIC HEALTHCARE SETTINGS IN GAUTENG, SOUTH AFRICA

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OBJECTIVE

The study explored the preferred occupational therapy (OT) practices in the management of children with cerebral palsy (CP) in public healthcare settings in Gauteng.

METHODS

A qualitative explorative design was used. Semi-structured, online interviews were conducted with OTs employed in the public healthcare system in Gauteng to explore their preferred assessment and intervention methods used in the management of children with CP. Data were analysed using thematic analysis.

RESULTS

Participants viewed collaboration, early intervention and application of selected theoretical frames of reference as valuable in the management of children with CP. Participants believed that early identification leads to early intervention, which results in better outcomes for children with CP. However, this depends on therapists trained to observe developmental delays and developmental behaviours in infants. Collaboration, referral, and screening are some assessment key points therapists identified. Most of the OT's believed that postgraduate training in neurodevelopmental therapy (NDT) contributes to the proper management of CP children. Other interventions identified were home programmes, group therapy, and parent training. The seamless transition of these children from the Department of Health to the Department of Education raised concerns.

CONCLUSION

The study’s findings may contribute to improving OT practice by informing future development of curriculums in the management of children with CP better to consider the context of South African healthcare settings. The findings may ultimately enhance and optimize the delivery of OT practices to children with CP.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 82 - Removed

Abstract ID Number: 84

REPRESENTING A MODEL FOR THE IMPROVEMENT OF SOCIO-EDUCATIONAL INTERACTIONS OF IRANIAN CHILDREN WITH ASD

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OBJECTIVE

Autism is a common condition among children worldwide. Those under five years of age receive mental, occupational, and group therapy to reach a desirable point in their treatment; however, the absence of a suitable setting for social interaction in Iranian preschools could impede additional progress. This research was developed to illustrate a prototype for resolving this issue.

METHODS

Ten boys diagnosed with level 1,2 ASD according to DSM-V who underwent occupational and speech therapy were placed among children in a normal kindergarten. Under the supervision of an experienced psychologist, in a separate transitional environment, these children were trained for a period of 4-9 months to improve their social skills. Gradually they were introduced to the environment of break times and then to other children's classes. Children were assessed using the ATEC questionnaire before and after interventions (proposed model).

RESULTS

The mean age of our participants was 4.90±0.87 years. There was a significant improvement (53.1%) in the score gained by children after applied interventions, compared to the beginning of the trial (Pre-test score: 62.50±18.70, Post-test score: 33.20±12.38, P-value=0.005).

CONCLUSION

Based on our results, this model was effective in an impressive improvement of socio-educational skills of children with ASD. This could help them interact better with the environment and other children at normal educational centers. The generalization of this model and the provision of a suitable atmosphere among preschool centers for the training of socio-educational skills in children with developmental disorders is recommended in Iran and other LMICs.

TOPIC CATEGORY

1j Intervention/Inclusion in school and community

Abstract ID Number: 85

A CAREGIVER -CHILD PROGRAM IN A LOW RESOURCE SETTING: A REFLECTION ON PRACTICE

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OBJECTIVE

To describe a caregiver-child program developed by a speech language therapist working at the largest state hospital in South Africa.

METHODS

An autoethnographic approach will be used as it explicitly links concepts from the literature to the narrated personal experience.

RESULTS

The caregiver-child program consists of groups with caregivers and children and workshops with caregivers and various other people who contribute to the child's development and learning. Children under 3 with communication delay as a result of any disability or delay are enrolled into the groups. They attend once a week over a period of 5 weeks. Each session focuses on different early communication techniques, the caregiver child interaction is video recorded. This recording is used in a group discussion with caregivers to identify areas of growth. The workshops presented by various facilitators cover different topics: Communication, Early Literacy, Building Self-Esteem, Play, Having fun with movement, Positive parenting and Healthy Eating. These are open to caregivers and families of children under 6 years. Videos and demonstrations are used to highlight areas discussed in the workshop to allow caregivers further opportunities to consolidate the new knowledge and skills. The practical aspect of the workshops provides an opportunity to apply new skills.

CONCLUSION

Caregivers have reported various changes with their children as a result of the program. From the group sessions, they learnt specific facilitation techniques and from the workshops, they gained insight into development. The program is continuously evolving according to the expressed needs and circumstances of the families.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 88 - Removed

Abstract ID Number: 89

SHAPING THE CREATORS OF TOMORROW: THE OUR KIDS' HEALTH DIGITAL YOUTH FELLOWSHIP

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OBJECTIVE

With the rise of social media as a method for knowledge sharing, youth are consuming and creating a massive amount of unverified health information on social media. Health promoters who are peers or trusted messengers have a potent impact on the uptake of health information in marginalized communities. Our objective was to create a Digital Health Youth Fellowship to teach youth how to 1) create evidence-based social media health content, 2) build capacity for media literacy, and 3) ensure content is culturally relevant and represents the needs and experiences of diverse cultural-linguistic communities.

METHODS

We designed a program for youth to participate in the creation of evidence-based and culturally relevant health content that prioritizes the unique health challenges faced by different cultural-linguistic contexts. We recruited youth (15- and 24-year-olds) from our online social media channels spanning our 10 cultural-linguistic communities: 1) Arabic, 2) Black-African-Caribbean, 3) Cantonese, 5) Filipino/Tagalog, 6) Hispanic/Latinx, 7) Inuit/Inuktitut 8) Punjabi, 9) Tamil, and 10) Ukrainian.

RESULTS

With over 75 applicants from numerous countries, we have selected a cohort of 20 applicants to complete our program. Our 6-month curriculum includes topics such as an Introduction to Evidence-Based Content, Social Media 101, Science and Health Communication, and Pressing Issues in Health Literacy.

CONCLUSION

Youth are interested in creating online content that is culturally relevant and evidence-based. This program may be pivotal in ensuring the next generation develops media literacy for the unique and ever-changing landscape of information sharing via social media and online communities.

TOPIC CATEGORY

1k Intervention/Others

Abstract ID Number: 90 - Removed

Abstract ID Number: 91 - removed

Abstract ID Number: 92

CHARACTERISTICS OF EPILEPSY IN CHILDREN WITH CEREBRAL PALSY SEEN AT TERTIARY PAEDIATRIC HOSPITAL IN CAPE TOWN SOUTH AFRICA

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OBJECTIVE

To describe patterns of epilepsies in children with Cerebral Palsy (CP) seen at tertiary pediatric hospital in Cape Town, South Africa.

METHODS

This study was a retrospective review. All children who attended the CP clinic at the Red Cross Memorial War Children's Hospital (RCWMCH) in the year 2021 (according to the Surveillance of Cerebral Palsy in Europe (SCPE), clinical classification) were eligible for inclusion. Epilepsy clinical phenotype, electroencephalogram (EEG) semiology and management were reported. Data was captured into REDCap and analyzed for descriptive statistics.

RESULTS

Three hundred and seventy-four children were included in this analysis. Mean age was 10.2 years with 50.2% being males. Seventy-eight percent had bilateral CP with 70.2 % having spasticity as the motor disorder. In terms of Gross Motor Function Classification System (GMFCS), 44.7% and 10.9% were classified as V and IV respectively. Of the total sample, 51.9 % had a seizure outside the neonatal period with 93.3% of these children being diagnosed with epilepsy. Generalized epilepsies were reported in 76% of those with epilepsy, with 80% having a defined structural etiology and 99% abnormal EEG. In respect to impact of epilepsy on cognitive functioning 84.7% had Developmental Encephalopathy (DE). Drug resistant epilepsy was noted in 13.9%.

CONCLUSION

Epilepsy is a common comorbidity in children with CP. Increased awareness of drug resistant and DE categorization of epilepsy for purposes of anti-seizure medication rationalization to improving quality of life and minimizing/avoidance of drug related side effects is needed, in the management of these children.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 95 - Removed

Abstract ID Number: 96

REACHING ZANZIBAR'S CHILDREN WITH DISABILITIES: A DIGITALLY-SUPPORTED COMMUNITY HEALTH INITIATIVE

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OBJECTIVE

Children with disabilities are among the most marginalized groups in Zanzibar, experiencing significant barriers in accessing their right to health. Therefore, tackling the challenges, including limited availability of specialized health care services, delayed early identification, and stigma associated with having a disability, becomes crucial.

METHODS

Community health volunteers are well positioned to address the issue and bridge the gap between marginalized communities and overburdened health care systems. Providing disability-focused ECD-services following a PDSA (Plan-Do-Study-Act)-approach allows supported digitally community health volunteers to provide early and high-quality screening, identification, referral, and follow-up services for pregnant women.

RESULTS

Following an evaluation and small-scale testing, the plan is to conduct a national training including a disability component to approximately 2300 community health volunteers to strengthen their knowledge and skills on disability. Structured observations during the testing period showed that all CHVs were interested and appreciated the training. Furthermore, improvements in the areas of confidence, skills, and knowledge of CHVs as well as their ability to visit and interact with caregivers and children with disabilities were recorded. Also, caregivers of children with disabilities reported gratitude and an increased knowledge and ability to take care of their children.

CONCLUSION

With community health volunteers being interested and in a good position to deliver services to children with disabilities and create awareness to their caregivers, they can play a crucial role towards achieving Universal Health Coverage by strengthening primary health care through improving health outcomes for children with disabilities.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 98

IMPACT OF COVID-19 PANDEMIC ON CHILDREN WITH NEURODEVELOPMENTAL DISABILITIES AND THEIR FAMILIES SEEN IN A TERTIARY HOSPITAL IN QUEZON CITY

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OBJECTIVE

This aims to investigate the impact of the COVID-19 pandemic on the physical health and social-emotional well-being of children with neurodevelopmental disabilities (NDD), their parental well-being and their service use, access and satisfaction through a self-report survey.

METHODS

A cross-sectional study was conducted and a questionnaire was administered in person or via email to determine the sociodemographic profile and impact on the child's well-being, parental well-being, and service use, access, and satisfaction.

RESULTS

One hundred caregivers completed the questionnaire. Most of the children with NDD were within the 6 to 9-year-old age group (49%) and were male (71%). The overall rating on the child's well-being (mean: 2.82, median: 3.00) and the parental well-being (mean: 2.87, median:3.0) indicated a negative impact. Most caregivers reported disruption of their child's routine (88%), increase in their child's digital media use (88%) and mood lability (67%), and decrease in exercise (76%). The respondents' predominant concerns were the stability of living situation (87%), financial problems (93%), and balancing work with family responsibilities (63%). The overall rating on the service use (mean: 3.03, median:3.00) denoted satisfaction with telehealth services. There was no significant difference in the impact scores based on socioeconomic status, caregiver education and employment, and location.

CONCLUSION

COVID-19 pandemic negatively impacted the physical and socio-emotional well-being of children with NDD and their parental well-being which were seen across all socio-demographic backgrounds. Despite this, caregivers reported positive experiences and satisfaction towards service use and accessibility, specifically telehealth services, during the pandemic.

TOPIC CATEGORY

7 Advocacy for children with disabilities

Abstract ID Number: 99

ADAPTIVE BEHAVIORS AMONG CHILDREN 4-6 YEARS OLD ENROLLED AT THE INFANT AT RISK CLINIC OF THE PHILIPPINE CHILDREN'S MEDICAL CENTER

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OBJECTIVE

To determine the adaptive behaviors of preschool-aged children, 4.0 to 6.11 years, enrolled at Infant at Risk Clinic.

