ORIGINAL ARTICLE

Well-being of children and adolescents: a multidimensional construct

Bem-estar da criança e do adolescente: um construto multidimensional

Adriana Lúcia Meireles[1], César Coelho Xavier[2], Marcela Guimarães Cortes[3], Zeina Soares Moulin[4], Fernando Augusto Proietti[5], Waleska Teixeira Caiaffa[6]

DOI: 10.5935/2238-3182.20130023

ABSTRACT

Objectives: To review the literature on the well-being of children and adolescents from a multidimensional perspective. **Methods:** A narrative review was conducted and articles from the PubMed database, from publications of national and international institutions, dissertations and theses were selected. **Results:** The production of articles on the well-being of children and adolescents still cannot be considered significant when compared to other themes in the scientific production involving individuals in this age group. These findings highlight the importance of a targeted approach to this issue. It is clear that the term well-being, despite being commonly used, is inconsistently defined. A single domain is unable to encompass all the complexity involved in this concept, as attested by the extensive list of studies and reports monitoring well-being throughout the world. Analysis based on data from the Health Beagá Study reveals the existence of important intra-urban differences in the various domains of well-being of adolescents living in Belo Horizonte, a large urban center in Brazil, reinforcing the importance of studying well-being from a multidimensional perspective, one that can visualize is as a potential indicator of social inequities. **Conclusion:** We found that well-being is influenced not only by individual attributes but also by contextual factors such as family, neighborhood, and country characteristics.

Key words: Child Welfare; Urban Health; Child Advocacy.

RESUMO

Objetivos: *fazer revisão da literatura sobre o bem-estar das crianças e adolescentes numa perspectiva multidimensional.* ***Métodos:*** *realizou-se revisão narrativa, em que foram selecionados artigos a partir da base de dados da PubMed, publicações de instituições nacionais e internacionais, dissertações e teses.* ***Resultados:*** *a produção de artigos sobre o bem-estar das crianças e adolescentes pode ser considerada ainda não expressiva comparativamente aos demais temas da produção científica que envolve indivíduos com essa faixa etária, ressaltando a importância de enfoque direcionado a esse tema. Fica evidenciado que o termo bem-estar tem sido comumente utilizado e inconsistentemente definido e que um único domínio é incapaz de abarcar toda a complexidade que o conceito envolve, como atestado pela extensa lista de estudos e relatórios que monitoram o bem-estar em todo o mundo. Observou-se também, pela análise de dados do Estudo Saúde em Beagá, que existem importantes diferenciais intraurbanos nos domínios do bem-estar dos adolescentes que vivem em grande centro urbano no Brasil. Dessa maneira, reforça-se a importância de se estudar o bem-estar numa perspectiva multidimensional, sob a ótica de indicador potencial de iniquidades sociais.* ***Conclusão:*** *observou-se que o bem-estar é influenciado não apenas por atributos individuais, mas também por fatores contextuais como características da família, vizinhança e país.*

Palavras-chave: *Bem-estar da Criança; Saúde da População Urbana; Defesa da Criança e do Adolescente.*

[1] Nutritionist. Doctoral Student in Public Health – Epidemiology in the Graduate Program in Public Health, School of Medicine, Universidade Federal de Minas Gerais-UFMG. Belo Horizonte, MG – Brazil.
[2] Pediatrician. Professor, Department of Pediatrics and Graduate Program in Health Sciences: Child and Adolescent Health, School of Medicine, UFMG. Belo Horizonte, MG – Brazil.
[3] Speech therapist. Master student in Health Sciences: Child and Adolescent Health. Graduate Program in Health Sciences: Child and Adolescent Health, School of Medicine, UFMG. Belo Horizonte, MG – Brazil.
[4] Pediatrician. Professor, Department of Pediatrics, School of Medicine, UFMG. Belo Horizonte, MG – Brazil.
[5] Physician. Associate Professor, Department of Social and Preventive Medicine, Graduate Program in Health Sciences, School of Medicine, UFMG. Belo Horizonte, MG – Brazil.
[6] Physician. Professor, Department of Social and Preventive Medicine, Graduate Program in Health Sciences, School of Medicine, UFMG. Belo Horizonte, MG – Brazil.

Submitted: 7/25/2012
Approved: 11/6/2012

Institution:
Department of Social and Preventive Medicine, School of Medicine, UFMG
Belo Horizonte, MG – Brazil

Corresponding Author:
Adriana Lúcia Meireles
E-mail: dri_meireles@yahoo.com.br

INTRODUCTION

Well-being has been in the international agenda since early 2010 as evidenced by the January, 2010 editorial in the Science magazine[1,2] and the UNICEF report of February, 2012 entitled "*State of the World's Children 2012 – Children in an Urban World*"[3]. As with adults, it is estimated that most children and adolescents are concentrated in urban environments and are exposed to intra-urban inequalities and their consequences on health and well-being, which naturally reflects on health indicators for children and adolescents.

