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## Influences and interferences in child growth and development

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Abstract: Childhood is a phase of life in which changes occur in a milder and significant way, with body alteration being the most significant. The growth and development parameters are the most used signs to evaluate the health conditions of the child in the different phases. Child care is focused on aspects of prevention and health promotion, in the sense of keeping the child healthy, and it is offered in the Family Health Strategy and applied in basic health care networks. The nurse is one of the professionals involved in the periodic monitoring of child growth and development and is constantly witnessing the situations that influence it. In this way, a bibliographical research was carried out with the objective of evidencing the main factors that influence and interfere in the children's growth and development, according to the published national literature, highlighting the importance of child care, the common diseases and identifying the role of health professionals. It is recognized at the end of the work the importance of a trained and prepared multi-professional team to act in all phases, and in the child care is of fundamental importance the existence of training courses, individual and team effort, only in this way the mother and child can enjoy safe puerperal care from the gestation to the next stages of life.

Keywords: childhood, child growth and development, nursing

**Context and Analysis** 

Childhood is considered an important period in the life of children that includes the birth and it extends to the beginning of adolescence, at this stage the child develops all his skills as speech, motor development, know the world and interact more with the social environment (Brasil, 2004).

Child care is defined as a branch of health in which the child is the focus of work, that requires rules for care to be carried out integrally, valuing the individual and the family in the pursuit of child's well-being and of healthy growth and development (Brasil, 2012a).

In 1984, the Program of Integral Attention to Children's Health (PIACH) was created, which prioritized five fundamental actions to develop the resolving ability of health services in childcare, among actions is the monitoring of growth and development (Carvalho et al., 2008).

The child growth and development are evaluated mainly by height and weight measurement, following standards and reference values found on the vaccination card, this care is performed by the nurse and health team, aiming at

the protection and promotion of health (Murta, 2014).

It is necessary to understand the child development stages. There are five developmental stages in psychology: oral stage, anal stage, phallic stage, latent period and genital stage. It is important to highlight the determinants of each phase as well as speech and motor skills' development that occur in these periods (Figueiredo, 2006).

The child in its social determinants is conditioned to the acquisition of diseases, which mostly prevail in this phase of life, such as diarrhea and perinatal diseases, malnutrition, respiratory problems, some illness that if not treated can lead to death (Higuchi et al., 2011).

The determinants of evaluation for growth and development are divided into intrinsic and extrinsic factors, in the intrinsic factors, the heredity, metabolic and malformations can be highlighted; and in the extrinsic factors are feed, hygiene, housing, social, economic, family, infections, among others (Morais et al., 2013).

Brazil was recognized as one of the 62 countries that achieved satisfactory numbers of infant mortality reduction by the UN, mortality rates

fell 73% in 25 years, and more, Brazil currently has a total of 16 deaths per thousand live births in the country (Brasil, 2015).

According to the UN Inter-agency Group for Child Mortality Estimation (UN IGME), mortality rates in Brazil and in the world have been decreasing; however, 16,000 children under the age of five die daily in the world, the numbers may be even higher according to estimates (Brasil, 2015).

Child care is a practice developed by health professionals that consists of the care provided to children in childhood, this monitoring should be constant and judicious when performed. This process begins with prenatal care and nursing is responsible for helping the family with orientations, teachings and evaluation (Fugimori & Borges, 2009).

Nursing is one of the professional teams most active in the periodic monitoring of the child, even before the birth it is possible to identify the health status, diseases, and good development; involves the assessment of the risks, the environment that the child is inserted, this service is performed by the primary health care professionals through prenatal care (UFMA, 2014).

Based on the above, the justification for this research is the need to identify the main factors that interfere in the child growth and development, specially aimed at professionals and students, aiming to analyze the nursing action in relation to the diseases that afflict this population and the assistance provided, based on a line of care and goals.

In terms of health, Brazil has modified its indicators, showing a reduction of infant mortality, an increase in life expectancy at birth, a reduction in infectious and vaccine-preventable diseases, highlighting the reduction of mortality due to perinatal affections (Puccini & Hilário, 2008).