METHODS

This is a prospective cross-sectional study of all patients in the Infant at Risk Clinic from 2015 to 2017. Enrolled patients were stratified into High, Moderate and Low-Risk groups. The Vineland Adaptive Behavior Scale Comprehensive Interview Form, Third Edition, was administered via video conferencing. Odds ratio and 95% confidence intervals from binary logistic regression were computed to determine significant predictors of each developmental domain.

RESULTS

Thirty-seven high-risk children were evaluated. No significant differences were noted for each developmental domain across groups. The majority in the High-Risk group had delays in communication (receptive, expressive, and written subdomains) and daily living skills, with lower scores than the other risk groups. Among the risk factors, prematurity and low birth weight were associated with adequate socialization scores. No significant association between the other neonatal risk factors and delays in the other domains was observed.

CONCLUSION

Infants in the High-Risk group are more likely to have communication and daily living skills delays than other risk groups. Among the neonatal risk factors present in the population group, prematurity and low birth weight were less likely to be associated with delays in socialization. Developmental delays can cause impaired performance of daily activities, thus monitoring, and early detection leads to a more specialized/focused rehabilitative management. With the dynamic nature of child development, studies on high-risk infants at school age, including evaluation of academic performance is recommended.

TOPIC CATEGORY

4 Risk factors for developmental disabilities

Abstract ID Number: 100

LBW INFANT’S GROWTH AND DEVELOPMENTAL OUTCOMES

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OBJECTIVE

The purpose of the study was evaluation of growth and developmental outcome in low birth weight (LBW -1500-2000g) infants.

METHODS

Case control study included 138 children, divided in 3 groups: I group - 38 LBW infants with history of resuscitation in neonatal period due to different problems, II group - 36 LBW without resuscitation, III - control group 42 patients with normal birth weight and uncomplicated history. Assessment of health (based on history and examination), growth (WHO standard deviation charts) and development (Bayley Scales) was conducted at corrected age of 18+3 months. Statistical analyses were based on SPSS 17.

RESULTS

Assessment shows that infants of I and II group have more ARVI during first years of life and more hospitalization than control group. The p-value is >0,5 comparing I and II group, but $p < 0,05$ if we compare the both group of LBW with control group of infants. Growth assessment does not show significant difference in child’s height and HC, while the percentage of children with underweight was more evident in I and II group than in control. Assessment of the gross motor and cognitive scores does not show significant difference between study and control groups, while the language developmental scores in first and second group were significantly lower than in control ($P < 0.0001$), but there was no difference between I and II groups.

CONCLUSION

LBW increases risk for neurodevelopmental impairments that is important to identify and start early intervention to improve the outcomes.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 102

EFFECT OF MATERNAL AND INFANT PNEUMOCOCCAL IMMUNIZATION ON CHILDREN'S IQ IN BANGLADESH: A FOLLOW-UP STUDY OF RANDOMIZED CONTROLLED TRIAL

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OBJECTIVE

Maternal and neonatal Pneumococcal immunization has shown substantial benefits for both mothers and infants to prevent pneumococcal infection in childhood, but data on its effects on children's overall development is scarce. We aimed to measure the effects of maternal/infant immunization on the IQ of children.

METHODS

Pregnant women (n=340) participated in a randomized controlled trial of pneumococcal vaccination in Bangladesh. We administered 5th version of the Wechsler Intelligence Scale for Children (WISC-V), Raven's coloured matrices, anthropometry, and medical examination on children (n=180), aged 16-18 years. Raw scores of WISC-V was used for analysis because most children were >16 years by the time we started the project. Data was analyzed using independent sample t-test and partial correlations to determine differences in groups and factors related to children's development. Multiple linear regression analysis was used to assess the effects of the intervention after controlling for confounders.

RESULTS

The Raven scores were higher in children whose mothers were immunized (n=133) compared to those whose mothers were unimmunized (n=37) (B=-0.14, 95%CI=-6.52,0.32, p=0.075) but did not reach significant levels. The Similarities (B=-0.20, 95%CI=-4.06,-0.66, p=0.007) and Figure Weights (B=-0.167, 95%CI=-3.66,-0.25, p=0.025) subtests of WISC-V were significantly higher in the immunized children (n=134) compared to the unimmunized (n=46). There were no differences in anthropometric indices between the groups.

CONCLUSION

Immunization during pregnancy/infancy resulted in higher IQ in children. As intelligence can impact educational attainment of children, further studies with larger sample sizes are suggested to explore these results more rigorously.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 103

CHILDREN WITH DEVELOPMENTAL DELAY AT PRESCHOOL YEARS IN RURAL BANGLADESH: A DESCRIPTIVE ANALYSIS

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OBJECTIVE

Children with mild to moderate disabilities in developing countries are not usually identified until school age. We aimed to identify children with special needs (CWSN) from a longitudinal cohort and to compare their IQ with that of normally functioning children.

METHODS

We enrolled 560 children aged 4.5-6 years who earlier participated in a previous cohort (EN-SMILING). We used Washington/UNICEF Child functioning scale to identify CWSN, Pediatric Evaluation of Disability Inventory-Computer Adaptive test-(PEDI-CAT) to assess developmental function of those children, Weschler Preschool and Primary scale of Intelligence-4th edition to measure full scale IQ (FSIQ) and other indices, Peek Acuity Vision test, Standardized Hearing test and weight and height to measure the growth of the children.

RESULTS

In EN-SMILING cohort, we found 53 (9%) children with different types of developmental delays and they obtained the following scaled scores on PEDI-CAT subscales of daily activity (Mean ±SD=47.51 ±4.9), mobility (56.91 ±8.3), cognition (53.92 ±7.7), and responsibility (37.13 ±5.5). The CWSN had significantly lower FSIQ (Mean ±SD=62.17± 8.6 vs 78.46±7.3, $p<0.001$) and verbal comprehension index (VCI) (68.21 ± 7.2 vs 78.75± 5.6, $p<0.001$) compared to the normally functioning children. VCI and FSIQ of WPPSI were moderately correlated with social /cognitive subscales of PEDI-CAT ($r=0.32$, $p=0.042$ and $r=0.43$, $p=0.005$). CSWN children were significantly more undernourished and stunted and had higher auditory and visual problems compared to normally functioning children ($p<0.001$).

CONCLUSION

Early detection of developmental delay is crucial to take necessary steps for designing effective interventions to prevent developmental delay in children.

Abstract ID Number: 105 - Removed

Abstract ID Number: 108

KNOWLEDGE ASSESSMENT OF GOVERNMENT FRONT LINE HEALTH SERVICE PROVIDERS OF AN INTEGRATED PROGRAMME OF EARLY CHILDHOOD DEVELOPMENT—AN EXPLORATORY ANALYSIS

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OBJECTIVE

Bangladesh government is paying attention to early childhood development (ECD) but there are no evaluations of government health-acknowledgement. We aimed to assess knowledge of the front line health workers (HWs) on our ongoing programme.

METHODS

An integrated ECD programme is undertaken in >600 community clinics (CCs) in rural Bangladesh to promote the development of mild to moderately malnourished children <3 years of age. In this programme, around 1700 government HWs were trained on the adapted version of the Reach-Up parenting curriculum to deliver fortnightly parenting sessions to children aged 6-24 months (n=9000) and their caregivers at the CCs. A refresher training was provided to the HWs after 6 months of training. We used a structured pre and post-training questionnaire to assess knowledge of the health workers on 3 categories of session demonstration procedure, knowledge about the intervention content and capacity to solve implementation related problems. Data were analyzed using independent sample t-test.

RESULTS

HWs in the main training (n=123) and refresher training (n=148), were given the questionnaire. Knowledge of HWs significantly increased in the span of 6 months on session demonstration procedure (8.72±0.65 vs 8.93±0.25, P<0.001), intervention content (5.78±0.42 vs 5.92 ±0.41, P=0.006), problem solving (Mean±SD:3.82±0.51 vs 3.97±0.18, P<0.001) and total score (18.41±0.89 vs 18.84±0.60, P<0.001).

CONCLUSION

The programme has increased HWs’ knowledge and capacity in delivering parenting sessions and is promising to the scope integration of ECD programmes with existing health system and improving children’s development throughout the country.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 111

GENDER DIFFERENCES IN DEVELOPMENT AND BEHAVIOR BEFORE AND AFTER EXPOSURE TO COVID PANDEMIC – A COMPARATIVE STUDY

S M Mulk Uddin Tipu[1], Mohammad Saiful Alam Bhuiyan[1], Sheikh Jamal Hossain[1], Fardina Mehrin Syeda[1], Imrul Hasan Mohammed[1], Nzamul Huda Syed[2], Asaduzzaman Md.[1], Afroza Parveen[1], Shamima Shiraji[1], Jena Derakhshani Hamadani[3]

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OBJECTIVE

Exposure to pandemic has led to disruptions in economic and health conditions of populations specially in developing countries. We aimed to determine gender differences in development and behavior among rural Bangladeshi children exposed and unexposed to the COVID-19 pandemic.

METHODS

The unexposed group comprised 20-months-old children who had participated in a randomized controlled trial of iron supplementation before the pandemic. The exposed group included 20-month-old children selected from the same villages after the pandemic, who experienced the lockdown conditions pre and postnatally. Both groups were assessed using identical tests and methods. We administered Bayley Scales of Infant and Toddler Development to assess their developmental indices and Wolke’s behaviour rating scale to observe their behaviour.

RESULTS

In the exposed and unexposed groups, 526 and 1350 children participated respectively. In both groups, girls had significantly higher scores than boys in most of the outcomes. However, the gender differences were lower in the exposed group compared to the unexposed in cognition (95%CI=-2.8,0.13, p=0.074 vs 95%CI=-1.8,-0.009, p=0.048), motor (95%CI=-2.4,.02,p=0.053 vs 95%CI= -2.2,-.74,p<0.001), approach (95%CI=-.26,.05, p=0.187 vs 95%CI=-.24,-.05, p=0.004), cooperation (95%CI=-.40,-.009, p=0.041 vs 95%CI=-.28,-.07,p=0.001) emotional tone (95%CI=-.46,-.06, p=0.012 vs 95%CI=-.24,-.04, p=0.009), and enthusiasm (95%CI=-.24,.11, p=0.053 vs 95%CI=-.22,-.03,p=0.009).

CONCLUSION

The pandemic affected both boys and girls, but it is likely that the girls were more adversely affected than boys. However, further studies may be required to ascertain the findings. Effective interventions to address deleterious effects of the pandemic, especially on children, should be thoroughly examined.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 113

KEY COMPONENTS OF PARENTING EDUCATION INTERVENTIONS FOR PRETERM INFANT-PARENT DYADS ADMITTED TO THE NICU: A SYSTEMATIC REVIEW

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OBJECTIVE

Parental education is an effective intervention to navigate the traumatic experience of preterm birth for parents with infants admitted to the neonatal intensive care unit (NICU). This review aims to explore the literature to determine the key components of a parenting education intervention for the preterm-infant parent dyads in the NICU.

METHODS

A five-steps systematic literature review was conducted to explore the question: What are the key components of parenting education interventions for preterm infant parents presented while they were admitted to the NICU that influence short and longterm infant and parent outcomes? The keywords neurodevelopmental care, premature infant, parent education interventions, programmes and training, where searched via the Pubmed, EbscoHost, Scopus, Web of Science, Cochrane library and ScienceDirect interfaces and publication reference lists and reported using the PRISMA. From 1015 hits, 208 duplicates were removed and following title and abstract screening by two independent reviewers, 222 records were included for full text screening. 52 articles were critically appraised using the John's Hopkins appraisal tools and # articles were included in the final sample.