The concept of well-being has been expanded from the individual level to include several forms of environmental influence, including family, school, and relationships with peers, particularly where the child or adolescent lives. At the same time it opened a new scenario beyond the absence of disease or health, repositioning all involved in this new field of inquiry, where health is considered intrinsically related to the well-being of children and adolescents, especially for those living in urban environments. [4] Such environments, characterized as "contemporary cities", are complex structures with significant health implications, especially concerning changes in the lifestyles of children and adolescents. Among these, we can highlight the reduction in physical activity, increased intake of processed foods, decreased intake of vegetables, excessive exposure to television, video games, computers, easy access to drugs, incentives to consumerism, among others. [5,6]

Measuring well-being is difficult and there is no consensus on its definition or on research instruments. Making it operational can be complex despite the existence of some instruments that measure quantitatively or qualitatively certain areas of well-being. An example is the study[7] developed in Pelotas (in the southern state of Rio Grande do Sul, Brazil), which tried to measure well-being among adolescents using the Faces Scale.[8] However, as pointed out by the authors themselves, the scale can only portray the subjective well-being of adolescents[4,5], considered one of the many domains of well-being in the model proposed by the UNICEF and other researchers.[9-11]

From this we can conclude that the study of well-being from the perspective of adolescents is only now being studied in the literature, despite its importance and timeliness. This article provides a brief review of the rights of children and adolescents before foraying into a discussion of the well-being of members of this age group living in urban centers. It also presents opportunities to study well-being in general from a multidimensional perspective, using the domains of well-being according to UNICEF parameters (Figure 1), perceiving it as a potential indicator of social inequities. [12]

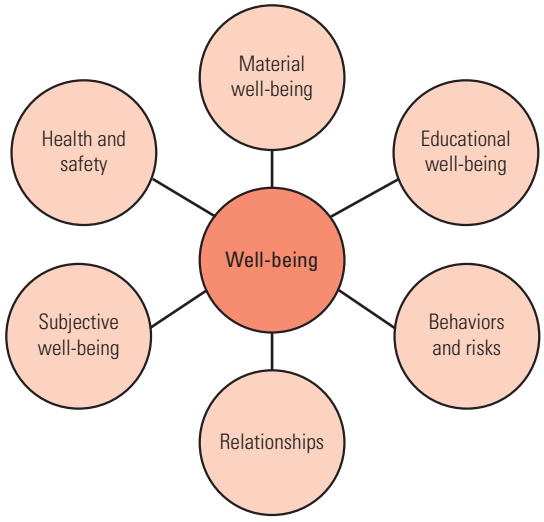

Figure 1 - Domains in the theoretical model of child well-being proposed by UNICEF, 2007.

METHODS

A narrative review was initially proposed to assess the theme of child and adolescent well-being. Articles were selected from the PubMed database and included publications from national and international institutions, dissertations and theses. Key articles were selected through citations in other articles.

For the PubMed analysis of publications with well-being as a theme, the research was performed using the term "*well being*" in the title. Papers whose titles contained references to diseases and treatments ("*disease*", "*disorder*", "*treatment*", "*surgery*" and "*therapy*") were excluded, regardless of the concept used. In the first stage, the research included studies in all age groups before it was restricted to the subjects aged zero to 18 years. A denominator was used to calculate rates, represented by the total of studies involving subjects aged 0-18 years indexed in PubMed by decade.

We conducted a brief review of the rights of children and adolescents, followed by a discussion of the well-being of members of this age group living in urban centers. Finally, we presented the possibilities of studying their well-being from a multidimensional perspective. For this purpose, we used the set of domains in the theoretical referential of well-being as

proposed by UNICEF (Figure 1) as potential indicators of social inequities[12], especially in urban environments. Finally, we present the descriptive results of an urban household survey based on the multidimensional concept of well-being proposed by UNICEF.

RESULTS AND DISCUSSION

Quantitative aspects of the literature review

The first publications on well-being among the general population and among those under the age of 18 dates back to the 1960s. In the 1970s, 1980s, 1990s and from 2000 to 2009 there were 14 and 3, 89 and 19, 401 and 57, 760 and 185, 1675 and 528 articles, respectively. This evolution corresponds to beginning and end rates in each series of 2.72 and 0.58, 39.61 and 12.49% per 100,000 indexed publications, respectively (Figure 2).

The representation of articles on well-being can still be regarded as insignificant compared to other themes in the scientific production involving children and adolescents, which to us emphasizes the importance of focusing on this theme. Beyond the scope of the search parameters, other articles with a disease-oriented focus were found to make reference to specific dimensions of well-being, although the concept was not considered a whole.

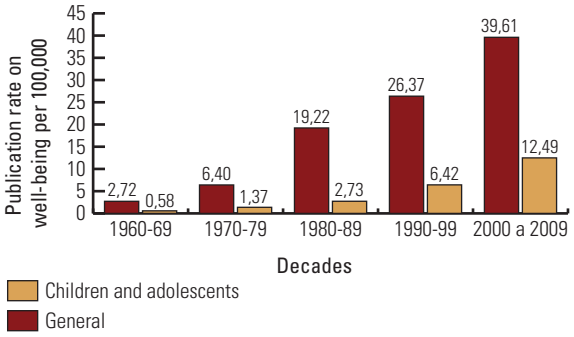

Figure 2 - Scientific production on well-being in the population in general and among children, available in the PubMed databank, from 1960-2009

Table 1 shows the results of the literature search with some indicators designed to monitor the well-being of children and adolescents in different countries.