The right to health in Brazil was acquired as of the publication of Federal Law 8080, which refers to the well-known phrase that says "health is a right of all and a duty of the State and shall be guaranteed by means of social and economic policies aimed at reducing the risk of illness and other hazards and at the universal and equal access to actions and services for its promotion, protection and recovery" (Brasil, 1988).

Childhood is a phase of life in which changes occur in a milder and significant way, with body alteration being the most significant. Growth and development are the most used signs to evaluate the health conditions of the child in the different health strategies applied in the attention networks (Brasil, 2012b).

The appreciation of childhood and the reconstruction of concepts related to this phase of life received greater attention when the book of Ariés was published in the 1960s, which received the title of "Centuries of Childhood: A Social History of Family Life", being published in France and the United States, since then the research field related to the childhood theme became comprehensive (Nascimento et al., 2008).

The creation of public policies on children's health is growing, new programs and partnerships are being created as well as the alliance with other countries in order to work together to combat child mortality and reduce the prevalent diseases in this important phase of life (Brasil, 2004).

Many factors influence child growth and development and must be taken into account throughout life. Intrinsic factors, that come from genetics, and extrinsic or environmental factors, such as feed, infections, hygiene and general health care, can delay or accelerate this growth (Marcondes et al., 2003).

The knowledge about the common childhood illnesses is one of the reasons that require a work to combat them, among them it can be mentioned diarrhea, respiratory infections, pneumonia, breastfeeding, feeding and nutrition of the child, perinatal conditions; these are diseases that influence directly the health and development of children and can be reflected in the adult life (Higuchi et al., 2011).

This brings up a question: what are the main factors that influence the child growth and development?

Santos & Lauro (2005) define childhood as an enigmatic phase, understand the child as a being in constant construction, and sometimes is seen as a mini adult which must be respected.

For Frota (2007) it is not relative but rather constant the profile's change of last century children, thirty years ago and today. They differ, the children will never be the same and this is considered as positive since today we live the modern era.

Araújo et al. (2014) described and revealed the main achievements, perspectives and policies related to the history of the child health, making clear the evolution and development inside the construction process of the child as a human being, as well as appreciation in the context of public health and attention programs aimed at its growth and development.

Momo & Costa (2010) consider childhood as a period of life that changes on the passing of the years, differentiates according to the culture of each people, is changeable, is related to the presence of cultural, social, historical changes.

The above authors identified the main changes from childhood to characterizing and designating postmodern childhood, when capitalism joins a new way of living and becomes the focus, further emphasize that today's society is not the same as ten years ago, much less than twenty years ago; they work the child as a temporary and inconstant being who changes in short periods of time.

Regarding infant health evaluation, Souza et al. (2013) and Carvalho et al. (2008) agree that child growth and development are primordial links that allow analyzing the child on predefined aspects, biological, social, physical and familiarity, thus identifying negative factors present in the process.

Gautério et al. (2012) affirm the need for frequent follow-up by the family and the health teams to the child until at least six years of age so that possible alterations can be found in a shorter period of time, thus enabling the adoption of conduits and positive measures.

According to Formiga (2015), the evaluation of child growth and development is important, since a large part of the delay factors are related to neuropsychomotor and motor development of the children taking into consideration the conditions in which it is inserted, their feeding, family conditions, health and immunological status, child's behavior when faced with other children, reaction and disposition to play.

Rodovalho et al. (2012) corroborate relating the importance of the evaluation of child growth and development, although they recognize the detection deficits of main developmental childhood changes due to the lack of instruments that standardize childhood markers.

Formiga (2015) states that there is a significant difference between measuring and evaluating development since evaluation is part of an ongoing process that requires organization and reliable information associated with a consistent planning of the conditions of children besides scientific knowledge, common sense and experience.

Amaro et al. (2015) point out that the child's development is stimulated both in the infantile education and at home from the accomplishment of practical activities that stimulate the child in an intellectual, social and psychological way.