RESULTS

The delivery method a parental education program varied across programs, from face-to-face, one to 9 sessions, between 30min and 2 hours per session and being a single session to 40hours. Topics include NICU staff and equipment, preterm appearance, recognizing infant cues, attachment, baby care, infant development, feeding, KMC, self-care/ parental care and discharge planning.

CONCLUSION

Parenting education programs vary, but the components to be considered during development include: delivery method, presentation, and education topics.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 116

DEVELOPMENTAL OUTCOMES OF CHILDREN BORN BETWEEN 2017 AND 2023 WITH CONGENITAL HYPOTHYROIDISM AT RED CROSS WAR MEMORIAL CHILDREN'S HOSPITAL

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BACKGROUND

Congenital hypothyroidism is the most common preventable cause of severe neurocognitive impairment. A paucity of literature exists on the neurodevelopmental outcomes in children with congenital hypothyroidism from South Africa.

OBJECTIVE

To perform a comparative assessment of the neurodevelopmental outcomes in pre-school children with congenital hypothyroidism versus age-normed controls.

METHODS

Descriptive matched case-controlled study comparing children diagnosed with congenital hypothyroidism from the endocrine service at Red Cross War Memorial Children's Hospital to age-normed controls born between 2017 and 2023, using the Griffiths III Mental Developmental Scales.

RESULTS

Of the 23 children identified with congenital hypothyroidism younger than 6 years of age, 56% were male. There were more permanent than transient forms of congenital hypothyroidism in the cohort. Thyroid dysgenesis was the most common form of congenital hypothyroidism and of these, 60% were identified as having agenesis on radiological imaging. Majority of the children with congenital hypothyroidism had been diagnosed and initiated on treatment before 3 weeks of life. Neurodevelopmental outcomes will be presented.

CONCLUSION

We expect most of the children to achieve an age-appropriate developmental quotient and scores in the 5 domains tested by the Griffiths III Mental Developmental Scales, as majority were diagnosed and treated within 3 weeks of birth. Those children identified with agenesis of their thyroid gland, diagnosed and treated later, are expected to achieve poorer neurodevelopmental outcomes.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 119

INTEGRATING PSYCHO-SOCIAL STIMULATION PROGRAMME INTO PRIMARY HEALTH CARE SERVICES IN BANGLADESH: PROTOCOL FOR A PRAGMATIC CLUSTER RANDOMIZED CONTROLLED TRIAL

S M Mulk Uddin Tipu, Sheikh Jamal Hossain, Shams El Arifeen, Syeda Fardin Mehrin, Nur E Salveen, Masuma Kawsir, Mohammad Saiful Alam Bhuiyan, Shamima Shiraji, Mohammed Imrul Hasan, Fahmida Tofail, Jena Derakhshani Hamadani
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OBJECTIVE

Early childhood development (ECD) intervention programmes are taken up by governments over the past two to three decades, yet limited progress has been made towards its large-scale implementation. We aim to develop a sustainable ECD programme by integrating an evidence-based curriculum of psychosocial stimulation into the healthcare system for disadvantaged Bangladeshi children.

METHODS

Malnourished children aged 6-24 months will be identified using mid-upper arm circumference (MUAC) by government health staff in over 500 community clinics (CCs) in 21 subdistricts in Bangladesh. We will conduct an integrated ECD programme and evaluate through a cluster randomized controlled trial in a subsample of 48 CCs (intervention: 24 and control: 24). From each CC, 10 children will be evaluated. The main outcomes are children’s cognitive and language scores. The psychosocial stimulation session will be delivered fortnightly for one year from the CCs by government health workers. The intention-to-treat analysis will be followed to assess the effects of the intervention.

RESULTS

The background of the children, caregivers information and the outcomes at enrollment will be presented by groups to see if there are any differences. Intervention effect will be examined using multilevel mixed methods analysis controlling for children’s age and sex, assessors, any enrollment differences between the groups and respective baseline developmental outcomes.

CONCLUSION

There is no existing ECD services for children under three years delivered through primary health care system in Bangladesh. This study will help the policy makers to consider integrating ECD activities into the health system.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 120

THERAPEUTIC LETTER WRITING- HIGHLIGHTING SKILLS AND IDENTITIES OF DISABLED CHILDREN AND THEIR FAMILIES

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OBJECTIVE

Therapeutic letter writing provides an opportunity to strengthen skills and identities of young disabled children and their caregivers by working with and acknowledging the complexity of a person’s story (Bjoroy, Madigan & Nylund, 2015). The aim was to collaboratively highlight and document skills, know-hows and identities of children and their caregivers.

METHODS

The letters are being exchanged in the period of one year between the mental health therapists and 10 young disabled children and caregivers seeking services at Ummeed Child Development Center, Mumbai. The collaboration of letters is being done at different points in the therapeutic context, from making skills visible, enquiring about the problem and acknowledging their therapeutic journey. Guided by the principles of narrative practices, the letters were framed from co-discoveries of the family’s skills, know-hows, responses to the problem and hopes. The families were consulted to know about the impact of these letters on their hopes and identities. The therapists used enquiring about skills, referred to problems as separate and used imagination in conversations with young people.

RESULTS

The co-writing of these letters brought these insights for the children and caregivers: Skills and preferred identities of disabled young children become visible. Dominant ideas of caregiving get challenged.

CONCLUSION

Therapeutic letters can be used to document skills, invite imagination to manage problems and hold on to hopes with regards to disability context.

TOPIC CATEGORY

1k Intervention/Others

Abstract ID Number: 121

THE NEWBORN BEHAVIOURAL OBSERVATION SYSTEM: A MODEL FOR PROMOTING CHILD AND FAMILY OUTCOMES IN LMICS

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OBJECTIVE

This presentation will showcase the utility and benefits of the Newborn Behavioural Observation (NBO) System as a culturally sensitive, low-resource intervention model for Low and Middle Income Countries (LMICs) such as South Africa. This Harvard-developed tool has been demonstrated to positively impact on maternal mental health and sensitivity to the infant, confidence and knowledge of practitioners, and infant development. The NBO also provides a potential avenue to protect the developing neonatal brain from stress, which can impact on later socio-emotional and cognitive functioning. The NBO has been implemented in a number of LMICs including South Africa, Pakistan and El Salvador.

METHODS

This presentation will provide an overview of the NBO tool before going on to describe the incorporation of the NBO into service provision in collaboration with a South African Johannesburg municipality’s health department and district hospital. Survey results from over 300 parents living in Johannesburg, South Africa who received an NBO will also be shared.

RESULTS

The Newborn Behavioural Observation System is a low-resource tool, which can be used by a wide range of practitioners and is easily integrated into everyday paediatric care to assist in improving child and family outcomes. Families using public health care services, living in Johannesburg, South Africa report finding the NBO useful for learning about their infant and infant care.

CONCLUSION

The Newborn Behavioural Observation System is an appropriate, low-cost paediatric tool to support early relational health with great potential benefit for implementation in Low and Middle Income Countries.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 130

THE CHILD DEVELOPMENT CENTRE MODEL: INTERDISCIPLINARY DEPARTMENTS SERVICES WITH HOLISTIC APPROACH UNDER ONE ROOF

Özlem Gülümser [1,2], Sema Baydilli [1], Çağrı Gülümser [1,3]

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OBJECTIVE

To develop a model to predict and to prevent child developmental problems with comprehensive interdisciplinary one roof approach.

METHODS

Especially in LMIC, accessing services related to child developmental problems is difficult. Because developmental diagnosis and support services are usually provided in different institutions. This may cause services provided to be insufficient and unsustainable. The lack of cooperation within experts and the isolation of the family in the process are additional important problems. Gülümser Academy (GA) created a novel model that aims to support health and development of children in lifelong developmental processes starting from the intrauterine period to the end of adolescent period. In addition to base on the bioecological theory and holistic approach model, GA has a team, working with an interdisciplinary perspective to meet the needs of children with developmental disabilities under the same roof. The GA team includes; developmental pediatrics, perinatology, genetics, public health, special education, psychology, ergotherapy, speech therapy, child development, physiotherapy, drama and gymnastics specialists. In this model under the one roof, all specialist evaluates the children and developmental pediatrician is in the center of extensive evaluation and intervenes of all children with developmental disabilities. Therefore, individualized assessments and interventions provided for each child in this model.

RESULTS

We conducted a study about comparison of effectiveness of this model in Turkey. In This model, we have seen over 1000 children for 2.5 years.

CONCLUSION

We hope that importance of this model will be taken into account by social policy makers of LMIC countries.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 131

COMPARATIVE STUDY OF TACTILE SENSITIVITY IN CHILDREN WITH BIRTH HSTORY OF FULL-TERM NORMAL DELIVERY VS FULL TERM CAESAREAN SECTION.

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OBJECTIVE

Normal delivery is the inevitable physiological process compared to Caesarean section being the unnatural mode of birth has impact on child's touch, smell and visual ability. The tactile system is the largest sensory system and is the first to develop during intrauterine period. Tactile information is obtained through receptors, located on the skin. The objective of this study is to compare tactile sensitivity in children born with FTND and FTCS.

METHODS

This research is conducted in MRC-KHS Anshu Paediatric Rehabilitation Center. 40 children born by FTND and 40 children born by FTCS were included. The short sensory profile 2 was used to administer sensory processing for children aged 3-7 years. The 3 sensory factors i.e. visual, tactile and taste are administered. The inclusion criteria were birth history, children between 3 to 7 years. The exclusion criteria were children with genetic deficits, neurological or orthopaedic disease and withdrawal of consent of parents.

RESULTS

A total of 80 children were included in the study through systemic sampling. 40 children born with FTND were 9% tactile sensitive, 7%were visual sensitive and 11% taste/smell sensitive compared to children born with FTCS were, 28% tactile sensitive, 19% visual sensitive and 18% taste/smell sensitive. A significant difference was observed for tactile sensitivity between FTCS and FTND ($p=0.008$).

CONCLUSION

Sensory processing disorders are more common in children delivered by FTCS than children born by FTND. Early diagnosis and possible therapy for improvement, especially in children born by FTCS, is recommended.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 136

A MODEL OF DEVELOPMENTAL PEDIATRICS FELLOWSHIP TRAINING DURING CRISIS: AFTER THE MAJOR EARTHQUAKE IN TURKEY

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OBJECTIVE

Crises in low and middle-income countries call for rapid adaptation of developmental-behavioral pediatrics (DP) training. An online model program was developed after the February 2023 earthquake in Turkey, which killed over 100,000 and devastated one major DP training center.

METHODS

The program developed by the Turkish Developmental Pediatrics Association comprised peer-to-peer support and case-based learning during weekly 2-hour online sessions. Peer groups were formed between fellows in the unaffected and affected regions and continued throughout the program.

RESULTS

Five mentors, 16 fellows, 5 rotating pediatric residents and 2 child development specialists participated in the program. During 15 Zoom sessions, using a strengths-based approach, experiences were shared and 24 complex cases (children with crush injuries, amputations, parental and sibling loss) were presented and discussed. Discussion topics included, children’s understanding of loss and death, effective communication, giving bad news, monitoring of children with complex needs, developmental support for all children and their families, and addressing the emotional, physical and developmental needs of children with amputations. The full attendance throughout the program and the high level of satisfaction reported by the fellows implied the success of the program.