The child as a citizen

The singularity of the law as applied to children has not always existed. The idea of childhood is a historical phenomenon that has only come into existence with the creation of separate spheres for children and adults.[13] Understanding the social construction of childhood and adolescence is a prerequisite to acknowledging the importance of the study of well-being in this age group.

Table 1 - International studies assessing well-being in children per author, location and year of the study, domains and age group

	Authors	Location	Year	Study title	Material	Education	Behavior	Health	Subjective	Safety	Civil Participation	Others	Age Group
1	Ben Arieh *et al.*	Developed countries	2001	Monitoring and Measuring Children's well-being	x					x	x	Childhood activities; competences for personal life	0 – 18 y.o.
2	Land *et al.*	USA	2001	Child and youth bell-being in the United States, 1975-1998	x	x	x	x	x	x		Community roles	0 – 17 y.o.
3	Bradshaw *et al.*	European Union	2007	An index of child well-being in the European Union	x	x	x	x	x	x	x	Housing and relationships	0 – 17 y.o.
4	UNICEF	Developed countries	2007	Child Poverty in perspective: An overview of child well-being in rich countries	x	x	x	x	x	x		Physical environments and neighborhood	0 – 17 y.o.
5	Federal Interagency Forum on Child and Family Statistics	America	2009	America's Children: Key National indicators of Well-Being	x	x	x	x		x			0 – 17 y.o.

Until the eighteenth century there were no words to distinguish childhood, adolescence, and youth. In French, the work "*enfant*" referred to children or young men. The criterion of economic dependence, rather than biology, was used to define childhood: an adult was anyone who lived independently from parents.[13]

In Brazil and in the rest of the world, only in the 20th century did children start be considered as having rights and health care focused on their physical and mental development.[14,15] The first childhood protection laws were issued in 1923 by a non-governmental organization, the *International Union for Children Welfare*, which established the principles of children's rights. The document was incorporated in the first Geneva Declaration of the Rights of the Child of 1924 by the League of Nations.[16,17]

In 1946 the United Nations created the United Nations Children's Fund, UNICEF, with the purpose of helping children victimized by World War II. In 1953 it became a permanent agency of the United Nations and is currently considered one of the main institutions for the defense of the rights of children and adolescents.[16,18]

On November 20, 1959, the Declaration of the Rights of the Child was approved and proclaimed by the General Assembly of the United Nations. This document defines every human being of less than 18 years of age as a child – unless, in conformity with the applicable laws, majority is reached before that – and considers it as an absolute priority subject to law. The Declaration highlights the importance for that group of individuals to grow in a happy and caring family environment with the right to social security, protection from violence and exploitation, and to the maximum possible access to health care, social services, as well as equitable access to educational opportunities.[19]

Specifically in Brazil, the Federal Constitution of 1988[20], known as The Citizen Constitution, defends the rights of children, and in Article 227 states: "It is the duty of the family, society and the State to grant to children and adolescents, with absolute priority, the right to life, health, food, education, leisure, professional training, culture, dignity, respect, freedom, and family and community life, in addition to keeping them safe from all forms of negligence, discrimination, exploitation, violence, cruelty and oppression."

In addition to UNICEF and the Constitution of 1988, another hallmark for the rights of children and adolescents in Brazil was the creation of the Statute of the Child and Adolescent (Estatuto da Criança e do Adolescente – ECA) of 1990, which grants to children all the fundamental rights inherent to the human person. The ECA distinguishes children from adolescents, and defines people under 12 as children and individuals aged from 12 to 18 as adolescents.[21]

In 1989 the Convention on the Rights of the Child was unanimously adopted by the General Assembly of the United Nations and was, up to 1996, undersigned by practically all countries, Brazil included, with Decree no. 99.710 of September 21, 1990. Despite its universal status, the Convention acknowledges that the economic, social, and cultural rights of the child should be achieved progressively, taking into account the specific context of each country. The rights to " adequate standards of living" (Article 27) or to "*the highest attainable standard of health*" (Article 24), for example, require definition and depend on the resources and commitment of the society in which the child lives. The Convention adopts the same definition of child as the Declaration of the Rights of the Child.[22]

Due to the existence of laws and organizations that defend and ensure children's rights, it is necessary to know the reality of Brazilian children and adolescents, especially of those living in large urban centers.

Well-being of children and adolescents: a comprehensive, multidimensional view

The roots of the term well-being date back to the 18th century and were born out of society's need to promote adequate living, with personal development and happiness as central values. In the 20th century, well-being started to be associated with studies in Economics, based on the term "w*elfare" which was* characterized as economic yield.[23] Wilson's work[24] in 1967 marked the emergence of the use of the term well-being to express the concepts of satisfaction with life and happiness as components of subjective well-being. The conceptual changes happened by means of empirical studies and the development of several forms of measurement centered in adult individuals.