Montarroyos et al. (2013) and Miranda et al. (2012) emphasize anthropometry as one of the methods to evaluating infant growth, measures such as weight, height, BMI, cephalic perimeter, allow systematically identify the presence of changes in the body human.

Santos et al. (2010) describe low birth weight as one of the factors that influence the child's growth and development. They also cite the poor follow-up of cephalic measures, a failure of neural tube closure, for example, can evolve to disturbances such as hydrocephalus.

Romani & Lira (2004) relating short stature and low weight of the children to the significant factors that interfere child growth, directing the most common cause to malnutrition or nutritional dwarfism, exposing the indicators of weight and height for age as faulty to the required standards.

Oliveira et al. (2006) highlight the properties of food and the number of daily meals, the hygienic condition of children such as bathing and the presence of diseases such as pediculosis and parasitics, where it resides and the means available for its growth and development such as basic sanitation, sewage, treated water, light, access to public health, transportation, school, etc.

For Santos et al. (2010), the strategy developed by the Ministry of Health in 2002 allowed a better follow-up of the child development

milestones and can be used as a facilitator in the work of the professionals; among the main developmental delay factors were cited low birth weight, prematurity, parental consanguinity, family violence and child abuse.

The authors Pedraza et al. (2014), Ramos et al. (2015) and Ojeda et al. (2013) describe the occurrence of childhood diseases such as diarrhea, malnutrition and perinatal conditions as causes of delay in child growth and development, highlighting the symptomatology, risk factors, evolution of pathologies and severity.

Paranhos et al. (2011) evidenced that the main causes of both infant mortality and delayed growth and development are related, in most cases, to perinatal conditions, pneumonia, diarrheal diseases and complications and malnutrition, trying to get attention to the role of the family in the experience and care of children with positive diagnosis of diseases.

Higuchi et al (2011) values the child in its totality, who should be examined not only in the physical aspect, but also in social and family contexts, although the presence of diseases are markers of possible interferences in child development and growth, highlights the IMCI strategy that acts by making it possible to identify and combat the main diseases such as malnutrition, respiratory and diarrheal diseases.

Martins et al. (2014) list difficulties such as erroneous handling of the child health handbook, which makes it difficult to track and follow measures and information related to the child, since the vaccine card itself lack relevant information, such as weight, height, growth curve, especially in the first year of the child's life.

The same authors report factors such as deficits in the care given to the families by the health units, which often lack available materials, others due to the excessive demand for care and lack of professionals, the team's own training and conviviality and finally they cite the scarcity of places to work adequately to society's minimum needs in basic care.

According to Oliveira & Cadete (2006), the nurse is the responsible professional with the competence to perform the nursing consultations, being these exclusive to this class, supported by the law, it is from the consultation that the professional gather information for the process.

Del Ciampo et al. (2006) clearly describes the main objectives of the child care program, characterizing the age groups of children without losing the focus of basic attention that is the tracking of child living conditions.

Bonilha & Rivorêdo (2005) present two important phases of child care, which have two distinct conceptions, the first one is related to politics, and the second to the social, highlighting still the milestones in history, reiterate the importance of the mother to fulfill her obligations as monitoring of child growth and development, without disregarding the evolution of scientific knowledge.

For Carrijo & Silva (2015), the nurse's role in the care of the child is consulting and promoting an environment that allows an exchange of information and experiences, thus facilitating daily contact with the discoveries and difficulties of childhood, this process requires the professional dynamism, attitude and knowledge to act directly in people's lives.

Baratieri et al. (2014) evidence the need for more concise records on the part of the nurses, which allow identifying all the orientations transmitted to the mothers in the consultations, the registration is what confers credibility and certainty of the professional's behavior and conduct in a consultation nursing.

Martinez et al. (2013) describe that communication and behavior influence the child, and can be altered according to what is exposed, through interpretation, and that the child begins to interact with the professionals from the created link.