CONCLUSION

This program offers a model to respond to the urgent needs of DP trainees during a disaster in low and middle-income countries. Distant mentor-to-trainee and peer-to-peer support as well as online discussion of complex disaster topics and case-based learning can help meet training needs and sustain quality subspecialty DP training during crises.

TOPIC CATEGORY

1d Intervention/Educational

Abstract ID Number: 137 - Removed

Abstract ID Number: 138

AN INTERDISCIPLINARY APPROACH TO TREATING CEREBRAL PALSY IN AN OUTPATIENT CLINIC WITHIN A HOSPITAL SETTING.

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OBJECTIVE

Our objective is to showcase the benefits of an interdisciplinary approach to treating Cerebral palsy in an outpatient clinic within a hospital setting.

METHODS

Our interdisciplinary team is part of the Western Cape Cerebral Palsy Association, a non-governmental organization, in partnership with the Red Cross War Memorial Children's Hospital. Our team includes Physiotherapists, Occupational Therapists, a Speech Therapist and a Social worker. We treat children with Cerebral Palsy coming from poor socio-economic circumstances. These children and their families have the benefit of being assessed and managed by multiple healthcare professionals within a single appointment. Additional referrals are then made within hospital services. Approximately 120 children are seen per month. On average 10 children are treated per day by a team of 6 therapists.

RESULTS

Results demonstrate that this model can lead to significant improvements in patient outcomes. The collaborative efforts of the interdisciplinary team provide comprehensive analysis and treatment planning that address the physical, cognitive and emotional aspects of Cerebral Palsy. Our team targets improvement of functional abilities and improved quality of life. Treatments plans are tailored to the individual's needs with an understanding of their social circumstance while providing a supportive environment for their families.

CONCLUSION

Collaboration allows for a holistic treatment plan that addresses the multifaceted nature of Cerebral Palsy in a single visit to the hospital. Implementing an interdisciplinary approach in outpatient clinics can significantly enhance the quality of care provided to individuals with Cerebral Palsy.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 140

NEURODEVELOPMENT IN HIV-EXPOSED AND UNEXPOSED CHILDREN: THE SOUTH AFRICAN AND UGANDAN DOLPHIN-2 PLUS COHORTS

Dolce Advani [1], Layla Bradford [2], Jessica E. Ringshaw [2], Irene Nakatudde[3], Andrew Ssemata [4], Annet Birabwa[4], Kirsten A. Donald[2], Melissa Gladstone [1]

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OBJECTIVE

Dolutegravir (DTG) is now considered superior in efficacy and tolerability to previous antiretrovirals e.g.Efavirenz (EFV). The DolPHIN-2 PLUS is a follow-up sub-study of a previous randomised controlled trial looking at the effects of DTG vs. EFV for HIV-positive mothers enrolled in pregnancy in Cape Town, South Africa and Kampala, Uganda.

METHODS

We enrolled 32 HEU and 88 HUU infants from South Africa, and 74 HEU and 60 HUU infants from Uganda. Developmental outcomes were assessed using Bayley Scales of Infant and Toddler Development Third Edition (BSID-III), and associations with covariates were explored, including maternal health, iron status, child health indicators, and environmental/contextual factors including socioeconomic status, food security, maternal depression and family violence all measured through the Child Psychosocial Adversity Scale (CPAS).

RESULTS

112 participants completed BSID assessments at ages 18 to 60 months. BSID scaled scores were not significantly different between the DTG vs. EFV group (97.8, 98.3, CI). Mean BSID scores were 94.5 (mean ± SD: 10.2) for HEU and 100.2 (mean ± SD: 9.8) for HUU groups. BSID scores correlated significantly with maternal health, child health indicators, and socioeconomic factors ($p < 0.05$).

CONCLUSION

We have identified no significant differences in developmental outcomes for those children exposed to either DTG v/s EFV affirming the likely safety of DTG. We confirm developmental disparities between HEU and HUU children however it is unclear as to how much these disparities relate to other factors within families who may have more adversity due to a diagnosis of HIV within the family.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 141

PRENATAL ALCOHOL EXPOSURE AFFECTS STRUCTURAL BRAIN DEVELOPMENT IN SOUTH AFRICAN INFANTS: A COMPARATIVE ANALYSIS USING LOW FIELD AND HIGH-FIELD MRI

Simone Williams[1,2], Michal Zieff[1,2], Niall Bourke[3], Lauren Davel[1,2], Layla Bradford[1,2], Reese Samuels[1,2], Sadeeka Williams[1,2], Chloe Jacobs[1,2], Nwabisa Mlandu[1,2], Tracy Pan[4], Zamazimba Madi[1,2], Tembeka Mhlakwaphalwa[1,2], Thandeka Mazubane[1,2], Zayaan Goolam Nabi[1,2], Marlie Miles[1,2], Jess Ringshaw[1,2,3], Daniel Alexander[5], Derek Jones[6], Steven Williams[3], Kirsten Donald[1,2]

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OBJECTIVE

Significant alterations in regional brain volumes have previously been observed in infants exposed to alcohol prenatally, with these alterations observed using high-field magnetic resonance imaging (MRI) machines not readily available in low-resourced settings, due to high infrastructural and operational costs. Our aim was to determine whether subtle neurostructural alterations due to prenatal alcohol exposure could be detected using both traditional high-field MRI and affordable, portable low-field MRI technology.

METHODS

High (3T) and low-field MRI (64mT) neuroimaging data were acquired from infants enrolled in a longitudinal birth cohort study based in Cape Town, South Africa. Using multivariable linear regression, regional cortical and subcortical volumes were compared between those with alcohol exposure and matched controls.

RESULTS

Based on high-field MRI data from 67 infants (24% alcohol-exposed; mean age 116 days; 51% female), infants with alcohol exposed had lower total intracranial volumes (10% average decrease; $p = 0.02$), lower right lateral occipital volumes ($p = 0.013$), and lower subcortical volumes of the left pallidum ($p = 0.007$) and caudate ($p = 0.005$), compared to infants without exposure after correcting for sex, age and maternal HIV. Low-field MRI data from 62 infants (29% alcohol-exposed; mean age 118 days; 48% female) revealed similar occipital and caudate reductions in exposed infants.

CONCLUSION

Infant brain volume alterations linked to in utero alcohol exposure can be detected using both MRI methods. This demonstrates that affordable low-field MRI can reliably measure these subtle neurostructural alterations, expanding research possibilities in low-resourced settings beyond traditional high-cost setups.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 142

A RAPID REVIEW ON CHALLENGES OF CAREGIVERS OF CHILDREN WITH DISABILITIES IN AFRICA

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[4]Department of Medical Laboratory Science, Alex Ekwueme Federal University Teaching Hospital Abakaliki, Ebonyi State, Nigeria

OBJECTIVE

The aim of this research was to explore the various challenges reported by caregivers of children with disabilities in Africa, using a rapid review of literature.

METHODS

We conducted a search of recent (past 10 years) African cross-sectional studies on Challenges of Caregivers of Children with disability published in PubMed and AJOL using the phrase ‘Challenges’ or ‘Problems’ of ‘caregivers or carers of children with disability’ in Africa. A total of 60 studies were identified. After screening and deduplication of articles, only ten (10) studies that fulfilled the inclusion criteria were included in the review. All were qualitative, non-interventional studies. Nine were on informal caregivers while one was on formal (NGO) caregivers. Most reported challenges and recommendations were extracted from the articles.

RESULTS

Most (7/10) of the articles reported unavailability of social support/rehabilitative services and limited access to community activities, while 6/10 reported socio-economic/financial challenges followed by 5/10 articles that reported stigma, negative and discriminative attitudes. Importantly 4/10 articles noted the mental impact of these challenges on caregivers including depression and suicidal thoughts.

CONCLUSION

Caregivers of children with disability need structured social and mental health support to ease their burden of care. Raising the awareness on the burden of disability, and the need for community support, can reduce discrimination. More emphasis is needed on the provision of organized, contextualized, and accessible rehabilitative services in the communities.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 146

CAREGIVER STRESS, DEPRESSION, ANXIETY, AND CHILDREN'S DEVELOPMENT-EXPLORING PSYCHOSOCIAL STIMULATION AS A MEDIATOR IN HOST & REFUGEE COMMUNITIES IN PAKISTAN

Amer Hasan[1], **Amna Ansari**[2], **Mahreen Tahir Chowdhry**[2], **Elizabeth Hentschel**[3], **Heather Tomlinson**[1], **Aisha K. Yousafzai**[3], **Mina Zamand**[2]

[1]The World Bank, Washington DC, USA. [2]The World Bank, Islamabad, Pakistan. [3]Department of Global Health and Population, Harvard T.H. Chan School of Public Health, Boston, USA

OBJECTIVE

This study reports findings from a survey measuring gaps in Early Childhood Development (ECD) services in the Khyber Pakhtunkhwa (KP) province in Pakistan. KP is home to over half the 1.6 million Afghan refugees hosted by Pakistan, however, ECD data is minimal, and close to none for refugee families. Evidence suggests that ECD outcomes for children 0-3 are the lowest in KP, and prevalent risks to child development include low psychosocial stimulation and use of harsh discipline.

To understand the factors affecting psychosocial stimulation, and consequently, child development outcomes, this study addresses:

1. To what extent are psychosocial stimulation and harsh discipline independently influenced by caregiver stress, depression and anxiety?
2. How does caregiver stress, depression, and anxiety influence ECD through the pathway of psychosocial stimulation and/or harsh punishment?
3. Do caregiver stress, depression, anxiety and ECD outcomes differ by refugee status?

METHODS

The study employs a variety of ECD-focused tools that have previously been validated in Pakistan. A provincially representative sample of 1434 children ages 0-3, and 596 children ages 3-6 and their parents were interviewed. Regression analyses and structural equation modeling will be used to identify relationships between variables.

RESULTS

The study hypothesizes that psychosocial stimulation positively mediates the pathway between caregiver stress, depression and anxiety and ECD, and that harsh parenting negatively mediates this pathway. We hypothesize that these effects will be more pronounced for refugee families.

CONCLUSION

The study is in progress but its findings will be discussed in the light of the hypotheses.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 147

OPPORTUNITIES AND CHALLENGES FOR MANAGEMENT OF LONGITUDINAL PAEDIATRIC DATA IN LOW- AND MIDDLE-INCOME SETTINGS

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BACKGROUND

Longitudinal paediatric research requires sustainable and ethical data management. Pregnant mothers and children constitute a vulnerable research population. This vulnerability is further compounded for participants living in poorly resourced communities and exposed to multiple risk factors. This poster discusses the opportunities and challenges of managing longitudinal data within the Khula Study, a longitudinal birth cohort study aimed at characterizing the development of emerging executive functions over the first 1000 days of life in a sample of 600 mother-infant dyads in Cape Town, South Africa and Blantyre, Malawi.

OBJECTIVE

This poster present strategies from the Khula Study to collect, digitize, evaluate, integrate, and manage data.

METHODS

Opportunities include the collection of data from cohorts that differ in terms of culture, living conditions and exposures. The Khula Study collects multimodal data, including neuroimaging, electroencephalography, biospecimens, and measures of sleep using wearable devices at multiple timepoints.