In the field of Pediatrics, the approach intended for well-being mimics the view of childcare defined as the science that ensures physical and mental development for children, from pregnancy to puberty, extending to the end of adolescence as recommended by the Brazilian Society of Pediatrics[4]. Therefore, childcare emphasizes that comprehensive health care for children and adolescents is based on the

biological, psychological, and social domains, coinciding with the definition of multidimensional well-being.[25] Therefore, one may draw a parallel between the history of childcare and the recent concepts introduced in the literature on well-being, either as the progress of public policies focused on that age group. Scientific advances are attested by the relative production of the institutional reports presented below, including UNICEF, the main agency focused on the rights of children and adolescents.[3,9,12,26]

In a systematic literature review Pollard and Lee[25] noticed that the term well-being is commonly used but inconsistently defined, and that it has been studied by many disciplines/sciences on different age groups, cultures, and countries.

According to Van der Gaag and Dukerlberg[10] the well-being of children and adolescents is an umbrella term that encompasses all aspects of life, i.e., physical, mental, social, emotional, and economic well-being, and is a multidimensional, complex construct. This term has been used mainly in index-creation studies to assess the health status of the population aged 18 years or less. Currently, both governmental and non-governmental institutions in countries such as Australia, Canada, United Kingdom, and United States collect information to build well-being indices and publish them in periodic reports with the purpose of monitoring the profile and living conditions of children and adolescents. However, most reports are still fragmented and few countries produce a comprehensive global report because of the complexity and institutional structure required. In addition, the focus and content of these documents vary widely; some of them focus on a single domain or on a specific group, such as children in risk situations or discriminated children.

The most used indicators in these reports represent three traditional dimensions, as follows: child mortality rate, representing the health dimension; enrollment rate in primary education, representing the education dimension; and gross domestic product (GDP), representing the economic dimension. However, as with the dimensions, the indicators may vary depending on the scope of the evaluation (e.g., national or local level) and the specific context (e.g. more or less developed regions).[10] These attempts at measuring the well-being of individuals under 18 years of age incorporate not only macroeconomic indicators but also those related to the immediate environment of the child and the adolescent as a characteristic of the structure of the family and the neighborhood. For example, the *America's Children Report 2009* refers to the dimensions that involve the social environment and the family.[27]

Historically, several nations believed they were measuring their inhabitants' well-being by using indicators such as GDP growth. However, this practice has been questioned nowadays and, as a consequence, several approaches using social indicators, quality of life, and human development indices have appeared. There are different opinions regarding the selection of these indicators to measure human well-being.[28] Recently the French president Nicolas Sarkozy presented a report produced by a committee of researchers who discussed indicators which would better portrait the well-being of the population in their country, believing that GDP alone was not enough to measure that element and emphasizing the importance of using more comprehensive, multidimensional measurements.[29,30]

The most frequently used index to measure the quality of life of nations is the *Physical Quality of Life Index* (PQLI) created by Morris in 1979. It is composed of three variables: child mortality rate, adult literacy rate and life expectancy at birth. Another measurement that acknowledges the importance of health and education indicators is the Human Development Index (HDI), presented 13 years after the elaboration of the PQLI in the Human Development Report of the United Nations in 1990. This report proposes three indicators as the bases for HDI: life expectancy at birth, literacy and GDP *per capita*.[17]

Another much more complete measurement directed for individuals under 18 years of age is the *Children Well-Being Index* (CWBI) developed by Land *et al*.[31] in 2003, whose objective has been to measure living condition trends over time for children and adolescents in the United States since 1990. There are 28 social indicators split into seven domains: material well-being; health; safety/behavioral concerns; productive activity (which measures the education level); location in the community (which measures participation in an educational institution or at work); social relations; and emotional well-being. These reports consider all individuals under 18 years of age as children.

Well-being domains and indicators

It is not possible for a single domain to cover the complexity involved in the concept of well-being. This can be seen by the extensive list of studies and reports all over the world.[9-11,27,28,31-34] Depending on the reports'

purposes, certain dimensions and indicators are prioritized or emphasized over others. They very often result from the diverse conditions of human development, the context and the country where a given study is carried out. Developing nations still need to evaluate the survival of children and adolescents, including those in extreme poverty, while developed nations need to address broader issues that go beyond survival.[10]

Several recent studies in many European and North American countries have used indicators as relevant tools for monitoring and measuring well-being in five domains. They have suggested a list of 50 indicators covering almost all areas that directly affect children and adolescents.[11] The definitions and studies on child well-being have therefore evolved and major changes have occurred on the international level in the measurement of that element, such as: first, indicators that measure survival tend to be substituted for others that actually seek to measure well-being. With that, measurements such as rate of childhood immunization and schooling, albeit important, have become insufficient to measure the quality of life of children and adolescents in today's world. Second, positive indicators complement traditional indicators centered on deficiencies or insufficiencies. Third, recent studies have emphasized a concern with the condition of the individual under 18 years of age at the present moment and no longer see childhood as a preparation for a productive, happy adult life in the future. Fourth, it is necessary to measure new domains such as leisure and the influence of context. Thus, the indicators used to evaluate such dimensions have evolved and the unit of analysis has become the child. Van der Gaag and Dukerlberg[10], in 2004, quote as an example:

> *Unemployment rate is a standard measurement of the frailty of a country in relation to the labor market. But a more relevant indicator for child well-being is the proportion of children living in households where no adult works.*[10]

The indicators tend to be increasingly sensitive to the development phases of children and more specific regarding age, combining the understanding that those which may be relevant at a certain age may not be appropriate for another, and that reflects the needs, challenges and achievements of each developmental phase.[11] This tendency requires that studies include indicators which represent distinctive phases such as the adolescence, school and pre-school periods.