For Monteiro et al. (2014), attention to children's growth and development should be a role for a qualified professional, who conducts regular consultations with a focus on continuing education of mothers, promoting a close family relationship, facilitating adherence to the suggested measures by the professional.

Vieira et al. (2012) describe in detail the nurses' performance in relation to child care, assigning the nurses the physical examination, scheduling of medical consultations, visits with active search when necessary, fill out the child card, promote the education of mothers and encourage breastfeeding and immunization, resolve family doubts, evaluate the child's motor development, prevent accidents and promote healthy growth and development.

## **Final Considerations**

It is evident that all grown-ups have been once children, and this study makes clear the importance of health teams, especially nursing, in promoting well-being and monitoring child growth and development.

In child care it is the job of the nurse to seek and identify risk situations in all stages of the life of the human being, especially during pregnancy, working on difficulties, teaching the mother and promoting healthy life forms. Child care is a long process and requires commitment from the multiprofessional team and the mother.

At the end of the research, it was highly esteemed to work on the identification of the main factors that influence child growth and development. The present work allows the professionals recognizing, knowing, and identifying the risk situations that the children are inserted which can interfere in the healthy growth, and in this way the professional must work in search of a healthy growth and in the promotion of an environment conducive to health and well-being.

It is recognized at the end of the work the importance of a trained and prepared multi-

professional team to act in all phases, and in the child care is of fundamental importance the existence of training courses, individual and team effort, only in this way the mother and child can enjoy safe puerperal care from the gestation to the next stages of life.

## References

AMARO, L.L. de M.; PINTO, S.A.; MORAIS, R.L. de S.; TOLENTINO, J.A.; FELÍCIO, L.R.; CAMARGOS, A.C.R.; FERREIRA, F.O.; GONÇALVES, C.A. Desenvolvimento infantil: comparação entre crianças que frequentam ou não creches públicas. Journal of Human Growthand Development 25(2): 170-176, 2015.

ARAÚJO, J.P.; SILVA, R.M.M. da; COLLET, N.; NEVES, E.T.; TOSO, B.R.G. de O.; VIERA, C.S. História da saúde da criança: conquistas, políticas e perspectivas. Rev Bras. Enferm. 67(6): 1000-7, 2014.

BARATIERI, T.; SOARES, L.G.; BOTTI, M.L.; CAMPANINI, A.C. Consulta de Enfermagem em puericultura: um enfoque nos registros de atendimentos. Rev. Enferm. UFSM 4(1): 206-216, 2014.

BONILHA, L.R.C.M.; RIVORÊDO, C.R.S.F. Puericultura: duas concepções distintas. Jornal de Pediatria 81(1): 7-13, 2005.

BRASIL. Constituição (1988). Constituição da República Federativa do Brasil: promulgada em 05 de outubro de 1988. 4. ed. São Paulo: Saraiva, 1990. (Série Legislação Brasileira).

	Mini	istério	da	Saú	de.	Age	enda	de
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\_\_\_\_\_. Ministério da Saúde. Política Nacional de Alimentação e Nutrição. Brasília: Ministério da Saúde, 2012a. 84 p.

\_\_\_\_\_. Ministério da Saúde. DATASUS: Óbitos infantis no Brasil. 2012b. http://tabnet.datasus.gov.br/cgi/tabcgi.exe?sim/cnv/i nf10uf.def

\_\_\_\_\_. Ministério da Saúde. Saúde da criança: aleitamento materno e alimentação complementar. Ministério da Saúde, 2. ed. Brasília: Ministério da Saúde, 2015. 184 p.

CARRIJO, F.M.M.; SILVA, L.C.S. O papel do enfermeiro no acompanhamento do crescimento e desenvolvimento infantil. In: SEMINÁRIO PESQUISAR, 4., 2015. Anais... Aparecida de Goiânia: Faculdade Alfredo Nasser, 2015. ISSN 2447-2239.