RESULTS

Major challenges included digitization, cross-site harmonization of variables, and integrating multiple data modalities processed in different places. Strategies include creating a dynamic "master" centralized database with integrated clean data, using encrypted cloud-based storage platforms to share raw files with collaborators, and developing automated pipelines to quickly process large quantities of neuroimaging data.

CONCLUSION

Multidimensional, longitudinal paediatric data calls for data management practices that are ethical, streamlined, and collaborative to ensure the success of the research. The Khula Study data management strategy may provide a framework for future paediatric research in low- and middle-income regions.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 152

BUILDING EXISTING NETWORKS INTO LONG-TERM PARTNERSHIPS TO ADDRESS DEVELOPMENTAL DELAYS AND DISABILITIES IN HUMANITARIAN SETTINGS

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The importance of investing in child development is globally recognised. However, for children living in humanitarian settings there is little existing multisectoral and coordinated support.

In the Palestinian refugee camps in Lebanon, RCPCH and MAP have initiated a partnership with the local primary care provider for Palestinian refugees (UNRWA) to address the challenge of early identification and support for children with cognitive disabilities and developmental delays.

UNRWA is responsible for providing free primary care including child growth monitoring and vaccination to a registered population of 489,292 refugees through clinics distributed across the whole country. We aim to build on existing UNRWA practices-strengthening screening, surveillance, care advice and specialist referral through the adaptation of the short form of the Malawi Development Assessment Tool (MDAT-IDEC)-a simple to use, adaptable tool used to assess development in children living in low-income settings. It will be piloted in 5 clinics and if successful, a roll out to all 27 clinics is envisaged.

Beyond the technical process of monitoring, we aim to place implementation of this tool within a more comprehensive package of partnerships-through local and community-based organisations providing upstream neonatal care services (preventive of developmental risk factors) and downstream therapeutic care (managing the consequences of disability identified in primary care clinics).

We argue that, in addition to technical efficacy of a monitoring tool, a cross-sectoral partnership approach is critically important in humanitarian settings where the convening power of stable government is absent.

TOPIC CATEGORY
2 Early Childhood Development

Abstract ID Number: 154

MANAGEMENT OF CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD): MODEL FOR A NEW PROGRAM BASED ON A NOVEL HYPOTHESIS

Samir Dalwai, Hilla Sookhadwala
New Horizons Child Development Centre (NHCDC), Mumbai, India

OBJECTIVE

- ASD: Neuro- developmental disorder characterized by impairments in social communication and social interaction and restricted, repetitive patterns of behavior or interests.
- Multiple modalities used: Do not target the root cause, are not effective in enabling the child to adapt to daily life and are labour and cost-intensive.
- To develop a management model that would be effective, affordable, and based on solid developmental principles

METHODS

Newborn babies and young infants learn through the sequence of engagement and interaction with humans that addresses their needs, learning social behaviors through mutually beneficial interface, non-verbal (e.g., mannerisms) and verbal communication, reading and writing (literacy). This New Horizons social behavior and communication (NHBC) sequence is crucial even for children in ASD, who are unable to understand reciprocal action. A New Horizons Developmental Program (NHDP) was devised based on NHBC sequence:

- Intervention initiated begins when a milestone is delayed. No pre-defined age.
- Intervention based on target milestone: Facilitate human interaction and engagement, if poor eye contact
- No new intervention till deficient milestone is achieved.
- Parents: Training crucial. Provide opportunities for engagement and interaction.
- Flexibility and responsiveness: Goal setting, implement the intervention, assessment, goal-setting

RESULTS

- Enrolled 80 children with ASD in the last 2 years
- Key benefits: Improvement in social and communication milestones and high acceptability of and greater adherence to the program
- Availability of a committed caregiver: Crucial for implementation.

CONCLUSION

Targeted goal-oriented interventions based on meticulously designed and structured parent training based on the NHBC sequence results in better clinical outcomes.

TOPIC CATEGORY

1i Intervention/Parent training

Abstract ID Number: 156

THE EFFECT OF VISUAL ART THERAPY ON THE HOSPITAL-RELATED ANXIETY OF PEDIATRIC HEMATOLOGY-ONCOLOGY PATIENTS AT A TERTIARY GOVERNMENT HOSPITAL

Dawani de Leon
National Children's Hospital, Quezon City, Philippines

OBJECTIVE

To determine the effect of visual art therapy on the hospital-related anxiety levels of hematology-oncology patients at a tertiary pediatric government hospital.

METHODS

The study was conducted in the hematology-oncology ward of a local government pediatric hospital, using a quasi-experimental design. Purposive type of non-probability sampling was used to select participants. The sample comprised 25 hospitalized children aged 5-11 years. The Child Hospital Drawing tool was used to collect the data. A five-day program comprising group visual art therapy with mutual storytelling techniques was conducted. The participants were asked to draw, then to narrate a story based on their drawings. The researcher then responded with a similar story, but with an ending that embodies a healthier resolution. Drawing sessions were administered on the first and third days, mutual storytelling on the second and fourth days, and painting as a culminating activity on the fifth day. Paired t-test was used for the levels of anxiety pre- and post- intervention.

RESULTS

The average age of the participants was 7.76 ± 2.17 years old and 60% of them were boys. Children from the school-age group of 5-9 years comprised most (76%) of the subjects. Majority of the children (80%) had been diagnosed with acute lymphoblastic leukemia. The average number of months post-diagnosis was 6.2 ± 5.95. The anxiety scores using the Child Drawing: Hospital tool were significantly lower after intervention (54.92 ± 16.55), when compared with mean scores before intervention (68.00 ± 18.58) ($p <0.05$).

CONCLUSION

The therapeutic intervention reduced children's anxiety.

TOPIC CATEGORY

1f Intervention/Complementary and alternative

Abstract ID Number: 162

EARLY NEURODEVELOPMENTAL OUTCOMES OF LOW-RISK SOUTH AFRICAN TERM INFANTS WITH PRIOR PLACENTAL INSUFFICIENCY – THE UMBI-BRAIN STUDY

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OBJECTIVE

Placental insufficiency, one known cause of foetal growth restriction, is detectable by abnormally high umbilical artery resistance indices (UmA-RI) on Doppler examination. UmA-RI screening at 28-34 weeks gestation in low-risk pregnancies at primary healthcare level identifies a previously unstudied group of growth-restricted infants.

METHODS

Neurodevelopmental outcomes of term-born South African infants with abnormal UmA-RI (placental insufficiency) were compared to counterparts with normal UmA-RI, at 6, 9, 12, 18 and 24 months, using Bayley Scales of Infant and Toddler Development (BSID-III).

RESULTS

Seventy infants were included (abnormal UmA-RI n=20; normal UmA-RI n=50).

Infants with abnormal UmA-RI had a significantly lower mean gestational age (38.7±1.1 vs 39.7±1.1 weeks; $p=0.001$), birth weight (2791±388g vs 3181±502g; $p=0.003$) and head circumference (33.8±1.4cm vs 34.7±1.7cm; $p=0.041$), and remained smaller throughout (weight & length).

Significant motor delay was most prominent at 9 months on BSID-III (mild delay 3/18 (17%) and moderate-severe delay 1/18 (6%) vs mild delay 5/47 (11%); comparing abnormal to normal UmA-RI groups). Similar comparisons at 24 months showed mixed results (cognitive: mild delay 1/16 (6%) vs 3/32 (9%); language: mild delay 5/16 (31%) vs 8/32 (25%); motor: mild delay 1/16 (6%) vs 2/32 (6%)).

CONCLUSION

Term-born infants with previous placental insufficiency had lower anthropometric measurements from birth to 24 months. Initially neurodevelopmental delay was mostly found in the motor domain, but with time became more mixed, with no differences found between children with and without previous placental insufficiency, possibly due to the importance of other factors impacting neurodevelopment.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 165

HOME PARTICIPATION AND INTERRELATIONS WITH PERSONAL AND ENVIRONMENTAL FACTORS IN CHILDREN AND ADOLESCENTS WITH DOWN SYNDROME: A CROSS-SECTIONAL STUDY

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OBJECTIVE

i) to describe current home participation (frequency, involvement) and caregiver's desire for change in home participation, and home environmental (features/resources) of children/adolescents with Down syndrome;
ii) ii) to explore the interrelations of personal and environmental factors with current and desired home participation.

METHODS

Eighty-two caregivers of brazilian children/adolescents with Donw syndrome [mean age: 10 years7months] were surveyed about their child's home participation using Participation and Environment Measure for Children and Youth, child's personal and environmental factors. Descriptive analysis was made. Spearman's correlations tested associations($p<0.05$).

RESULTS

The highest scores were in personal care management, getting together with other people, watching TV/videos/DVD. The lowest scores were in school-related, computer/video games activities. The greater desire for change from caregivers were in homework, household chores, computer/video games. Forty-one percent of environmental features/resources were considered facilitators; 11% were barriers. Greater frequency was associated with male sex, caregivers' less rigorous social distancing (vs total distancing) and child receiving therapies. Greater involvement was associated with younger children's ages and higher support from the environment. Older children's age was associated with greater desire for change.

CONCLUSION

Participation scores vary amongst individual children and adolescents with DS. Strategies to promote participation in areas with the lowest scores should be undertaken, based on caregivers' desire, as well as on the need for balance amongst activities. Both personal and environmental factors were correlated with current and desired home participation in particular ways.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 170

ACCEPTABILITY AND FEASIBILITY OF ECHO MODEL FOR IMPARTING TRAINING ON ADHD DIAGNOSIS AND MANAGEMENT AMONG CHILDCARE PHYSICIANS IN INDIA

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OBJECTIVE

To assess the acceptability and feasibility of Extension of Community Health Outcomes ADHD model for training childcare physicians in the diagnosis and management of ADHD in children.

METHODS

A six-month pilot of ADHD training was conducted online for childcare physicians through 14 fortnightly virtual sessions comprising of lectures followed by case-based discussions. Participants who completed evaluation measures before the start and at the end of the training program in 2021 were included in the study. Participant acceptability and feasibility of the program content and delivery was assessed through metrics like mean attendance and an anonymous feedback survey with a mix of closed and open-ended questions to obtain qualitative information.

RESULTS

Sixty four percent (Fifty-seven out of eighty-eight) participants who had completed the questionnaires at the start and end of the training were included in the study. These comprised of 27 pediatricians, 28 developmental pediatricians, 1 psychiatrist and 1 pediatric neurologist. Fifty-three percent participants attended more than 10 out of 14 sessions. The average attendance for the overall program was 67% with maximum attendance in a session being 87%. 85% of participants opined that the topics presented by the hub team and its content were relevant to their clinical practice.

CONCLUSION

The ECHO ADHD program is an acceptable and feasible online case-based tele-mentoring model in a low- and middle-income country (LMIC) setting to build capacity for diagnosing and managing ADHD in children.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 172

EVALUATING EARLY INTERVENTION PROGRAMME FOR CHILDREN AT RISK OF DEVELOPMENTAL DISABILITIES IN RWANDA: A RANDOMISED CONTROLLED TRIAL AND PROCESS EVALUATION

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Early care and support is crucial for the 53 million children with developmental disabilities worldwide, but few studies have evaluated early child intervention programmes at sustainable scale. The Pediatric Development Clinic (PDC) provides early identification and care for young children at risk of developmental disability, monitoring development and growth, whilst providing caregiver support. Baby Ubuntu is a structured programme for children with developmental disabilities and their caregivers, provided over 11 sessions by a health professional and trained caregiver. We aim to evaluate the PDC/Baby Ubuntu programme integrated with government health systems in Uganda.