Child well-being from the perspective of UNICEF

UNICEF has a long tradition in monitoring the well-being of children and adolescents around the world. The well-known *"The State of the World's Children" report utilizes research data from several regions of the world and compiles them* in an annual document, reviewing basic survival and development indicators for that age group. This report classifies countries based on the decrease in mortality rate for children under five years of age. In addition to that rate, the document presents several economic and social indicators such as public expenditure on health and education and the prevalence of HIV in individuals aged 15 to 24, among others. However, not all indicators used in the report concentrate on children and adolescents, given the use of secondary data.[26]

In 2007 UNICEF published a report called "*Child poverty in perspective: An overview of child well-being in rich countries*", which presents a global view on child well-being in the most advanced economies in the world from an ecological study. That was the first comprehensive evaluation on the theme.[9] The document was prepared by the Innocenti Research Center in Florence and was based on surveys conducted in 21 countries of the Organization for Economic Cooperation and Development (OECD), and assessed the well-being of children in six dimensions: material well-being, educational well-being, relationships with the family and with others of the same age, health and safety, behaviors and risks, and subjective well-being (Figure 1).

The report represents a significant advance in relation to previous evaluations because it approaches the theme of well-being from a multidimensional perspective, thus improving the understanding, monitoring, and effectiveness of public policies. An exciting result presented in this document was that there is no obvious relation between children and adolescents' well-being levels and per capita GDP. The Czech Republic, for example, reached a more positive global result than several countries with a higher GDP, namely France, Austria, the USA and the United Kingdom. The last two had the worst average regarding child well-being. Holland, Sweden and Denmark occupied the first three positions in all six dimensions of child well-being assessed by the report.[9]

Pickett and Wilkinson[12] made a thorough analysis of the data presented by UNICEF in the 2007 report and showed that the general index of well-being and many of its domains, including health, are not con-

nected to average income, but to income *inequality*. The report shows a paradox in which the increase in the countries' riches was not necessarily accompanied by a global improvement in health and well-being for children and adolescents, which suggests that social *inequalities in developed countries* markedly influence well-being, and that the lives of these individuals must be considered in their whole so that we may actually know the true impact of social inequalities upon health.[12]

Other international nongovernmental organizations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) or the International Labor Organization (ILO) regularly monitor the conditions of children and adolescents. However, they are limited by the sector perspective (education or labor) or concentrate on a specific age group.[10] The Millennium Development Goals have recently been related directly to the well-being of children and adolescents in their domains of basic education for all; ending hunger and poverty; equality between genders; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria and other diseases.

Child well-being at a large urban center

In 2010 the Brazilian urban population reached 160 million people. This is more than two thirds of the entire population and makes Brazil an eminently urban country following the worldwide trend for urbanization. In 1991 75.6% of the Brazilian population lived in urban zones, as opposed to 84.4% in 2010. It is important to highlight that approximately 32% of the Brazilian population is composed of individuals under 18 years of age, that is, a third of the population is composed of children and adolescents.[35]

The concept of urban health has emerged as a result of influence of the dynamics in contemporary cities. This concept incorporates the daily lives of individuals living in the city under the expanded view that an individualized study of determinant health factors and their consequences cannot ignore the interdependence relations that exist between the individuals and the physical, social, and political environment where they live and are inserted.[36,37]

In the case of children and adolescents, changes in contemporary society have led to decreased time and space for play, since backyards have practically disappeared and given place to high rise *playgrounds* and garages. The street, previously a space for playing, is nowadays basically a place for the traffic of people and vehicles. For children and adolescents in "social risk situations", the streets are where they live and work.[38] The Ministry of Labor and Employment also highlights the importance that play has for that age group, and states that "*during childhood, playing has a more important role other than providing entertainment and pleasure. It provides the child with the opportunity to understand and learn the most diverse models and contents in affective and cognitive relationships*".[39]

Urbanization means changes in lifestyle for children and adolescents. The changes in leisure activities incorporating new technologies, in addition to the fear of urban violence, have led to an increasingly sedentary life. The time children and adolescents spend in front of the TV, the I*nternet, and playing video games* has been used as an indicator of sedentary behavior. According to the World Health Organization, children and adolescents should not spend more than one or two hours a day watching TV and/or playing video games.[40] Nevertheless, data from the National Survey of School Health (Pesquisa Nacional de Saúde do Escolar – PeNSE) performed in 2009 show that 79.5% of school children watch TV for two hours or more on a daily basis.[41]

Eating is also affected by urbanization, since given the lack of time and numerous food choices residents of large urban centers opt for fast food and less healthy options. While changes in work patterns affect basically adults, technology, transportation and leisure also affect children and adolescents because they increase school hours, eating out frequency and the absence of parents during the meals contribute for the growth of childhood obesity.[42]

Urbanization also influences the occurrence of child labor, which used to be more frequent in rural areas. The profile of child labor has changed in the urban centers with a prevalence of informal jobs, child domestic labor, street labor or the use of teenagers under 18 for theft and drug trafficking, instead of the predominantly agricultural activities in rural areas.[43]

In addition to these factors, maternal child-rearing models have also changed in the last years regardless of families' economic group. The participation of women in the labor market is more expressive in large urban centers, which forces them to divide their

time between the need for generating income and the care of children and the house.[38] Therefore the accelerated growth of the cities has brought changes which are also relevant to the world of children, affecting their lifestyle and well-being.