CARVALHO, M.F.; LIRA, P.I.C.de; ROMANI, S. de A.M.; SANTOS, I.S.; VERAS, A.A.C. de A.; BATISTA FILHO, M. Acompanhamento do crescimento em crianças menores de um ano: situação nos serviços de saúde em Pernambuco, Brasil. Cad. Saúde Pública 24(3): 675-685, 2008.

DEL CIAMPO, L.A.; RICCO, R.G.; DANELUZZI, J.C.; DEL CIAMPO, I.R.L.; FERRAZ, I.S.; ALMEIDA, C.A.N. de. Programa de Saúde da Família e a Puericultura. Ciência & Saúde Coletiva 11(3): 739-743, 2006.

FIGUEIREDO, V. Tratado prático de enfermagem. São Caetano do Sul: Yendis editora, 2006.

FORMIGA, C.K.M.R. Crescimento e desenvolvimento neuropsicomotor de crianças de zero a dois anos. Pediatria Moderna 51(11): 405-410, 2015.

FROTA, A.M.M.C. Diferentes concepções da infância e adolescência: a importância da historicidade para sua construção. Estudos e Pesquisas em Psicologia 7(1): 147-160, 2007.

FUJIMORI, E., BORGES, A.L.V. Avaliação do crescimento. In: FUJIMORI, E.; OHARA, C.V. da S. (Org.). Enfermagem e a saúde da criança na atenção básica. Barueri: Manole, 2009. p.121-151.

GAUTÉRIO, D.P.; IRALA, D.A.; CEZAR-VAZ, M.R. Puericultura em Enfermagem: perfil e principais problemas encontrados em crianças menores de um ano. Rev. Bras. Enfermagem 65(3): 508-513, 2012.

HIGUCHI, C.H.; FUJIMORI, E.; CURSINO, E.G.; CHIESA, A.M.; VERÍSSIMO, M. de L.ÓR..; MELLO, D.F. de. Atenção Integrada às Doenças Prevalentes na Infância (AIDPI) na prática de enfermeiros egressos da USP. Rev Gaúcha Enferm 32(2): 241-247, 2011.

MARCONDES, E.; OKAY, Y.; COSTA VAZ, F.A.; RAMOS, J.L.A. Pediatria Básica: Tomo I, Pediatria Geral e Neonatal. 9. ed. São Paulo: Sarvier, reimp. 2003.

MARTINS, C.B. de G.; PESSOA, T.A.O.; LIMA, F.C.A.; GAÍVA, M.A.M. Crescimento e desenvolvimento de recém nascidos de risco, após seis meses de vida: inquérito domiciliar. Saúde Santa Maria 40(2): 155-162, 2014.

MARTINEZ, E.A.; TOCANTIS, F.R.; SOUZA, S.R. As especificidades da comunicação na assistência de enfermagem à criança. Rev Gaúcha Enferm 34(1): 37-44, 2013.

MIRÁNDA, M. de; BERNARDES, O.C.; MELLO, T.C.V. de; SILVA, T.A.; RINALDI, A.E.M.; CRISPIM, C.A. Avaliação antropométrica na infância: uma revisão. Brazilian Journal of Sports Nutrition 1(1): 37–45, 2012.

MOMO, M.; COSTA, M.V. Crianças escolares do século XXI: para se pensar uma infância pósmoderna. Cadernos de Pesquisa 40(141): 965-991, 2010.

MONTARROYOS, E.C.L.; COSTA, K.R.L.; FORTES, R.C. Antropometria e sua importância na avaliação do estado nutricional de crianças escolares. Com. Ciências Saúde 24(1): 21-26, 2013.

MONTEIRO, F.P.M.; ARAUJO, T.L. de; XIMENES, L.B.; VIEIRA, N.F.C. Ações de promoção da saúde realizadas por enfermeiros na avaliação do crescimento e desenvolvimento infantil. Ciência e enfermagem 20(1): 97-110, 2015.

MORAIS, M.B.; CAMPOS, S.O.; HILÁRIO, M.O.E. Pediatria: diagnóstico e tratamento. Barueri, SP: Manole, 2013.