The study will adopt a cluster randomised controlled design in 20 clusters across three districts of Rwanda. We will recruit 2,500 children at risk of developmental disability, of which 700 are expected to have a disability. The intervention arm will receive the PDC/Baby Ubuntu programme, with the control receiving treatment as usual. Surveys at baseline, and at first endline 12-months will examine the impact of the programme on child, caregiver and family outcomes later, including participation of children in family and community life, caregiver knowledge, and family quality of life. After first endline, the programme will be rolled out to the standard care group and a second endline completed 12-months later. The trial will be complemented by an integrated process evaluation, including qualitative research, to understand intervention implementation and mechanisms of impact. An economic evaluation will assess cost-effectiveness of the programme. The evaluation is in preliminary stages, with recruitment anticipated to start by early 2024

TOPIC CATEGORY
1a Intervention/Early Intervention Program

Abstract ID Number: 173

EXPLORING AN INNOVATIVE MODEL TO ENHANCE EARLY CHILDHOOD DEVELOPMENT AND DEVELOPMENTAL DISABILITIES SERVICES IN RESOURCE-LIMITED SETTINGS

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OBJECTIVE

Inadequate professional training and poor alignment with local context pose significant challenges for families seeking services for early childhood development (ECD) and developmental difficulties (DD) in resource-limited settings. The biopsychosocial model emphasizes impact of interconnected systems on children's lives, however capacity-enhancing opportunities often focus on discrete groups of stakeholders.

Evaluate a training framework on establishing an ecosystem to support DD in a Tier-2 city in India.

METHODS

An established multi-disciplinary child development organization initiated collaborative partnerships with a practicing pediatrician and a parent-managed vocational centre in the Tier-2 city. Baseline focus groups revealed limited parental and professional awareness impacting early identification and intervention services limited to motor disabilities. Partners co-delivered workshops for parents and professionals to raise awareness about early identification and identified local resources who underwent specialized trainings focused on ECD and DD (existing online programs). Partners facilitated creation of network of professionals working in DD. Weekly mentoring fostered family-centered, strengths-based approach, and evidence-based practices.

RESULTS

In year 1, partners utilised online and in-person sessions to sensitize over 4500 caregivers on ECD and DD. Series of sensitization workshops engaged 30 local physicians. In year 2, new services launched, included a developmental clinic (identified 8-10 children with DD monthly), autism intervention services offered weekly (supporting 4-5 new children monthly) and monthly-run parent support groups, averaging 20 attendees (including 6 fathers). 59 families secured disability certification. Socio-cultural challenges- stigma, attitude, finances identified.

CONCLUSION

Partnerships with diverse stakeholders, aligned with local priorities create sustainable services in resource-limited settings despite socio-cultural barriers.

TOPIC CATEGORY

1k Intervention/Others

Abstract ID Number: 178

MENTAL HEALTH SENSITIZATIONS: ASSESSING IMPACT OF THESE SENSITIZATIONS ON CAREGIVERS OF CHILDREN WITH DISABILITIES

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OBJECTIVE

Caregivers of children with disabilities face additional demands as compared to those caring for neurotypical children. Although a nurturing home environment can improve a child's capabilities and independence, providing the high-quality care that is required by a child with long-term functional limitations may impact the health and quality of life (QOL) of the caregivers (Davis et al., 2009).

The objective was to see the impact these sensitizations have had on mental health of caregivers of children with disabilities.

METHODS

Each of these sensitizations were planned for two hours on topics like importance of mental health using books, art, play. They were conducted in English, Hindi and Gujarati.

These workshops were designed to provide equal opportunity for participation through experiential activities and reflections on the same. This was followed up with didactic teaching by the facilitators.

RESULTS

The impact of these sensitizations was captured qualitatively by documenting some of the responses shared by participants:

-They felt that there were similar yet diverse experiences that connected them with each other.

-Knowledge, skills, expertise and lived experiences of the caregivers was also being shared and exchanged in the group on the little big things they did in their daily life for their well-being and mental health.

-These spaces became conversation starters for ways of supporting children with disabilities.

CONCLUSION

These sessions brought together caregivers in a way that felt safe and supportive and we hope to continue building and co-creating more such spaces for them in the future.

TOPIC CATEGORY

1e Intervention/Psychological

Abstract ID Number: 179

ASSESSING THE PERFORMANCE OF THE 3DI-sv AS A SCREENING TOOL FOR AUTISM SPECTRUM DISORDER IN A SOUTH AFRICAN CONTEXT

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OBJECTIVE

The Developmental, Dimensional, and Diagnostic Interview Short Version (3Di-sv) is a globally recognized tool for diagnosing Autism Spectrum Disorder (ASD). However, its validity in low- and middle-income countries (LMICs) is unknown. This research evaluated criterion and construct validity of the 3Di-sv in South African children with neurodevelopmental disorders.

METHODS

We administered the 3di-sv to 714 parents of children (aged 2-17; 72% male) with neurodevelopmental disorders (61% ASD) enrolled in NeuroDev, a cross-sectional genetic study in Cape Town, South Africa.

RESULTS

3Di-sv scores were positively correlated with a DSM-5 ASD diagnosis (r=0.451, $p < 0.001$). The tool demonstrated moderate sensitivity in detecting ASD (69.7% for children aged 2-5 years, 72.4% for children aged 6-17 years), but lower specificity (14.0% and 25.4% in the two age groups, respectively).

Construct validity was evaluated using confirmatory factor analyses based on DSM-5 criteria. The Restricted and Repetitive Behaviours factor aligned reasonably well with the model (CFI=0.917; RMSEA: 0.064, p=0.007). However, the Social Communication and Interaction domain showed an overall poor fit (CFI=0.878; RMSEA=0.053, p=0.084) with two of the six subdomains negatively correlated with the broad factor.

CONCLUSION

The 3Di-sv demonstrated fair construct validity with moderate sensitivity but disproportionately low specificity, particularly in young children, in detecting and distinguishing ASD from other paediatric neurodevelopmental disorders. Similarly, while the 3Di-sv demonstrated reasonable construct validity, the relative underperformance of the Social Communication and Interaction domain highlights the need for further psychometric research in LMIC settings.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 180

USE OF STANDARDIZED TESTS AND OUTCOME MEASURES BY BRAZILIAN OCCUPATIONAL THERAPISTS WORKING WITH CHILDREN AND ADOLESCENTS.

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OBJECTIVE

To describe the use of standardized tests and outcome measures by Brazilian occupational therapists who work with children and adolescents.

METHODS

This is a descriptive exploratory study of the survev type, using a semi-structured questionnaire composed of thirty questions that were answered by Brazilian occupational therapists who work with children and adolescents, via a google forms link. Participants were invited through digital social media and messaging apps. Data were analyzed using descriptive statistics, using measurements of frequency (percentage), central tendency (mean) and variability (standard deviation).

RESULTS

129 questionnaires were analyzed. Most participants are aged between 20 and 30 years old, working with children with Autism Spectrum Disorder (ASD), working in cities in Rio Grande do Sul and Minas Gerais. A large part uses standardized tests in clinical practices, pointing out as the main benefit, the direction to the intervention plan and, as the main barrier, the requirement of a lot of time for professionals to analyze and score them.

CONCLUSION

There is a wide range of Occupational Therapy courses in Brazil, with a greater concentration in the southeastern region of Brazil. It is believed that 1% of the world's population has a diagnosis of ASD, this is due to early diagnosis, causing these children to begin early intervention. The difficulty in interpreting standardized tests and the lack of time is a major barrier, with a tendency to use tests with computerized systems and/or software, to fill them out online and obtain the scores.

TOPIC CATEGORY

1k Intervention/Others

Abstract ID Number: 183 - Removed

Abstract ID Number: 186

GLOBAL REPORT ON DEVELOPMENTAL DELAYS, DISORDERS, AND DISABILITIES: A SIX COUNTRY OPEN SCIENCE DATASET

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OBJECTIVE

We present a new open-access multi-national dataset of indicators for health and wellbeing of children and youth with developmental delays, disorders, and disabilities (DDDs) and their families during the COVID-19 pandemic.

METHODS

As part of the UNICEF-WHO Global Report, we adapted a comprehensive survey based on international treaties indicators, incorporating a range of demographic, socio-economic, and outcomes variables among children and youth with DDDs. The survey was customized for use in six countries: Argentina, Canada, Iran, Palestine, Serbia, and South Africa. Each site adapted and disseminated the survey via local organizations. The dataset encompasses responses from a diverse participant pool (combined n=1,863), between June 2020-January 2022.

RESULTS

This dataset aims to portray the pandemic's impacts, spanning economic and functioning outcomes. Data analyzed to date reveals variations of pandemic impacts, indicating disparities in vulnerability and resilience. The dataset will facilitate cross-site comparisons, revealing some common challenges and other unique aspects related to regional contexts.

CONCLUSION

Comparative datasets that are based on international guidelines and frameworks are a valuable tool to inform policy and program development. These datasets can also support governments and civil society in establishing domestic monitoring mechanisms and benchmark the impacts of health and social policy and programs. By providing access to data from multiple sites during the pandemic, we underscore its potential to inform targeted interventions, guide public health strategies, and contribute to resilience in the face of global crises.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 188

DIAGNOSTIC AND INTERVENTION SERVICES FOR CHILDREN WITH NEURODEVELOPMENTAL DISORDERS IN HUMANITARIAN CONTEXTS IN LOW AND MIDDLE INCOME COUNTRIES

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OBJECTIVE

People with neurodevelopmental disorders (NDDs) often face difficulties accessing diagnostic and intervention services, particularly in humanitarian contexts where their needs are often neglected. This scoping review aims to examine and compare the diagnostic tools and interventions that are available for children with NDDs in humanitarian contexts in low and middle-income countries (LMICs).

METHODS

This review includes data from the literature on diagnostic and interventions services for children from birth to 17;11 years of age with or suspected of NDDs in humanitarian contexts. Humanitarian contexts considered included man-made disasters, natural disasters, and infectious disease outbreaks in LMICs specifically.

Articles, including experimental, observational, descriptive qualitative studies and grey literature, were selected via searches in several databases. Both the article search and the subsequent data extraction were completed independently by two separate reviewers and results compared.

RESULTS

Preliminary findings indicate that humanitarian crises are contexts where the neurodevelopmental status of children is undermined by different environmental risk factors. However, the real burden of NDDs in humanitarian settings is unknown and likely underestimated. Additionally, assessment, and intervention tools that can be effectively used to support individuals with NDD and their families in such contexts are still lacking.

CONCLUSION

Identifying barriers and facilitators to both diagnostic and intervention services for children with NDDs based on the type of humanitarian context and the economic status of the country may lead to improved supports for children and their families. Further research is urgently needed to provide culturally sensitive and contextually appropriate diagnostic tools and intervention strategies.

TOPIC CATEGORY

5 Children in crisis, humanitarian emergencies, war refugees and its impact on development

Abstract ID Number: 189

EASING THE STRESS OF PARENTING A CHILD WITH DISABILITIES USING A MODEL OF MINDFULNESS, PSYCHOEDUCATION AND ABA INTERVENTION IN INDIA

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WeCAN, Chennai, India

OBJECTIVE

A model was developed to tackle high stress that is seen in parents of children with Autism. The model includes initial diagnostic evaluation and psychological mark ups, counselling, autism acceptance and psychoeducation for the family, early intervention for the child and follow up easy to access resources for families and friends to help understand the implications and work on reducing stress.