The 'Saúde em Beagá' Study

The "Saúde em Beagá" (Health In Belo Horizonte) study was a population-based household survey conducted in two different health districts in Belo Horizonte (Barreiro and Oeste) by the Belo Horizonte Urban Health Observatory (Observatório de Saúde Urbana de Belo Horizonte –OSUBH) in the 2008-2009 biennium. One of the goals of the study was to evaluate the well-being of adolescents considering all peculiarities of living in a large urban center.

In the study 1,042 adolescents aged between 11 and 17 were interviewed with questions pertaining to the six domains of well-being proposed by UNICEF, as shown on Table 2, which represents some of the characteristics assessed in the "Saúde em Beagá" study according to an index which measures the health vulnerability of the census sector.[44] Living in a census sector with more health vulnerability was associated to: less educational and cultural items in the house; not enjoying going to school; low frequency of conversation between parents and adolescents; less time spent with video games or computers, when compared to adolescents who live in a census sector with less health vulnerability (Table 2). The data showed important intra-urban differences in the domains of adolescent well-being. The well-being of adolescents has proven to be a multidimensional construct characterized by the domains of material and educational well-being, relationships, behaviors and risks, health and safety, and subjective well-being.[45]

The existence of these intra-urban differences in the adolescents' family and social environments suggests that those who live in more vulnerable areas could benefit from support networks and community activities created by public policies for the age group.[46]

Perspectives, opportunities and challenges

Studies on the well-being of children and adolescents present big limitations due not only to the complexity of the construct but also to the lack of data comparable within and among countries and nations. It is noteworthy that the great heterogeneity between definitions and domains used to characterize the construct complicates comparisons between studies, making it difficult to build a single theoretical model. In addition, most indicators represent simple statistical descriptions of the conditions of children in the aggregate level, which hinders deeper analyses. And lastly, one must consider that well-being is influenced not only by individual attributes but also by contextual factors such characteristics of the family, the neighborhood, and the country.[11]

Given all the limitations mentioned above and the absence of systematized studies on the well-being of children and adolescents in Brazil, it is necessary to approach the theme by constructing conceptual models integrating individual and contextual factors in which the real conditions of these individuals can be included as they are inserted in the family and in society.

Under the point of view of urban health, the debate herein proposed presents innovative challenges about the well-being of children and adolescents and, as a consequence, on health and how it is perceived, especially given the intra-urban inequalities and their outcomes on health. They reflect the need to build bolder conceptual models based on contemporary indicators that may contribute for the understanding of the health of the population in this age group. Thus, the promotion of health and the understanding of the well-being of children and adolescents should be considered activities pertaining to the field of Pediatrics and other areas responsible and care for children and adolescents.

Table 2 - Proportion of characteristics of adolescents fro 11 – 17 years old (n=1042) according to health vulnerability, study Health in Beagá, 2008 – 2009

Characteristics	Health Vulnerability[a]		
	Low	High	Total
Material well-being			
Itens educacionais e culturais no domicílio*			
Less than six items	29,1	56,5	42,9
Six or more items	70,9	43,5	57,1
Educational well-being			
Likes the school**			
Yes	91,8	86,1	88,9
No	8,2	13,9	11,1
RELATIONSHIPS			
Parents talk to adolescents*			
Sometimes or always	89,8	80,1	84,9
Rarely or never	10,2	19,9	15,1
Health and safety			
Body Mass Index[b]			
Low weight	3,5	5,6	4,5
Euthrophic	75,0	73,0	74,5
Overweight/Obese	20,5	21,4	21,0
Behaviors and risks			
Time spent playing video game or at the computer*			
Does not use video game	22,2	36,7	29,6
1 hour	24,6	23,2	23,8
2 hours	15,8	13,4	14,6
3 hours or more	37,4	26,7	32,0
Subjective well-being			
Psychological well-being – Faces Scale[c]			
Very High	33,5	33,4	33,4
High	31,2	27,2	29,2
Low	35,4	39,5	37,4

*p < 0.001; **p< 0.05.
[a] Measured by the Health Vulnerability Index (HVI) developed by the Municipal Secretariat for Health of Belo Horizonte. It's an indicator composed based on the socioeconomical conditions of the censitary sectors and eraly mortality indicators.[44,45]
[b] Calculated and following classification of the World Health Organization.[47]
[c] Face Scale developed by Andrews in 1976.[8]

ACKNOWLEDGEMENTS

The study was partially sponsored by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Fundação de Amparo à Pesquisa de Minas Gerais (FAPEMIG) and the Brazilian Ministry of Health.