MURTA, G. F. Saberes e Práticas: Guia de aprendizado de enfermagem. 8. ed. São Caetano do Sul, SP: Difusão Editora, 2014.

NASCIMENTO, C.T.; BRANCHER, V.R..; OLIVEIRA, V.F. A construção social do conceito: infância: algumas interlocuções históricas e sociológicas. Contexto e Educação 23(79): 47-63, 2008.

OLIVEIRA, A.T.S.A. de; MOREIRA, C.T.; MACHADO, C.A.; VASCONCELOS NETO, J.A.; MACHADO, M. de F.A.S. Crendices e práticas populares: influência na assistência de enfermagem prestada à criança no programa saúde da família. RBPS 19(1): 11-18, 2006.

OLIVEIRA, V.C.; CADETE, M. M. M. A consulta de enfermagem no acompanhamento do crescimento e desenvolvimento infantil. Revista Mineira de Enfermagem 11(1): 77-80, 2006.

PARANHOS, V.D.; PINA, J.C; MELLO, D.F. Atenção integrada às doenças prevalentes na infância e o enfoque nos cuidadores: revisão integrativa da literatura. Rev. Latino-Am. Enfermagem 19(1): 203-211, 2011.

PEDRAZA, D.F.; QUEIROZ, D.; SALES, M.C. Doenças infecciosas em crianças pré-escolares brasileiras assistidas em creches. Ciência & Saúde Coletiva 19(2): 511-528, 2014.

PUCCINI, R.F.; HILÁRIO, M.O.E. Semiologia da criança e do adolescente. 1. ed. 2008. 346p.

RAMOS, M.K.P.; LIMA, A.M.C.; GUBERT, M.B. Agenda para intensificação da atenção nutricional à desnutrição infantil: resultados de uma pactuação interfederativa no Sistema Único de Saúde. Rev. Nutr. 28(6): 641-653, 2015.

RODOVALHO, J.C.; BRAGA, A.K.P.; FORMIGA, C.K.M.R. Diferenças no crescimento e desenvolvimento neuropsicomotor de crianças em centros de educação infantil e Goiânia/ GO. Revista Eletrônica de Enfermagem 14(1): 122-132, 2012.

ROMANI, S.A.M.; LIRA, P.I.C. Fatores determinantes do crescimento infantil. Rev. Bras. Saúde matern. Infantil 4(1): 15-23, 2004.

SANTOS, A.; LAURO, B.R. Infância, criança e diversidade: proposta e análise. In: SIMPÓSIO DE FORMAÇÃO DE PROFESSORES DE JUIZ DE FORA, 3., 2005. Anais... Juiz de Fora: UFJF, 2005.

SANTOS, M.E.A.; QUINTÃO, N.T.; ALMEIDA, R.X. Avaliação dos marcos do desenvolvimento infantil segundo a estratégia da atenção integrada às doenças prevalentes na infância. Esc. Anna Nery 14(3): 591-598, 2010.

SOUZA, A.L.F.; GOUVEIA, M.T. de O.; ALMEIDA, M. de J.L.; TORRES, C.R.D. Acompanhamento do crescimento e desenvolvimento infantil na atenção básica. Rev. Enferm. UFPI 31(5): 31-35, 2013.

UNA-SUS/UFMA. A saúde da criança e a saúde da família: crescimento e desenvolvimento e a assistência de enfermagem. COSTA, D. D. de O. et al; (Org.). São Luís, 2014. 39p.

UN IGME - UN Inter-agency Group for Child Mortality Estimation. Levels and trends in child mortality: Report 2015, UNICEF, New York, 2015.

VIEIRA, V.C. de L.; FERNANDES, C.A.; DEMITTO, M. de O.; BERCINI, L.O.; SCOCHI, M.J.; MARCON, S.S. Puericultura na atenção primária à saúde: atuação do enfermeiro. Cogitare Enfermagem 17(1): 119-125, 2012.