METHODS

Using a sample of over 1000 participating impacted families, the study provided gold standard tools to improve the understanding of the condition for new families and provide support through the first decade after initial contact with the autism centre. Routine questionnaires, tests and social validity questionnaires were circulated to obtain ongoing data from families while providing on the ground solutions. Work was conducted in 3 languages - English, tamil and Hindi. Using a combination of ABA, ACT and culturally relevant counselling allowed for the centre to support more than 500 families in need.

RESULTS

A high ratio of impacted families accessed evidence based support for their children either by in person consultations and therapy at the centre, free of costs audio podcasts, literature translated into 3 languages and video footage. This resulted in greater awareness, visibility and access to help for the families, combining the models of intervention helped widen the reach of the model.

CONCLUSION

Combined models provide for a wider reach and help incorporate the best of multiple methods of outreach.

TOPIC CATEGORY

1e Intervention/Psychological

Abstract ID Number: 191

SEIZURES IN CHILDREN WITH NEURODEVELOPMENTAL DELAYS IN A COHORT RECRUITED IN THE WESTERN CAPE OF SOUTH AFRICA

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OBJECTIVE

Neurological comorbidities in children with neurodevelopmental delays (NDDs) are common. Yet, in sub-Saharan Africa, there are few studies documenting this association. This study focuses on children with NDDs and seizures, describing their developmental history, seizure semiology, comorbidities, and findings from neuroimaging, electroencephalogram (EEG), and genetic investigations. Risk factors for developing epilepsy (e.g. intellectual disability, sex, language regression, and family history of seizures) are known, and a spike in the onset of seizures in early childhood, followed by another in adolescence, are well reported.

METHODS

This was a case-control observational study with a retrospective review of medical records of children recruited into a cross-sectional paediatric genomic study conducted between 2018 - 2023. Participants were recruited from select hospitals and special education schools in Western Cape, South Africa.

RESULTS

The study included 964 children (including 64 siblings) diagnosed with NDDs. Mean age at enrollment was 6 years (range: 2 - 17; 75% male). A total of 186 children (19%) had either single or multiple seizure(s), of which 36% had neonatal seizures, 41% had febrile seizures, and 59% had a diagnosis of epilepsy; furthermore, 50% underwent neuroimaging (44% with abnormalities), and 55% underwent an EEG (74% abnormal, of which 52% showed generalized slow activity and 33% focal spikes).

CONCLUSION

The overlapping aetiology of NDDs and epilepsy is not yet well-established, particularly in settings where secondary causes of both are more prevalent. Identifying phenotypic profiles may help untangle possible shared pathophysiological pathways which may inform future treatments and improve neurodevelopmental prognosis.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 192

EMOTIONAL AND BEHAVIOURAL DIFFICULTIES IN CHILDREN WITH AUTISM AND OTHER NEURODEVELOPMENTAL DISORDERS IN SOUTH AFRICA

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OBJECTIVE

Neurodevelopmental disorders (NDDs) are often comorbid with behavioural and emotional difficulties. Little is known about phenotypic characteristics of sub-Saharan African children living with NDDs. This study describes behavioural difficulties in a sample of South African children with Autism Spectrum Disorders (ASD) and other NDDs.

METHODS

This study was embedded in larger genetic study, NeuroDev. Parents of 957 South African children aged 2-17 years (M = 5.95, SD = 3.15; 75% male) with NDDs completed the Child Behaviour Checklist. We compared scores on the DSM-Oriented Scales in younger (2-5 years, n = 513) and older (6-17 years, n = 444) children by diagnosis (ASD compared to other NDDs).

RESULTS

In the younger age group, children with ASD obtained significantly higher average scores (indicating more difficulties) in the Affective, Anxiety, Attention Deficit/Hyperactivity, and Oppositional Defiant Scales than children with other NDDs ($p < .001$). In addition, 61% of young children with ASD scored in the "clinical range" in at least one diagnostic scale, compared to 42% in the non-ASD group. In the older age group, there were no group differences in average scale scores. The proportion of children with NDDs in this group who scored in the clinical range for at least one diagnostic scale, did not differ by diagnosis (56% and 59% for ASD and non-ASD groups respectively).

CONCLUSION

Emotional and behavioural difficulties are prevalent in South African children living with NDDs. Differences in behavioural phenotypic profiles by age and diagnosis may help inform targeted screening tools and interventions.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

Abstract ID Number: 194

SUCCESS OF THE COMMUNITY FAMILY CARE GROUP MODEL TO IMPROVE MEDICAL AND SOCIAL SERVICES FOR CHILDREN WITH CEREBRAL PALSY

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INTRODUCTION

Public health efforts have recognized the great need to focus on non-communicable diseases, including children with disabilities. We have utilized a Community Family Care Group model to improve the physical and social well-being of children with cerebral palsy (CP) in the poorest sections of Kampala.

To build capacity of community structures to deliver and increase access to rehabilitation services among families with cerebral palsy children in Kawempe Division.

METHODS

Child and Family Foundation Uganda (CFU) Medical staff, peer lead mothers, and VHTs are trained to screen children for CP from the community and refer them for evaluation at the CFU. Multiple assessment tools are administered periodically. Parent-child CP pairs are placed into Community Family Care Groups (FCGs) led by VHTs and Lead Mothers who deliver community rehabilitative health services within their environment in order to improve function, quality of life, caretaker management, peer support, and overcome stigma about CP.

RESULTS

80 children with cerebral palsy have been enrolled with multiple aetiologies. 8 FCGS have been formed with improvements observed in the care, function and mobility of the CP children, community awareness and referral to clinics. Mothers have greatly improved in the care of their children, community involvement and recruited other CP families. Village Savings and Loan Programs have improved the economic wellbeing of the CP families.

CONCLUSION

The Family Care Group model appears to be an excellent platform to deliver community rehabilitative services to children with cerebral palsy.

TOPIC CATEGORY

1a Intervention/Early Intervention Program

Abstract ID Number: 200

INVESTIGATING THE RELATIONSHIP BETWEEN HOUSEHOLD CHAOS, MATERNAL DEPRESSION, AND INFANT COGNITION: RESULTS FROM A SOUTH AFRICAN BIRTH COHORT

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OBJECTIVE

Household chaos, comprising disruption, noise, disorganisation, and lack of routine, is associated with adverse outcomes for children, spanning behavioural, cognitive, and emotional outcomes (Marsh, Dobson, & Maddison, 2020). This study investigates (i) the relationship between household chaos and child cognition at 12 months and (ii) the possible mediating effect of depression in explaining the chaos-cognition relationship.

METHODS

We recruited 254 mother-infant dyads and assessed the Edinburgh Postnatal Depression Scale (EPDS) and the Confusion, Hubbub and Order Scale (CHAOS) at six months postpartum as part of a longitudinal birth cohort (Khula) in Cape Town, South Africa. We then assessed developmental outcomes using the Global Scales of Early Development Long Form (GSED-LF) at 11 - 18 months of age (M=14.31, SD=1.27, 45% female), as a measure of general cognition.

RESULTS

Household chaos did not significantly predict cognition at 12 months of age. Household chaos was weakly associated with postnatal depression ($r = 0.12$, $p = 0.066$). Higher depression scores significantly directly predicted lower cognitive scores after correcting for child biological sex and maternal education (t=-2.00, p=0.047).

CONCLUSION

We identified an association between maternal depression and infant cognition at this age. The lack of association between CHAOS and cognitive function at this stage was unexpected, given previous research reports. Future studies should delve into chaos as a predictor of cognition at later stages of development, potentially targeting distinct cognitive functions such as executive function (Andrews et al., 2021).

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 201

THE ASSOCIATION BETWEEN MATERNAL POSTPARTUM DEPRESSION AND FRONTAL ALPHA ASYMMETRY IN INFANTS: PRELIMINARY RESULTS FROM A SOUTH AFRICAN BIRTH COHORT

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OBJECTIVE

Frontal alpha electroencephalogram (EEG) asymmetry patterns are associated with various child outcomes. While previous studies have demonstrated a relationship between maternal depression and infant frontal alpha asymmetry, the evidence to date is limited and inconsistent. This study explored the relationship between maternal postpartum depression and frontal alpha asymmetry in a sample of South African mother-infant dyads.

METHODS

Resting state EEG data were obtained from 242 infants (aged 58-195 days; M=114.9, SD=27; 51% male) enrolled in the Khula Study in Cape Town, South Africa. Mothers completed the Edinburgh Postnatal Depression Scale. A multivariate linear regression was conducted to determine the relationship between maternal depression scores and (i) average alpha power (9-12 Hz) in the left verses right dorsal-lateral prefrontal cortex, and (ii) frontal alpha asymmetry.

RESULTS

Forty-three mothers (17%) were at risk for depression. Higher maternal postpartum depression scores were associated with lower average alpha power in both the left (t=-2.22, p=0.027) and right (t=-2.43, p=0.015) dorsal-lateral prefrontal cortex after correcting for child sex and age. There was no significant relationship between maternal postpartum depression and frontal asymmetry.

CONCLUSION

Maternal postpartum depression is associated with lower power in the left and right dorsal-lateral prefrontal cortex. However, findings from this sample indicate no association between maternal postpartum depression and frontal asymmetry. Future investigations could use specific frontal electrodes (i.e., F3 and F4) instead of average clusters to predict a clearer association between these two variables.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 204

ECDC-THE ‘SMART’ APPROACH TO DEVELOPMENTAL MONITORING, EARLY IDENTIFICATION AND SUPPORT FOR CHILDREN AT RISK OF DEVELOPMENTAL DIFFICULTIES IN INDIA.

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OBJECTIVE

To describe the ECDC (Early Childhood Development Clinic); a model of care to monitor and support development in children below 2 years at risk of developmental difficulties in India, incorporating EI-SMART and family-centered care principles.

METHODS

The ECDC model was designed using EI-SMART (Early intervention, sensori-motor development, attention and regulation, relationships and therapy support) and family-centered care principles at a not-for-profit child development center in Mumbai. Siblings of children with disabilities seen at the center and those deemed ‘high-risk’ because of antenatal and/or perinatal biopsychosocial risk factors were recruited. An early identification protocol was designed that included the IGMCD (international Guide for Monitoring Child Development), disability specific screening tools like the M-CHAT (Modified Checklist for Autism in Toddlers), and structured neurological assessment using the Amiel Tison. Developmentally supportive home-based strategies that promote parental well-being, responsive care giving practices and self-regulation were shared with all families, while referrals were made for intervention when delays in development were identified.

RESULTS

11 clinics with a total of 28 sessions have been conducted between March 2023 and August 2023 in the pilot phase. Twenty-two children have been enrolled and 6 have completed one follow up visit. 15 children were found to have age-appropriate development while 7 were identified with delays.

CONCLUSION

The early childhood development clinic provides a model for developmental monitoring and support for children at risk of developmental difficulties based on EI-SMART and family-centered care principles, resulting in early identification and intervention for developmental delays using minimal resources and training.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 206

AUTISM SAFE CARE INITIATIVE

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OBJECTIVE

In recent years, there has been an increased prevalence of autism spectrum disorders. Healthcare professionals are therefore more likely to encounter autistic children in the hospital environment. A hospital is a stressful place for any child, and more so for an autistic child, who is often unable to transition to an unknown environment. They find social interaction and communication challenging and many have difficulty adapting to the multiple sensory stimuli within the hospital environment. One of the objective of the Autism Safe Care Initiative (ASCI) is to share strategies to support autistic children in a hospital environment.