REFERENCES

1. Layard R. Measuring Subjective Well-Being. How should human happiness and life-satisfaction be assessed? Science. 2010; 327(5965):534-5.
2. Oswald AJ,Wu S. Objective Confirmation of Subjective Measures of Human Well-Being: Evidence from the U.S.A. Science. 2010; 327(5965):576-9.

3. Fundo das Nações Unidas para a Infância (UNICEF). Launch of State of the World's Children 2012 – Children in an Urban World. UNICEF, New York, Fevereiro 2012. [Cited 2012 maio 06]. Available from: http://www.UNICEForg/sowc/files/SOWC_2012-Main_Report_EN_21Dec2011.pdf
4. Blank D. A puericultura hoje: um enfoque apoiado em evidências. J Pediatr (Rio J). 2003; 79(Supl.1):S13-S22.
5. Caiaffa WT, Ferreira FR, Ferreira AD, Oliveira CL, Camargos VP, Proietti FA. Saúde urbana: "a cidade é uma estranha senhora, que hoje sorri e amanhã te devora". Ciênc Saúde Coletiva. 2008; 13(6):1785-96.
6. Silva GAP, Balaban G, Motta MEFA. Prevalência de sobrepeso e obesidade em crianças e adolescentes de diferentes condições socioeconômicas. Rev Bras Saúde Matern Infant. 2005; 5(1):53-9.
7. Hallal PC, Dumith SC, Bertoldi AD, Scalco DL, Menezes AMB, Araújo CL. Well-being in adolescents: the 11-year follow-up of the 1993 Pelotas (Brazil) birth cohort study. Cad Saúde Pública. 2010; 26(10):1887-94.
8. McDowell I, Newell C. Measuring health. A guide to rating scales and questionnaires. New York: Oxford University Press; 1996.
9. Fundo das Nações Unidas para a Infância (UNICEF). Child poverty in perspective: An overview of child well-being in rich countries – Report Card nº 7. Florence: UNICEF Innocenti Research Centre. 2007 [Cited 2011 Sept 09.]. Available from: http://www.unicef-irc.org/publications/pdf/rc7_eng.pdf
10. Van der Gaag J, Dunkelberg E. Measuring Child Well-Being in the Mediterranean Countries: Toward a Comprehensive Child Welfare Index. Roma: MedChild Institute/Fondazione Istituto Mediterraneo per l'Infanzia; 2004.
11. Ben-Arieh A, Kaufman NH, Andrews AB, George RM, Lee BJ, Aber LJ. Measuring and Monitoring Children's Well-Being. Social Indicators Research Series v.7. Dordrecht(Holanda): Kluwer Academic Publishers; 2001.
12. Pickett KE, Wilkinson RG. Child wellbeing and income inequality in rich societies: ecological cross sectional study. BMJ. 2007; 335:1080.
13. Ariès P. História social da criança e da família. 2ª ed. Rio de Janeiro: Guanabara; 1981.
14. Gomes ILV, Caetano R, Jorge MS. A criança e seus direitos na família e na sociedade: uma cartografia das leis e resoluções. Rev Bras Enferm. 2008; 61(1):61-5.
15. Bonilha LRCM, Rivorêdo CRSF. Puericultura: duas concepções distintas. J Pediatr. (Rio J.).2005;81(1):7-13.
16. Marcílio ML. A lenta construção dos direitos da criança brasileira – Século XX. Rev USP. 1998; 37:46-57.
17. Souza SAGP. A declaração dos direitos da criança e a convenção sobre os direitos da criança. Direitos humanos a proteger em um mundo em guerra. Jus Navigandi. 2002 [Cited 2011 out 08]. Available from: http://jus2.uol.com.br/doutrina/texto.asp?id=2568
18. Fundo das Nações Unidas para a Infância (UNICEF). About UNICEF: Who we are. Our history. 2008 [Cited 2011 nov 11]. Available from: http://www.unicef.org/about/who/index_history.html
19. Assembleia das Nações Unidas. Declaração dos direitos da criança, de 20 de novembro de 1959 [Cited 2011 Out 03]. Available from: http://www.culturabrasil.pro.br/zip/direitosdacrianca.pdf
20. Brasil. Constituição (1988). Constituição da República Federativa do Brasil. Brasília, DF: Senado Federal; 1988.
21. Brasil. Congresso Nacional. Lei nº 8069 de 13 de julho de 1990. Estatuto da Criança e do Adolescente (ECA). Diário Oficial da União, Brasília, 1990 16 jul. [Cited 2011 nov 11]. Available from: http://www010.dataprev.gov.br/sislex/paginas/33/1990/8069.htm.
22. Brasil. Presidência da República. Casa Civil. Decreto nº 90.710 de 21 de novembro de 1990. Aprova a Convenção sobre os Direitos da Criança. Diário Oficial da União 1990; 22 nov. [Cited 2011 nov 11]. Available from: http://www.planalto.gov.br/ccivil_03/decreto/1990-1994/D99710.htm
23. Galinha I, Ribeiro JLP. História e evolução do conceito de bem-estar subjetivo. Psicol Saúde Doenças. 2005; 6(2):203-14.
24. Wilson W. Correlates of avowed happiness. Psychol Bull. 1967; 67:294-306.
25. Pollard EL, Lee PD. Child Well-being: a systematic review of the literature. Soc Indic Res. 2003; 61(1):59-78.
26. Fundo das Nações Unidas para a Infância (UNICEF). Situação da Infância Brasileira 2006: O Direito à Sobrevivência e ao Desenvolvimento. [Cited 08 Maio 2012]. Available from: http://www.unicef.org/brazil/pt/resources_10167.htm
27. Federal Interagency Forum on Child and Family Statistics. America's Children: Key National Indicators of Well-Being, 2009. Washington, DC: U.S. Government Printing Office; 2009.
28. Bradshaw J, Hoelscher P, Richardson D. Comparing child well-being in OECD countries: concepts and methods – Innocenti Working Paper No. 2006. Florence: UNICEF Innocenti Research Centre; 2007. [Cited 2011 Set 08]. Available from: http://www.unicef-irc.org/cgi-bin/unicef/Lunga.sql?ProductID=464
29. Stiglitz JE, Sen A, Fitoussi JP. Report by the Commission on the Measurement of Economic Performance and Social Progress; 2009 [Cited 2011 Nov. 27]. Available from: www.stiglitzsenfitoussi.fr/documents/rapport_anglais.pdf
30. França acrescenta a felicidade à conta do PIB. Folha de São Paulo. 2009 Set 15. [Cited 2011 Nov 27 http://www.anj.org.br/jornaleeducacao/noticias/franca-acrescenta-felicidade-a-conta-do-pib/
31. Land KC, Lamb VL, Mustillo SK. Child and youth well-being in the United States, 1975–1998: some findings from a new index. Soc Indic Res. 2001; 56(3):241-318.
32. Federal Early Childhood Development Agreement. The Well-Being of Canada's Young Children: Government of Canada Report 2002. [Cited 2011 Nov 03]. Available from: http://www.socialunion.gc.ca/ecd/2002/reportb-e.pdf
33. Bradshaw J, Hoelscher P, Richardson D. An index of child well-being in the European Union. Soc Indic Res. 2007; 80(1):133-77.
34. Mazumdar K. Measuring the well-beings of the developing countries: achievement and improvement indices. Soc Indic Res. 1999; 47:1-60.
35. Instituto Brasileiro de Geografia e Estatístca (IBGE). Censo Demográfico 2010. [Cited 2012 Jan 20] Available from: http://www.ibge.gov.br/home/presidencia/noticias/noticia_visualiza.php?id_noticia=1866&id_pagina=1
36. Proietti FA, Caiaffa WT. Editorial Forum de Saúde Urbana: What is urban health? Cad Saúde Pública. 2005; 21(3):940-1.

37. Vlahov D, Galea S. Urban health: a new discipline. Lancet. 2003; 362(9390):1091-2.

38. Carvalho A, Salles F, Guimarães M, Debortoli JA, organizadores. Brincar(es). Belo Horizonte: UFMG; 2005.

39. Brasil. Ministério do Trabalho e Emprego. Mapa de Indicativos do Trabalho da Criança e do Adolescente. Brasília: Ministério do Trabalho e Emprego; 2005. 309 p.

40. Organização Mundial de Saúde. Global Recommendations on Physical Activity for Health 2010. [Cited 17 Jan. 2012]. Available from: http://whqlibdoc.who.int/publications/2010/9789241599979_eng.pdf

41. Instituto Brasileiro de Geografia e Estatístca (IBGE). Pesquisa Nacional de Saúde do Escolar. Rio de Janeiro: IBGE; 2009.

42. Rinaldi AEM, Pereira AF, Macedo CS, Mota JF, Burini RC. Contribuições das práticas alimentares e inatividade física para o excesso de peso infantil. Rev Paul Pediatr. 2008; 26 (3):271-7.

43. Kassouf AL. O Perfil do trabalho infantil no Brasil, por regiões e ramos de atividade. Brasília: OIT; 2004. 92 p.

44. Braga LS, Macinko J, Proietti FA, César CC, Lima-Costa MF. Diferenciais intra-urbanos de vulnerabilidade da população idosa. Cad Saúde Pública. 2010; 26(12):2307-15.

45. Meireles AL. Auto-avaliação de saúde e bem-estar dos adolescentes em um grande centro urbano: estudo saúde em Beagá [dissertação]. Belo Horizonte: Faculdade de Medicina da Universidade Federal de Minas Gerais; 2010.

46. Meireles AL, Xavier CC, Proietti FA, Caiaffa WT. Os relacionamentos entre pais e adolescentes são influenciados pelos diferenciais intraurbanos? In: VIII Congresso Brasileiro de Epidemiologia; 12-16 Nov 2011; São Paulo, Brasil.

47. World Health Organization (WHO). Onis M, Onyango AW, Borghi E, Siyam A, Nishida C, Siekmann J. Development of a WHO growth reference for school-aged children and adolescents. Bull WHO. 2007; 85: 660-7.