METHODS

Healthcare professionals often lack knowledge about strategies to support autistic children in a hospital environment. They may feel uncomfortable approaching the child or worse disregard the child’s emotional state to ensure that treatment or a procedure is completed. This can inadvertently cause trauma. During the interactive ASCI workshops, healthcare professionals will share and learn strategies to support autistic children in hospitals.

RESULTS

Healthcare professionals will be empowered to support autistic children and their families in the hospital environment.

CONCLUSION

Children with autism are more likely to end up in the hospital for an emergency or admission than their peers. Besides the reason for the child’s admission, which could be related to injury, illness or disease, the entire experience can cause the child to become severely anxious. Informing healthcare professionals of strategies to support autistic children and their families in the hospital can mitigate poor ineffective care and unsafe behaviour.

TOPIC CATEGORY

1k Intervention/Others

Abstract ID Number: 208

EARLY CLINICAL DESCRIPTION OF A SOUTH AFRICAN NEURODEVELOPMENTAL BIRTH COHORT

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OBJECTIVE

Child development in the first two years of life is a complex interplay of innate and acquired factors. The Khula Study is an observational birth cohort study in Cape Town, South Africa, tracking 293 babies from birth in an attempt to capture early predictors of emerging executive functions at 24 months of age. This sub-study describes congenital and environmental factors potentially affecting development.

METHODS

Trained medical doctors took a brief medical history, collected infant anthropometry and examined 293 infants (average age 16 weeks, SD=3.82, 52% male) at one or two study visits in the first postnatal year. Relevant information was extracted from clinic records.

RESULTS

Thirty-six infants (11%) were born prematurely (<38 weeks' gestation). There were no significant neonatal admissions. Solids were introduced between 1-32 weeks of age (M=17.81, SD=6.98) and 153 mothers (53%) were still breastfeeding at 6 months. No infants were identified as being acutely malnourished. One hundred and eight infants (34%) were HIV-exposed and four were infected. Nine infants (3%) were diagnosed with Foetal Alcohol Spectrum Disorder. Three infants were referred to the high-risk clinic at Red Cross Children's Hospital, a tertiary paediatric hospital in Cape Town.

CONCLUSION

Although the Khula Study follows a healthy birth cohort, the impact of prenatal HIV and alcohol exposure in this sample is likely to affect the neurodevelopmental outcomes of these infants. Identification of developmental delay enabled early referral in infants who ordinarily would only have been seen at primary care level.

TOPIC CATEGORY

1b Intervention/Medical

Abstract ID Number: 209

METHYLPHENIDATE PRESCRIPTION PATTERNS FOR CHILDREN UNDER 18 YEARS IN THE WESTERN CAPE OVER 12 YEARS FROM 2011 TO 2022.

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OBJECTIVE

A global increase in the diagnosis of attention deficit hyperactivity disorder in children and prescriptions of stimulant medication is described. Regional variations exist with anecdotal evidence indicating a similar pattern in the Western Cape Province of South Africa. Loss of local access to the long-acting formulation methylphenidate added an impetus to this study. We describe methylphenidate prescription patterns over 12 years.

METHODS

A dataset was created of all methylphenidate issuing events from 2011 to 2022 in state hospitals and clinics in the Western Cape Province. These events included basic demographic data and formulation descriptions. Prescription volumes and trends of the different formulations for children under 18 years of age were derived.

RESULTS

A total of 320 966 prescription events occurred with males representing 78% of these. Initiation of methylphenidate occurred most frequently in tertiary hospitals. From 2012-2022 there was a 7-fold increase in prescriptions, with the short acting 10mg formulation constituting just over 50% of prescriptions. During the SARS-CoV-2 pandemic, a 20% drop in prescription frequency occurred and in 2022, short acting methylphenidate trended to 100% of prescriptions. Median duration of use per patient was 20 months.

CONCLUSION

A progressive increase in methylphenidate prescriptions is evident in state health services, an important phenomenon in a complex health condition. The effect of the loss of the long-acting formulation requires ongoing observation.

TOPIC CATEGORY

1b Intervention/Medical

Abstract ID Number: 210

HOUSEHOLD FOOD INSECURITY AND EARLY LIFE GROWTH IN A SOUTH AFRICAN BIRTH COHORT: INVESTIGATING THE ROLE OF MARGINAL FOOD SECURITY

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OBJECTIVE

The first 1000 days reflects a period of accelerated physical growth, which coincides with a greater susceptibility to impacts of adverse environmental exposures. Perceived household food insecurity (HFI), which has been strongly tied to adverse child development, remains a major public health concern in sub-Saharan Africa (SSA).

METHODS

Nested logistic regression models were used to investigate whether postnatal HFI and marginal food security were associated with adverse growth outcomes at 18 months in the Drakenstein Child Health Study, a SA birth cohort. HFI was assessed using an adapted version of the short form USDA Household Food Security Scale, with HFI defined by a score >= 2, and marginal food security defined by a score >=1 & <2. Child anthropometry outcomes included Low weight, Stunting, Wasting and Obesity derived using the WHO reference standard.

RESULTS

Amongst 829 children the prevalence of stunting was 19.3%, wasting (3.6%), obesity (9.5%), and low weight (5.9%). After adjustment of major confounders, postnatal HFI was significantly associated with stunting (OR=2.01 [1.05, 3.77], p= .032), whilst postnatal marginal security was significantly associated with wasting (OR=5.06 [1.31, 17.77], p=.013). Postnatal HFI or marginal food security were not associated with low weight or obesity, after adjustment.

CONCLUSION

HFI continues to be a major risk factor for poor early life growth amongst SSA children. Our research also highlights the negative impact of marginal food security, and the need for global strategies to mitigate moderate-and-severe food insecurity, in addition to marginal food security.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 211

SLEEP PRACTICES OF SOUTH AFRICAN INFANTS AT THREE MONTHS OF AGE

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OBJECTIVE

Sleep practices in early childhood are understudied in low-income countries. This study describes bedtime routines and sleep practices of South African infants at approximately three months of age.

METHODS

As part of the Khula Study in Cape Town, South Africa, we administered the Brief Infant Sleep Questionnaire Short Form (BISQ-SF) to mothers (N=276) of infants aged 2-5 months (M=3.28, SD=0.81; 53% male) during their first postnatal study visit. The BISQ-SF captures information about the infant's sleep during the previous two weeks.

RESULTS

Most mothers (n=167, 73%) reported having a pre-bedtime routine which often included activities such as breastfeeding (42%), bathing (40%), feeding (32%), singing, or playing lullabies (29%), changing the baby's clothes or diaper (26%), and placing the baby on the mother's back (14%). Most babies (n=249, 90%) slept for most of the night on their parents' bed. Sleep latency ranged from 0-360 minutes (M=31.03, SD=41.10). Total duration of sleep at night-time ranged from 3-15 hours (M=9.50, SD=2.00) while the number of night-time wakings ranged between 0 to 10 times (M=2.32, SD=1.20). Lastly, total duration of day-time sleep ranged between 0-15 hours (M=03.34, SD=02.18).

CONCLUSION

The BISQ-SF indicates overall healthy sleep practices in this sample. While individual variation is present, average total sleep duration and sleep latency reflect expected values for infants of this age.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 213

PRELIMINARY NOTES ON AMYGDALA TO PREFRONTAL FUNCTIONAL CONNECTIVITY IN CHILDREN FROM A SOUTH AFRICAN BIRTH COHORT

Marlie Miles[1], Catherine Wedderburn[1], Graeme Fairchild[2], Marilyn Lake[1], Annerine Roos[1], Katherine Narr[3], Shantanu Joshi[3], Marina Lawrence[1], Nadia Hoffman[1], Nynke Groenewold[1], Whitney Barnett[4], Jonathan Ipser[1], Sarah Halligan[2], Heather Zar[1], Dan Stein[1], Kirsten Donald[1]

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OBJECTIVE

Child imaging research is lacking in LMICs. Understanding neural networks in children's brains is crucial for gaining insights into typical and atypical development in different disorders. The aim of this preliminary study is to examine the functional connectivity of the amygdala with medial prefrontal regions.

METHODS

Participants are from the DCHS cohort who were scanned at 2-3 years old. Preprocessing of the resting state EPI's acquired were performed using AFNI. The Pearson correlation coefficient was calculated between the mean time series for each ROI and every other ROI as a measure of functional connectivity. Only the bilateral amygdala and bilateral medial areas of the PFC were used as ROIs. Differences in sex and left-and-right hemispheres were examined with t- tests for each of the connections.

RESULTS

There were differences in anterior-cingulate-cortex–amygdala connectivity between males and females bilaterally, with stronger connectivity in females. Stronger left medial-orbito-frontal–amygdala connectivity was positively correlated with right medial-orbito-frontal – amygdala connectivity. The right amygdala connectivity with bilateral PFC regions were stronger compared to the connectivity with the left amygdala.

CONCLUSION

Interhemispheric differences are well known and previous studies examining this cohort found volumetric amygdala differences between males and females exposed to antenatal maternal stressors (AMS). Growing evidence suggest that AMS have an impact on the brain development of children, potentially leading to long-term mental health effects in adulthood. Given the suggested alterations in the amygdala-PFC circuitry associated with anxiety, investigating this circuitry is important for understanding the development of mental health in children.

TOPIC CATEGORY

2 Early Childhood Development

Abstract ID Number: 216

A SCOPING REVIEW OF THE SEX VARIATIONS AMONGST CHILDREN WITH NEURODEVELOPMENTAL DISORDERS IN AFRICA

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OBJECTIVE

Neurodevelopmental Disorders (NDDs) are present from birth and are lifelong conditions. They include diagnoses such as Autism Spectrum Disorder (ASD), Attention Deficit/Hyperactivity Disorder and Intellectual Disability. There is a scarcity of African research on NDDs, particularly on sex differences. Current estimates show a prominent male phenotype (4:1 ratio). A scoping review has been undertaken to provide a description on these phenotypic sex differences of children (aged 0-18 years).

METHODS

Published journal articles were identified that included reports on phenotypic sex differences in children with a NDD diagnosis from African populations. Eligibility criteria included: diagnosis of NDD, children (0-18 years), African population, sex differences specified, full text journal articles published between 1980-2020. Databases searched: PubMed, Scopus, and EBSCOhost (Academic Search Premier, CINAHL, MEDLINE, APAPsychArticles, APAPsychInfo). Articles were screened and captured with relevance to reported data on sex differences.

RESULTS

Initial database search returned 18 131 articles; 36 were found to be relevant to this review. Sex differences included: prevalence, neurobehavioral phenotype, genetic variance, immunological markers, and oral health. The most common diagnosis reporting sex differences was ASD (n=13). Across the studies, a higher number of papers reported on diagnosed boys (n=19).

CONCLUSION

While the majority of studies found a higher number of diagnosed boys, there is variance in the literature; several studies reported no sex-based difference between boys and girls. This highlights the need for more research into phenotypic sex-based differences, for there to be a balanced understanding and recognition of how boys and girls present with NDDs.

TOPIC CATEGORY

3 Neurodevelopmental disabilities

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